

**City Council Meeting Agenda
Tuesday, June 28, 2022
7:00 p.m. – City Council Regular Meeting**

Welcome! The public is strongly encouraged to participate remotely but there is seating at Civic Hall for those who are not able to participate remotely. However, if you are not feeling well, please stay home and take care of yourself.

The public is strongly encouraged to relay concerns and comments to the Council in one of three ways:

- *Email at any time up to **12 p.m. on Monday, June 27th** to claudia.cisneros@mcminnvilleoregon.gov*
- *If appearing via telephone only please sign up prior by **12 p.m. on Monday, June 27th** by emailing the City Recorder at claudia.cisneros@mcminnvilleoregon.gov as the chat function is not available when calling in zoom;*
- *Join the zoom meeting use the raise hand feature in zoom to request to speak, once your turn is up we will announce your name and unmute your mic. **You will need to provide your First and Last name, Address, and contact information (email or phone) to the City.***

*You can live broadcast the City Council Meeting on cable channels Xfinity 11 and 331,
Frontier 29 or webstream here:
www.mcm11.org/live*

CITY COUNCIL REGULAR MEETING:

You may join online via Zoom Meeting:

<https://mcminnvilleoregon.zoom.us/j/82730823506?pwd=ekV3eXFyM3FOWmhPdmxsaDZnSnExdz09>

Zoom ID: 827 3082 3506

Zoom Password: 306102

Or you can call in and listen via zoom: 1-253- 215- 8782

ID: 827 3082 3506

7:00 PM – REGULAR COUNCIL MEETING – VIA ZOOM AND SEATING AT CIVIC HALL

1. CALL TO ORDER & ROLL CALL
2. PLEDGE OF ALLEGIANCE
3. SWEAR IN FOR CITY COUNCILOR WARD 3 POSITION
4. INVITATION TO COMMUNITY MEMBERS FOR PUBLIC COMMENT –
The Mayor will announce that any interested audience members are invited to provide comments. Anyone may speak on any topic other than: a matter in litigation, a quasi-judicial land use matter; or a matter scheduled for public hearing at some future date. The Mayor may limit comments to 3 minutes per person for a total of 30 minutes. The Mayor will read comments emailed to City Recorded and then any citizen participating via Zoom.
5. PRESENTATIONS
 - a. Stewardship Report on City insurance coverage from Gary Eastlund, Hagan Hamilton
6. PUBLIC HEARINGS
 - a. Public Hearing regarding **Ordinance No. 5115**: An Ordinance Extending the Duration of the McMinnville Downtown Economic Improvement Assessment District. Revised on 06.23.2022

- b. Public Hearing on the Approved Fiscal Year 2022-2023 Budget as approved by the Budget Committee with changes greater than 10% in the Transient Lodging Tax Fund and Wastewater Capital Fund.

7. ADVICE/ INFORMATION ITEMS

- a. Reports from Councilors on Committee & Board Assignments
- b. Department Head Reports
- c. December 2021, January 2022, February 2022, March 2022, and April 2022 Cash and Investment Report (in packet)

8. CONSENT AGENDA

- a. Consider request from Patton Valley LLC dba: Patton Valley Wines for Winery 1st Location, OLCC Liquor License located at 2803 NE Orchard Ave.
- b. Consider **Resolution No. 2022-42**: A Resolution Awarding the Contract for City Wide Street Sweeping Services to Green Sweep Asphalt Services LLC.
- c. Consider **Resolution No. 2022-43**: A Resolution authorizing an extension to the Goods and Services Contract with Garten Services, Inc. for Janitorial Services.
- d. Consider **Resolution No. 2022-44**: A Resolution of the City of McMinnville Approving the Second Amendment to Personal Services Contract with Erskine Law Practice LLC to Provide City Prosecutorial Services.
- e. Consider **Resolution No. 2022-50**: A Resolution Authorizing an Extension to the Goods and Services Contract for Water Reclamation Facility Landscaping with AR Landscape Inc.

9. CONSIDER A REQUEST TO PERMIT A WAIVER OF THE NOISE ORDINANCE FROM CRUISING MCMINNVILLE FOR AUGUST 27, 2022.

10. RESOLUTIONS

- a. Consider **Resolution No. 2022-45**: A Resolution initiating the proceedings and setting a date and time for a public hearing to vacate an Alley Way (RV 1-22).
- b. Consider **Resolution No. 2022-46**: A Resolution extending workers' compensation coverage to City of McMinnville volunteers.
- c. Consider **Resolution No. 2022-47**: A Resolution certifying provision of municipal services by the City of McMinnville as required by ORS 221.760.
- d. Consider **Resolution No. 2022-48**: A Resolution declaring the City's election to receive certain state shared revenues.
- e. Consider **Resolution No. 2022-49**: A Resolution adopting the budget for the fiscal year beginning July 1, 2022; making the appropriations; imposing the property taxes; and categorizing the property taxes.
- f. Consider **Resolution No. 2022-51**: A Resolution removing \$1.8 million in American Rescue Plan Act (ARPA) revenue for general operating purposes in the general fund.
- g. Consider **Resolution No. 2022-52**: A Resolution adopting a supplemental budget for fiscal year 2021-2022 and making supplemental appropriations and Contingency Transfers.

11. ORDINANCE

- a. Consider the first reading with a possible second reading of **Ordinance No. 5115**: An Ordinance Extending the Duration of the McMinnville Downtown Economic Improvement Assessment District.
- b. Consider the first reading with a possible second reading of **Ordinance No. 5116**: An Ordinance Approving a Zone Change from R-1 to R-3, Planned Development Overlay, and 18 Lot Subdivision, Known as the Elysian Subdivision.

12. ADJOURNMENT OF REGULAR MEETING

June 10, 2021

McMinnville City Councilors
Remy Drabkin, Interim Mayor
Jeff Towery, City Manager
Jennifer Cuellar, Finance Director

Re: Insurance Programs Stewardship Report
July 1, 2022 – June 30, 2023

I would like to thank you for your continued support of Hagan Hamilton as your Agent of Record for the City insurance programs. I have reviewed the renewal proposals and my recommendation to the Council is to accept the renewal offers from CityCounty Insurance Services (CIS); SAIF; and Old Republic, respectively:

- PROPERTY/LIABILITY (CIS)
- AUTO (CIS)
- MECHANICAL BREAKDOWN (CIS)
- WORKERS COMPENSATION (SAIF)
- AIRPORT LIABILITY (Old Republic)
- CYBER SECURITY (TBD)

The proposed annual contribution for the CIS Package is \$762,909. This represents a 16% increase over the prior year contribution of \$659,508, which compares favorably with the projected average CIS member increase of 15% as it includes updated values on the City buildings and contents. Property insurance premiums have increased worldwide due to catastrophic damages caused by wildfires around the globe.

SAIF has proposed a premium deposit of \$360,775 as compared to the \$314,892 deposit premium paid last year. Increases correlate with the increased projected payrolls. In addition, the City is not eligible for the Oregon Group Discount which was (\$35,524) last year, due to Maritime/Jones Act exposures. I have requested clarification on these exposures to determine if they can be reduced, eliminated, or controlled and will communicate our progress on that topic. The good news is that because we transitioned from a CIS Paid Loss Retro last year to a SAIF Guaranteed Cost Plan, the significant paid losses which were paid by SAIF in 2021-2022 were paid in full, without requirement for the City to reimburse said losses. This saved the City in excess of \$100,000 in loss costs and will continue be a significant reduction of future costs to the City. In addition COVID claims which were paid last year will not be included in the future Experience Rating Modification Factor.

The Airport Liability Insurance renewal proposal of \$8,984 from Old Republic Insurance Company, which includes the Oregon Air Show is down slightly from the \$9,140 paid last year.

The past year, HDI Global Insurance Company provided \$3,000,000 Cyber Liability policy for an annual premium of \$7,050. With the volatility of the Cyber market and significant increase in claims, HDI has exited the Cyber Market leaving us with very few options for municipalities because of the

significant increase in claims activities. To provide a interim bridge, we have included \$50,000 Cyber Risk Liability in the CIS package for a cost of \$7,500 (included in the CIS package premium) to provide some protection while searching the marketplace for the best Cyber Security Market and are expecting to receive some quotations shortly. We do expect the cost of this policy to be much higher than last year and upon receipt of these proposals, I will review all options with Jennifer, Jeff, and the council.

CIS continues to be the best option for cities, counties, and other qualified government entities in Oregon. They have worked hard to improve their risk management and legal services while maintaining competitive pricing. I would like to thank Jennifer, Crystal, Scott and Ronda for the significant amount of time and effort they have expended in providing the updated renewal information. Allowing us to make sure we have an accurate and cost-effective insurance portfolio. Thank you again for your support of me and my associates at Hagan Hamilton Insurance.

Respectfully,

Gary E. Eastlund CIC ARM CRM; Risk Management Consultant

STAFF REPORT

DATE: June 28, 2022
TO: Jeff Towery, City Manager
FROM: Jennifer Cuellar, Finance Director; Crystal Wooldridge, Financial Analyst
SUBJECT: Downtown Economic Improvement District Renewal

Strategic Priority and Goal:



ECONOMIC PROSPERITY

Provide economic opportunity for all residents through sustainable growth across a balanced array of traditional and innovative industry sectors.

Report in Brief:

The Downtown Economic Improvement District (District) was formed in 1986 and last renewed for a three-year period from August 1, 2019, through July 31, 2022. The District collected assessments from commercial properties within the boundaries of the district and passes those funds directly through to the McMinnville Downtown Association (MDA). The MDA Board has requested that the City renew the District for another three-year term with slight zone rate increases and with no changes to the boundaries of the district.

Discussion:

The District was formed by the City of McMinnville in 1986, through the adoption of Ordinance 4362. The stated purpose of the district is as follows:

“[T]o promote within the district economic improvement by planning or management of development or improvement activities; by landscaping or other maintenance of public areas; by promotion of commercial activity or public events; by activities in support of business recruitment and development; and by improvements in parking systems or parking enforcement.”

The City accomplishes the purpose of the District by directing 100% of the assessments it receives to the MDA. The MDA is governed by a board of directors that is comprised of downtown business owners, employees and stakeholders.

The initial term of the District was three years, running from August 1, 1986 through July 31, 1989. The duration of the District has been renewed for eleven additional terms of three-years each, for a total duration of 36 years. Over that time, the boundaries and assessment rates have changed slightly, but the purpose has remained the same.

The MDA is requesting that the City renew the District with no changes to the boundaries and a Zone 1 rate increase of \$0.01 per square foot of land area (from 7.5 to 8.5 cents) and Zone 2 by \$0.005 per square foot of land area (from 3.75 to 4.25 cents). The District

boundaries have not been changed since 2007. In addition, the proposed assessment rates have not been increased since 2007. The total revenues from District assessments is approximately \$60,000, which supports approximately 30% of the MDA's \$210,000 annual budget. If the District is not renewed, the MDA would lose this source of revenue.

Fiscal Impact:

The FY2022-23 budget assumes a continuation of the program at approximately \$60,000.

As this is a pass-through funding mechanism, updates to the program does not impact basic City services funded by the General Fund or other dedicated revenue streams.

Recommendation:

Staff recommends approval of Ordinance 5115.

Attachments:

1. Ordinance 5115
2. District Map

ORDINANCE NO. 5115

AN ORDINANCE EXTENDING THE DURATION OF THE MCMINNVILLE DOWNTOWN ECONOMIC IMPROVEMENT ASSESSMENT DISTRICT.

RECITALS:

WHEREAS, Ordinance 4373, enacted on June 24, 1986, created a downtown economic improvement district with duration of three years (commencing August 1, 1986, and expiring July 31, 1989); and

WHEREAS, the duration of the district was extended for an additional three years by Council action taken in Ordinance 4445 (1989); and

WHEREAS, the duration of the district was again extended for an additional three years by Council action taken in Ordinances 4518 (1992), 4595 (1995), 4671 (1998), 4747 (2001), 4808 (2004), 4873 (2007), 4926 (2010), 4967 (2013), 5005 (2016) and 5071 (2019); and

WHEREAS, the McMinnville Downtown Association (MDA) has requested that the duration of this district be extended for an additional three years commencing August 1, 2022, and that the assessment zones remain unchanged and Zone 1 rate increase by \$0.01/square foot to \$0.085 per square foot of land area and Zone 2 rate increase by \$0.005/square foot to \$0.0425 per square foot of land area.

NOW, THEREFORE, THE COMMON COUNCIL FOR THE CITY OF MCMINNVILLE ORDAINS AS FOLLOWS:

1. Section 1. That the council makes and enters the following findings of fact based upon the oral and written testimony received at the public hearing:
 - a. Written notices to the affected commercial properties were mailed more than thirty (30) days prior to the scheduled public hearing for renewal and extension of the duration of the district.
 - b. The area within the district is zoned commercial.
 - c. No residential real property will be assessed.
 - d. Written objections to the extension of the duration of the district received at the public hearing are less than 33 percent of the total fee assessments to be collected.
2. Section 2. That Ordinance 4373, as amended by Ordinance Nos. 4445, 4518, 4595, 4671, 4747, 4808, 4873, 4926, 4967, 5005 and 5071, is further amended by extending the duration of the district from August 1, 2022, through July 31, 2025.
3. Section 3. That the assessment zones for those conduction business activities within the commercial areas are enumerated on the map which is attached hereto and incorporated by this reference. The map also sets forth for rates and means

to calculate the assessment of the business activity fee charged for respective entities in the respective zones.

4. Section 4. That attached hereto and incorporated by this reference is the proposed assessment roll and the fee amount to be assessed against the respective entities for each of the next three years, commencing August 1, 2022, through July 31, 2025.
5. Section 5. That the City Recorder is hereby directed to give notice that the above fees are to be due and payable within 30 days from the mailing of notice of assessment: and in the event said fees are not so paid, the same shall become delinquent and bear interest at the rate of nine percent per annum thereafter. The Council may proceed in the manner prescribed by law for the collection of delinquent fees.

Passed by the McMinnville City Council this 28th day of June, 2022 by the following votes:

Ayes: _____

Nays: _____

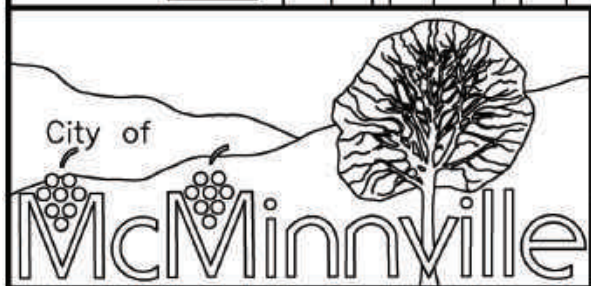
INTERIM MAYOR

Approved as to form:



Attest:

City Attorney

City Recorder



McMinnville Downtown Economic
 Improvement Assessment District
 Proposed Assessment Rates (Aug. 1, 2022 – July 31, 2025)

-  Zone 1 = 8.5 cents per sq. ft.
-  Zone 2 = 4.25 cents per sq. ft.

A public meeting of the McMinnville City Council will be held on June 28, 2022 at 7:00 pm at the Kent L Taylor Civic Hall, 200 NE 2nd Street, McMinnville, Oregon and via Zoom for remote access. Information on remote viewing and real time public comment options is available in the calendar section of mcminnvilleoregon.gov. In addition, public comment may be submitted ahead of the hearing online on the city's website mcminnvilleoregon.gov/finance/webform/budget-public-comment. The purpose of this meeting is to discuss the budget for the fiscal year beginning July 1, 2022 as approved by the City of McMinnville Budget Committee with some changes. When a fund will change expenditures by more than 10% relative the Budget Committee's approved budget, a new LB1 budget hearing notice is required to be published. This happened in the Transient Lodging Tax Fund (TLT) and Wastewater Capital Fund (WWC). TLT's expenditure increased by \$250,000 as the latest tax receipts collected indicate a faster and stronger recovery in the tourism sector than previously anticipated. WWC's expenditures increased by \$3.2 million due to projects originally anticipated to take place in FY2021-22 that will be delayed into FY2022-23. In addition, the Street Fund and Airport Fund have had adjustments of less than 10% to their budgets due to project timing issues and moving expenditures originally anticipated in FY2021-22 to FY2022-23. The General Fund's ending fund balance has grown slightly due to the higher TLT distributions anticipated for FY2022-23. A summary of the budget is presented below. A copy of the budget is available online at mcminnvilleoregon.gov/finance. This budget is for an annual budget period and was prepared on a basis of accounting that is the same basis of accounting as used the preceding year.

Contact: Jennifer Cuellar

Telephone: 503-434-2350

Email: Jennifer.Cuellar@mcminnvilleoregon.gov

FINANCIAL SUMMARY - RESOURCES			
TOTAL OF ALL FUNDS	Actual Amount 2020-21	Adopted Budget* This Year 2021-22	Approved Budget** Next Year 2022-23
Beginning Fund Balance/Net Working Capital	55,902,138	55,313,517	63,868,771
Fees, Licenses, Permits, Fines, Assessments & Other Service Charges	23,240,025	23,180,953	25,775,098
Federal, State & all Other Grants, Gifts, Allocations & Donations	7,637,888	15,289,164	14,011,045
Revenue from Bonds and Other Debt	34,173	0	7,500
Interfund Transfers / Internal Service Reimbursements	12,980,309	11,768,637	12,724,718
All Other Resources Except Current Year Property Taxes	1,602,233	1,750,758	1,634,807
Current Year Property Taxes Estimated to be Received	17,780,339	17,674,000	18,424,800
Total Resources	119,177,106	124,977,029	136,446,739

FINANCIAL SUMMARY - REQUIREMENTS BY OBJECT CLASSIFICATION			
Personnel Services	25,705,773	28,418,131	30,672,468
Materials and Services	11,949,904	24,583,659	26,595,961
Capital Outlay	7,830,419	14,189,683	10,866,480
Debt Service	4,708,994	4,621,994	3,972,013
Interfund Transfers	10,969,781	9,481,226	10,311,619
Contingencies	0	5,432,002	5,671,500
Special Payments	832,172	573,000	252,200
Unappropriated Ending Balance and Reserved for Future Expenditure	57,180,064	37,608,646	48,104,498
Total Requirements	119,177,106	124,908,341	136,446,739

* includes budget amendments adopted through April 2022

** includes budget adjustments over 10% in TLT and WWC and minor adjustments to General Fund, Street Fund and Airport Fund

FINANCIAL SUMMARY - REQUIREMENTS AND FULL-TIME EQUIVALENT EMPLOYEES (FTE) BY ORGANIZATIONAL UNIT OR PROGRAM *			
Name of Organizational Unit or Program FTE for that unit or program			
General Fund	35,521,993	35,715,470	42,375,785
FTE	193.06	190.23	186.59
Grants and Special Assessments Fund	558,582	7,602,029	3,976,519
FTE	0	0	0
Transient Lodging Tax Fund	1,125,410	1,199,200	1,929,400
FTE	0	0	0
Affordable Housing Fund	0	0	4,100,000
FTE	0	0	0
Telecommunications Fund	248,012	249,967	254,200
FTE	0	0	0
Emergency Communications Fund	1,058,767	961,489	893,676
FTE	0	0	0
Street Fund	4,398,117	4,022,893	5,348,430
FTE	9.93	9.79	10.04
Airport Fund	968,754	2,356,605	1,289,081
FTE	0	0	0
Transportation Fund	8,101,861	3,818,776	4,416,359
FTE	0	0	0
Park Development Fund	1,752,648	1,934,336	2,348,041
FTE	0	0	0
Debt Service Fund	5,031,047	4,083,284	3,385,998
FTE	0	0	0
Building Fund	2,305,858	2,020,702	2,251,523
FTE	4.40	4.38	4.34
Wastewater Services Fund	14,730,683	14,568,864	14,638,255
FTE	21.85	21.27	21.96

Wastewater Capital Fund	39,175,483	42,322,331	45,527,597
FTE	0	0	0
Information Systems & Services Fund	1,452,561	1,698,359	1,675,670
FTE	4	4	4
Insurance Services Fund	2,747,331	2,354,036	2,036,205
FTE	0	0	0
Total Requirements	119,177,106	124,908,341	136,446,739
Total FTE	233.24	229.67	226.93

STATEMENT OF CHANGES IN ACTIVITIES and SOURCES OF FINANCING *

The most significant change in resources is in the Beginning Balance Category - that increase of \$8 million out of total revenue increase of \$10.7 million is due to higher operating balances in the Street and Wastewater Capital funds (combined \$5.3 million) and increases in grant beginning balances in the Grant and Special Assessment Fund and new Affordable Housing fund attributable to the timing of one-time grants received associated with the covid-19 pandemic and affordable housing grant support from the state of Oregon. Property tax is estimated to rise by 4.2% in FY23 relative FY22. Higher anticipated revenues in transient lodging tax, the new Affordable Housing Construction Excise Tax and new funds coming to the city from the Opioid Settlement round out the most significant changes in revenue levels for FY23 relative FY22. In terms of costs, the higher personnel category is predominantly driven by a 4% cost of living increase and increased health insurance cost for the workforce. Capital expenses budgeted has declined by almost a third year over year due predominantly to Wastewater Capital fund's \$11.4 million investment planned for the prior year relative \$5.0 million for FY23. Capital investments in the wastewater system can and will be different each year. In addition, as a budget balancing measure, the General Fund has removed most of its capital spending from the FY23 budget. Ending Fund Balance is the other requirements category with significant change; over 70% of its growth is due to an increased fund balance of over \$9 million in the Wastewater Capital Fund to support future development projects in the wastewater utility. The General Fund is also anticipating a higher ending fund balance relative last year as part of the commitment to rebuild its fund balance.

PROPERTY TAX LEVIES

	Rate or Amount Imposed 2020-21	Rate or Amount Imposed This Year 2021-22	Rate or Amount Approved Next Year 2022-23
Permanent Rate Levy (rate limit 5.02 per \$1,000)	5.02	5.02	5.02
Local Option Levy	0	0	0
Levy For General Obligation Bonds	3,791,459	2,904,650	2,934,540

STATEMENT OF INDEBTEDNESS

LONG TERM DEBT	Estimated Debt Outstanding on July 1.	Estimated Debt Authorized, But Not Incurred on July 1
General Obligation Bonds	\$19,650,000	\$0
Other Bonds	\$6,794,553	\$0
Other Borrowings	\$196,952	\$0
Total	\$26,641,505	\$0

CITY OF MCMINNVILLE - CASH AND INVESTMENT BY FUND
December 2021

FUND #	FUND NAME	GENERAL OPERATING		TOTAL
		CASH IN BANK	INVESTMENT	
01	General	\$2,418,358.04	\$10,745,642.27	\$13,164,000.31
05	Special Assessment	\$966.14	\$5,494,109.17	\$5,495,075.31
07	Transient Lodging Tax	\$33.77	(\$8,000.00)	(\$7,966.23)
10	Telecommunications	\$458.40	(\$6,970.00)	(\$6,511.60)
15	Emergency Communications	\$357.10	\$127,094.81	\$127,451.91
20	Street (State Tax)	\$360.27	\$2,288,657.96	\$2,289,018.23
25	Airport Maintenance	\$674.94	(\$751,250.97)	(\$750,576.03)
45	Transportation	\$325.93	\$3,252,494.92	\$3,252,820.85
50	Park Development	\$478.63	\$1,940,441.49	\$1,940,920.12
58	Urban Renewal	\$637.50	\$205,100.35	\$205,737.85
59	Urban Renewal Debt Service	\$250.13	\$716,695.79	\$716,945.92
60	Debt Service	\$515.33	\$2,796,272.71	\$2,796,788.04
70	Building	\$321.81	\$1,822,240.37	\$1,822,562.18
75	Wastewater Services	\$747.25	\$2,596,868.56	\$2,597,615.81
77	Wastewater Capital	\$212.18	\$38,791,103.65	\$38,791,315.83
80	Information Systems & Services	\$923.67	\$155,742.38	\$156,666.05
85	Insurance Reserve	\$735.34	\$517,290.54	\$518,025.88
CITY TOTALS		2,426,356.43	70,683,534.00	73,109,890.43

MATURITY		INSTITUTION	TYPE OF INVESTMENT	INTEREST	CASH VALUE
DATE				RATE	
N/A		Key Bank of Oregon	Checking & Repurchase Sweep Account	0.20%	\$ 2,426,356.43
N/A		Key Bank of Oregon	Money Market Savings Account	0.01%	\$ 22,536,708.93
N/A		State of Oregon	Local Government Investment Pool (LGIP)	0.45%	\$ 47,102,534.83
N/A		State of Oregon	Urban Renewal Loan Proceeds (LGIP)	0.45%	\$ 210,669.19
N/A		MassMutual Financial Group	Group Annuity	3.00%	\$ 833,621.05
					<u>\$ 73,109,890.43</u>
					\$ -

CITY OF MCMINNVILLE - CASH AND INVESTMENT BY FUND
January 2022

FUND #	FUND NAME	GENERAL OPERATING		TOTAL
		CASH IN BANK	INVESTMENT	
01	General	\$3,935,414.75	\$8,967,398.82	\$12,902,813.57
05	Grants & Special Assessment	\$953.59	\$5,499,109.17	\$5,500,062.76
07	Transient Lodging Tax	\$827.61	\$218,000.00	\$218,827.61
10	Telecommunications	\$458.40	(\$6,970.00)	(\$6,511.60)
15	Emergency Communications	\$39.46	\$132,094.81	\$132,134.27
20	Street (State Tax)	\$166.80	\$2,367,067.65	\$2,367,234.45
25	Airport Maintenance	\$471.08	\$526,749.03	\$527,220.11
45	Transportation	\$179.57	\$3,282,494.92	\$3,282,674.49
50	Park Development	\$271.12	\$1,960,441.49	\$1,960,712.61
58	Urban Renewal	\$466.44	\$194,180.86	\$194,647.30
59	Urban Renewal Debt Service	\$524.83	\$699,364.15	\$699,888.98
60	Debt Service	\$393.96	\$2,283,028.94	\$2,283,422.90
70	Building	\$80.81	\$1,813,240.37	\$1,813,321.18
75	Wastewater Services	\$70.35	\$2,588,713.98	\$2,588,784.33
77	Wastewater Capital	\$204.56	\$39,312,103.65	\$39,312,308.21
80	Information Systems & Services	\$401.65	\$158,742.38	\$159,144.03
85	Insurance Reserve	\$642.02	\$499,290.54	\$499,932.56
CITY TOTALS		3,941,567.00	70,495,050.76	74,436,617.76

MATURITY			INTEREST	
DATE	INSTITUTION	TYPE OF INVESTMENT	RATE	CASH VALUE
N/A	Key Bank of Oregon	Checking & Repurchase Sweep Account	0.20%	\$ 3,941,567.00
N/A	Key Bank of Oregon	Money Market Savings Account	0.01%	\$ 22,536,900.34
N/A	State of Oregon	Local Government Investment Pool (LGIP)	0.45%	\$ 46,913,391.55
N/A	State of Oregon	Urban Renewal Loan Proceeds (LGIP)	0.45%	\$ 210,749.70
N/A	MassMutual Financial Group	Group Annuity	3.00%	\$ 834,009.17
				<u>\$ 74,436,617.76</u>
				\$ -

CITY OF MCMINNVILLE - CASH AND INVESTMENT BY FUND
February 2022

FUND #	FUND NAME	GENERAL OPERATING		TOTAL
		CASH IN BANK	INVESTMENT	
01	General	\$1,079,296.06	\$10,563,979.55	\$11,643,275.61
05	Grants & Special Assessment	\$35.88	\$5,501,109.17	\$5,501,145.05
07	Transient Lodging Tax	\$391.63	\$100,000.00	\$100,391.63
10	Telecommunications	\$883.33	(\$15,970.00)	(\$15,086.67)
15	Emergency Communications	\$70.76	\$145,094.81	\$145,165.57
20	Street (State Tax)	\$251.77	\$2,448,547.06	\$2,448,798.83
25	Airport Maintenance	\$215.10	\$523,749.03	\$523,964.13
45	Transportation	\$90.80	\$3,339,494.92	\$3,339,585.72
50	Park Development	\$11.62	\$1,980,441.49	\$1,980,453.11
58	Urban Renewal	\$466.44	\$194,253.61	\$194,720.05
59	Urban Renewal Debt Service	\$179.21	\$605,941.61	\$606,120.82
60	Debt Service	\$381.83	\$322,259.99	\$322,641.82
70	Building	\$708.11	\$1,807,240.37	\$1,807,948.48
75	Wastewater Services	\$42.89	\$2,624,993.30	\$2,625,036.19
77	Wastewater Capital	\$614.32	\$39,534,103.65	\$39,534,717.97
80	Information Systems & Services	\$449.32	\$159,742.38	\$160,191.70
85	Insurance Reserve	\$903.35	\$465,290.54	\$466,193.89
CITY TOTALS		1,084,992.42	70,300,271.48	71,385,263.90

MATURITY DATE	INSTITUTION	TYPE OF INVESTMENT	INTEREST RATE	CASH VALUE
N/A	Key Bank of Oregon	Checking & Repurchase Sweep Account	0.20%	\$ 1,084,992.42
N/A	Key Bank of Oregon	Money Market Savings Account	0.01%	\$ 22,537,073.22
N/A	State of Oregon	Local Government Investment Pool (LGIP)	0.45%	\$ 46,718,175.93
N/A	State of Oregon	Urban Renewal Loan Proceeds (LGIP)	0.45%	\$ 210,822.45
N/A	MassMutual Financial Group	Group Annuity	3.00%	\$ 834,199.88
				<u>\$ 71,385,263.90</u>
				\$ -

CITY OF MCMINNVILLE - CASH AND INVESTMENT BY FUND
March 2022

FUND #	FUND NAME	GENERAL OPERATING		TOTAL
		CASH IN BANK	INVESTMENT	
01	General	\$1,374,489.83	\$9,529,905.57	\$10,904,395.40
05	Grants & Special Assessment	\$598.30	\$5,209,586.17	\$5,210,184.47
07	Transient Lodging Tax	\$939.08	\$12,000.00	\$12,939.08
10	Telecommunications	\$883.33	(\$15,970.00)	(\$15,086.67)
15	Emergency Communications	\$878.83	\$78,094.81	\$78,973.64
20	Street (State Tax)	\$583.17	\$2,468,898.87	\$2,469,482.04
25	Airport Maintenance	\$440.94	\$575,749.03	\$576,189.97
45	Transportation	\$753.55	\$3,377,494.92	\$3,378,248.47
50	Park Development	\$768.21	\$2,004,441.49	\$2,005,209.70
58	Urban Renewal	\$611.54	\$185,343.43	\$185,954.97
59	Urban Renewal Debt Service	\$187.64	\$601,986.70	\$602,174.34
60	Debt Service	\$472.42	\$366,245.18	\$366,717.60
70	Building	\$168.85	\$1,843,240.37	\$1,843,409.22
75	Wastewater Services	\$988.15	\$2,675,598.96	\$2,676,587.11
77	Wastewater Capital	\$53.58	\$39,774,103.65	\$39,774,157.23
80	Information Systems & Services	\$601.08	\$221,742.38	\$222,343.46
85	Insurance Reserve	\$170.60	\$448,290.54	\$448,461.14
CITY TOTALS		1,383,589.10	69,356,752.07	70,740,341.17

MATURITY			INTEREST	
DATE	INSTITUTION	TYPE OF INVESTMENT	RATE	CASH VALUE
N/A	Key Bank of Oregon	Checking & Repurchase Sweep Account	0.20%	\$ 1,383,589.10
N/A	Key Bank of Oregon	Money Market Savings Account	0.01%	\$ 18,537,254.77
N/A	State of Oregon	Local Government Investment Pool (LGIP)	0.45%	\$ 49,773,999.44
N/A	State of Oregon	Urban Renewal Loan Proceeds (LGIP)	0.45%	\$ 210,912.27
N/A	MassMutual Financial Group	Group Annuity	3.00%	\$ 834,585.59
				<u>\$ 70,740,341.17</u>
				\$ -

CITY OF MCMINNVILLE - CASH AND INVESTMENT BY FUND
April 2022

FUND #	FUND NAME	GENERAL OPERATING		TOTAL
		CASH IN BANK	INVESTMENT	
01	General	\$1,315,439.27	\$8,419,528.04	\$9,734,967.31
05	Grants & Special Assessment	\$919.58	\$5,143,586.17	\$5,144,505.75
07	Transient Lodging Tax	\$15.22	\$127,000.00	\$127,015.22
10	Telecommunications	\$883.33	(\$15,970.00)	(\$15,086.67)
15	Emergency Communications	\$284.22	\$143,094.81	\$143,379.03
20	Street (State Tax)	\$873.03	\$2,487,618.94	\$2,488,491.97
25	Airport Maintenance	\$214.34	\$581,749.03	\$581,963.37
45	Transportation	\$612.05	\$3,407,494.92	\$3,408,106.97
50	Park Development	\$959.23	\$2,021,441.49	\$2,022,400.72
58	Urban Renewal	\$296.54	\$182,452.64	\$182,749.18
59	Urban Renewal Debt Service	\$550.25	\$600,460.59	\$601,010.84
60	Debt Service	\$605.35	\$380,698.88	\$381,304.23
70	Building	\$453.86	\$1,923,240.37	\$1,923,694.23
75	Wastewater Services	\$221.44	\$2,816,740.60	\$2,816,962.04
77	Wastewater Capital	\$471.78	\$39,629,103.65	\$39,629,575.43
80	Information Systems & Services	\$844.77	\$219,742.38	\$220,587.15
85	Insurance Reserve	\$731.24	\$430,290.54	\$431,021.78
CITY TOTALS		1,324,375.50	68,498,273.05	69,822,648.55

MATURITY DATE	INSTITUTION	TYPE OF INVESTMENT	INTEREST RATE	CASH VALUE
N/A	Key Bank of Oregon	Checking & Repurchase Sweep Account	0.20%	\$ 1,324,375.50
N/A	Key Bank of Oregon	Money Market Savings Account	0.01%	\$ 18,537,407.13
N/A	State of Oregon	Local Government Investment Pool (LGIP)	0.63%	\$ 48,914,928.52
N/A	State of Oregon	Urban Renewal Loan Proceeds (LGIP)	0.63%	\$ 211,021.48
N/A	MassMutual Financial Group	Group Annuity	3.00%	\$ 834,915.92
				\$ 69,822,648.55
				\$ -



City Recorder Use _____
Final Action: Approved <input type="checkbox"/> Disapproved <input type="checkbox"/>

Liquor License Recommendation

BUSINESS NAME / INDIVIDUAL: Patton Valley LLC dba: Patton Valley Wines
 BUSINESS LOCATION ADDRESS: 2803 NE Orchard Ave
 LIQUOR LICENSE TYPE: Winery 1st location

Is the business at this location currently licensed by OLCC

Yes No

If yes, what is the name of the existing business:

Hours of operation: N/A
 Entertainment: N/A
 Hours of Music: N/A
 Seating Count: N/A

EXEMPTIONS:
 (list any exemptions)

Tritech Records Management System Check: Yes No

Criminal Records Check: Yes No

Recommended Action: Approve Disapprove

 Chief of Police / Designee

 City Manager / Designee



LIQUOR LICENSE APPLICATION

1. Application. **Do not include** any OLCC fees with your application packet (the license fee will be collected at a later time). Application is being made for:

License Applied For:	CITY AND COUNTY USE ONLY
<input type="checkbox"/> Brewery 1 st Location	Date application received and/or date stamp: <u>6/13/2022</u>
Brewery Additional location (2 nd) <input type="checkbox"/> (3 rd) <input type="checkbox"/>	
<input type="checkbox"/> Brewery-Public House (BPH) 1 st location	Name of City or County: _____
BPH Additional location (2 nd) <input type="checkbox"/> (3 rd) <input type="checkbox"/>	
<input type="checkbox"/> Distillery	Recommends this license be: <input type="checkbox"/> Granted <input type="checkbox"/> Denied
<input type="checkbox"/> Full On-Premises, Commercial	
<input type="checkbox"/> Full On-Premises, Caterer	By: _____
<input type="checkbox"/> Full On-Premises, Passenger Carrier	
<input type="checkbox"/> Full On-Premises, Other Public Location	Date: _____
<input type="checkbox"/> Full On-Premises, For Profit Private Club	
<input type="checkbox"/> Full On-Premises, Nonprofit Private Club	OLCC USE ONLY
<input type="checkbox"/> Grower Sales Privilege (GSP) 1 st location	
GSP Additional location (2 nd) <input type="checkbox"/> (3 rd) <input type="checkbox"/>	Date application received: <u>June 7, 2022</u>
<input type="checkbox"/> Limited On-Premises	Date application accepted: <u>June 7, 2022</u>
<input type="checkbox"/> Off-Premises	License Action(s): N/O
<input type="checkbox"/> Warehouse	
<input type="checkbox"/> Wholesale Malt Beverage & Wine	
<input checked="" type="checkbox"/> Winery 1 st Location No Consumption	
Winery Additional location (2 nd) <input type="checkbox"/> (3 rd) <input type="checkbox"/>	
(4 th) <input type="checkbox"/> (5 th) <input type="checkbox"/>	

2. Identify the applicant(s) applying for the license(s). **ENTITY (example: corporation or LLC) or INDIVIDUAL(S)**¹ applying for the license(s):

~~Justin Lucille Bice~~ Patton Valley LLC Derek Paul Enberger
App #1: NAME OF ENTITY OR INDIVIDUAL APPLICANT App #2: NAME OF ENTITY OR INDIVIDUAL APPLICANT

App #3: NAME OF ENTITY OR INDIVIDUAL APPLICANT App #4: NAME OF ENTITY OR INDIVIDUAL APPLICANT

3. Trade Name of the Business (Name Customers Will See)
Patton Valley Wines

4. Business Address (Number and Street Address of the Location that will have the liquor license)
2803 NE Orchard Ave - this is OWS address where our tax paid wine will be stored

City <u>McMinville</u>	County <u>Yamhill</u>	Zip Code <u>97128</u>
---------------------------	--------------------------	--------------------------

¹ **Read the instructions on page 1 carefully.** If an entity is applying for the license, list the name of the entity as an applicant. If an individual is applying as a sole proprietor (no entity), list the individual as an applicant.



**Public Works
Maintenance and Operations**
1900 NE Riverside Drive
McMinnville, OR 97128
(503) 434-7316
www.mcminnvilleoregon.gov

STAFF REPORT

DATE: June 16, 2022
TO: Jeff Towery, City Manager
FROM: Dale Marshall, Street Maintenance Supervisor
David Renshaw, Operations Superintendent
SUBJECT: Citywide Street Sweeping Services Contract Award

Report in Brief:

This action is the consideration of a resolution to award a goods and services contract in the amount of \$227,415.60 per year for a term of three years to Green Sweep Asphalt Services, LLC. to provide citywide street sweeping services.

Background:

Prior to FY2013, the City performed all residential street sweeping in-house. In October 2020, the city informally contracted with Green Sweep Asphalt Service, LLC (Green Sweep) for street sweeping services through the City of Tigard's Intergovernmental Cooperative Purchasing agreement. This agreement is for residential street, bike lane and highway street sweeping, and debris disposal and hauling. Debris is hauled to Coffin Butte Landfill in Corvallis. This agreement was formalized in October 2021 through Resolution No. 2021-52 and is set to expire June 30, 2022.

Discussion:

At the direction of the City's previous City Attorney, whose preference was to have our own contract, we issued a Request for Proposal (RFP) on May 6, 2022. At 2:00 pm on June 7, 2022, two proposals were received electronically for Citywide Street Sweeping Services 2022.

Both proposals met the RFP submittal requirements and were evaluated and scored as per the RFP scoring criteria. Proposed cost for each proposal were tabulated as follows:

Proposer	Proposal Amount	Disposal Cost	Total Cost
Green Sweep	\$227,415.60	\$22,053.25	\$249,468.85
City Sweepers	\$221,850.00	\$36,125.00	\$257,975.00

Disposal costs associated with each proposal were estimated by City staff in establishing a total cost estimate. Based on this analysis, the Green Sweep proposal would result in the lower total program cost.

A Notice of Intent to Award was issued on June 16, 2022 to Green Sweep Asphalt Services, LLC.

Attachments:

1. Resolution 2022-42
2. Goods and Services Contract
3. RFP & Addendum
4. Green Sweep Proposal

Fiscal Impact:

Project funding is included in the adopted FY23 Street Fund (20) budget. The contract work will commence on July 1, 2022, and will end on June 30, 2025.

This three-year term contract can be extended up to two times for one year each, upon mutual agreement from both the City and Green Sweep Asphalt Services, LLC.

Recommendation:

Staff recommends that the City Council award the contract for Citywide Street Sweeping Services to Green Sweep Asphalt Services, LLC at the costs outlined in the Contractor's Proposal, with a total annual cost of \$227,415.60.

RESOLUTION NO. 2022-42

A Resolution Awarding the Contract for City Wide Street Sweeping Services to Green Sweep Asphalt Services LLC.

RECITALS:

Whereas, the City undertook a formal procurement process to request proposals (RFP) for City Wide Street Sweeping Services 2022; and

Whereas, at 2:00pm on June 7, 2022, two proposals were received electronically; and

Whereas, after staff scoring of the of proposals, Green Sweep Asphalt Services, LLC, was the highest ranked proposer; and

Whereas, the funds for this project are Included In the approved fiscal year 2023 budget.

NOW, THEREFORE BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF MCMINNVILLE, OREGON, as follows:

1. That entry into a Goods and Services Contract with Green Sweep Asphalt Services, LLC, In the amount of \$227,415.60 annually for a three-year term for the Citywide Street Sweeping Services 2022, Is hereby approved.
2. That the City Manager Is hereby authorized and directed to execute the Goods and Services Contract with Green Sweep Asphalt Services, LLC Is attached hereto as **Exhibit 1**.
3. That this resolution shall take effect Immediately upon passage and shall continue In full force and effect until revoked or replaced.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 28th day of June 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 28th day of June 2022

MAYOR

Approved as to form:

Attest:

Interim City Attorney

City Recorder

Exhibit 1:

- Goods and Services Contract with Green Sweep Asphalt Services, LLC

**CITY OF McMinnville
GOODS AND SERVICES CONTRACT**

This Goods and Services Contract (“Contract”) for the Citywide Street Sweeping Services 2022 Project (“Project”) is made and entered into on this _____ day of _____ 2022 (“Effective Date”) by and between the **City of McMinnville**, a municipal corporation of the State of Oregon (hereinafter referred to as the “City”), and **Green Sweep Asphalt Services, LLC**, a(n) Oregon limited liability company (hereinafter referred to as “Contractor”).

RECITALS

WHEREAS, the City requires services which Contractor is capable of providing, under terms and conditions hereinafter described; and

WHEREAS, Contractor represents that Contractor is qualified to perform the services described herein on the basis of specialized experience and technical expertise; and

WHEREAS, Contractor is prepared to provide such services, as the City does hereinafter require.

NOW, THEREFORE, in consideration of these mutual promises and the terms and conditions set forth herein, the parties agree as follows:

AGREEMENT

Section 1. Scope of Work

Contractor will perform the street sweeping services, as more particularly described in the Scope of Work for the Project, attached hereto as **Exhibit A** and incorporated by reference herein (the “Work”).

Section 2. Term

2.1. Initial Term. The term of this Contract shall be from the Effective Date until all Work required to be performed hereunder is completed and accepted, or no later than three (3) years from the Effective Date, whichever occurs first, unless earlier terminated in accordance herewith or an extension of time is agreed to, in writing, by the City. Contractor shall diligently perform the Work according to the requirements identified in the Scope of Work.

2.2. Options to Renew. The City has the option to extend the Contract for two (2) additional one-year terms.

Section 3. Contract Sum/Project Scope

3.1. Except as otherwise set forth in this **Section 3**, the City agrees to pay Contractor on a time and materials basis, guaranteed not to exceed TWO HUNDRED TWENTY SEVEN THOUSAND FOUR HUNDRED FIFTEEN and 60/00 DOLLARS (\$227,415.60) for the first year of the Contract, for performance of the Work ("First Year Contract Sum"). Any compensation in excess of the First Year Contract Sum will require an express written Change Order between the City and Contractor.

3.2. Contractor's pricing is set forth in **Exhibit B**, attached hereto and incorporated by reference herein. No later than sixty (60) days prior to the anniversary of the Effective Date, the parties may negotiate a change in the First Year Contract Sum based on fuel cost variations. Any negotiated change must be made in writing and signed by the parties in accordance with **Section 12** herein.

3.3. Contractor's Contract Sum is all inclusive and includes, but is not limited to, all work-related costs, expenses, salaries or wages, plus fringe benefits and contributions, including payroll taxes, workers compensation insurance, liability insurance, profit, pension benefits, and all other contributions and benefits, technology and/or software charges, licensing, trademark, and/or copyright costs, office expenses, travel expenses, mileage, and all other indirect and overhead charges.

3.4. Contractor will be paid for Work upon completion of the Work and within thirty (30) days of receipt of an itemized invoice, unless the City disputes such invoice. In that instance, the undisputed portion of the invoice will be paid by the City within the above timeframe. The City will set forth its reasons for the disputed claim amount and make good faith efforts to resolve the invoice dispute with Contractor as promptly as is reasonably possible.

Section 3.5. City's Rights and Responsibilities

3.6. The City will designate a Project Manager to facilitate day-to-day communication between Contractor and the City, including timely receipt and processing of invoices, requests for information, and general coordination of City staff to support the Project.

3.7. Award of this Contract is subject to budget appropriation. Funds are approved for Fiscal Year 2022-23. If not completed within this fiscal year, funds may not be appropriated for the next fiscal year. The City also reserves the right to terminate this Contract early, as described in **Section 11**.

Section 4. Project Managers

The City's Project Manager is Dale Marshall. Contractor's Project Manager is Jennifer Akerill.

Section 5. Subcontractors and Assignments

Unless expressly authorized in writing by the City, pursuant to **Subsection 7.1**, Contractor shall not subcontract with others for any of the Work prescribed herein. Contractor shall not assign any of Contractor's rights acquired hereunder without obtaining prior written approval from the City. Some Work may be performed by persons other than Contractor, provided Contractor advises the City of the names of such subcontractors and the services which they intend to provide, and the City specifically agrees, in writing, to such subcontracting. Contractor acknowledges such services will be provided to the City pursuant to a subcontract(s) between Contractor and subcontractor(s) and no privity of contract exists between the City and the subcontractor(s). Unless otherwise specifically provided by this Contract, the City incurs no liability to third persons for payment of any compensation provided herein to Contractor. Any attempted assignment of this Contract without the written consent of the City shall be void. Except as otherwise specifically agreed, all costs for services performed by others on behalf of Contractor shall not be subject to additional reimbursement by the City.

Section 6. Contractor Is Independent Contractor

Except as otherwise mandated by state law, the performance of Work under this Contract is at Contractor's sole risk. All damages or loss to Work, equipment, or materials incurred during the performance of the Work shall be at Contractor's sole risk. Contractor is an independent contractor for all purposes and shall be entitled to no compensation other than the Contract Sum provided for under **Section 3** of this Contract. Contractor will be solely responsible for determining the manner and means of accomplishing the end result of Contractor's Work. The City does not have the right to control or interfere with the manner or method of accomplishing said Work. The City, however, will have the right to specify and control the results of Contractor's Work so such Work meets the requirements of the Project.

Section 7. Contractor's Responsibilities

7.1. The City understands and agrees that Contractor may request that some Work be performed on the Project by persons or firms other than Contractor, through a subcontract with Contractor. Contractor acknowledges that if such Work is provided to the City pursuant to a subcontract(s) between Contractor and those who provide such services, Contractor may not utilize any subcontractor(s), or in any way assign its responsibility under this Contract, without first obtaining the express written consent of the City. In all cases, processing and payment of billings from subcontractors is solely the responsibility of Contractor. References to "subcontractor" in this Contract mean a subcontractor at any tier.

7.2. Contractor must comply with all applicable Oregon and federal wage and hour laws. Contractor shall make all required workers compensation and medical care payments on time. Contractor shall be fully responsible for payment of all employee withholdings required by law, including but not limited to taxes, including payroll, income, Social Security (FICA), and Medicaid. Contractor shall also be fully responsible for payment of salaries, benefits, taxes, Industrial Accident Fund contributions, and all other charges on account of any employees.

Contractor shall pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

7.3. No person shall be discriminated against by Contractor or any subcontractor in the performance of this Contract on the basis of sex, gender, race, color, creed, religion, marital status, age, disability, sexual orientation, gender identity, or national origin. Any violation of this provision shall be grounds for cancellation, termination, or suspension of the Contract, in whole or in part, by the City. Contractor shall comply with all federal, state, and local laws, regulations, executive orders, and ordinances applicable to the Contract or to the implementation of the Project. Without limiting the generality of the foregoing, Contractor expressly agrees to comply with the following laws, regulations, and executive orders to the extent they are applicable to the Contract or the implementation of the Project: (a) all applicable requirements of state civil rights and rehabilitation statutes, rules, and regulations; (b) Titles VI and VII of the Civil Rights Act of 1964, as amended; (c) Sections 503 and 504 of the Rehabilitation Act of 1973, as amended; (d) the Americans with Disabilities Act of 1990, as amended, and ORS 659A.142; (e) Executive Order 11246, as amended; (f) the Health Insurance Portability and Accountability Act of 1996; (g) the Age Discrimination in Employment Act of 1967, as amended, and the Age Discrimination Act of 1975, as amended; (h) the Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended; (i) all regulations and administrative rules established pursuant to the foregoing laws; and (j) all other applicable requirements of federal civil rights and rehabilitation statutes, rules, and regulations.

7.4. Contractor shall make payment promptly, as due, to all parties supplying to such Contractor labor or material for the prosecution of the Work provided for in the Contract.

7.5. Contractor shall make payment promptly, as due, to any party furnishing medical, surgical, hospital, or other needed care and attention, incident to sickness or injury, to the employees of Contractor, of all sums which Contractor agreed to pay or collected or deducted from the wages of employees pursuant to any law, contract, or agreement for the purpose of providing payment for such service.

7.6. With certain exceptions listed below, Contractor shall not require or permit any person to work more than ten (10) hours in any one (1) day, or forty (40) hours in any one (1) week, except in case of necessity, emergency, or where public policy requires it, and in such cases the person shall be paid at least time and a half for:

7.6.1. All overtime in excess of eight (8) hours in any one (1) day or forty (40) hours in any one (1) week when the work week is five (5) consecutive days, Monday through Friday; or

7.6.2. All overtime in excess of ten (10) hours in any one (1) day or forty (40) hours in any one (1) week when the work week is four (4) consecutive days, Monday through Friday; and

7.6.3. All work performed on the days specified in ORS 279B.020(1)(b) for public contracts.

7.7. Contractor must give notice to employees who work on a public contract, in writing, either at the time of hire or before commencement of Work on the Contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

7.8. The hourly rate of wage to be paid by any Contractor to employed workers or other persons doing or contracting to do all or part of the work contemplated by a public contract shall be not less than the applicable wage required by law.

7.9. Contractor, and all employers working under the Contract, are subject employers under the Oregon Workers Compensation Law and shall comply with ORS 656.017 unless otherwise exempt under ORS 656.126.

7.10. In the performance of this Contract, Contractor shall comply with all applicable federal, state, and local laws and regulations, including but not limited to those dealing with the prevention of environmental pollution and the preservation of natural resources (and avoidance of natural resource damages) in the performance of the Contract, including but not limited to ORS 279C.525. If new or amended statutes, ordinances, or regulations are adopted, or Contractor encounters a condition not referred to in this Contract, not caused by Contractor, and that was not discoverable by reasonable site inspection, which requires compliance with federal, state, or local laws or regulations dealing with the preservation of the environment, both the City and Contractor shall have all the rights and obligations set forth in ORS 279C.525.

7.11. Contractor shall be liable for any fine imposed against Contractor, the City or the 'Project' as a result of a violation of any laws or permitting requirements by Contractor or any suppliers.

Section 8. Indemnity

8.1. Indemnification. Contractor acknowledges responsibility for liability arising out of the performance of this Contract, and shall defend, indemnify, and hold the City harmless from any and all liability, settlements, loss, costs, and expenses in connection with any action, suit, or claim resulting or allegedly resulting from Contractor's negligent acts, omissions, errors, or willful or reckless misconduct pursuant to this Contract, or from Contractor's failure to perform its responsibilities as set forth in this Contract. The review, approval, or acceptance by the City, its Project Manager, or any City employee of documents or other work performed, prepared, or submitted by Contractor shall not be considered a negligent act, error, omission, or willful misconduct on the part of the City, and none of the foregoing shall relieve Contractor of its responsibility to perform in full conformity with the City's requirements, as set forth in this Contract, and to indemnify the City as provided above and to reimburse the City for any and all costs and damages suffered by the City as a result of Contractor's negligent performance of this Contract, failure of performance hereunder, violation of state or federal laws, or failure to adhere to the standards of performance and care described in **Subsection 8.2**. Contractor shall defend the City (using legal counsel reasonably acceptable to the City) against any claim that alleges negligent acts, omissions, errors, or willful or reckless misconduct by Contractor. As used herein,

the term “Contractor” applies to Contractor and its own agents, employees, and suppliers, and to all of Contractor’s subcontractors, including their agents, employees, and suppliers.

8.2. Standard of Care. In the performance of the Work, Contractor agrees to use at least that degree of care and skill exercised under similar circumstances by reputable members of Contractor’s profession practicing in the Portland metropolitan area. Contractor will re-perform any Work not meeting this standard without additional compensation. Contractor’s re-performance of any Work, even if done at the City’s request, shall not be considered as a limitation or waiver by the City of any other remedies or claims it may have arising out of Contractor’s failure to perform in accordance with the applicable standard of care of this Contract and within the prescribed timeframe.

Section 9. Insurance

9.1. Insurance Requirements. Contractor must maintain insurance coverage acceptable to the City in full force and effect throughout the term of this Contract. Such insurance shall cover all risks arising directly or indirectly out of Contractor’s activities or work hereunder. Any and all agents or subcontractors with which Contractor contracts for any portion of the Work must have insurance that conforms to the insurance requirements in this Contract. Additionally, if a subcontractor is an engineer, architect, or other professional, Contractor must require the subcontractor to carry Professional Errors and Omissions insurance and must provide to the City proof of such coverage. The amount of insurance carried is in no way a limitation on Contractor’s liability hereunder. The policy or policies maintained by Contractor shall provide at least the following minimum limits and coverages at all times during performance of this Contract:

9.1.1. Commercial General Liability Insurance. Contractor and all subcontractors shall obtain, at each of their own expense, and keep in effect during the term of this Contract, comprehensive Commercial General Liability Insurance covering Bodily Injury and Property Damage, written on an “occurrence” form policy. This coverage shall include broad form Contractual Liability insurance for the indemnities provided under this Contract and shall be for the following minimum insurance coverage amounts: The coverage shall be in the amount of **\$2,000,000** for each occurrence and **\$3,000,000** general aggregate and shall include Products-Completed Operations Aggregate in the minimum amount of **\$2,000,000** per occurrence, Fire Damage (any one fire) in the minimum amount of **\$50,000**, and Medical Expense (any one person) in the minimum amount of **\$10,000**. All of the foregoing coverages must be carried and maintained at all times during this Contract.

9.1.2. Business Automobile Liability Insurance. If Contractor or any subcontractors will be using a motor vehicle in the performance of the Work herein, Contractor shall provide the City a certificate indicating that Contractor and its subcontractors have business automobile liability coverage for all owned, hired, and non-owned vehicles. The Combined Single Limit per occurrence shall not be less than **\$2,000,000**.

9.1.3. Pollution Liability Coverage. Contractor shall carry sudden and accidental and gradual release pollution liability coverage that will cover, among other things, any spillage of paints, fuels, oils, lubricants, de-icing, anti-freeze or other hazardous materials, or disturbance of any hazardous materials, as that term is defined under Oregon law, during the performance of this Contract. Contractor will be fully responsible for the cost of any clean-up of any released materials or disturbance, in accordance with Oregon Department of Environmental Quality (“DEQ”) and Federal Environmental Protection Agency (“EPA”) clean-up requirements. The coverage shall be in the amount of \$2,000,000 for each occurrence and \$2,000,000 general aggregate.

9.1.4. Workers Compensation Insurance. Contractor, its subcontractors, and all employers providing work, labor, or materials under this Contract that are subject employers under the Oregon Workers Compensation Law shall comply with ORS 656.017, which requires them to provide workers compensation coverage that satisfies Oregon law for all their subject workers under ORS 656.126. Out-of-state employers must provide Oregon workers compensation coverage for their workers who work at a single location within Oregon for more than thirty (30) days in a calendar year. Contractors who perform work without the assistance or labor of any employee need not obtain such coverage. This shall include Employer’s Liability Insurance with coverage limits of not less than \$500,000 each accident.

9.1.5. Insurance Carrier Rating. Coverages provided by Contractor and its subcontractors must be underwritten by an insurance company deemed acceptable by the City, with an AM Best Rating of A or better. The City reserves the right to reject all or any insurance carrier(s) with a financial rating that is unacceptable to the City.

9.1.6. Additional Insured and Termination Endorsements. The City will be named as an additional insured with respect to Contractor’s liabilities hereunder in insurance coverages. Additional Insured coverage under Contractor’s Commercial General Liability, Automobile Liability, Pollution Liability, and Excess Liability Policies, as applicable, will be provided by endorsement. Additional insured coverage shall be for both ongoing operations via ISO Form CG 2010 or its equivalent, and products and completed operations via ISO Form CG 2037 or its equivalent. Coverage shall be Primary and Non-Contributory. Waiver of Subrogation endorsement via ISO Form CG 2404 or its equivalent shall be provided. The following is included as additional insured: “The City of McMinnville, its elected and appointed officials, officers, agents, employees, and volunteers.” An endorsement shall also be provided requiring the insurance carrier to give the City at least thirty (30) days’ written notification of any termination or major modification of the insurance policies required hereunder. Contractor must be an additional insured on the insurance policies obtained by its subcontractors performing any of the Work contemplated under this Contract.

9.1.7. Certificates of Insurance. As evidence of the insurance coverage required by this Contract, Contractor shall furnish a Certificate of Insurance to the City. This Contract shall not be effective until the required certificates and the Additional Insured Endorsements have been received and approved by the City. Contractor agrees that it

will not terminate or change its coverage during the term of this Contract without giving the City at least thirty (30) days' prior advance notice and Contractor will obtain an endorsement from its insurance carrier, in favor of the City, requiring the carrier to notify the City of any termination or change in insurance coverage, as provided above.

9.2. Primary Coverage. The coverage provided by these policies shall be primary, and any other insurance carried by the City is excess. Contractor shall be responsible for any deductible amounts payable under all policies of insurance. If insurance policies are "Claims Made" policies, Contractor will be required to maintain such policies in full force and effect throughout any warranty period.

Section 10. Suspension

The City may suspend, delay, or interrupt all or any part of the Services for such time as the City deems appropriate for its own convenience by giving written notice thereof to Contractor. An adjustment in the time of performance or method of compensation shall be negotiated as a result of such delay or suspension, unless the reason for the delay was within Contractor's control. The City shall not be responsible for Services performed by any subcontractors after notice of suspension is given by the City to Contractor.

Section 11. Early Termination; Default

11.1. This Contract may be terminated prior to the expiration of the agreed upon terms:

11.1.1. By mutual written consent of the parties;

11.1.2. By the City, for any reason, and within its sole discretion, effective upon delivery of written notice to Contractor by mail or in person; or

11.1.3. By Contractor, effective upon seven (7) days' prior written notice, in the event of substantial failure by the City to perform in accordance with the terms through no fault of Contractor, where such default is not cured within the seven (7) day period by the City. Withholding of disputed payment is not a default by the City.

11.2. If the City terminates this Contract in whole or in part, due to default or failure of Contractor to perform Work in accordance with the Contract, the City may procure, upon reasonable terms and in a reasonable manner, services similar to those so terminated. In addition to any other remedies the City may have, both at law and in equity, for breach of contract, Contractor shall be liable for all costs and damages incurred by the City as a result of the default by Contractor, including, but not limited to all costs incurred by the City in procuring services from others as needed to complete this Contract. This Contract shall be in full force to the extent not terminated by written notice from the City to Contractor. In the event of a default, the City will provide Contractor with written notice of the default and a period of three (3) days to cure the default. If Contractor notifies the City that it cannot, in good faith, do so within the three (3) day cure period provided, then the City may elect, in its sole discretion, to extend the cure period

to an agreed upon time period, or the City may elect to terminate this Contract and seek remedies for the default, as provided above.

11.3. If the City terminates this Contract for its own convenience not due to any default by Contractor, payment of Contractor shall be prorated to, and include the day of, termination and shall be in full satisfaction of all claims by Contractor against the City under this Contract.

11.4. Termination under any provision of this Section 11 shall not affect any right, obligation, or liability of Contractor or the City that accrued prior to such termination. Contractor shall surrender to the City items of work or portions thereof, for which Contractor has received payment or the City has made payment.

Section 12. Contract Modification; Change Orders

Any modification of the provisions of this Contract shall not be enforceable or binding unless reduced to writing and signed by both the City and Contractor.

Section 13. Notices

Any notice required or permitted under this Contract shall be in writing and shall be given when actually delivered in person or forty-eight (48) hours after having been deposited in the United States mail as certified or registered mail, addressed to the addresses set forth below, or to such other address as one party may indicate by written notice to the other party.

To City: City of McMinnville
Attn: Dale Marshall, Street Maintenance Supervisor
230 NE Second Street
McMinnville, OR 97128

To Contractor: Green Sweep Asphalt Services, LLC
Attn: Jennifer Akerill
12312 NE 99th Street
Vancouver, WA 98668

Section 14. Miscellaneous Provision

14.1. Integration. This Contract, including all exhibits attached hereto, contains the entire and integrated agreement between the parties and supersedes all prior written or oral discussions, representations, or agreements. In case of conflict among these documents, the provisions of this Contract shall control.

14.2. Legal Effect and Assignment. This Contract shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, personal representatives, successors, and assigns. This Contract may be enforced by an action at law or in equity.

14.3. No Assignment. Contractor may not assign this Contract, nor delegate the performance of any obligations hereunder, unless agreed to in advance and in writing by the City.

14.4. Adherence to Law. This Contract shall be subject to, and Contractor shall adhere to, all applicable federal, state, and local laws (including the McMinnville Code and Public Works Standards), including but not limited to laws, rules, regulations, and policies concerning employer and employee relationships, workers compensation, and minimum and prevailing wage requirements. Any certificates, licenses, or permits that Contractor is required by law to obtain or maintain in order to perform the Work described in this Contract shall be obtained and maintained throughout the term of this Contract.

14.5. Governing Law. This Contract shall be construed in accordance with and governed by the laws of the State of Oregon, regardless of any conflicts of laws. All contractual provisions required by ORS Chapters 279A, 279B, 279C, and related Oregon Administrative Rules to be included in public agreements are hereby incorporated by reference and shall become a part of this Contract as if fully set forth herein.

14.6. Jurisdiction. Venue for any dispute will be in Yamhill County Circuit Court.

14.7. Legal Action/Attorney Fees. If a suit, action, or other proceeding of any nature whatsoever (including any proceeding under the U.S. Bankruptcy Code) is instituted in connection with any controversy arising out of this Contract or to interpret or enforce any rights or obligations hereunder, the prevailing party shall be entitled to recover attorney, paralegal, accountant, and other expert fees and all other fees, costs, and expenses actually incurred and reasonably necessary in connection therewith, as determined by the court or body at trial or on any appeal or review, in addition to all other amounts provided by law. If the City is required to seek legal assistance to enforce any term of this Contract, such fees shall include all of the above fees, whether or not a proceeding is initiated. Payment of all such fees shall also apply to any administrative proceeding, trial, and/or any appeal or petition for review.

14.8. Nonwaiver. Failure by either party at any time to require performance by the other party of any of the provisions of this Contract shall in no way affect the party's rights hereunder to enforce the same, nor shall any waiver by the party of the breach hereof be held to be a waiver of any succeeding breach or a waiver of this nonwaiver clause.

14.9. Severability. If any provision of this Contract is found to be void or unenforceable to any extent, it is the intent of the parties that the rest of the Contract shall remain in full force and effect, to the greatest extent allowed by law.

14.10. Modification. This Contract may not be modified except by written instrument executed by Contractor and the City.

14.11. Time of the Essence. Time is expressly made of the essence in the performance of this Contract.

14.12. Calculation of Time. Except where the reference is to business days, all periods of time referred to herein shall include Saturdays, Sundays, and legal holidays in the State of Oregon, except that if the last day of any period falls on any Saturday, Sunday, or legal holiday observed by the City, the period shall be extended to include the next day which is not a Saturday, Sunday, or legal holiday. Where the reference is to business days, periods of time referred to herein shall exclude Saturdays, Sundays, and legal holidays observed by the City. Whenever a time period is set forth in days in this Contract, the first day from which the designated period of time begins to run shall not be included.

14.13. Headings. Any titles of the sections of this Contract are inserted for convenience of reference only and shall be disregarded in construing or interpreting any of its provisions.

14.14. Number, Gender and Captions. In construing this Contract, it is understood that, if the context so requires, the singular pronoun shall be taken to mean and include the plural, the masculine, the feminine and the neuter, and that, generally, all grammatical changes shall be made, assumed, and implied to individuals and/or corporations and partnerships. All captions and paragraph headings used herein are intended solely for convenience of reference and shall in no way limit any of the provisions of this Contract.

14.15. Good Faith and Reasonableness. The parties intend that the obligations of good faith and fair dealing apply to this Contract generally and that no negative inferences be drawn by the absence of an explicit obligation to be reasonable in any portion of this Contract. The obligation to be reasonable shall only be negated if arbitrariness is clearly and explicitly permitted as to the specific item in question, such as in the case of where this Contract gives the City "sole discretion" or the City is allowed to make a decision in its "sole judgment."

14.16. Other Necessary Acts. Each party shall execute and deliver to the other all such further instruments and documents as may be reasonably necessary to carry out this Contract in order to provide and secure to the other parties the full and complete enjoyment of rights and privileges hereunder.

14.17. Interpretation. As a further condition of this Contract, the City and Contractor acknowledge that this Contract shall be deemed and construed to have been prepared mutually by each party and it shall be expressly agreed that any uncertainty or ambiguity existing therein shall not be construed against any party. In the event that any party shall take an action, whether judicial or otherwise, to enforce or interpret any of the terms of the contract, the prevailing party shall be entitled to recover from the other party all expenses which it may reasonably incur in taking such action, including attorney fees and costs, whether incurred in a court of law or otherwise.

14.18. Entire Agreement. This Contract, all documents attached to this Contract, and all Contract Documents and laws and regulations incorporated by reference herein represent the entire agreement between the parties.

14.19. Counterparts. This Contract may be executed in one or more counterparts, each of which shall constitute an original Contract but all of which together shall constitute one and the same instrument.

14.20. Authority. Each party signing on behalf of Contractor and the City hereby warrants actual authority to bind their respective party.

The Contractor and the City hereby agree to all provisions of this Contract.

CONTRACTOR:

CITY:

GREEN SWEEP ASPHALT SERVICES, LLC

CITY OF McMinnville

By: _____

By: _____

Print Name: _____

Print Name: _____

As Its: _____

As Its: _____

Employer I.D. No. _____

APPROVED AS TO FORM:

City Attorney
City of McMinnville, Oregon



City of McMinnville

PUBLIC WORKS

CITY OF McMINNVILLE REQUEST FOR PROPOSAL

Citywide Street Sweeping Services 2022

PROPOSALS DUE: June 7, 2022 by 2:00 pm

SUBMIT PROPOSAL TO: Public Works Operations and Maintenance
City of McMinnville
1900 NE Riverside Dr
McMinnville, OR 97128

REFER QUESTIONS TO: David Renshaw
(503) 434-7316
david.renshaw@ci.mcminnville.or.us

RFP ISSUE DATE: May 6, 2022

REQUEST FOR PROPOSAL

The City of McMinnville will receive electronically transmitted or written, sealed proposals until 2:00 p.m. on June 7, 2022 at the Public Works Operations and Maintenance, 1900 NE Riverside Dr, McMinnville, OR 97128, for the following services:

CONTRACTED STREET SWEEPING SERVICES

No proposal will be considered unless fully completed in a manner provided in the Request for Proposals (RFP) packet. Electronically transmitted proposals **will** be accepted. Late proposals will not be considered. Any proposal received after the closing time will be returned to the submitting firm unopened after a contract has been awarded for the required services.

The Request for Proposal (RFP) documents may be obtained free of charge at the following website: <http://www.mcminnvilleoregon.gov/rfps>.

Contractors are required to certify non-discrimination in employment practices, and identify resident status as defined in ORS 279A.120(1)(b). Pre-qualification of contractors is not required. All contractors are required to comply with the provisions of Oregon Revised Statutes.

Any addenda to this RFP will be distributed via email to those who receive proposal packets and will also be posted on the City's website at: <http://www.mcminnvilleoregon.gov/rfps>.

Questions pertaining to this RFP can be addressed to David Renshaw, Maintenance and Operations Superintendent, 1900 NE Riverside Dr, McMinnville, OR 97128, phone (503) 434-7316, david.renshaw@mcminnvilleoregon.gov.

The City may reject any proposal not in compliance with all the prescribed public bidding procedures and requirements, and may reject for good cause any or all proposals upon a finding of the City if it is in the public interest to do so.

DAVID RENSHAW, MAINTENANCE AND OPERATIONS SUPERINTENDENT
CITY OF McMINNVILLE

Dated & Published: Daily Journal of Commerce – May 6, 2022

TABLE OF CONTENTS

PRELIMINARY	ADVERTISEMENT
SECTION I	BACKGROUND AND SCOPE OF WORK
	A. INTRODUCTION
	B. BACKGROUND
	C. SCOPE AND SCHEDULE OF WORK
SECTION II	PROPOSAL PROCESS
	A. RFP SCHEDULE
	B. PROPOSAL DUE DATE
	C. QUESTIONS AND CLARIFICATIONS
	D. SOLICITATION PROTEST
	E. PROPOSAL WITHDRAWAL
	F. CANCELLATION, DELAY OR SUSPENSION OF RFP SOLICITATION; REJECTION OF PROPOSALS
	G. IRREGULARITIES
	H. PROPOSAL COSTS
	I. AVAILABILITY OF RFP RESPONSES; PROPRIETARY INFORMATION
	J. CONTRACT
	K. CITY RIGHTS
SECTION III	PROPOSAL FORMAT AND EVALUATION CRITERIA
	A. ORGANIZATION OF PROPOSAL
	B. PROPOSAL CONTENT
	C. EVALUTION CRITERIA SCORING/REFERENCE CHECKS
SECTION IV	PROPOSAL EVALUATION AND CONTRACT AWARD
	A. RESPONSIVE PROPOSER
	B. EVALUATION CRITERIA
	C. METHOD OF SELECTION
	D. NEGOTIATIONS
	E. NOTICE OF INTENT TO AWARD
	F. RIGHT TO PROTEST
	G. CONTRACT AWARD
Attachments	1. Cost Proposal
	2. Standard Public Contract
	3. Existing Street Sweeping Areas & Curb Miles
	4. State Highways
	5. City Arterials and Collectors

SECTION I – BACKGROUND AND SCOPE OF WORK

A. INTRODUCTION

The City of McMinnville is requesting proposals from qualified service providers for municipal street sweeping services. The City will complete a Request for Proposal (RFP) process to select the vendor that offers the most advantageous proposal to for the City from among those firms that submit proposals according to the requirements of the RFP. Proposers responding to the RFP do so solely at their expense, and the City is not responsible for any costs or expenses associated with the preparation of RFP.

B. BACKGROUND

The City of McMinnville has a population of nearly 34,500 and is located approximately 35 miles southwest of Portland, in the heart of Oregon’s wine country. The City’s Public Works Department (comprised of the Wastewater Services, Maintenance and Operations, Engineering, and Municipal Airport groups) is tasked with providing street sweeping services within the City limits. The City of McMinnville is not currently under a storm water discharge permit and does not have a storm water utility. The City maintains approximately 121 centerline miles of residential, collector and arterial streets. Highway 99W passes through the community and is swept by the City. The City offers a community wide curb side leaf collection program during the months of November and December each year.

C. SCOPE AND SCHEDULE OF WORK

Work shall include, but shall not be limited to the following:

1) SCOPE OF WORK

The Contractor shall provide street sweeping and removal of debris as required for approximately 242 sweeping miles of McMinnville streets. The scope of this work includes all residential streets (203.5 sweeping miles) and arterials/collectors/state highways (38.5 sweeping miles). Residential streets shall be swept once every six weeks between January and October, for a total of seven (7) sweeps per year. City arterials, collectors and state highways as indicated on Attachment #4 shall be swept monthly. The Contractor shall support the City’s curb-side leaf collection program during the months of November and December by providing sweeping services in areas as directed by the City. The scope of this work shall NOT include the downtown area (Area 1 on attachment #3), which is swept under separate contract. The contractor shall provide an hourly rate for scheduled street sweeping. The rate shall include all costs to perform the work, including sweeping debris disposal. The estimated debris volume for scheduled street sweeping is estimated to be 900 cubic yards. The estimated debris volume for curb side leaf program support is estimated to be 500 cubic yards.

The term street shall include the paved area between the normal curb lines of the roadway, whether or not an actual curb exists. Islands that separate directional traffic and contain a curb shall be considered in the “curb sweeps” and shall be swept in the same manner as a normal street curb. Street sweeping shall normally consist of a single pass over a given area with a regenerative air sweeper. Sweeping shall be performed in the same direction as the flow of traffic at all times.

The Contractor may request annually fuel cost surcharges which may be granted by the City in its sole discretion.

The Contractor may request annually dumping fee cost increases which may be granted by the City in its sole discretion.

2) CONTRACTOR'S REPRESENTATIVE

Before starting the work, the Contractor shall designate an authorized representative in writing, who shall have complete authority to represent and to act for the Contractor in all directions given by the City's Project Manager or designee. The Contractor or the authorized representative shall give efficient supervision to the work, using the best skill and personal attention to the prosecution of the work.

Upon written request by the City's Project Manager, the Contractor shall promptly remove incompetent, careless or negligent employees or agents from performing work under this Contract. Failure to comply with such request is sufficient grounds for termination of the Contract.

3) CONTRACTOR'S WORK SCHEDULE

The Contractor shall establish, and submit for approval, a regular schedule of performance that will include sweeping all streets as per this scope of work, and in approximately the same order for each circuit. The City has designated 19 service areas (see attachment #3 for the existing service area map) that it has used as sweeping routes. It is the City's preference that the Contractor use the existing service areas to develop the proposed work schedules. The Contractor shall provide a detailed explanation of any planned deviations or revisions to the City's existing designated service areas.

Note that street sweeping in residential areas shall occur between the hours of 7:00am and 6:00pm, Monday through Friday. The City reserves the right to modify as needed. Additionally, the Contractor shall be responsible for coordinating sweeping schedules with the local solid waste collection company (Recology – Western Oregon Waste) to avoid conflicts during operations.

The Contractor's sweeping schedule shall be approved by the City's Project Manager or designee, and the approved schedule will be posted on the City's website.

Prior to any deviation from the approved schedule, the Contractor shall submit a request to revise the schedule to the City's Project Manager. Any approved revisions to the schedule will be posted on the City's website.

4) LEAF SEASON COORDINATION

The City offers a curbside leaf collection program for residents during the months of November-December. During that period, regular residential route sweeping is suspended. During this period, sweeping operations are coordinated with the City's leaf collection operations as directed by the City's Project Manager or Designee. Leaf season sweeping support is estimated at approximately 610 curb miles, and the City will coordinate the disposal of leaf material at a local

recycling center. The estimated debris volume is 500 cubic yards. The Contractor shall provide this service at the proposed hourly rate.

5) SWEEPING DEBRIS

The term "sweeping debris" shall include, but is not limited to, all dirt, rocks, sand, gravel, sticks, leaves, paper, cans and other miscellaneous items which are normally picked up by a street sweeper. The term "sweeping debris" shall not include large items that cannot be picked up by a mechanical sweeper or would otherwise damage the sweeper.

6) SWEEPING DEBRIS REMOVAL

Contractor shall not dump sweeping debris on ground. Contractor may provide their own drop boxes and their own transport equipment to haul sweeping debris, or the contractor may use the local designated City waste disposal franchise to haul sweeping debris.

Contractor shall make prior arrangements with the City's Project Manager or the assigned designee for the placement of all drop boxes to be used for the collection of sweeping debris. Contractor shall ensure that all drop boxes are clearly marked with reflective cones or reflective markings and are visible to traffic at all times. Debris boxes placed on the street must be removed at the end of each day.

The contractor is required to have a back-up means of handling sweeping debris in case of a primary equipment failure.

7) HANDLING AND DISPOSAL OF SWEEPING DEBRIS

Contractor shall dispose of sweeping debris by methods approved by DEQ and the City.

8) CONTRACTOR'S EQUIPMENT

The Contractor shall supply and maintain all necessary equipment to ensure the fulfillment of requirements of this RFP. A list of equipment must be included in the response to the RFP, as outlined in the "Proposal Content" section of the RFP (see page 15).

Sweepers must be of the regenerative air type, capable of removing all sweeping debris from a street in a single pass, without leaving a trail of sweeping debris behind. Sweepers shall be self-propelled, pickup sweepers with revolving gutter brushes on both sides; dual steering; capable of sweeping a minimum nine foot wide path; and capable of dust abatement. Additionally, all sweeping equipment must be equipped with factory installed noise reduction features, and all equipment shall operate at the manufacturer's specifications (compliant with PM-10 efficiency and Rule 1186 Certified).

All equipment must be properly registered and insured in accordance with state and local laws. Sweeping equipment shall be equipped with adequate warning devices and lights for safe operation and shall meet all vehicle operating requirements of the State of Oregon, Motor Vehicles Division.

Additionally, all units shall be clearly and prominently marked with the contractor's name and unit number. All equipment operators shall be equipped with a radio, or paging equipment, that will allow for communication with the contractor's office.

The Contractor's equipment shall be maintained in good working condition throughout the life of this Contract. All equipment shall be fully operational, and shall not leak oil or other fluids, while in service performing work under this RFP.

The Contractor shall indicate in the response to the RFP, as outlined in the "Proposal Content" section of RFP (see page 15), the location of the service center that will be used to perform scheduled routine maintenance of the equipment, and to ensure proper adjustment for sweepers.

Equipment breakdown will not be considered an acceptable excuse for failure to perform the contract work in accordance with the requirements of this RFP or the approved schedule. If necessary to complete the required work, the Contractor shall lease or rent sweeping equipment that meets the equipment requirements of this RFP at no additional cost to the City. If the City deems a piece of equipment unsuitable, the contractor will be instructed to make the appropriate repairs or remove it from the work site. If such failure prevents the Contractor from performing a scheduled or special sweep, the City may authorize the performance of such sweeps as necessary and charge the costs to the Contractor. The City is authorized to deduct such costs to any payments due to the Contractor.

Failure to comply with these requirements shall be just cause for termination of contract.

9) WATER USE

The Contractor shall coordinate water use with McMinnville Water and Light (503.472.6158) and obtain all necessary permits to obtain water at hydrants as needed for sweeping operations.

10) WORKMANSHIP

All streets and intersections shall be swept clean and no piles of sweeping debris shall be left anywhere within the streets or public rights of way. This standard shall be modified as necessary during leaf collection season (November-December). Although regular cleaning is normally along the gutter or street edge, the entire travel lane, gutter to gutter or pavement edge to pavement edge, will be clean when sweeping has been completed. Water shall be used as dust control. The Contractor will be responsible for removing sweeping debris, and sticks, rocks or other waste left behind by the sweeper. The sweeper shall avoid tracking mud during operation. Correction of these items shall be done at no additional cost to the City.

Extra care shall be taken in the loading and transportation of street sweeping debris and other waste so that none of the collected material is either left on private property or on the street. Any

sweeping debris or other waste left on private property or on streets by the Contractor shall immediately be removed upon notice from the City's Project Manager or designee.

The Contractor shall be responsible for the cleaning of all sweeping debris spilled or tracked on any street, public place or private property by any of its equipment. If the Contractor fails to clean sweeping debris spilled or tracked within the same day notice is given by the City, the City may cause such streets to be cleaned and charge the costs to the Contractor. The City is authorized to deduct such costs from any payments due to the Contractor.

11) RESPONSIBILITY OF THE CONTRACTOR

The Contractor shall do all the work and furnish all labor, materials, supervision, inspections, equipment, tools and machines necessary for the performance and completion of the project in accordance with the Contract within the specified time.

Contractor shall employ only competent, skillful persons to do the work. Contractor shall keep competent supervisory personnel to monitor work performed under the Contract. Contractor shall give efficient supervision to the work using the highest level of skill and attention.

Contractor shall provide adequate supervision and staff to ensure continuity in sweeping operations as set forth in this RFP and maintain a direct line of communication with the City's Project Manager or designee.

Contractor shall provide insurance coverage and certificates as required by the Standard Public Contract included with this RFP.

Contractor shall provide a telephone answering service toll free from 7:30am to 4:30pm Monday through Friday except on City holidays. The answering service shall have the capability of contacting sweeper operators by radio or paging equipment and relaying instructions from the City. Contractor shall also provide a 24-hour phone number to be used for emergency purposes.

The Contractor shall notify the City of any obstructions in the roadways, or other reasons why sweeping could not be performed over a specific area, such as tree limbs or landscaping, disabled vehicles, construction equipment and material and other similar items. The report shall be made verbally or via email to the City's Project Manager or designee within four (4) hours of the scheduled sweeping. The City will then endeavor to remove or otherwise mitigate the obstruction.

12) PROTECTION OF PROPERTY

Contractor shall protect all public and private property insofar as it may be endangered by operations and take every reasonable precaution to avoid damage to such property.

Contractor shall restore and bear the cost of any public or private improvement, or structure within the right of way, which is damaged (and which is not designated for removal), either directly or indirectly by an act, omission or neglect in the execution of the work. Contractor shall be responsible for any injury, loss, or damage to any existing improvements on the premises caused by the Contractor or the Contractor's employees, agents or subcontractors, and in the event of such injury, loss or damage shall promptly make such repairs or replacements as required by the City without additional cost to the City.

Contractor's site parked mobile equipment, operable machinery, and hazardous parts subject to mischief shall be kept locked or otherwise made inoperable whenever left unattended.

Contractor shall protect all street trees and planted areas within the right of way or easements, and shall exercise care and conduct operations so as to minimize damage to other planted areas.

13) DUST CONTROL, WATER AND AIR POLLUTION

During all phases of the work the Contractor shall take precautions to abate dust nuisance by cleaning up, sweeping, sprinkling with water or other means necessary to accomplish the suppression of dust. During the contract, Contractor's operations shall conform to applicable laws and regulations of the Oregon Department of Environmental Quality and other agencies of the state and federal government, as well as local ordinances designed to prevent, control and abate water and air pollution.

14) INSPECTION

Inspections will be performed by the City's Project Manager or designee on a regular basis. Additionally, spot checks of the work may be made at any time, or in response to citizen complaints. Any deficiencies found will be reported to the Contractor for immediate correction.

In the event the City determines that a street section has been improperly swept, the City shall request by telephone, to be followed in writing to the Contractor's representative, that the area be re-swept. The Contractor shall perform the re-sweep within two (2) days of the request by the City, at no additional cost to the City. In the event the re-sweep is not performed or is improperly performed as determined by the City, the City, at its option, may perform the re-sweep and charge the Contractor for the cost of this service, or deduct from its compensation to the Contractor based on the rate specified for routine sweeping based upon area required for the re-sweep.

15) NEW STREETS

The City may add additional streets or parking lots during the term of the project for street sweeping services. When new streets or parking lots are required to be swept, the City shall provide a map to the Contractor showing the location of the new streets or parking lots to be swept and the total miles of the new streets to be swept.

Upon receipt of a request to add additional streets or parking lots, the Contractor shall develop, and submit for approval, a revised schedule incorporating the new areas.

16) SPECIAL SWEEPS

At times, the City may require special sweeps that are outside the regular sweeps. Special sweeps may include, but are not necessarily limited to the following:

- Response and clean-up of debris from automobile accidents or material spills on the roadway;
- Construction zone clean up; and
- Snow fall and subsequent sweep of sand on the roadway.
- Adverse weather condition
- Traffic hazard

The Contractor shall provide an “hourly rate” for special sweeps. Contractor shall respond to call outs within one hour of request from City. If the Contractor cannot or does not perform as per the requirements of this section, the City may provide or contract for such sweeps and charge the costs to the Contractor. The City is authorized to deduct such costs from any payments due to the Contractor.

17) PAYMENT SCHEDULE AND REPORTING

Each invoice shall include adequate detail to identify the services provided. Upon completion of each month’s sweeping cycle, the Contractor shall submit a statement to the City showing the following information:

- Hours swept, by service area
- Curb miles swept, by service area
- Non-curb miles swept, by service area
- Hours of special sweeps, by location
- Miles or feet of special sweeps, by location
- Speed of sweeper
- Gallons of water used
- Cubic yards of debris removed

The City shall pay the contractor within thirty days of accepting the work and receipt of invoice.

18) TERM OF CONTRACT

The Contract anticipated by this RFP will be effective on July 1, 2022 and will expire, unless otherwise terminated or extended, on June 30, 2025. The parties may, upon written agreement, extend the contract annually for two additional years (to June 30, 2027).

The City’s fiscal year is from July 1st to June 30th, and the continuation of the contract is subject to the availability of funding and the City Council’s approval of funding in each fiscal year. The City reserves the right to terminate this contract at the end of a fiscal year should the City fail to appropriate sufficient funds to pay for the contract in the subsequent fiscal year.

SECTION II – PROPOSAL PROCESS

A. RFP SCHEDULE

The planned schedule of events for the RFP process is as follows (Note that the dates are approximate and subject to change):

May 6, 2022	RFP advertised
May 31, 2022	RFP Change Request Deadline
May 31, 2022	RFP Question Submission Deadline
June 2, 2022	Addenda Issuance Deadline
June 7, 2022 (2:00pm)	Proposals due
June 9, 2022	Evaluation of Proposals Complete
June 10, 2022	Notice of Intent to Award

June 17, 2022
June 28, 2020

Deadline for written protest of award
City Council award

B. PROPOSAL DUE DATE

Proposers shall submit sealed proposals containing one (1) signed, clearly marked, easily reproducible original and four (4) complete copies of the proposal to:

David Renshaw
City of McMinnville Maintenance and Operations
1900 NE Riverside Dr.
McMinnville, OR 97128
david.renshaw@mcminnvilleoregon.gov

The sealed proposals are due no later than 2:00 p.m. on Tuesday, June 7, 2022. Proposals received after the deadline will be rejected and returned unopened. Proposals may be mailed to the City, but must be received by the City no later than the above stated date and time. Facsimile proposals will not be accepted.

C. QUESTIONS AND CLARIFICATION

Questions and requests for clarification regarding this RFP solicitation must be directed in writing (either email or fax is acceptable) to:

David Renshaw
City of McMinnville
1900 NE Riverside Dr.
McMinnville, OR 97128
Phone: (503) 434-7316
Email: david.renshaw@mcminnvilleoregon.gov

The deadline for submitting questions or requests for clarification is seven (7) days prior to the proposal due date. If a substantive clarification is necessary, an addendum will be issued no later than 72 hours prior to the due date to all recorded holders of the RFP solicitation. Note that statements made by the City are not binding upon the City unless confirmed by written addendum. If an addendum is necessary after that time, the City, at its discretion, can extend the closing date.

D. SOLICITATION PROTEST

A proposer who believes the proposal requirements, any details in the scope of work or terms detailed in the sample contract are unnecessarily restrictive or limit competition may submit a protest, or request to change, in writing. Protests or requests to change any provision of this RFP, including the submittal requirements, evaluation criteria, or contract terms, **must be submitted no later than seven (7) days prior to the proposal due date.** No protest of the

award of a contract, because of an RFP provision, submittal requirements, evaluation criteria, or contract term will be considered after such time.

The protest or request for change shall include:

- The reason for the protest or change;
- The proposed language to address the protest or change; and
- The reason(s) why the proposed language will benefit the City.

The City shall consider the protest or request for change, and may reject the protest or request for change, issue an addendum, or extend the proposal opening date or cancel the RFP.

Protests or requests for change must be submitted in writing to:

David Renshaw

City of McMinnville

1900 NE Riverside Dr.

McMinnville, OR 97128

Phone: (503) 434-7316

Email: david.renshaw@mcminnvilleoregon.gov

E. PROPOSAL MODIFICATIONS OR WITHDRAWAL

Proposal modifications or erasures made before signing by the authorized representative must be initialed in ink. Once submitted, proposals may be modified in writing before the time and date set for proposal closing. Any modifications shall be prepared on company letterhead, signed by an authorized representative, and state that the new document supersedes or modifies the prior proposal. Modifications must be submitted in a sealed envelope clearly marked "Proposal Modification", and identifying the proposal title, proposing firm and closing date and time. Proposer may not modify proposal after proposal closing time.

Any proposal may be withdrawn at any time before the proposal due date and time by providing a written notification on company letterhead signed by an authorized person. The withdrawal of a proposal will not prejudice the right of the proposer to file a new proposal.

F. CANCELLATION, DELAY OR SUSPENSION OF RFP SOLICITATION; REJECTION OF PROPOSALS

Nothing in this RFP shall restrict or prohibit the City from cancelling, delaying, or suspending the RFP solicitation at any time. The City may reject any or all proposals, in whole or in part, if in the best interest of the City, as determined by the City.

G. IRREGULARITIES

The City reserves the right to waive any non-material irregularities or information contained in this RFP, or in any received proposal.

H. PROPOSAL COSTS

The City is not liable for any costs incurred by a proposer in the preparation and/or presentation of a proposal. Execution of a contract is subject to the availability of funds.

I. AVAILABILITY OF RFP RESPONSES; PROPRIETARY INFORMATION

The City will open the proposals so as to avoid disclosing the contents to competing proposers during the process of negotiation. Proposals will not be available for public review until after the issuance of the Notice of Intent to Award.

The City will withhold from disclosure to the public trade secrets, as defined in ORS 192.501, and information submitted to the City in confidence, as described in ORS 192.502, that are contained in the proposal. Proposals must clearly identify such material, keep it separate, and provide separate notice in writing of the status of this material to:

David Renshaw

City of McMinnville

1900 NE Riverside Dr.

McMinnville, OR 97128

Phone: (503) 434-7316

Email: david.renshaw@mcminvilleoregon.gov

J. CONTRACT

The Public Contract the successful bidder will sign is attached. If Proposer takes exception to any provision in the attached contract, that exception must be noted in the proposal. No changes to the Contract will be negotiated after a proposal has been accepted.

K. CITY RIGHTS

The City reserves the right to cancel, suspend, delay or withdraw the RFP at any time and for any reason. The City may reject any or all bids. If the winning proposer does not accept the Contract, the City may elect to accept the next preferred Proposal or it may reissue the RFP. In no event shall the City have any liability for the cancellation of a contract award.

SECTION III – PROPOSAL FORMAT AND EVALUATION CRITERIA

A. ORGANIZATION OF PROPOSAL

Proposals shall be prepared simply and economically, providing a straightforward and concise description of the proposer's capabilities to satisfy the requirements of this RFP. Special bindings, colored displays, promotional materials, etc. are not desired. Emphasis should be on the completeness and clarity of the content of the proposal.

Proposals may be submitted electronically via email by submitting one (1) copy of the proposal to David Renshaw at david.renshaw@mcminnvilleoregon.gov with the subject line "PFP Proposal – Street Sweeping".

Alternatively, proposers may submit one (1) signed, clearly marked, easily reproducible, unbound original and four (4) complete copies of the proposal. Therefore, for this alternative, the total number of proposals to be submitted is five (5). Proposals shall be easily recyclable; plastic and wire bindings are discouraged. Proposers are solely responsible for ensuring timely delivery of, and receipt by, the City of the Proposal.

Pages shall be 8 ½" x 11", and the text font shall not be less than 12-point. All pages of the proposal shall be consecutively numbered. All forms provided with this RFP shall be completed and submitted with the proposal in their original form.

B. PROPOSAL CONTENT

Responses to this RFP must be complete, timely and submitted in compliance with the RFP specifications, including addressing all items listed below:

1. RFP Transmittal (5 points maximum)
Provide a transmittal letter, of not more than two (2) pages, that:
 - Identifies an authorized representative of the business, including contact information;
 - Identifies the location(s) of the business; and
 - Provides a brief statement of the Contractor's understanding of the project and services to be performed.

2. Contractor's Qualifications (20 points maximum)
Provide a written narrative, of not more than four (4) pages, that:
 - Describes your firm's background and history, including number of years in business, and the scope of services currently provided to clients;
 - Lists the names and titles of the principal individuals in the applicant's organization, including their years of experience, work history, and expected function in this contract;
 - Identifies the individual(s) who will be responsible for the routine supervision of this contract, including their years of experience and work history;
 - Highlights recent and local similar street sweeping service experience within the last five (5) years. List projects that demonstrate the qualifications, specialized experience, equipment and technical competence that demonstrate the Contractor's ability to meet the requirements noted in the scope of work. For the projects listed, include contact information for the project owner, and note the contract amount for the work performed;
 - Notes any previous, current or pending contract claims against the proposer, or by the proposer against another party; and

- Includes any additional information the proposer feels is pertinent to describing why the firm is qualified to perform the work outlined in the RFP.
3. Proposed Approach and Schedule (25 points maximum)
Provide a written narrative, of not more than four (4) pages, that:
- Identifies the firm’s planned work plan to accomplish the requirements outlined in the “Background and Scope of Work” section of this RFP (see page 4);
 - Includes a detailed explanation of any planned deviations or modifications to the City’s existing designated service areas;
 - Outlines the proposed draft schedule for the work plan; and
 - Describes the firm’s staff and resource capacity to respond to time-sensitive or short notice requests.
4. Proposed Equipment (20 points maximum)
Provide a written narrative, of not more than two (2) pages, that:
- Lists the equipment that the proposer expects to use on the project to accomplish the proposed work plan and the requirements of the RFP. For each piece of equipment listed, note the following:
 - Make, model, type and year of the equipment;
 - Condition of the equipment, including engine hours or mileage;
 - Features of the equipment (e.g. sweeping width, installed safety equipment, two-way radio equipped, etc.);
 - Ownership (firm owned or rented); and
 - Availability of the equipment for this contract.
 - Discusses the proposed service plan for the equipment, including the location of the service center that will perform the scheduled routine maintenance and adjustment of the equipment. Note the proposer’s plan and ability to respond to on-road equipment malfunctions and breakdowns.
5. Proposed Cost (30 points maximum)
Complete and submit the “Cost Proposal” form (attachment #3 to the RFP).

C. EVALUATION CRITERIA REVIEW/SCORING

Evaluation of the written response portion to the RFP will be based on a point system where responses to the above noted requests for information will be scored by the Evaluation Committee. The possible point values are listed by each evaluation criterion. Please see SECTION IV – PROPOSAL EVALUATION AND CONTRACT AWARD for a summary of the complete evaluation process.

Reference checks will be limited to information that is listed within the evaluation criteria, and results obtained in reference checks may be used to score any relevant evaluation criteria. Additionally, the Evaluation Committee may contact Proposers for clarification of proposal

responses; however no additions, deletions or substitutions that cannot be termed as clarifications may be made to proposals.

SECTION IV – PROPOSAL EVALUATION AND CONTRACT AWARD

A. RESPONSIVE PROPOSER

Proposers that submit all of the required information, on time and in the requested format, per the requirements of this RFP will be considered responsive proposers. Only those proposals from responsive proposers will be considered for evaluation. Non-responsive proposers will be notified in writing that they did not meet the submittal requirements and will be disqualified for further consideration.

B. EVALUATION CRITERIA

The City will make a selection based on the evaluation of the written proposals from responsive proposers, and any interviews it conducts. The City may elect to interview all responsive proposers or only the highest ranked responsive proposers. The City reserves the right to make a selection based only on the evaluation of the written proposals and not conduct any interviews. Written proposals and interviews will be evaluated based on the following criteria:

EVALUATION CRITERIA	POINTS
1. RFP TRANSMITTAL	5
2. CONTRACTOR'S QUALIFICATIONS	20
3. PROPOSED APPROACH AND SCHEDULE	25
4. PROPOSED EQUIPMENT	20
5. PROPOSED COST	30
TOTAL POINTS POSSIBLE:	100

C. METHOD OF SELECTION

A selection committee will evaluate each submitted written proposal, and will consider information obtained from interviews (if conducted), to determine the responsible proposer whose proposal is the most advantageous to the City based on the evaluation process and evaluation criteria outlined in this RFP. The City will enter contract negotiations with the highest ranked proposer.

D. NEGOTIATIONS

Following the evaluation process, the City will begin contract negotiations with the highest ranked proposer. During negotiations, the City may require any additional information it deems necessary to clarify the approach and understanding of the requested services. Any changes agreed upon during contract negotiations will become part of the final contract.

In the event that a contract cannot be negotiated with the highest ranked proposer, negotiations will be permanently discontinued, and the City will start contract negotiations with the next highest ranked proposer. Nothing in this RFP shall restrict or prohibit the City from cancelling the solicitation at any time.

E. NOTICE OF INTENT TO AWARD

Based on successful negotiations, the City will issue a Notice of Intent to Award.

F. RIGHT TO PROTEST

Proposers who disagree with the City's selection decision may protest that decision. The judgment used in the scoring by individual evaluators is not grounds for appeal. No protest because of a solicitation provision, evaluation criteria, scope of work, specification or contract term that could have been raised as a solicitation protest will be considered. The selection protest must be submitted in writing within seven (7) calendar days of the Notice of Intent to Award. The protest shall be submitted to the City Manager's office at the following address:

Jeff Towery, City Manager
City of McMinnville
230 NE Second Street
McMinnville, OR 97128

The selection protest must state all the relevant facts that establish that all higher ranked proposers were ineligible for selection because their proposals were nonresponsive or the proposer was not responsible. A written decision will be sent to the protester.

The award by the City Council shall constitute a final decision of the City to award the contract if no written protest of the award is filed with the City within seven (7) calendar days of the Notice of Intent to Award. The City will not entertain a protest submitted after the time period established in this section.

G. CONTRACT AWARD

The City Council will consider award of the project based on the selection committee's recommendation and will authorize the City Manager to execute a contract. The contract will be awarded to the proposer who, in the opinion of the City Council, meets all required specifications and presents the most advantageous proposal to the city. The City may reject any proposal not in compliance with all prescribed public procurement procedures and requirements and may reject for good cause any and all proposals upon a finding of the City that it is in the public interest to do so. The City also reserves the right to waive any informality in any proposal and to delete certain items listed in the proposal as set forth herein.

SECTION V – GENERAL RFP INFORMATION

A. Proposer Certifications

By the act of submitting a Proposal in response to this RFP, the Proposer certifies that:

1. The Proposer has carefully examined all RFP documents, including the draft Contract (**attached as Attachment “CITY OF MCMINNVILLE GOODS AND SERVICES CONTRACT”**), all addenda, and all other attachments, fully understands the RFP intent, is able to perform all tasks as described in the Scope of Work of this RFP, and the Proposal is made in accordance therewith. Except as otherwise noted as part of the Proposal, the Proposer certifies that Proposer is ready, willing, and able to comply with all terms of the attached contract.
2. The Proposer is familiar with the local conditions under which the work will be performed.
3. The Proposal is based upon the requirements described in the RFP, without exception, unless clearly stated in the response.
4. The Proposer accepts all of the terms of the City’s Contract and warrants that Proposer will fully meet all of the insurance requirements contained therein. If the Proposer wishes to amend or modify any terms of the Contract, such amendment or modification must be stated in particularity in the Proposal. Proposed changes to the draft Contract not stated at the time of Proposal submission will not be considered. Changes stated will be considered but may not be agreed upon by the City for contract award. If the City does not agree with such noted changes, the Proposer may withdraw the proposed change or the entire Proposal and the City may elect to award the contract to the next highest ranked Proposer.
5. The Proposer certifies, and in the case of sole proprietorship, partnership, or corporation, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of Proposer’s knowledge and belief, no elected official, employee, or person whose salary is payable, in whole or in part, by the City has a direct or indirect financial interest in the Proposal or in the services to which it relates, or in any of the profits thereof, other than as fully described in the Proposer’s response to this solicitation.
6. The Proposer has examined all parts of the RFP, including all requirements and contract terms and conditions thereof, and if its Proposal is accepted, the Proposer shall accept the contract documents thereto, unless substantive changes are made in same without the approval of the Proposer.
7. The Proposer, if an individual, is of lawful age; is the only one interested in this Proposal; and no person, firm, or corporation, other than that named, has any interest in the Proposal, or in the proposed contract.
8. The Proposer has quality experience providing the types of services and duties as described within the Scope of Work of this RFP.

The Proposer shall also certify Proposer’s state of residence.

B. Nondiscrimination

By the act of submitting a Proposal in response to this RFP, the Proposer certifies, under penalty of perjury, that *the Proposer has not discriminated, and will not discriminate, against minorities, women, emerging small business enterprises, or business enterprises that are owned or controlled by or that employ a disabled veteran in obtaining any required subcontracts.*

C. Competition

Prospective Proposers are encouraged to comment, either with their Proposals or at any other time, in writing, on any specification or requirement within this RFP which the Proposer believes will inordinately limit competition.

D. Proposal Liability

Proposers responding to this RFP do so solely at their expense, and the City is not responsible for any Proposer expenses associated with the RFP. By proposing, Proposers agree that doing so is at their own risk and the City shall have no liability related thereto. Finalists invited to participate in interview evaluations are responsible for scheduling and paying for their own travel arrangements. The City is not liable for any cost incurred by a Proposer in protesting any portion of the RFP documents or the City's selection decision.

E. City Requests for Clarification, Additional Research, and Revisions

The City reserves the right to obtain clarification of any portion of a Proposal or to obtain additional information necessary to properly evaluate a particular Proposal. Failure of a Proposer to timely respond to such a request for additional information or clarification may result in a finding that the Proposer is non-responsive and consequent rejection of the Proposal.

The City may obtain information from any legal source for clarification of any Proposal. The City need not inform the Proposer of any intent to perform additional research in this respect or of any information thereby received.

The City may perform, at its sole option, investigations of any Proposer. Information may include, but shall not necessarily be limited to, current litigation and contracting references. All such documents, if requested by the City, become part of the public record and may be disclosed accordingly.

The City reserves the right to request revisions of any Proposal after the date and time due and before award for the purpose of obtaining best and final offers.

F. Rejection of Proposals

The City reserves the right to reject any or all irregularities or omissions in Proposals submitted in response to this RFP to the extent it is determined to be in the best interest of the City to do so. Furthermore, the City reserves the right to reject any or all Proposals or portions thereof submitted in response to this RFP. Proposals may be rejected for one or more of the following reasons, including but not limited to:

1. Failure of the Proposer to adhere to one or more of the provisions established in the RFP.
2. Failure of the Proposer to submit a Proposal in the format specified herein.
3. Failure of the Proposer to submit a Proposal within the time requirements established herein.
4. Failure of the Proposer to adhere to ethical and professional standards before, during, or following the Proposal process.

5. Failure to provide information that is specifically requested in this RFP.

The City may reject any Proposal not in compliance with all prescribed public procurement procedures and requirements, and may reject for good cause any or all Proposals upon a finding by the City that it is in the public interest to do so.

G. City's Reservation of Rights

The City reserves the right to waive minor irregularities or omissions in compliance with the requirements of this RFP to the extent the Selection Review Committee and Project Manager determine it is in the best interest of the City to do so. The City also reserves the right to cancel this RFP at any time if it determines it is in the best interest of the City to do so. Therefore, by proposing, Proposers agree that doing so is at their own risk and the City shall have no liability related thereto.

H. Modification or Withdrawal of Proposal by Proposer

A Proposal may not be modified, withdrawn, or canceled by the Proposer following the time and date the Proposals are due. Proposals submitted early may be modified or withdrawn only by notice to the City at the Proposal submittal location prior to the time and date the Proposals are due. Such notice shall be submitted to the Project Manager, in writing, executed and signed by a duly authorized representative of the firm/individual submitting the Proposal. All such communication shall be worded so as not to reveal the contents of the original Proposal.

Withdrawn Proposals may be resubmitted prior to the time and date the Proposals are due, provided that they are then fully in conformance with the RFP.

I. Duration of Proposal

Proposal prices, terms, and conditions shall be firm for a period of at least ninety (90) days from the time and date Proposals are due. Proposals shall not be subject to future price escalation or changes of terms during the ninety (90) day period.

J. Local and Federal Requirements

The City of McMinnville intends to select a contractor in accordance with OAR 137-047-0260 and the City's municipal code. Selection of a contractor under this process is not a guarantee of a contract award, nor is the award of a contract for any portion of the Work a guarantee of award of a contract for any subsequent work. All work is subject to budgetary and funding constraints of the City of McMinnville.

The selected contractor shall comply with all federal, state, and local laws, regulations, executive orders, and ordinances applicable to the work under the contract for this Project, including, without limitation, the provisions of: (i) Title VI of the Civil Rights Act of 1964; (ii) Section V of the Rehabilitation Act of 1973; (iii) the Americans with Disabilities Act of 1990 and ORS 659A.142; (iv) all regulations and administrative rules established pursuant to the foregoing laws; and (v) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules, and regulations.

The selected contractor will be subject to the Oregon Workers Compensation Law and must comply with ORS 656.017, which requires the provision of Workers Compensation coverage for all employees working under the contract. The City of McMinnville's programs, services, employment opportunities, and volunteer positions are open to all persons without regard to race, religion, color, national origin, sex, sexual orientation, gender identity, age, marital status, disability, or political affiliation.

ADDENDA:

By signing and submitting this Proposal to the City, Proposer represents that it has examined and carefully studied the Contract Documents, and other data identified in the Contract Documents, and the following Addenda, receipt of which is hereby acknowledged:

<i>ADDENDUM NO.</i>	<i>ADDENDUM DATE</i>

SIGNATURE OF PROPOSER:

Name of Bidder: _____

Signature of Authorized Agent: _____ (Date)

Title: _____

(SEAL)

Business Address: _____

Phone #: _____

CITY OF McMinnville
GOODS AND SERVICES CONTRACT

This Goods and Services Contract (“Contract”) for the Citywide Street Sweeping Services 2022 Project (“Project”) is made and entered into on this _____ day of _____ 2022 (“Effective Date”) by and between the **City of McMinnville**, a municipal corporation of the State of Oregon (hereinafter referred to as the “City”), and _____, a(n) _____ [state] _____ [corporation/limited liability company, etc.] (hereinafter referred to as “Contractor”).

RECITALS

WHEREAS, the City requires services which Contractor is capable of providing, under terms and conditions hereinafter described; and

WHEREAS, Contractor represents that Contractor is qualified to perform the services described herein on the basis of specialized experience and technical expertise; and

WHEREAS, Contractor is prepared to provide such services, as the City does hereinafter require.

NOW, THEREFORE, in consideration of these mutual promises and the terms and conditions set forth herein, the parties agree as follows:

AGREEMENT

Section 1. Scope of Work

Contractor will perform the street sweeping services, as more particularly described in the Scope of Work for the Project, attached hereto as **Exhibit A** and incorporated by reference herein (the “Work”).

Section 2. Term

2.1. Initial Term. The term of this Contract shall be from the Effective Date until all Work required to be performed hereunder is completed and accepted, or no later than three (3) years from the Effective Date, whichever occurs first, unless earlier terminated in accordance herewith or an extension of time is agreed to, in writing, by the City. Contractor shall diligently perform the Work according to the requirements identified in the Scope of Work.

2.2. Options to Renew. The City has the option to extend the Contract for two (2) additional one-year terms.

Section 3. Contract Sum/Project Scope

3.1. Except as otherwise set forth in this **Section 3**, the City agrees to pay Contractor on a time and materials basis, guaranteed not to exceed _____ DOLLARS (\$ _____) for the first year of the Contract, for performance of the Work ("First Year Contract Sum"). Any compensation in excess of the First Year Contract Sum will require an express written Change Order between the City and Contractor.

3.2. Contractor's pricing is set forth in **Exhibit B**, attached hereto and incorporated by reference herein. No later than sixty (60) days prior to the anniversary of the Effective Date, the parties may negotiate a change in the First Year Contract Sum based on fuel cost variations. Any negotiated change must be made in writing and signed by the parties in accordance with **Section 12** herein.

3.3. Contractor's Contract Sum is all inclusive and includes, but is not limited to, all work-related costs, expenses, salaries or wages, plus fringe benefits and contributions, including payroll taxes, workers compensation insurance, liability insurance, profit, pension benefits, and all other contributions and benefits, technology and/or software charges, licensing, trademark, and/or copyright costs, office expenses, travel expenses, mileage, and all other indirect and overhead charges.

3.4. Contractor will be paid for Work upon completion of the Work and within thirty (30) days of receipt of an itemized invoice, unless the City disputes such invoice. In that instance, the undisputed portion of the invoice will be paid by the City within the above timeframe. The City will set forth its reasons for the disputed claim amount and make good faith efforts to resolve the invoice dispute with Contractor as promptly as is reasonably possible.

Section 3.5. City's Rights and Responsibilities

3.6. The City will designate a Project Manager to facilitate day-to-day communication between Contractor and the City, including timely receipt and processing of invoices, requests for information, and general coordination of City staff to support the Project.

3.7. Award of this Contract is subject to budget appropriation. Funds are approved for Fiscal Year 2021-22. If not completed within this fiscal year, funds may not be appropriated for the next fiscal year. The City also reserves the right to terminate this Contract early, as described in **Section 11**.

Section 4. Project Managers

The City's Project Manager is Dale Marshall. Contractor's Project Manager is _____.

Section 5. Subcontractors and Assignments

Unless expressly authorized in writing by the City, pursuant to **Subsection 7.1**, Contractor shall not subcontract with others for any of the Work prescribed herein. Contractor shall not assign any of Contractor's rights acquired hereunder without obtaining prior written approval from the City. Some Work may be performed by persons other than Contractor, provided Contractor advises the City of the names of such subcontractors and the services which they intend to provide, and the City specifically agrees, in writing, to such subcontracting. Contractor acknowledges such services will be provided to the City pursuant to a subcontract(s) between Contractor and subcontractor(s) and no privity of contract exists between the City and the subcontractor(s). Unless otherwise specifically provided by this Contract, the City incurs no liability to third persons for payment of any compensation provided herein to Contractor. Any attempted assignment of this Contract without the written consent of the City shall be void. Except as otherwise specifically agreed, all costs for services performed by others on behalf of Contractor shall not be subject to additional reimbursement by the City.

Section 6. Contractor Is Independent Contractor

Except as otherwise mandated by state law, the performance of Work under this Contract is at Contractor's sole risk. All damages or loss to Work, equipment, or materials incurred during the performance of the Work shall be at Contractor's sole risk. Contractor is an independent contractor for all purposes and shall be entitled to no compensation other than the Contract Sum provided for under **Section 3** of this Contract. Contractor will be solely responsible for determining the manner and means of accomplishing the end result of Contractor's Work. The City does not have the right to control or interfere with the manner or method of accomplishing said Work. The City, however, will have the right to specify and control the results of Contractor's Work so such Work meets the requirements of the Project.

Section 7. Contractor's Responsibilities

7.1. The City understands and agrees that Contractor may request that some Work be performed on the Project by persons or firms other than Contractor, through a subcontract with Contractor. Contractor acknowledges that if such Work is provided to the City pursuant to a subcontract(s) between Contractor and those who provide such services, Contractor may not utilize any subcontractor(s), or in any way assign its responsibility under this Contract, without first obtaining the express written consent of the City. In all cases, processing and payment of billings from subcontractors is solely the responsibility of Contractor. References to "subcontractor" in this Contract mean a subcontractor at any tier.

7.2. Contractor must comply with all applicable Oregon and federal wage and hour laws. Contractor shall make all required workers compensation and medical care payments on time. Contractor shall be fully responsible for payment of all employee withholdings required by law, including but not limited to taxes, including payroll, income, Social Security (FICA), and Medicaid. Contractor shall also be fully responsible for payment of salaries, benefits, taxes, Industrial Accident Fund contributions, and all other charges on account of any employees.

Contractor shall pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

7.3. No person shall be discriminated against by Contractor or any subcontractor in the performance of this Contract on the basis of sex, gender, race, color, creed, religion, marital status, age, disability, sexual orientation, gender identity, or national origin. Any violation of this provision shall be grounds for cancellation, termination, or suspension of the Contract, in whole or in part, by the City. Contractor shall comply with all federal, state, and local laws, regulations, executive orders, and ordinances applicable to the Contract or to the implementation of the Project. Without limiting the generality of the foregoing, Contractor expressly agrees to comply with the following laws, regulations, and executive orders to the extent they are applicable to the Contract or the implementation of the Project: (a) all applicable requirements of state civil rights and rehabilitation statutes, rules, and regulations; (b) Titles VI and VII of the Civil Rights Act of 1964, as amended; (c) Sections 503 and 504 of the Rehabilitation Act of 1973, as amended; (d) the Americans with Disabilities Act of 1990, as amended, and ORS 659A.142; (e) Executive Order 11246, as amended; (f) the Health Insurance Portability and Accountability Act of 1996; (g) the Age Discrimination in Employment Act of 1967, as amended, and the Age Discrimination Act of 1975, as amended; (h) the Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended; (i) all regulations and administrative rules established pursuant to the foregoing laws; and (j) all other applicable requirements of federal civil rights and rehabilitation statutes, rules, and regulations.

7.4. Contractor shall make payment promptly, as due, to all parties supplying to such Contractor labor or material for the prosecution of the Work provided for in the Contract.

7.5. Contractor shall make payment promptly, as due, to any party furnishing medical, surgical, hospital, or other needed care and attention, incident to sickness or injury, to the employees of Contractor, of all sums which Contractor agreed to pay or collected or deducted from the wages of employees pursuant to any law, contract, or agreement for the purpose of providing payment for such service.

7.6. With certain exceptions listed below, Contractor shall not require or permit any person to work more than ten (10) hours in any one (1) day, or forty (40) hours in any one (1) week, except in case of necessity, emergency, or where public policy requires it, and in such cases the person shall be paid at least time and a half for:

7.6.1. All overtime in excess of eight (8) hours in any one (1) day or forty (40) hours in any one (1) week when the work week is five (5) consecutive days, Monday through Friday; or

7.6.2. All overtime in excess of ten (10) hours in any one (1) day or forty (40) hours in any one (1) week when the work week is four (4) consecutive days, Monday through Friday; and

7.6.3. All work performed on the days specified in ORS 279B.020(1)(b) for public contracts.

7.7. Contractor must give notice to employees who work on a public contract, in writing, either at the time of hire or before commencement of Work on the Contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

7.8. The hourly rate of wage to be paid by any Contractor to employed workers or other persons doing or contracting to do all or part of the work contemplated by a public contract shall be not less than the applicable wage required by law.

7.9. Contractor, and all employers working under the Contract, are subject employers under the Oregon Workers Compensation Law and shall comply with ORS 656.017 unless otherwise exempt under ORS 656.126.

7.10. In the performance of this Contract, Contractor shall comply with all applicable federal, state, and local laws and regulations, including but not limited to those dealing with the prevention of environmental pollution and the preservation of natural resources (and avoidance of natural resource damages) in the performance of the Contract, including but not limited to ORS 279C.525. If new or amended statutes, ordinances, or regulations are adopted, or Contractor encounters a condition not referred to in this Contract, not caused by Contractor, and that was not discoverable by reasonable site inspection, which requires compliance with federal, state, or local laws or regulations dealing with the preservation of the environment, both the City and Contractor shall have all the rights and obligations set forth in ORS 279C.525.

7.11. Contractor shall be liable for any fine imposed against Contractor, the City or the 'Project' as a result of a violation of any laws or permitting requirements by Contractor or any suppliers.

Section 8. Indemnity

8.1. Indemnification. Contractor acknowledges responsibility for liability arising out of the performance of this Contract, and shall defend, indemnify, and hold the City harmless from any and all liability, settlements, loss, costs, and expenses in connection with any action, suit, or claim resulting or allegedly resulting from Contractor's negligent acts, omissions, errors, or willful or reckless misconduct pursuant to this Contract, or from Contractor's failure to perform its responsibilities as set forth in this Contract. The review, approval, or acceptance by the City, its Project Manager, or any City employee of documents or other work performed, prepared, or submitted by Contractor shall not be considered a negligent act, error, omission, or willful misconduct on the part of the City, and none of the foregoing shall relieve Contractor of its responsibility to perform in full conformity with the City's requirements, as set forth in this Contract, and to indemnify the City as provided above and to reimburse the City for any and all costs and damages suffered by the City as a result of Contractor's negligent performance of this Contract, failure of performance hereunder, violation of state or federal laws, or failure to adhere to the standards of performance and care described in **Subsection 8.2**. Contractor shall defend the City (using legal counsel reasonably acceptable to the City) against any claim that alleges negligent acts, omissions, errors, or willful or reckless misconduct by Contractor. As used herein,

the term “Contractor” applies to Contractor and its own agents, employees, and suppliers, and to all of Contractor’s subcontractors, including their agents, employees, and suppliers.

8.2. Standard of Care. In the performance of the Work, Contractor agrees to use at least that degree of care and skill exercised under similar circumstances by reputable members of Contractor’s profession practicing in the Portland metropolitan area. Contractor will re-perform any Work not meeting this standard without additional compensation. Contractor’s re-performance of any Work, even if done at the City’s request, shall not be considered as a limitation or waiver by the City of any other remedies or claims it may have arising out of Contractor’s failure to perform in accordance with the applicable standard of care of this Contract and within the prescribed timeframe.

Section 9. Insurance

9.1. Insurance Requirements. Contractor must maintain insurance coverage acceptable to the City in full force and effect throughout the term of this Contract. Such insurance shall cover all risks arising directly or indirectly out of Contractor’s activities or work hereunder. Any and all agents or subcontractors with which Contractor contracts for any portion of the Work must have insurance that conforms to the insurance requirements in this Contract. Additionally, if a subcontractor is an engineer, architect, or other professional, Contractor must require the subcontractor to carry Professional Errors and Omissions insurance and must provide to the City proof of such coverage. The amount of insurance carried is in no way a limitation on Contractor’s liability hereunder. The policy or policies maintained by Contractor shall provide at least the following minimum limits and coverages at all times during performance of this Contract:

9.1.1. Commercial General Liability Insurance. Contractor and all subcontractors shall obtain, at each of their own expense, and keep in effect during the term of this Contract, comprehensive Commercial General Liability Insurance covering Bodily Injury and Property Damage, written on an “occurrence” form policy. This coverage shall include broad form Contractual Liability insurance for the indemnities provided under this Contract and shall be for the following minimum insurance coverage amounts: The coverage shall be in the amount of **\$2,000,000** for each occurrence and **\$3,000,000** general aggregate and shall include Products-Completed Operations Aggregate in the minimum amount of **\$2,000,000** per occurrence, Fire Damage (any one fire) in the minimum amount of **\$50,000**, and Medical Expense (any one person) in the minimum amount of **\$10,000**. All of the foregoing coverages must be carried and maintained at all times during this Contract.

9.1.2. Business Automobile Liability Insurance. If Contractor or any subcontractors will be using a motor vehicle in the performance of the Work herein, Contractor shall provide the City a certificate indicating that Contractor and its subcontractors have business automobile liability coverage for all owned, hired, and non-owned vehicles. The Combined Single Limit per occurrence shall not be less than **\$2,000,000**.

9.1.3. Pollution Liability Coverage. Contractor shall carry sudden and accidental and gradual release pollution liability coverage that will cover, among other things, any spillage of paints, fuels, oils, lubricants, de-icing, anti-freeze or other hazardous materials, or disturbance of any hazardous materials, as that term is defined under Oregon law, during the performance of this Contract. Contractor will be fully responsible for the cost of any clean-up of any released materials or disturbance, in accordance with Oregon Department of Environmental Quality (“DEQ”) and Federal Environmental Protection Agency (“EPA”) clean-up requirements. The coverage shall be in the amount of **\$2,000,000** for each occurrence and **\$2,000,000** general aggregate.

9.1.4. Workers Compensation Insurance. Contractor, its subcontractors, and all employers providing work, labor, or materials under this Contract that are subject employers under the Oregon Workers Compensation Law shall comply with ORS 656.017, which requires them to provide workers compensation coverage that satisfies Oregon law for all their subject workers under ORS 656.126. Out-of-state employers must provide Oregon workers compensation coverage for their workers who work at a single location within Oregon for more than thirty (30) days in a calendar year. Contractors who perform work without the assistance or labor of any employee need not obtain such coverage. This shall include Employer’s Liability Insurance with coverage limits of not less than **\$500,000** each accident.

9.1.5. Insurance Carrier Rating. Coverages provided by Contractor and its subcontractors must be underwritten by an insurance company deemed acceptable by the City, with an AM Best Rating of A or better. The City reserves the right to reject all or any insurance carrier(s) with a financial rating that is unacceptable to the City.

9.1.6. Additional Insured and Termination Endorsements. The City will be named as an additional insured with respect to Contractor’s liabilities hereunder in insurance coverages. Additional Insured coverage under Contractor’s Commercial General Liability, Automobile Liability, Pollution Liability, and Excess Liability Policies, as applicable, will be provided by endorsement. Additional insured coverage shall be for both ongoing operations via ISO Form CG 2010 or its equivalent, and products and completed operations via ISO Form CG 2037 or its equivalent. Coverage shall be Primary and Non-Contributory. Waiver of Subrogation endorsement via ISO Form CG 2404 or its equivalent shall be provided. The following is included as additional insured: “The City of McMinnville, its elected and appointed officials, officers, agents, employees, and volunteers.” An endorsement shall also be provided requiring the insurance carrier to give the City at least thirty (30) days’ written notification of any termination or major modification of the insurance policies required hereunder. Contractor must be an additional insured on the insurance policies obtained by its subcontractors performing any of the Work contemplated under this Contract.

9.1.7. Certificates of Insurance. As evidence of the insurance coverage required by this Contract, Contractor shall furnish a Certificate of Insurance to the City. This Contract shall not be effective until the required certificates and the Additional Insured Endorsements have been received and approved by the City. Contractor agrees that it

will not terminate or change its coverage during the term of this Contract without giving the City at least thirty (30) days' prior advance notice and Contractor will obtain an endorsement from its insurance carrier, in favor of the City, requiring the carrier to notify the City of any termination or change in insurance coverage, as provided above.

9.2. Primary Coverage. The coverage provided by these policies shall be primary, and any other insurance carried by the City is excess. Contractor shall be responsible for any deductible amounts payable under all policies of insurance. If insurance policies are "Claims Made" policies, Contractor will be required to maintain such policies in full force and effect throughout any warranty period.

Section 10. Suspension

The City may suspend, delay, or interrupt all or any part of the Services for such time as the City deems appropriate for its own convenience by giving written notice thereof to Contractor. An adjustment in the time of performance or method of compensation shall be negotiated as a result of such delay or suspension, unless the reason for the delay was within Contractor's control. The City shall not be responsible for Services performed by any subcontractors after notice of suspension is given by the City to Contractor.

Section 11. Early Termination; Default

11.1. This Contract may be terminated prior to the expiration of the agreed upon terms:

11.1.1. By mutual written consent of the parties;

11.1.2. By the City, for any reason, and within its sole discretion, effective upon delivery of written notice to Contractor by mail or in person; or

11.1.3. By Contractor, effective upon seven (7) days' prior written notice, in the event of substantial failure by the City to perform in accordance with the terms through no fault of Contractor, where such default is not cured within the seven (7) day period by the City. Withholding of disputed payment is not a default by the City.

11.2. If the City terminates this Contract in whole or in part, due to default or failure of Contractor to perform Work in accordance with the Contract, the City may procure, upon reasonable terms and in a reasonable manner, services similar to those so terminated. In addition to any other remedies the City may have, both at law and in equity, for breach of contract, Contractor shall be liable for all costs and damages incurred by the City as a result of the default by Contractor, including, but not limited to all costs incurred by the City in procuring services from others as needed to complete this Contract. This Contract shall be in full force to the extent not terminated by written notice from the City to Contractor. In the event of a default, the City will provide Contractor with written notice of the default and a period of three (3) days to cure the default. If Contractor notifies the City that it cannot, in good faith, do so within the three (3) day cure period provided, then the City may elect, in its sole discretion, to extend the cure period

to an agreed upon time period, or the City may elect to terminate this Contract and seek remedies for the default, as provided above.

11.3. If the City terminates this Contract for its own convenience not due to any default by Contractor, payment of Contractor shall be prorated to, and include the day of, termination and shall be in full satisfaction of all claims by Contractor against the City under this Contract.

11.4. Termination under any provision of this Section 11 shall not affect any right, obligation, or liability of Contractor or the City that accrued prior to such termination. Contractor shall surrender to the City items of work or portions thereof, for which Contractor has received payment or the City has made payment.

Section 12. Contract Modification; Change Orders

Any modification of the provisions of this Contract shall not be enforceable or binding unless reduced to writing and signed by both the City and Contractor.

Section 13. Notices

Any notice required or permitted under this Contract shall be in writing and shall be given when actually delivered in person or forty-eight (48) hours after having been deposited in the United States mail as certified or registered mail, addressed to the addresses set forth below, or to such other address as one party may indicate by written notice to the other party.

To City: City of McMinnville
Attn: Dale Marshall, Street Maintenance Supervisor
230 NE Second Street
McMinnville, OR 97128

To Contractor: _____
Attn: _____

Section 14. Miscellaneous Provisions

14.1. Integration. This Contract, including all exhibits attached hereto, contains the entire and integrated agreement between the parties and supersedes all prior written or oral discussions, representations, or agreements. In case of conflict among these documents, the provisions of this Contract shall control.

14.2. Legal Effect and Assignment. This Contract shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, personal representatives, successors, and assigns. This Contract may be enforced by an action at law or in equity.

14.3. No Assignment. Contractor may not assign this Contract, nor delegate the performance of any obligations hereunder, unless agreed to in advance and in writing by the City.

14.4. Adherence to Law. This Contract shall be subject to, and Contractor shall adhere to, all applicable federal, state, and local laws (including the McMinnville Code and Public Works Standards), including but not limited to laws, rules, regulations, and policies concerning employer and employee relationships, workers compensation, and minimum and prevailing wage requirements. Any certificates, licenses, or permits that Contractor is required by law to obtain or maintain in order to perform the Work described in this Contract shall be obtained and maintained throughout the term of this Contract.

14.5. Governing Law. This Contract shall be construed in accordance with and governed by the laws of the State of Oregon, regardless of any conflicts of laws. All contractual provisions required by ORS Chapters 279A, 279B, 279C, and related Oregon Administrative Rules to be included in public agreements are hereby incorporated by reference and shall become a part of this Contract as if fully set forth herein.

14.6. Jurisdiction. Venue for any dispute will be in Yamhill County Circuit Court.

14.7. Legal Action/Attorney Fees. If a suit, action, or other proceeding of any nature whatsoever (including any proceeding under the U.S. Bankruptcy Code) is instituted in connection with any controversy arising out of this Contract or to interpret or enforce any rights or obligations hereunder, the prevailing party shall be entitled to recover attorney, paralegal, accountant, and other expert fees and all other fees, costs, and expenses actually incurred and reasonably necessary in connection therewith, as determined by the court or body at trial or on any appeal or review, in addition to all other amounts provided by law. If the City is required to seek legal assistance to enforce any term of this Contract, such fees shall include all of the above fees, whether or not a proceeding is initiated. Payment of all such fees shall also apply to any administrative proceeding, trial, and/or any appeal or petition for review.

14.8. Nonwaiver. Failure by either party at any time to require performance by the other party of any of the provisions of this Contract shall in no way affect the party's rights hereunder to enforce the same, nor shall any waiver by the party of the breach hereof be held to be a waiver of any succeeding breach or a waiver of this nonwaiver clause.

14.9. Severability. If any provision of this Contract is found to be void or unenforceable to any extent, it is the intent of the parties that the rest of the Contract shall remain in full force and effect, to the greatest extent allowed by law.

14.10. Modification. This Contract may not be modified except by written instrument executed by Contractor and the City.

14.11. Time of the Essence. Time is expressly made of the essence in the performance of this Contract.

14.12. Calculation of Time. Except where the reference is to business days, all periods of time referred to herein shall include Saturdays, Sundays, and legal holidays in the State of Oregon, except that if the last day of any period falls on any Saturday, Sunday, or legal holiday observed by the City, the period shall be extended to include the next day which is not a Saturday, Sunday, or legal holiday. Where the reference is to business days, periods of time referred to herein shall exclude Saturdays, Sundays, and legal holidays observed by the City. Whenever a time period is set forth in days in this Contract, the first day from which the designated period of time begins to run shall not be included.

14.13. Headings. Any titles of the sections of this Contract are inserted for convenience of reference only and shall be disregarded in construing or interpreting any of its provisions.

14.14. Number, Gender and Captions. In construing this Contract, it is understood that, if the context so requires, the singular pronoun shall be taken to mean and include the plural, the masculine, the feminine and the neuter, and that, generally, all grammatical changes shall be made, assumed, and implied to individuals and/or corporations and partnerships. All captions and paragraph headings used herein are intended solely for convenience of reference and shall in no way limit any of the provisions of this Contract.

14.15. Good Faith and Reasonableness. The parties intend that the obligations of good faith and fair dealing apply to this Contract generally and that no negative inferences be drawn by the absence of an explicit obligation to be reasonable in any portion of this Contract. The obligation to be reasonable shall only be negated if arbitrariness is clearly and explicitly permitted as to the specific item in question, such as in the case of where this Contract gives the City "sole discretion" or the City is allowed to make a decision in its "sole judgment."

14.16. Other Necessary Acts. Each party shall execute and deliver to the other all such further instruments and documents as may be reasonably necessary to carry out this Contract in order to provide and secure to the other parties the full and complete enjoyment of rights and privileges hereunder.

14.17. Interpretation. As a further condition of this Contract, the City and Contractor acknowledge that this Contract shall be deemed and construed to have been prepared mutually by each party and it shall be expressly agreed that any uncertainty or ambiguity existing therein shall not be construed against any party. In the event that any party shall take an action, whether judicial or otherwise, to enforce or interpret any of the terms of the contract, the prevailing party shall be entitled to recover from the other party all expenses which it may reasonably incur in taking such action, including attorney fees and costs, whether incurred in a court of law or otherwise.

14.18. Entire Agreement. This Contract, all documents attached to this Contract, and all Contract Documents and laws and regulations incorporated by reference herein represent the entire agreement between the parties.

14.19. Counterparts. This Contract may be executed in one or more counterparts, each of which shall constitute an original Contract but all of which together shall constitute one and the same instrument.

14.20. Authority. Each party signing on behalf of Contractor and the City hereby warrants actual authority to bind their respective party.

The Contractor and the City hereby agree to all provisions of this Contract.

CONTRACTOR:

CITY:

CITY OF McMinnville

By: _____

By: _____

Print Name: _____

Print Name: _____

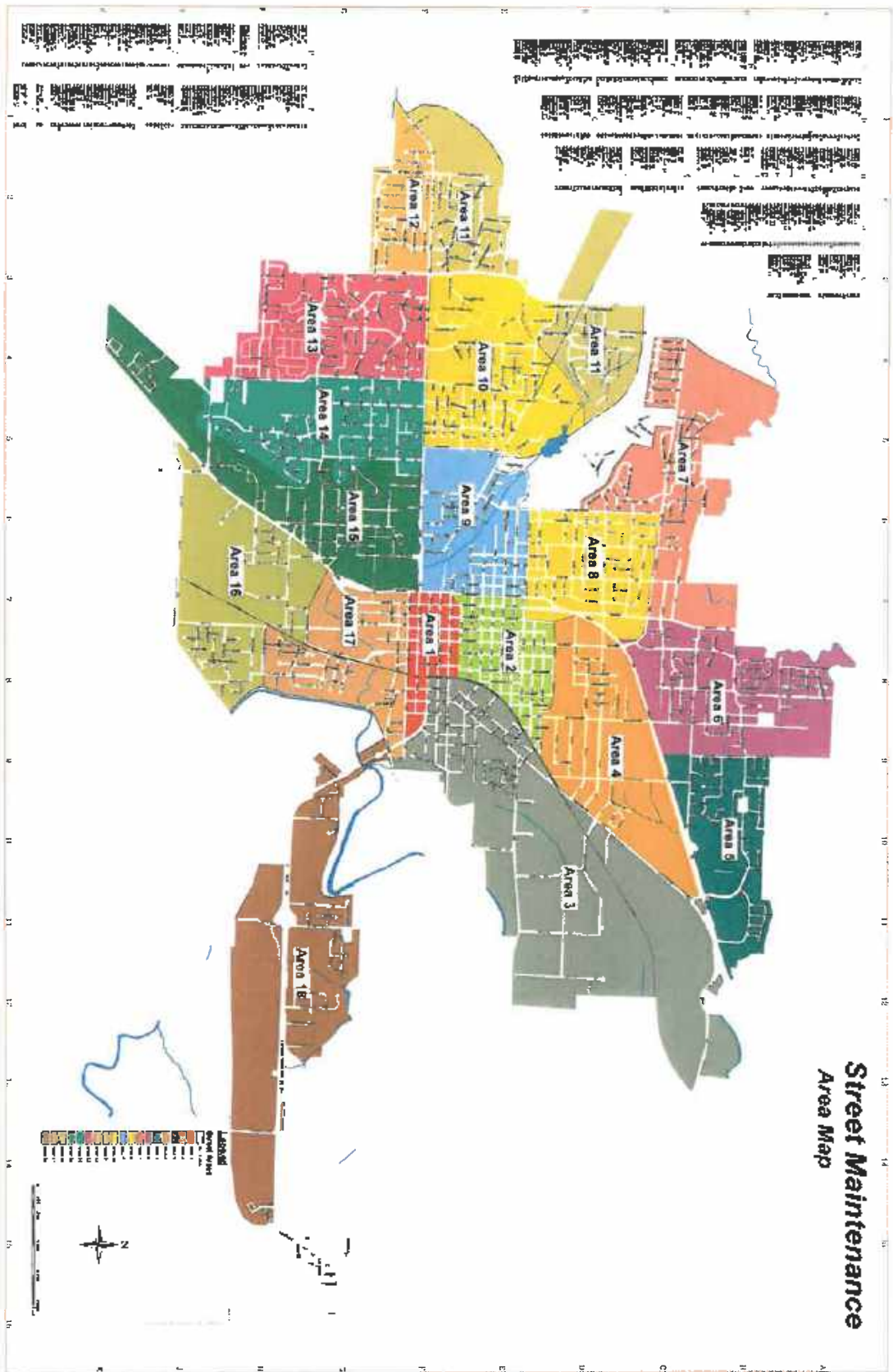
As Its: _____

As Its: _____

Employer I.D. No. _____

APPROVED AS TO FORM:

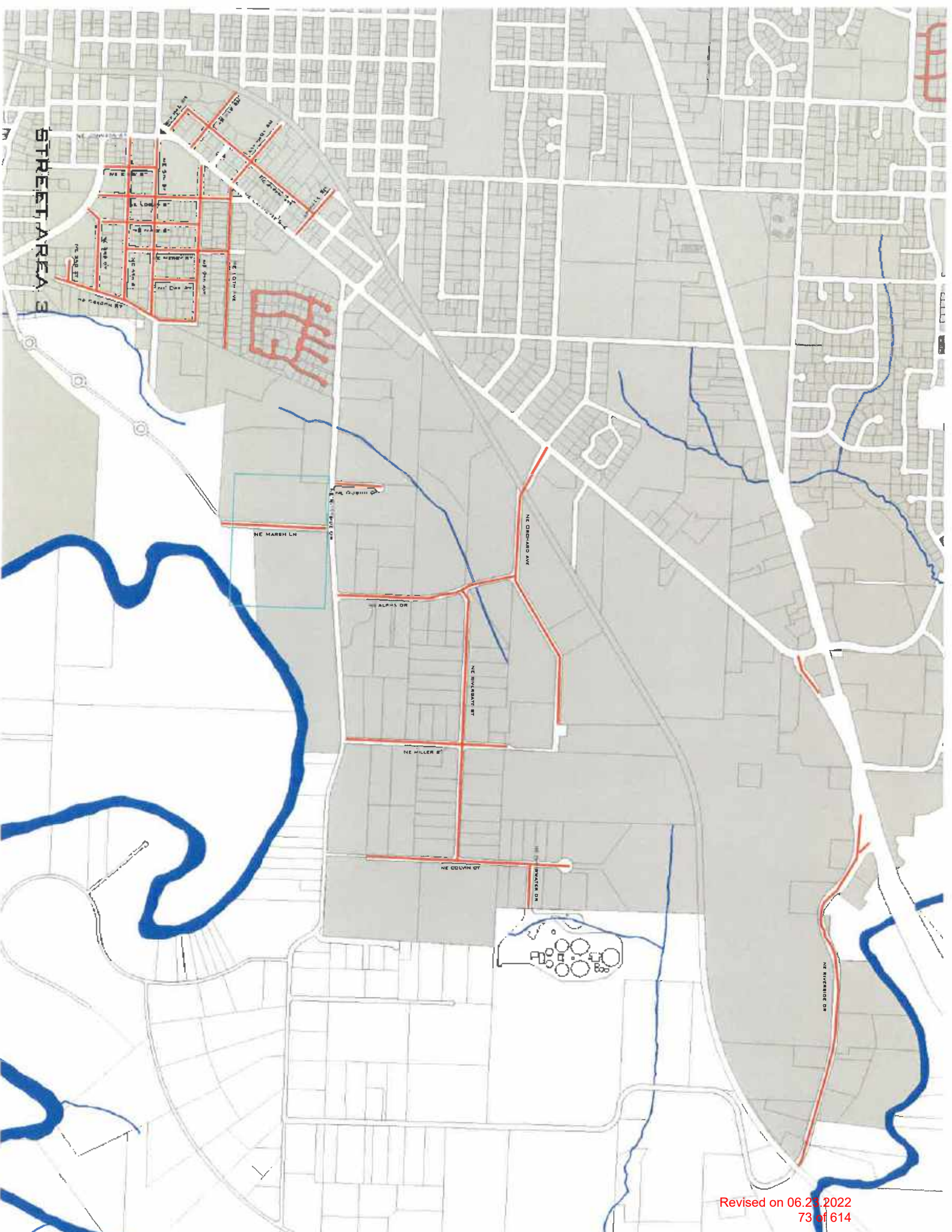
City Attorney
City of McMinnville, Oregon



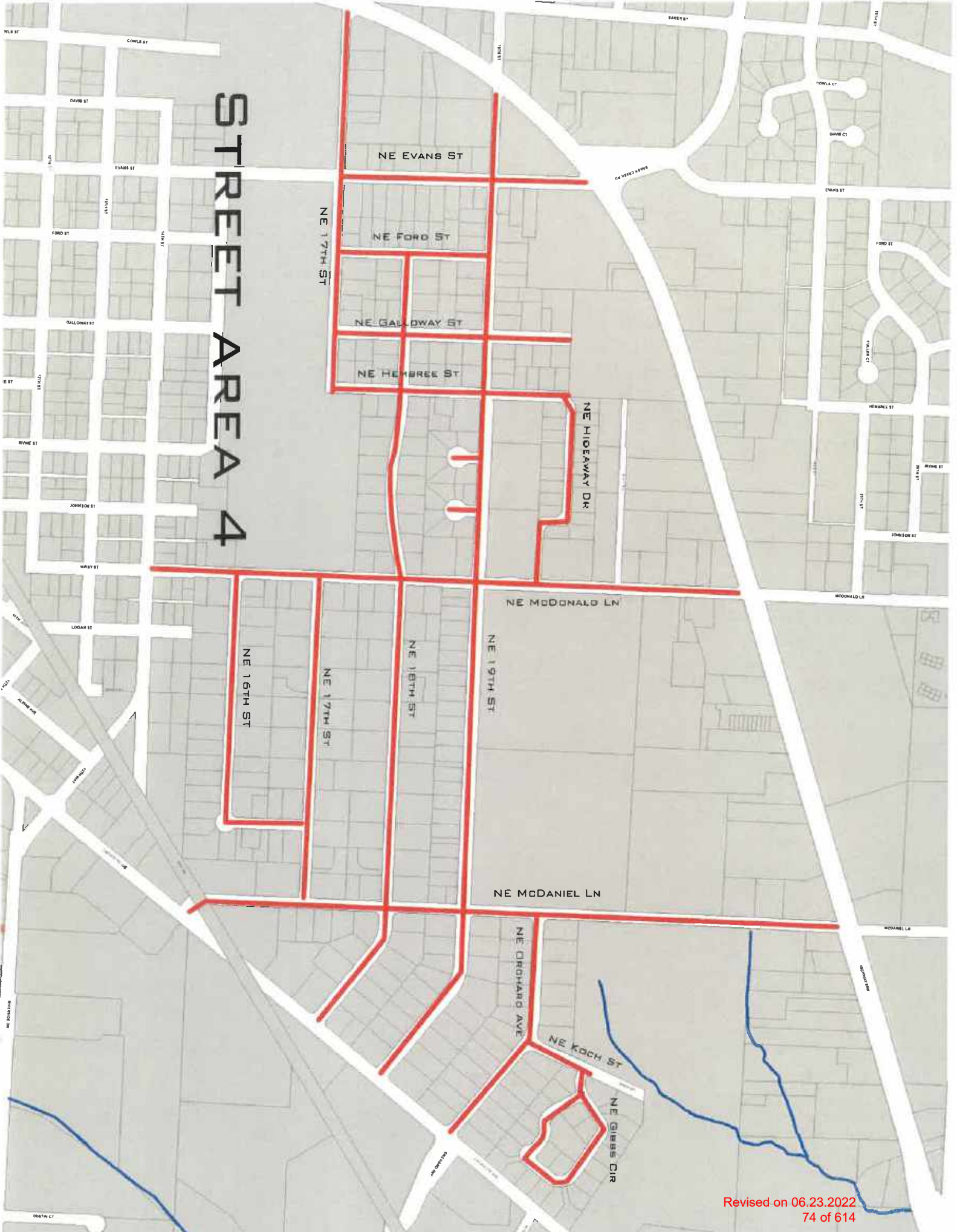
	<u>Curb Miles</u>
Bike Lanes	20.55
Highway	18.51
Area 2	13.91
Area 3	12.42
Area 4	9.72
Area 5	9.42
Area 6	15.92
Area 7	12.40
Area 8	16.75
Area 9	9.80
Area 10	13.82
Area 11	10.75
Area 12	9.27
Area 13	13.60
Area 14	13.13
Area 15	10.05
Area 16	11.35
Area 17	10.27
Area 18	11.15

STREET AREA 2

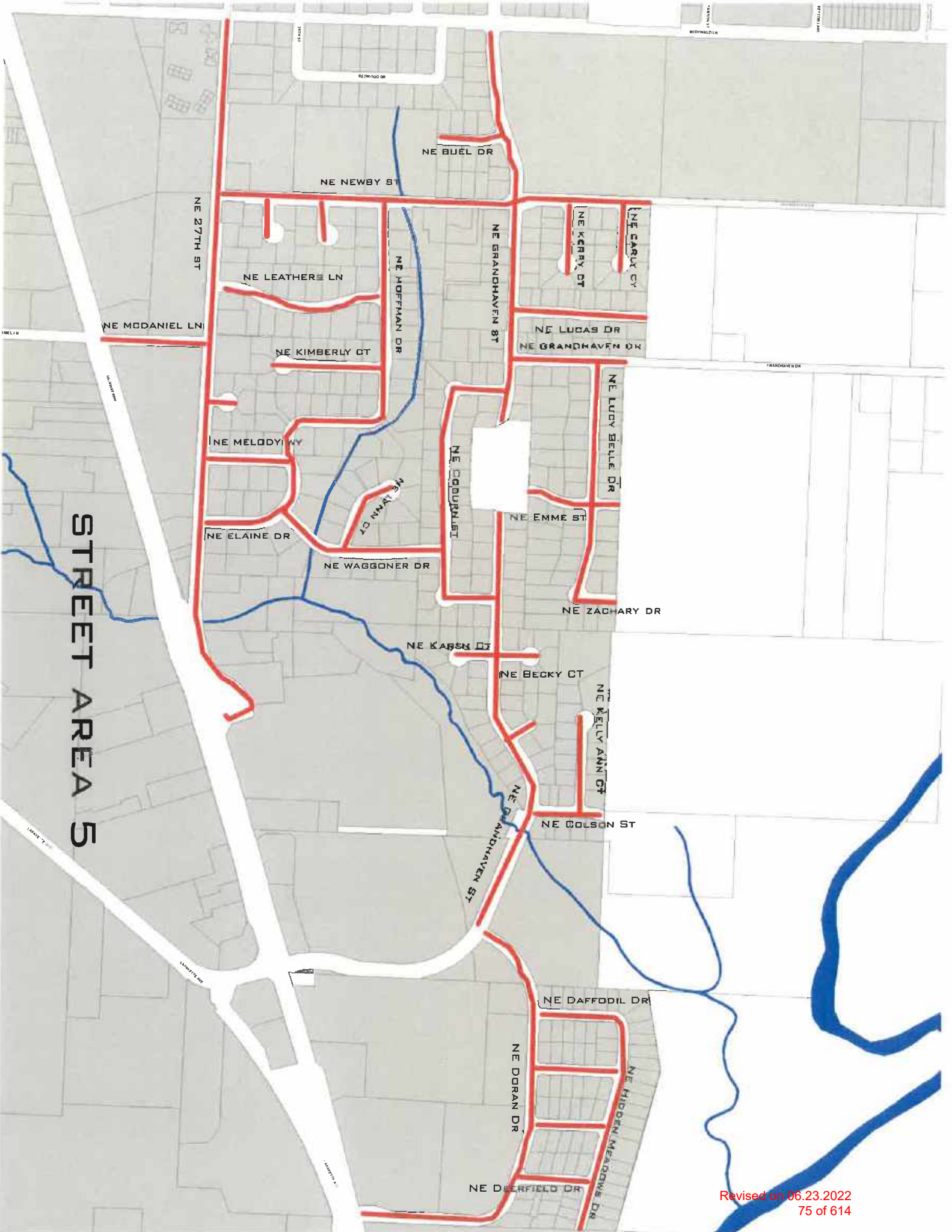




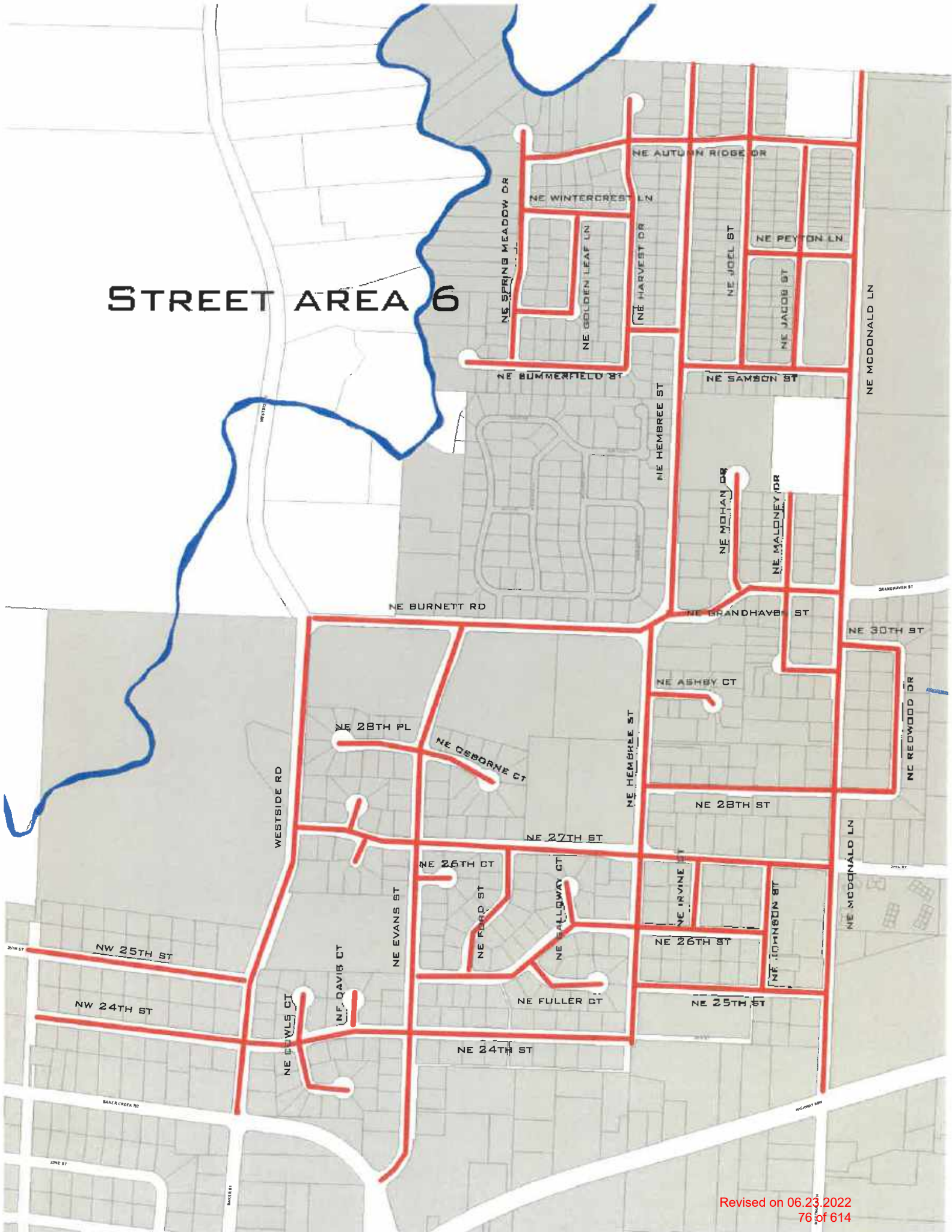
STREET AREA 4

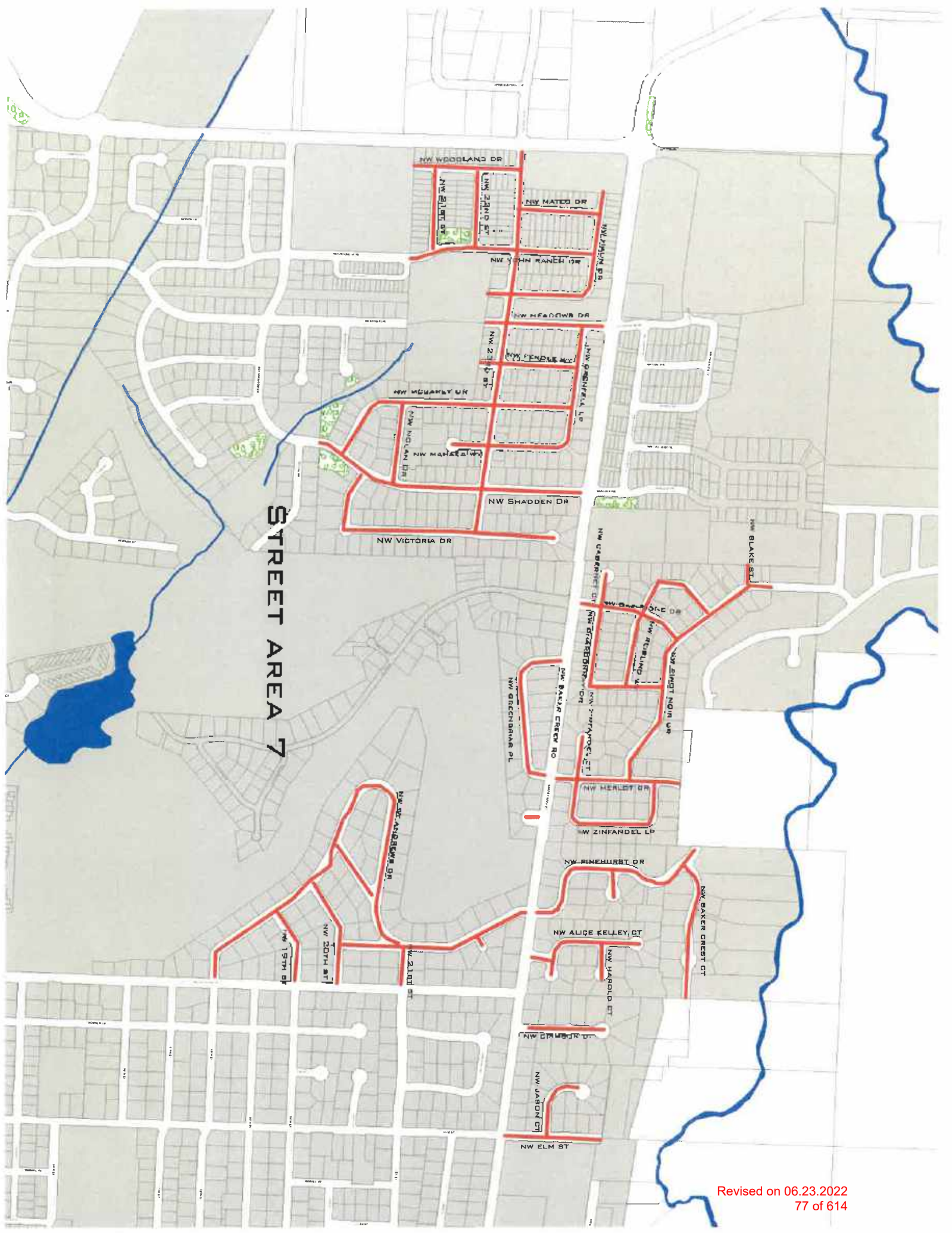


STREET AREA 5

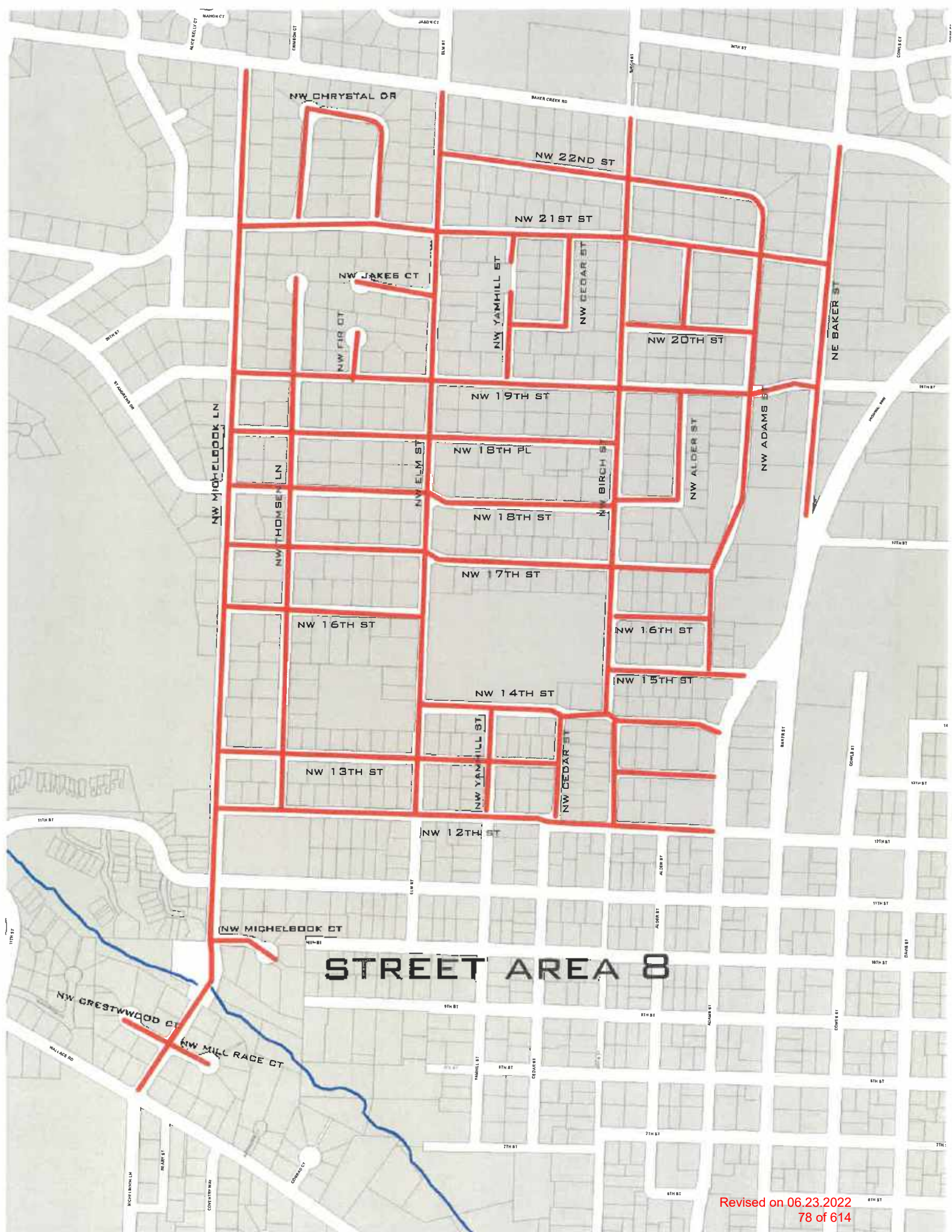


STREET AREA 6



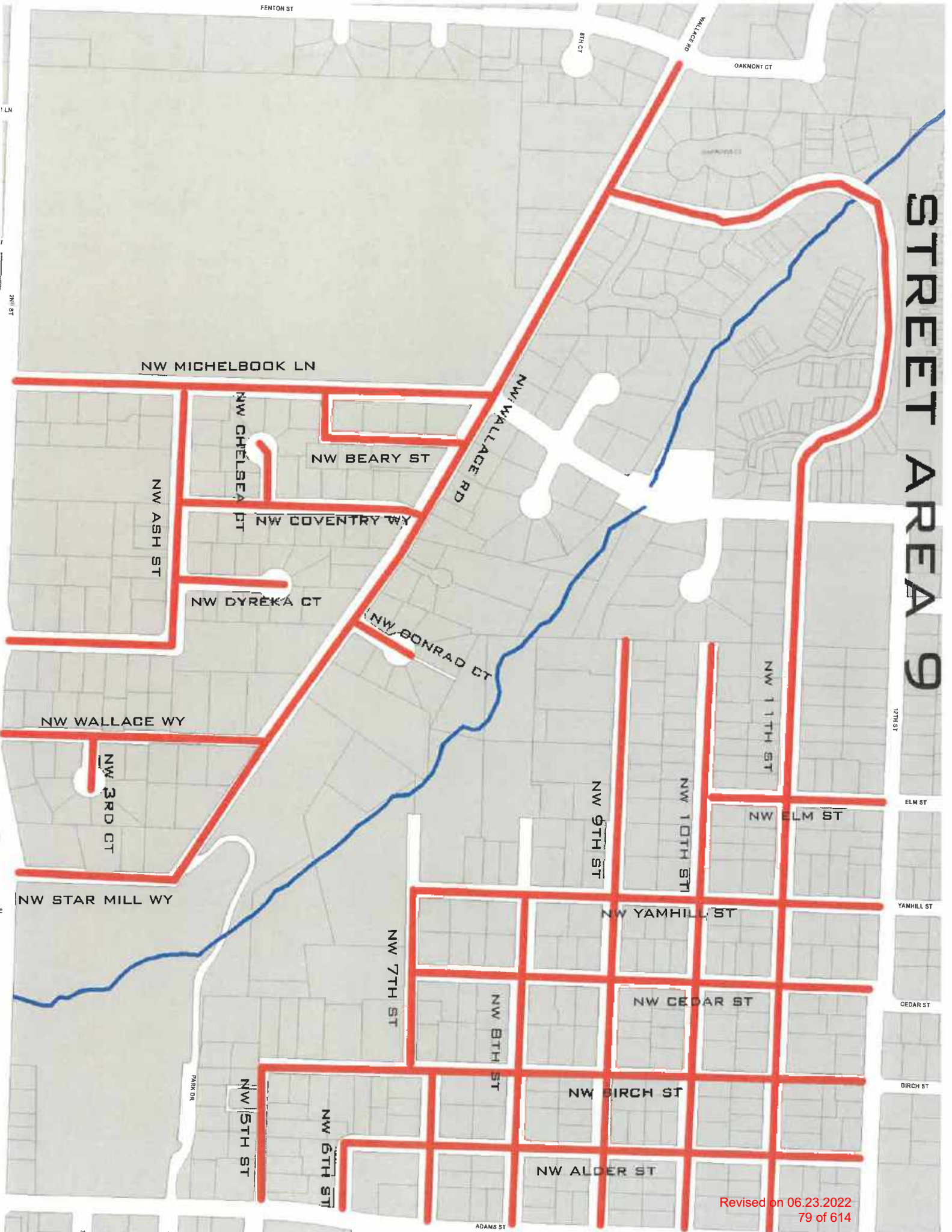


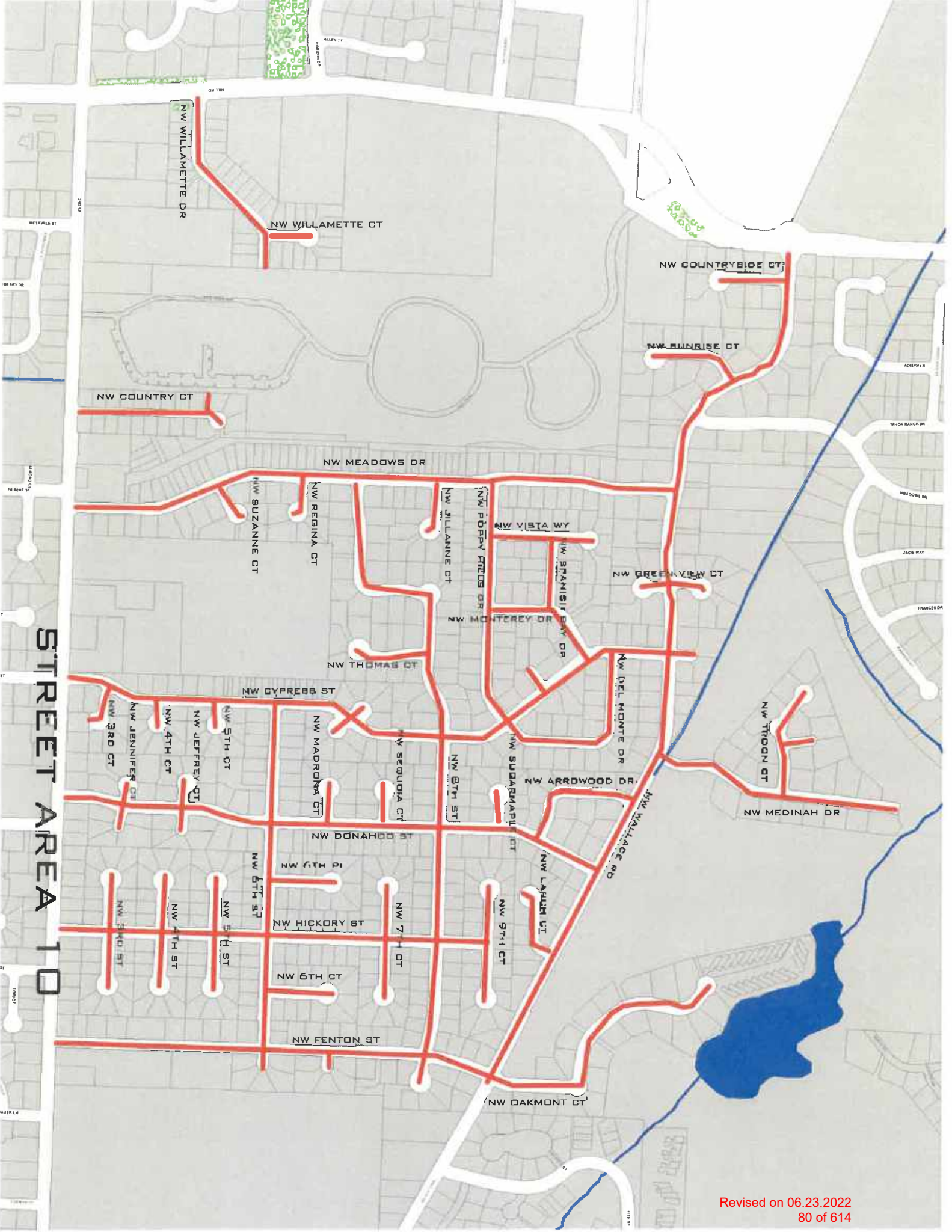
STREET AREA 7



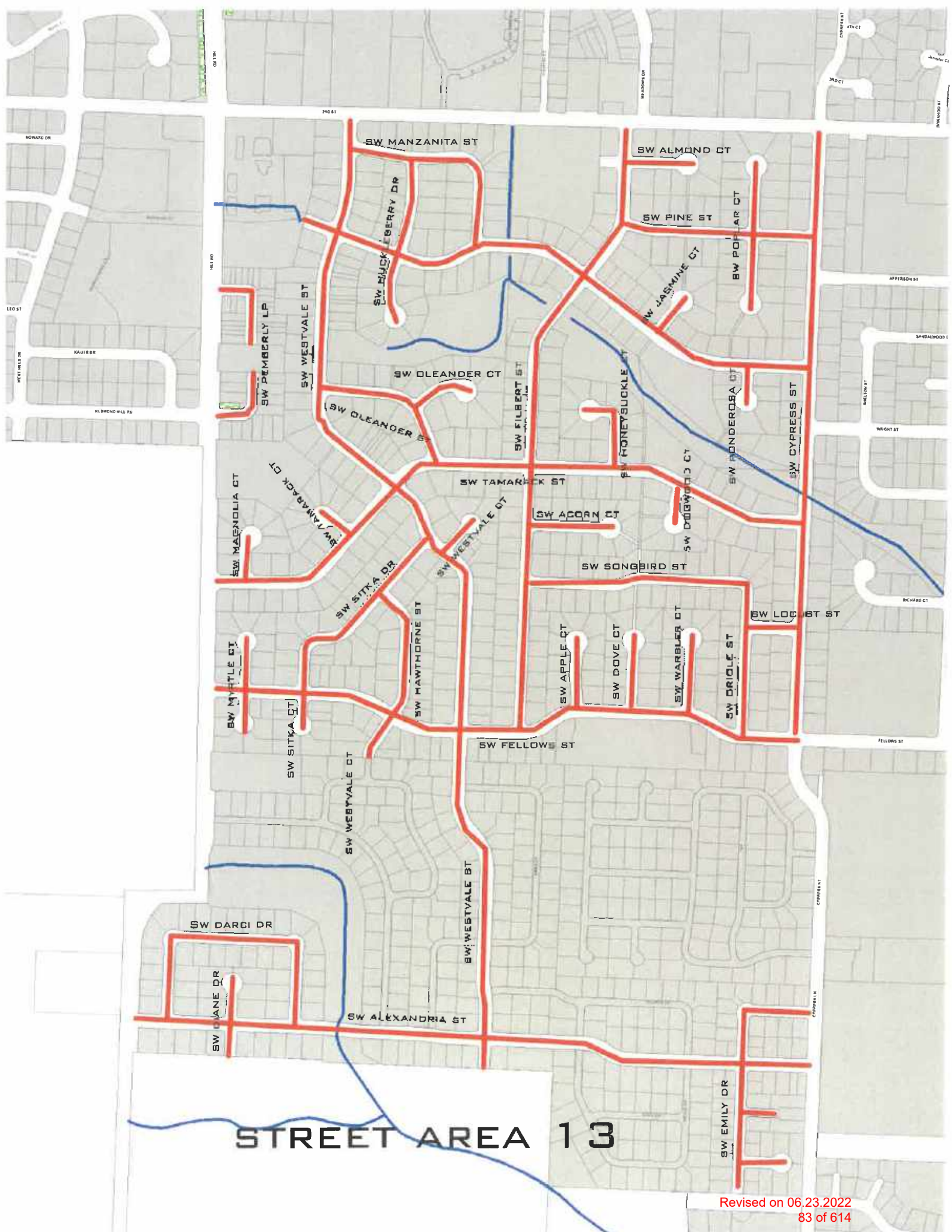
STREET AREA 8

STREET AREA 9



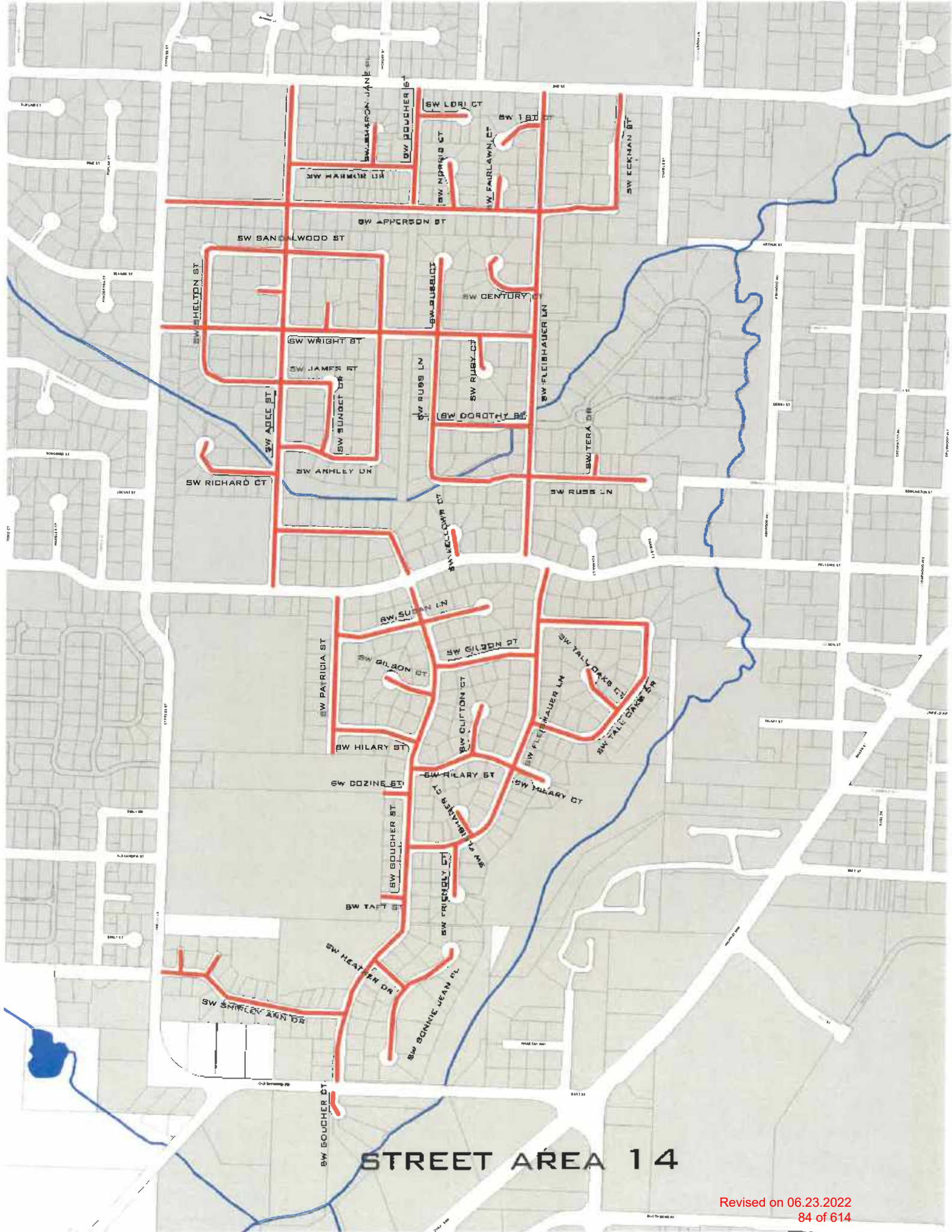


STREET AREA 10

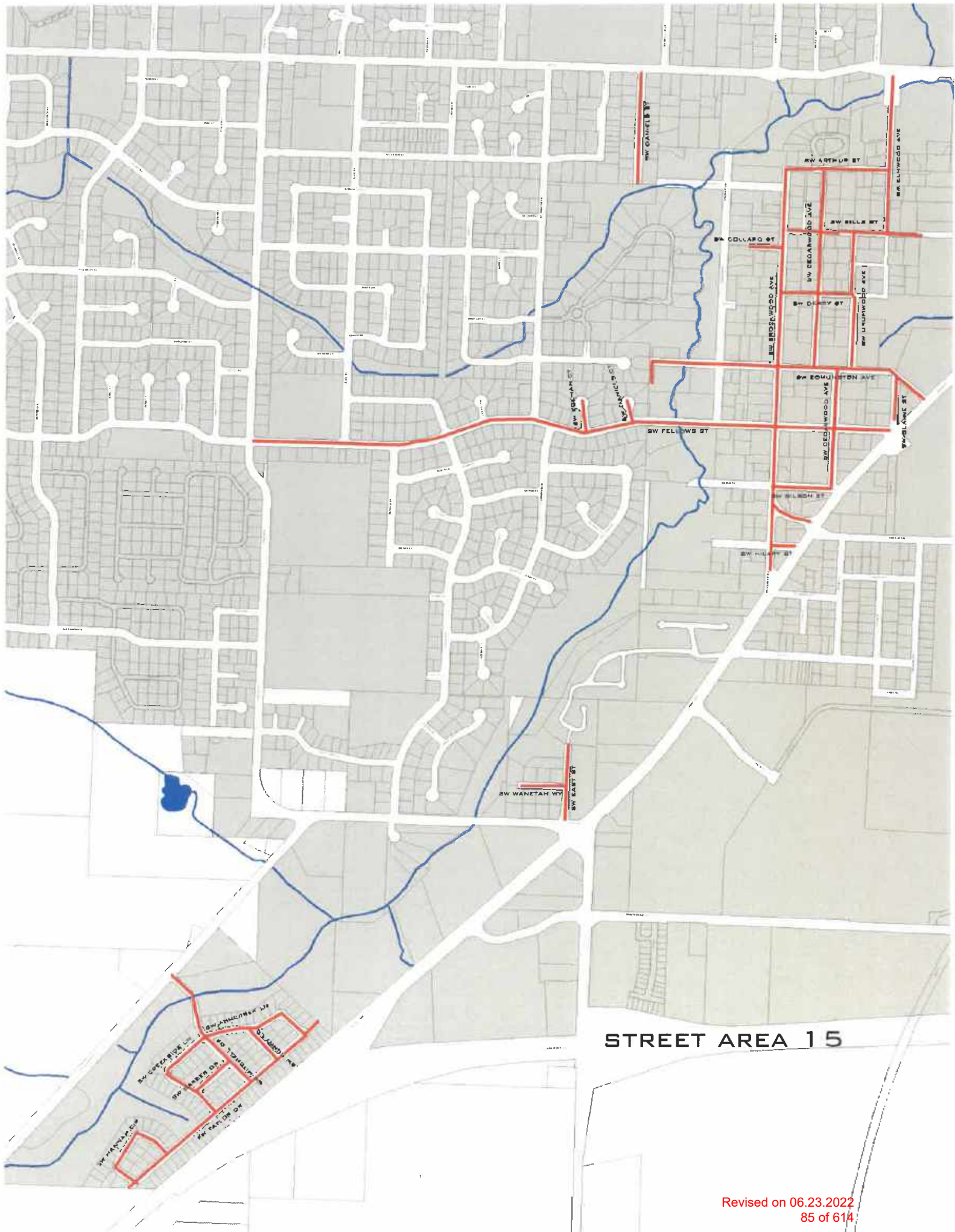


STREET AREA 13

Map labels include street names such as SW MANZANITA ST, SW ALMOND CT, SW PINE ST, SW JASMINE CT, SW POPLAR CT, SW WESTVALE ST, SW BLACKBERRY DR, SW OLEANER CT, SW FILBERT ST, SW HONEYBUCKLE CT, SW PONDROSA CT, SW DYPRESS ST, SW MAENOLIA CT, SW TAMARACK CT, SW TAMARACK ST, SW ACORN CT, SW SONGBIRD ST, SW SONGBIRD CT, SW DORWOOD CT, SW LOCUST ST, SW MYRTLE CT, SW SITKA CT, SW SITKA DR, SW HAWTHORNE ST, SW APPLE CT, SW DOVE CT, SW WARBLER CT, SW DRIFLE ST, SW WESTVALE CT, SW WESTVALE BT, SW FELLOWS ST, SW DARCI DR, SW DIANE DR, SW ALEXANDRIA ST, SW EMILY DR, and SW DORWOOD CT. Other labels include 120 ST, 140 ST, 160 ST, 180 ST, 200 ST, 220 ST, 240 ST, 260 ST, 280 ST, 300 ST, 320 ST, 340 ST, 360 ST, 380 ST, 400 ST, 420 ST, 440 ST, 460 ST, 480 ST, 500 ST, 520 ST, 540 ST, 560 ST, 580 ST, 600 ST, 620 ST, 640 ST, 660 ST, 680 ST, 700 ST, 720 ST, 740 ST, 760 ST, 780 ST, 800 ST, 820 ST, 840 ST, 860 ST, 880 ST, 900 ST, 920 ST, 940 ST, 960 ST, 980 ST, 1000 ST, 1020 ST, 1040 ST, 1060 ST, 1080 ST, 1100 ST, 1120 ST, 1140 ST, 1160 ST, 1180 ST, 1200 ST, 1220 ST, 1240 ST, 1260 ST, 1280 ST, 1300 ST, 1320 ST, 1340 ST, 1360 ST, 1380 ST, 1400 ST, 1420 ST, 1440 ST, 1460 ST, 1480 ST, 1500 ST, 1520 ST, 1540 ST, 1560 ST, 1580 ST, 1600 ST, 1620 ST, 1640 ST, 1660 ST, 1680 ST, 1700 ST, 1720 ST, 1740 ST, 1760 ST, 1780 ST, 1800 ST, 1820 ST, 1840 ST, 1860 ST, 1880 ST, 1900 ST, 1920 ST, 1940 ST, 1960 ST, 1980 ST, 2000 ST.

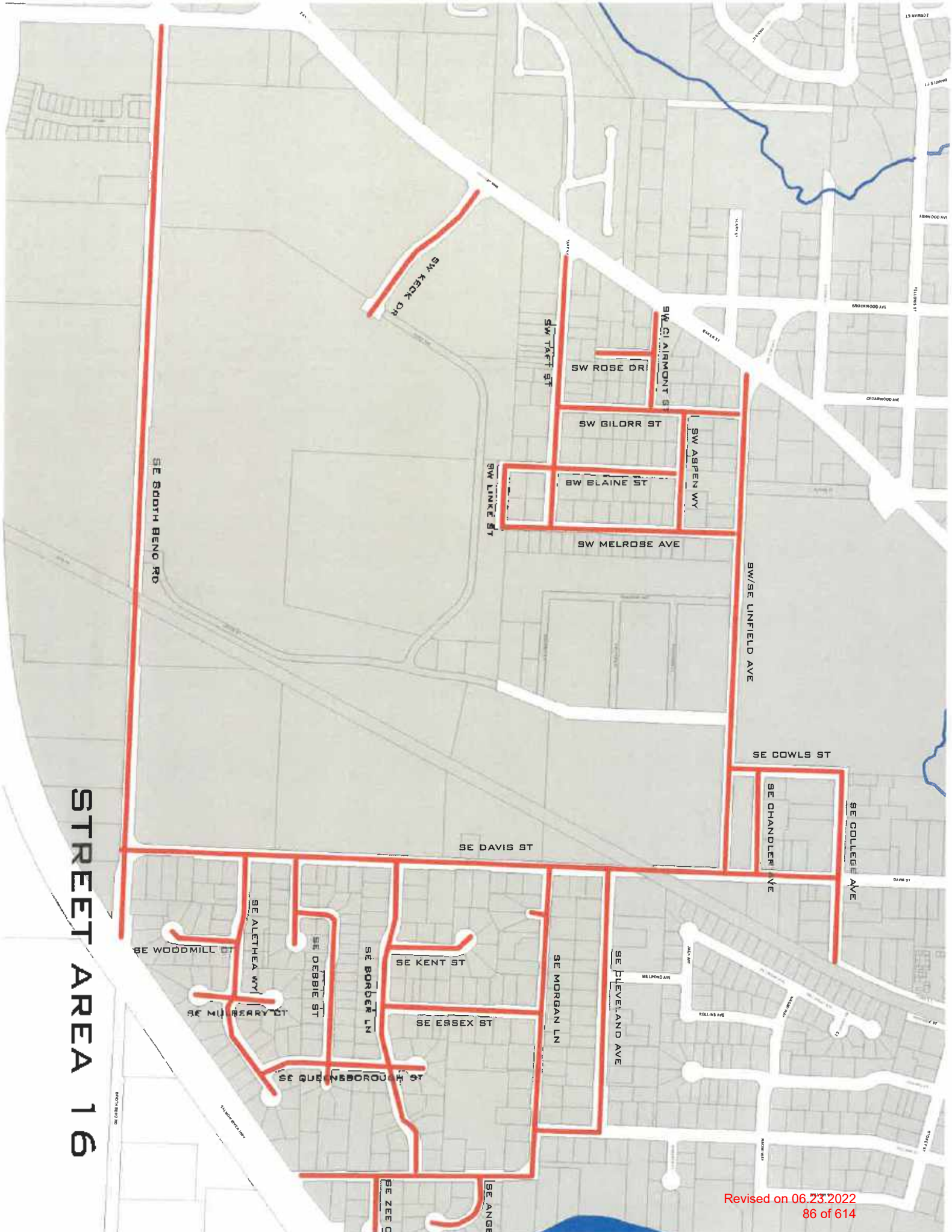


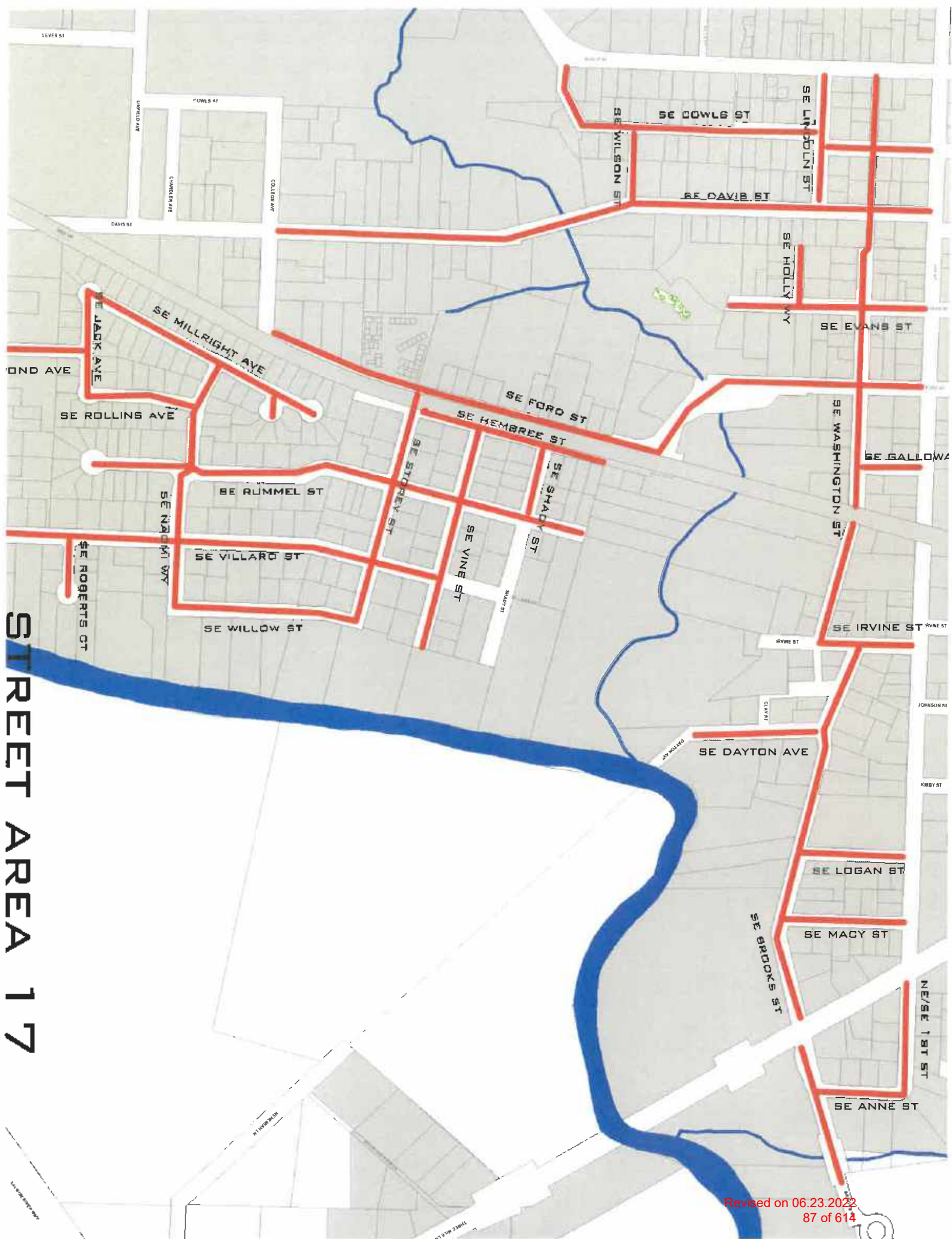
STREET AREA 14



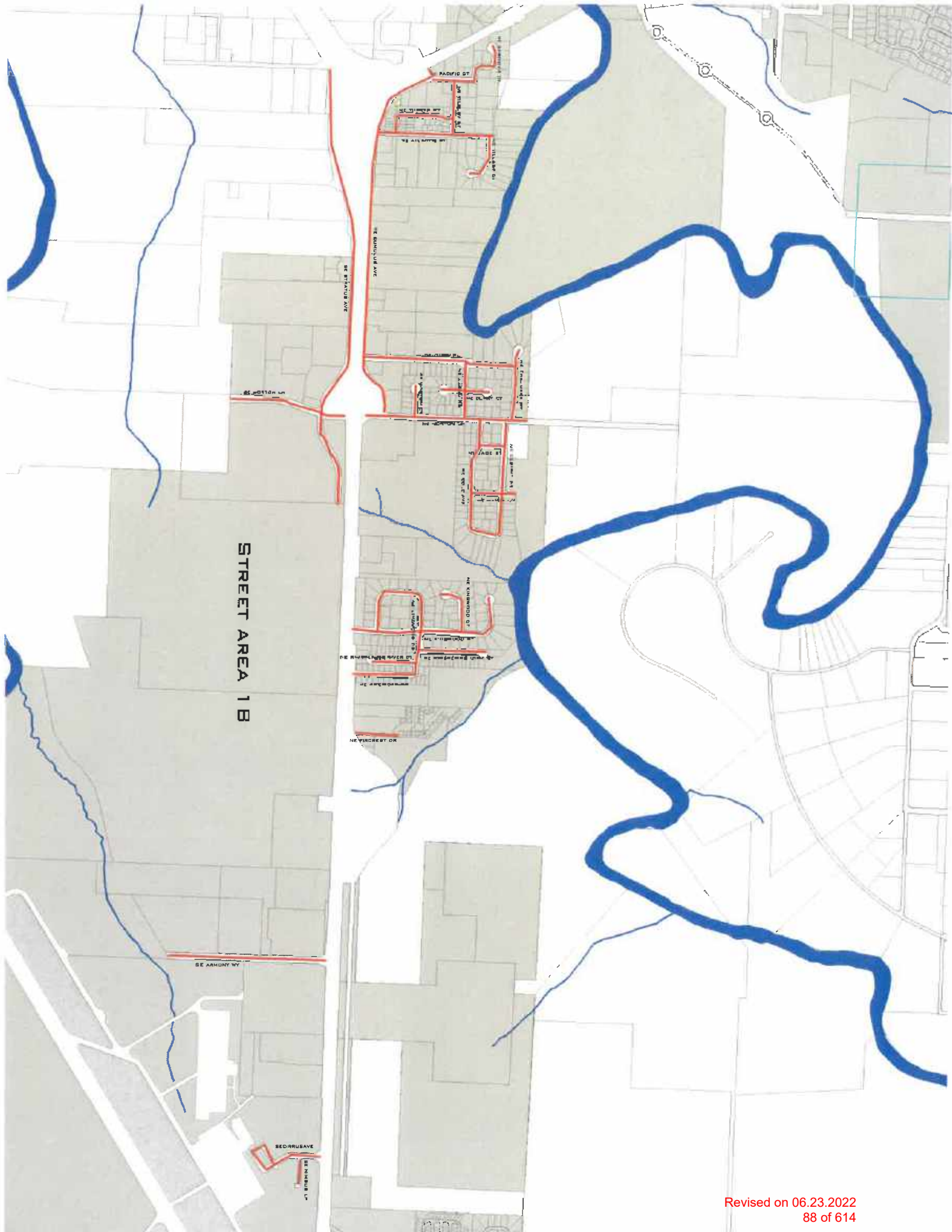
STREET AREA 15

STREET AREA 16

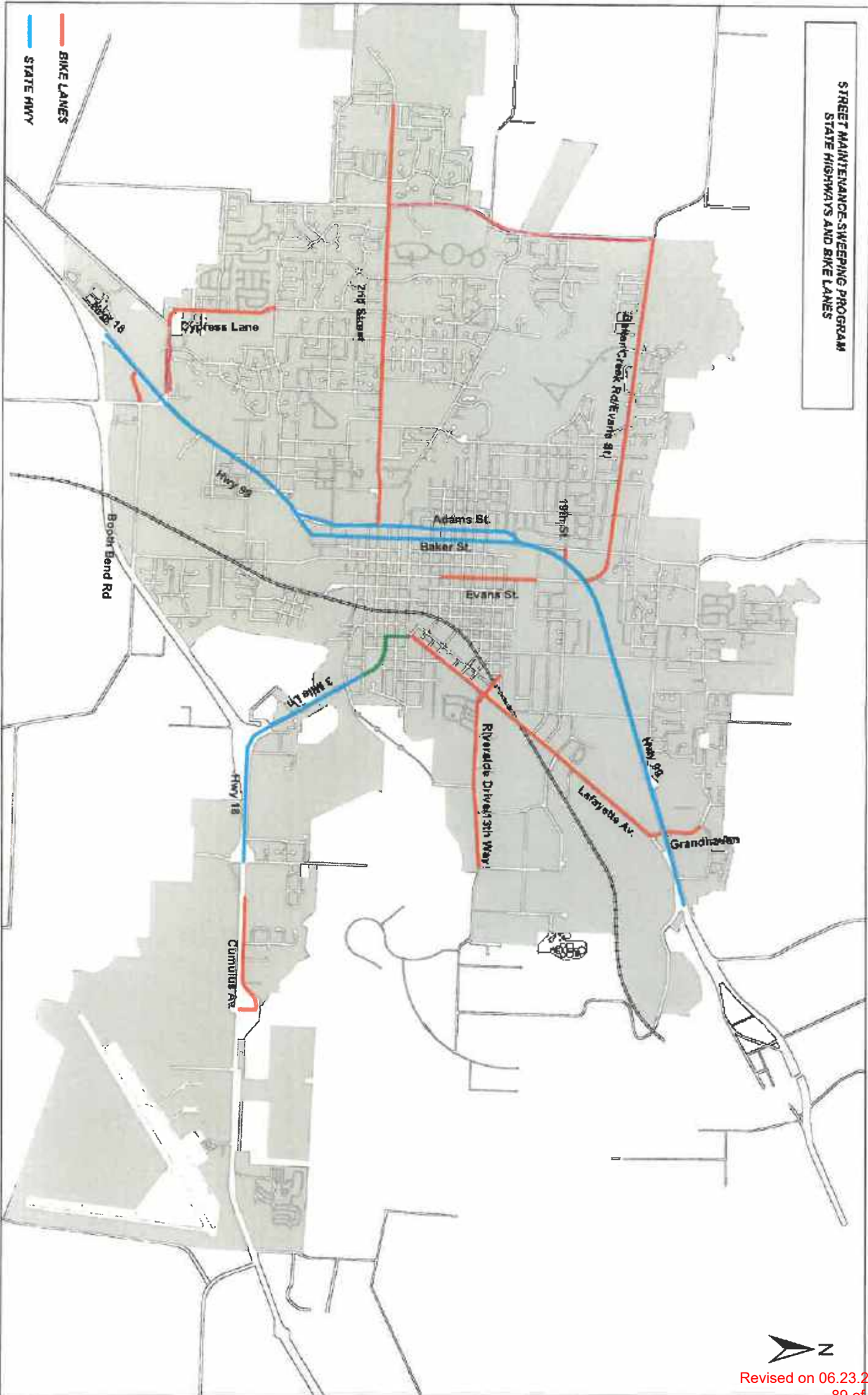




STREET AREA 17



STREET MAINTENANCE SWEEPING PROGRAM
STATE HIGHWAYS AND BIKE LANES





IMPORTANT NOTICE

ADDENDUM #1

Addendum Issue Date: June 2, 2022

REQUEST FOR PROPOSAL CITYWIDE STREET SWEEPING SERVICES 2022

Please note the following changes or modifications being made to the above referenced request for proposal (RFP):

1. **Section I (C)(7) Handling and Disposal of Sweeping Debris** is modified as follows:

The first paragraph is replaced in its entirety with the following:

Contractor shall dispose of sweeping debris by methods approved by DEQ and the City. With the exception of sweeping debris that is predominantly comprised of leaves, all sweeping debris shall be taken to a DEQ approved disposal site or transfer station for disposal. Contractor shall include in their proposal a detailed description of:

- Who is managing the process of debris disposal
- How the debris is being handled
- Where the debris is being disposed
- A description of the equipment used
- Tipping fees for debris disposal (cost per ton material) at disposal site

The City will work directly with the Contractor's disposal site to be billed directly for disposal; the Contractor shall not incur disposal fees. The only cost to the Contractor shall be for travel time and fuel. Prior to the start of services under this contract, the City's Project Manager and Contractor shall review the process for disposal at the Contractor's selected site.

2. **Section III (B)(3) Proposed Approach and Schedule** is modified as follows:

The section is replaced in its entirety with the following:

Proposed Approach and Schedule (25 points maximum)

Provide a written narrative of not more than four (4) pages that:

- Identifies the firm's planned work plan to accomplish the requirements outlined in the "Background and Scope of Work" section of this RFP (see page 4);
- Includes a detailed explanation of any planned deviations or modifications to the City's existing designated service areas;
- Outlines the proposed draft schedule for the work plan;
- Describes the firm's staff and resource capacity to respond to time-sensitive or short notice requests
- Outlines the planned approach to debris disposal outlined in the Section I C(7) "Handling and Disposal of Sweeping Debris"

3. **Section III (B)(5) Proposed Cost** is modified as follows:

The section is replaced in its entirety with the following:

Proposed Cost (30 points maximum)

Complete and submit the "Cost Proposal" form (attachment #3 to the RFP)

Cost evaluation will be based a review and estimate of total sweeping program costs, including

- Sweeping rates based on proposed hourly rates and estimated hours
- Hauling rates based on proposed hourly rates and estimated hours
- Estimated tipping fees the City will be responsible for, based on the per ton tipping fee cost provide in the Contractor's proposal and the City's estimate of annual debris tonnage provided in Section I (C)(1).

Please note that all other provisions of the RFP remain as written.

All proposers are reminded to acknowledge and date the receipt of all Addenda on the Cost Proposal Signature page (attachment #3 to the RFP).

Further questions regarding this Addendum #1 or the RFP should be directed to David Renshaw, PW Operations Superintendent, 503.434.7316 or david.renshaw@mcminnvilleoregon.gov

TABLE OF CONTENTS

- 1. *Transmittal Letter***
- 2. *Firm and Team Qualifications***
 - a. *Background of the firm***
 - b. *Anticipated members of firm assigned to meet City's needs***
 - c. *Qualifications of the firm in performing this type of work/project experience***
- 3. *Proposed Approach and Schedule***
 - a. *Scope and Schedule of Work/General Understanding of needs for street sweeping/Availability to meet City's needs***
 - b. *Handling and disposal of sweeping debris***
 - c. *Staffing and resources for emergency response***
- 4. *Proposed Equipment (street sweeping and debris hauling)***
 - a. *Equipment list (photos)***
 - b. *Equipment service plan***
- 5. *Proposed Cost (cost proposal form – separate attachment)***
- 6. *Proposed changes to City of McMinnville Goods and Services Contract***

1. *Transmittal Letter*



Address PO Box 6038 Vancouver, WA 98668-6038

Phone (503) 90-CLEAN or 360-772-0899

Fax 360-952-8381

Email pres.greensweep@gmail.com

Web www.greensweepasphalt.com

June 7, 2022

City of McMinnville
Public Works Operations and Maintenance
David Renshaw
David.renshaw@mcminnvilleoregon.gov
1900 NE Riverside Dr. McMinnville, OR 97128
503-434-7316

We are excited for the opportunity to provide our submission in response to RFP for Citywide Street Sweeping Services 2022 for City of McMinnville.

Green Sweep is a woman-owned, family operated, small business started in 2011 and we seek to provide high quality, eco-friendly work at reasonable prices. We hold a Federal Disadvantaged Business Enterprise (DBE) and State Women Business Enterprise (WBE) certifications from the State of Washington Office of Minority and Women's Business Enterprises as well as a Women Business Enterprise (WBE) certification in Oregon from the Certification Office for Business Inclusion and Diversity (COBID). We have experienced operators that are TWIC certified, and able to pass criminal background checks paired with eco-friendly Tymco regenerative air sweepers, which are two key parts to our ever-growing business. Our employees are determined to exceed all your expectations with superior quality, whether it be a customized job or just standard services, you can rely on us. Our 100% satisfaction guarantee gives our customers comfort in knowing they will be taken care of no matter what; our team is ready to serve all your needs. We are licensed and insured, and pride ourselves on being very efficient and maximize the use of recycling centers and processes to manage waste materials and lessen the contributions to landfill waste.

We have identified confidential material contained in this proposal with this "TRADE SECRET THIS PAGE" and made sure that all materials on the associated page met this designation, so that it can easily be kept separate. The information on these pages may include, but are not limited to, any formula, plan, pattern, process, tool, mechanism, compound, procedure, production data, or compilation of information which is not patented, which is known only to certain individuals within an organization and which is used in a business it

conducts, having actual or potential commercial value, and which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it.

We are confident that after reviewing our proposal, you will decide that Green Sweep Asphalt Service is the right choice for your sweeping needs in the City of McMinnville for many years to come. We are prepared to provide street sweeping and removal of debris that meets or exceeds the expectations of the City's Project Manager or designee as required for approximately 203.5 sweeping miles of McMinnville residential streets and 38.5 arterials/collectors/state highways. We will sweep all residential streets every 6 weeks between January and October for a total of seven (7) sweeps per year, while the arterials/collectors/state highways will be swept monthly. In addition, we will support the City's curb-side leaf collection program during the months of November and December. All sweeping will be performed per the designated schedule or as requested/approved by the City's Project Manager or designee. Sweepings will be disposed of at the Coffin Butte Republic Services Landfill except for debris collected during the City's curb-side leaf collection program when the City will coordinate the disposal of leaf material at a local recycling center.

Please let us know if you have any questions. We look forward to continuing to work with your organization!

Sincerely,

Brandon J. Akerill Sr. - Vice President

Oregon

Site: 16371 SW Roy Rogers Rd, Portland, OR 97224

Mailing: 21370 SW Langer Farms Pkwy #142-240 Sherwood, OR 97140

Phone: 503-90-CLEAN or 503-902-5326 x4

Washington

Site: 12312 NE 99th Street Vancouver, WA 98682

Mailing: PO Box 6038 Vancouver WA 98668-6038

Phone: 360-772-0899 x4

Fax: 360-952-8381

Email: pres.greensweep@gmail.com

Web: www.greensweepasphalt.com

GREEN SWEEP ASPHALT SERVICE

3. Proposed Approach and Schedule

a. Scope and Schedule of Work/General Understanding of needs for street sweeping/Availability to meet City's needs

The City of McMinnville has approximately 242 sweeping miles of streets that need to be swept and debris removed on a regular basis. We understand that the city needs a company to perform these services efficiently and effectively with reliable equipment and staff. We believe we are that company! Sweeping of residential streets (203.5 sweeping miles) shall be performed per the City's provided maps/existing designated sections once every six weeks between January and October, for a total of 7 sweeps per year. Residential and bike lane sweeping will be performed Monday through Friday between the hours of 7am and 6pm. Sweeping of arterials, collectors, and state highways shall be performed per the City's provided maps/existing designated sections monthly at night after traffic dies down, but in certain areas before 10pm so as not to disturb residents too late. We will also support the City's curb-side leaf collection program during the months of November and December by providing sweeping services in areas as directed by the City. All sweeping will be performed per a mutually agreed upon schedule that adheres to the City's aforementioned scheduling requirements and will also coordinate with the local solid waste collection company schedule to avoid conflicts during operations.

b. Handling and disposal of sweeping debris

Our Tymco 600 regenerative air sweeper trucks will sweep then dump into drop boxes placed central to the sweeping routes to minimize travel time to the final dump location. Green Sweep will ensure that drop boxes will be serviced regularly and all unscreened sweeping debris will be hauled by a company-owned drop box truck and disposed of at the Coffin Butte Republic Services Landfill located at 29175 Coffin Butte Road Corvallis, OR 97330 and the City will be billed by them directly. Current rates for disposal at Coffin Butte Landfill are \$50/ton, \$18/load environmental fee plus a monthly administrative fee of \$5.25. During the City's curb-side leaf collection program in November and December, the City will coordinate the disposal of leaf material at a local recycling center and sweepings will be taken when the sweeper is full.

c. Staffing and resources for emergency response

Green Sweep is well staffed and with plenty of equipment to respond to time-sensitive or short notice sweeping requests. In addition to the other trucks running Monday through Friday for the cities of Wilsonville, Tigard, and Gresham, we also have other trucks staffed 7 days per week servicing a variety of customers in Oregon and Washington with the ability to respond to such requests.

5. Proposed Cost (cost proposal form)

- a. Hourly pricing has been adjusted from prior contract as a result of dramatic increases in costs across the board including but not limited to fuel, hard parts, and consumables.
- b. Cost proposal form included as attachment with this submission

6. Proposed changes to City of McMinnville Goods and Services Contract

- a. Section 7.6.1 currently reads *"All overtime in excess of eight (8) hours in any one (1) day or forty (40) hours in any one (1) week when the work week is five (5) consecutive days, Monday through Friday: or"*
 - i. Proposed change to be consistent with Oregon state law of overtime after forty (40) hours worked, *"All overtime in excess of forty (40) hours in any one (1) week when the work week is five (5) consecutive days, Monday through Friday: or"*
- b. Section 7.6.2 currently reads *"All overtime in excess of ten (10) hours in any one (1) day or forty (40) hours in any one (1) week when the work week is four (4) consecutive days, Monday through Friday: or"*
 - i. Proposed change to be consistent with Oregon state law of overtime after forty (40) hours worked, *"All overtime in excess of forty (40) hours in any one (1) week when the work week is four (4) consecutive days, Monday through Friday: or"*

CITYWIDE STREET SWEEPING SERVICES 2022

COST PROPOSAL

TO: Honorable Mayor and City Council
 City of McMinnville
 230 NE Second Street
 McMinnville, Oregon 97128

This Cost Proposal is submitted as an offer by the undersigned, having examined the Request for Proposal Documents, and considered all conditions to be encountered, to enter into a Standard Public Contract with the City of McMinnville (City) to furnish all labor, materials, and equipment, and to perform all work necessary to complete this project, in accordance with the Contract Documents, in consideration of the amounts stated in this Cost Proposal.

PROPOSAL AMOUNTS

The Proposer will provide the following items in accordance with the Request for Proposal requirements, for the prices listed. Further, the Proposer acknowledges that the following unit price bids are of a balanced nature not subject to change.

All quantities listed below are high-side estimates of an annual total. The listed total estimated annual bid cost amounts will only be used to evaluate the proposal. All payments shall be based upon the actual quantities of work performed at the listed unit pricing contained herein.

	ITEM	ESTIMATED QUANTITY	UNIT PRICE (AS NOTED)	TOTAL ESTIMATED ANNUAL BID COST ***
1	Residential Sweeping (203.5 Curb Miles per Sweep)	850 Hours Per Year	\$ <u>135</u> Per Hour	\$ <u>114,750</u>
2	Bike Lane Sweeping (20.55 Curb Miles per Sweep)	120 Hours Per Year	\$ <u>135</u> Per Hour	\$ <u>16,200</u>
3	Highway Sweeping (18.51 Curb Miles per Sweep)	160 Hours Per Year	\$ <u>135</u> Per Hour	\$ <u>21,600</u>
4	Leaf Program Sweeping (610 Curb Miles per Year)	400 Hours Per Year	\$ <u>135</u> Per Hour	\$ <u>54,000</u>

5	Debris Hauling (42 Disposal Hauling per Year)	168 Hours Per Year	\$ 124.20 Per Hour	\$ 20,865.60
6	Special Sweeps	N/A	\$ 165 Per Hour	N/A

*** NOTE: The total estimated annual bid cost amounts will only be used for the evaluation and comparison of the received proposals.

The undersigned declares by the signing of this Proposal that the bid prices include the entire cost of each item of work set forth in the Request for Proposal Documents, and the Proposer has prepared the Cost Proposal so that the bid for each item is complete.

NON-DISCRIMINATION STATEMENT:

By signing and submitting this Proposal to the City, the Proposer certifies that, per ORS 279A.110, it has not discriminated against any minority, women, or emerging small business enterprises in obtaining any subcontracts.

RESIDENT/NONRESIDENT BIDDER STATUS:

Oregon law requires that the Owner, in determining the lowest responsive bidder, must add a percent increase on the bid of a nonresident bidder equal to the percent, if any, of the preference given to that bidder in the state in which that bidder resides. Consequently, each bidder must indicate whether it is a resident or nonresident bidder. A resident bidder is a bidder that has paid unemployment taxes or income taxes in the state of Oregon during the 12 calendar months immediately preceding submission of this bid, has a business address in Oregon, and has stated in its bid whether the bidder is a "resident bidder". A "nonresident bidder" is a bidder who is not a resident bidder.

The bidder listed above is (check one):

1. A resident bidder
2. A nonresident bidder

Indicate state in which bidder resides: Oregon

ADDENDA:

By signing and submitting this Proposal to the City, Proposer represents that it has examined and carefully studied the Contract Documents, and other data identified in the Contract Documents, and the following Addenda, receipt of which is hereby acknowledged:

<i>ADDENDUM NO.</i>	<i>ADDENDUM DATE</i>
1	6-2-22

SIGNATURE OF PROPOSER:

Name of Bidder: Green Sweep Asphalt Service, LLC

Signature of Authorized Agent:  SR 6-7-22
(Date)

Title: Vice President

(SEAL)

Business Address: 21370 SW Langer Farms
Pkwy #142-240 Sherwood OR
Phone #: 503-902-5326 97140



City of McMinnville
City Attorney's Office
230 NE Second Street
McMinnville, OR 97128
(503) 434-7312

www.mcminnvilleoregon.gov

STAFF REPORT

DATE: June 8, 2022
TO: Jeff Towery, City Manager
FROM: Jeff Gooden, Project Manager
SUBJECT: Janitorial Services Contract Extension

Report in Brief:

Staff seeks authorization by the Council to extend the City's current contract with Garten Services, Inc. ("Garten") to provide janitorial services within City facilities through June 30, 2023. The current contract expires June 30, 2022, and any extension will require Council approval.

Background:

The Oregon public contracting statutes require government entities to procure certain products and services from qualified nonprofit agency for individuals with disabilities pursuant to ORS 279.835 *et seq.* Janitorial services are included in the state's list of services. The City currently contracts with Garten to provide janitorial services within City facilities. Garten is a qualified nonprofit agency for individuals with disabilities.

Discussion:

Staff seeks approval from the Council to amend the contract with Garten and extend the contract for an additional twelve months. The total annual contract amount is \$277,411.44.

Staff requests approval for the contract extension. The additional cost of the contract exceeds administrative authority without Council approval.

Attachments:

- Attachment 1: Current Goods and Services Contract with Garten
- Attachment 2: 2022-2023 City Facility Janitorial Services Contractors Pricing
- Attachment 3: Resolution No. 2022-43

Exhibit A – Third Amendment to Goods and Services Contract with Garten

Fiscal Impact:

Contract extension will be for \$277,411.44. This will bring the total contract for FY 23 to \$277,411.44 Janitorial work is included in the FY23 approved budget.

Recommendation:

Adopt Resolution No. 2022-43

RESOLUTION NO. 2022-01

A Resolution authorizing an extension to the Goods and Services Contract with Garten Services, Inc. for Janitorial Services.

RECITALS:

Whereas, on July 1, 2021, the City of McMinnville (City) and Garten Services, Inc. (Contractor) entered into a goods and services contract for City facility janitorial services through and including September 30, 2021 (Original Term); and

Whereas, on October 1, 2021, the City extended their contract with the Contractor through December 31, 2021 with a 3% rate increase.

Whereas, prior to the expiration of the Original Term, the City and Contractor engaged in good faith negotiations regarding the City's desire for continued janitorial services while the City worked to determine a long term scope for janitorial services within City facilities; and

Whereas, the parties now agree to extend the contract through and including June 30, 2022 at the same rate as negotiated in the October 1, 2021 extension.

NOW, THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMINNVILLE, OREGON, as follows:

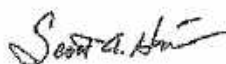
1. The City Manager is hereby authorized and directed to execute the contract extension, in substantially similar form to Exhibit A attached hereto and incorporated by reference herein.
2. That this resolution shall take effect immediately upon passage and shall continue in full force and effect until revoked or replaced.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 11th day of January, 2022 by the following votes:

Ayes: Drabkin, Garvin, Geary, Menke, Peralta, Chenoweth

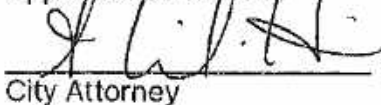
Nays: _____

Approved this 11th day of January 2022.



MAYOR

Approved as to form:



City Attorney

Attest:

City Recorder

EXHIBITS:

- A. Second Amendment to Goods and Services Contract with Garten

CITY OF McMINNVILLE
SECOND AMENDMENT TO GOODS AND SERVICES CONTRACT

Janitorial Services

This Second Amendment to Goods and Services Contract ("Second Amendment") is effective the 1st day of January 2022 ("Effective Date"), by and between the **City of McMinnville**, a municipal corporation of the State of Oregon ("City"), and **Garten Services, Inc.**, an Oregon non-profit corporation ("Contractor"), upon the terms and conditions set forth below.

RECITALS

WHEREAS, the City entered into a Goods and Services Contract ("Contract") with Contractor on July 1, 2021 relating to the Janitorial Services Project ("Project"); and

WHEREAS, the City entered into a First Amendment to Goods and Services Contract ("First Amendment") with Contractor on October 10, 2021; and

WHEREAS, the City seeks to extend the term of the Contract; and

WHEREAS, Contractor represents that Contractor is qualified to perform the Services described herein on the basis of specialized experience and technical expertise; and

WHEREAS, Contractor is prepared to provide such Services as the City does hereinafter require;

NOW, THEREFORE, in consideration of these mutual promises and the terms and conditions set forth herein, the parties agree as follows:

AGREEMENT

The Contract is amended as follows:

Section 1. Term

The term of the Contract is hereby extended to June 30, 2022.

Section 2. Compensation

The City agrees to continue to pay Contractor on a time and materials basis at the same rate as stated in the First Amendment.

Section 3. All Other Terms

All of the other terms and conditions of the Contract shall remain in full force and effect, as therein written. Unless otherwise defined herein, the defined terms of the Contract shall apply to this Second Amendment.

The Contractor and the City hereby agree to all provisions of this Second Amendment.

CONTRACTOR:

GARTEN SERVICES, INC.

By: 

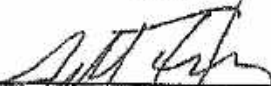
Print Name: William Posegate

As Its: COO

Employer I.D. No. 93-0582004

CITY:

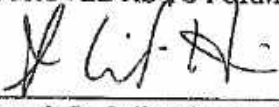
CITY OF McMinnville

By: 

Print Name: Jeff Towery

As Its: City manager

APPROVED AS TO FORM:



Amanda R. Guile-Hinman, City Attorney
City of McMinnville, Oregon

Attachment 1

CITY OF McMinnville, OREGON

2022 - 2023 CITY FACILITY JANITORIAL SERVICES

Project No. 2021-4

CONTRACTORS PRICING

	LOCATION	AMOUNT (PER MONTH)
1	CITY HALL 230 NE Second Street	\$933.07
2	COMMUNITY DEVELOPMENT CENTER 231 NE Fifth Street	\$955.32
3	FIRE STATION 175 NE First Street	\$1,124.73
4	LIBRARY 225 NW Adams Street	\$3,480.44
5	COMMUNITY CENTER 600 NE Evans Street	\$4,776.48
6	SENIOR CENTER 2250 NE McDaniel Lane	\$1879.40
7	PUBLIC WORKS 1900 NE Riverside Drive	\$419.14
8	WATER RECLAMATION FACILITY 3500 NE Clearwater Drive	\$1,206.72
9	AQUATIC CENTER 138 NW Park Drive	\$3,805.98
10	PUBLIC SAFETY BUILDING 121 SW Second Street	\$3245.71
11	CIVIC HALL 200 NE Second Street	\$1,038.35
12	PARKING GARAGE NE 5 th and Evans	\$250.00
MONTHLY TOTAL: (ALL LOCATIONS)		\$23,117.62
TOTAL ANNUAL CONTRACT AMOUNT: (MONTHLY TOTAL X 12)		\$277,411.44

SIGNATURE OF CONTRACTOR:

Name of Contractor: _____

Signature of Authorized Agent: _____ (Date)

Title: _____

(SEAL) Business Address: _____

Phone #: _____

Workers Comp. Insurance Company: _____

Workers Comp. Policy/Binder Number: _____

RESOLUTION NO. 2022 - 43

A Resolution authorizing an extension to the Goods and Services Contract with Garten Services, Inc. for Janitorial Services.

RECITALS:

Whereas, on July 1, 2021, the City of McMinnville (City) and Garten Services, Inc. (Contractor) entered into a goods and services contract for City facility janitorial services through and including September 30, 2021 (Original Term); and

Whereas, on October 1, 2021, the City extended their contract with the Contractor through December 31, 2021 with a 3% rate Increase.

Whereas, prior to the expiration of the Original Term, the City and Contractor engaged in good faith negotiations regarding the City's desire for continued janitorial services while the City worked to determine a long term scope for janitorial services within City facilities; and

Whereas, the parties now agree to extend the contract through and including June 30, 2022; and

Whereas, the parties now agree to extend the contract through and including June 30, 2023 with a price increase shown on the 2022-2023 City Facility Janitorial Services Contractors Pricing.

NOW, THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMINNVILLE, OREGON, as follows:

1. The City Manager is hereby authorized and directed to execute the contract extension, in substantially similar form to Exhibit A attached hereto and incorporated by reference herein.
2. That this resolution shall take effect immediately upon passage and shall continue in full force and effect until revoked or replaced.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 28th day of June, 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 28th day of June 2022.

INTERIM MAYOR

Approved as to form:

Attest:

City Attorney

City Recorder

EXHIBITS:

- A. Third Amendment to Goods and Services Contract with Garten

CITY OF McMinnville
Third AMENDMENT TO GOODS AND SERVICES CONTRACT

Janitorial Services

This Third Amendment to Goods and Services Contract (“Third Amendment”) is effective the 1st day of January 2022 (“Effective Date”), by and between the **City of McMinnville**, a municipal corporation of the State of Oregon (“City”), and **Garten Services, Inc.**, an Oregon non-profit corporation (“Contractor”), upon the terms and conditions set forth below.

RECITALS

WHEREAS, the City entered into a Goods and Services Contract (“Contract”) with Contractor on July 1, 2021 relating to the Janitorial Services Project (“Project”); and

WHEREAS, the City entered into a First Amendment to Goods and Services Contract (“First Amendment”) with Contractor on October 10, 2021; and

WHEREAS, the City entered into a Second Amendment to Goods and Services Contract (“Second Amendment”) with Contractor on January 1, 2022; and

WHEREAS, the City seeks to extend the term of the Contract; and

WHEREAS, Contractor represents that Contractor is qualified to perform the Services described herein on the basis of specialized experience and technical expertise; and

WHEREAS, Contractor is prepared to provide such Services as the City does hereinafter require;

NOW, THEREFORE, in consideration of these mutual promises and the terms and conditions set forth herein, the parties agree as follows:

AGREEMENT

The Contract is amended as follows:

Section 1. Term

The term of the Contract is hereby extended to June 30, 2023.

Section 2. Compensation

The City agrees to continue to pay Contractor per the 2022 – 2023 City Facility Janitorial Services Contractors Pricing, Attachment 1.

Section 3. All Other Terms

All of the other terms and conditions of the Contract shall remain in full force and effect, as therein written. Unless otherwise defined herein, the defined terms of the Contract shall apply to this Third Amendment.

The Contractor and the City hereby agree to all provisions of this Third Amendment.

CONTRACTOR:

GARTEN SERVICES, INC.

By: _____

Print Name: _____

As Its: _____

Employer I.D. No. _____

CITY:

CITY OF McMinnville

By: _____

Print Name: _____

As Its: _____

APPROVED AS TO FORM:

City Attorney
City of McMinnville, Oregon



City of McMinnville
City Attorney's Office
230 NE Second Street
McMinnville, OR 97128
(503) 434-7303

www.mcminnvilleoregon.gov

STAFF REPORT

DATE: June 1, 2022
TO: Jeff Towery, City Manager
FROM: Walt Gowell, City Attorney
SUBJECT: Resolution No. 2022-XX, A Resolution Approving a Second Amendment to Personal Services Contract with Erskine Law Practice, LLC to Provide City Prosecutorial Services



OBJECTIVE/S: Identify and focus on the City's core services

Report in Brief:

Resolution No. 2022-44 will authorize the continuation of City Prosecutor services with Erskine Law Practice LLC for fiscal year 2022-23.

Background and Discussion:

Beginning in FY17-18, City Prosecutor services were provided by an in-house Deputy City Attorney. When the prior incumbent resigned to take another position in the spring of 2019, the City filled the service need through a contract with Erskine Law Practice LLC.

On December 8, 2020, the City Council passed Resolution 2020-69, which approved a new contract with Erskine Law Practice LLC to provide city prosecutor services through December 31, 2021.

Sam and Shannon Erskine have been providing prosecutorial services for the City on a contract basis since May 2019. They began their legal careers as judicial clerks in the Multnomah County Circuit Court. In addition, Shannon worked for the

Multnomah County District Attorney's Office and both have provided services to the St. Helens Municipal Court. They have since formed Erskine Law Practice which provides cities with full scale prosecutorial services.

Staff recommends extending the current contract through the end of the fiscal year at the same monthly cost of \$8,654.70 because retaining the current City Prosecutor at the present time, subject to existing contract provisions for early termination of the Contract at the discretion of the City, will provide stability and consistency within the municipal court. Since the cost of the contract amendment exceeds 25% of the original contract amount, Council approval is necessary.

Attachments:

Resolution No. 2022-44

Exhibit 1 to Resolution – First Amendment to Personal Services Contract

Fiscal Impact:

The cost of the contracted services from July 1, 2022 through June 30, 2023 is a total of \$103,856.40. The current line item within the FY23 approved budget for City Prosecutor Services is sufficient to cover this entire cost.

Recommendation:

Approve the Consent Agenda.

RESOLUTION NO. 2022 – 44

A Resolution of the City of McMinnville Approving the Second Amendment to Personal Services Contract with Erskine Law Practice LLC to Provide City Prosecutorial Services.

RECITALS:

WHEREAS, on December 8, 2020, the City passed Resolution 2020-69, approving a Personal Services Contract (“Contract”) between the City and Erskine Law Practice LLC (“Contractor”) to provide City Prosecutor services for the 2021 calendar year; and

WHEREAS, the City desires to continue to contract with Contractor to provide City Prosecutor services through the end of the fiscal year (June 30, 2023); and

WHEREAS, the Contract, if extended, will not increase the monthly fee of \$8,654.70 currently paid to Contractor.

NOW THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMINNVILLE, OREGON as follows:

1. The City of McMinnville incorporates the above-stated findings as if fully set forth herein.
2. The City of McMinnville approves a Second Amendment to Personal Services Contract with Erskine Law Practice LLC to provide City prosecutorial services from July 1, 2022, through June 30, 2023, which Second Amendment is substantially similar to Exhibit 1 attached hereto.
3. This Resolution takes effect immediately upon passage.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 28th day of June 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 28th day of June 2022.

INTERIM MAYOR

Approved as to form:

Attest:

City Attorney

City Recorder

EXHIBITS:

1. Second Amendment to Personal Services Contract with Erskine Law Practice, LLC

CITY OF McMinnville
SECOND AMENDMENT TO PERSONAL SERVICES CONTRACT

City Prosecutorial Services

This Second Amendment to Personal Services Contract (“First Amendment”) is effective the ____ day of _____ 2022 (“Effective Date”), by and between the **City of McMinnville**, a municipal corporation of the State of Oregon (“City”), and **Erskine Law Practice LLC**, an Oregon domestic limited liability company (“Contractor”), upon the terms and conditions set forth below.

RECITALS

WHEREAS, the City entered into a Personal Services Contract (“Contract”) with Contractor on December 9, 2020 relating to City Prosecutorial Services; and

WHEREAS, Contractor represents that Contractor is qualified to perform the Services described herein on the basis of specialized experience and technical expertise; and

WHEREAS, Contractor is prepared to provide such Services as the City does hereinafter require;

NOW, THEREFORE, in consideration of these mutual promises and the terms and conditions set forth herein, the parties agree as follows:

AGREEMENT

The Contract is amended as follows:

Section 1. Term

The term of the Contract is hereby extended through June 30, 2023.

Section 2. Compensation

The City will continue to pay the monthly fee of Eight Thousand Six Hundred Fifty-Four and 70/100 dollars (\$8,654.70) as stated in Paragraph 3(a) of the Personal Services Contract for such services.

Section 3. All Other Terms

All of the other terms and conditions of the Contract shall remain in full force and effect, as therein written. Unless otherwise defined herein, the defined terms of the Contract shall apply to this Second Amendment.

[Reminder of Page Intentionally Left Blank]

The Contractor and the City hereby agree to all provisions of this Second Amendment.

CONTRACTOR:

CITY:

ERSKINE LAW PRACTICE LLC

CITY OF McMinnville

By: _____ By: _____

Print Name: _____ Print Name: _____

As Its: _____ As Its: _____

Employer I.D. No. _____

APPROVED AS TO FORM:

Walter R. Gowell, Interim City Attorney
City of McMinnville, Oregon



City of McMinnville
Community Development Center
231 NE Fifth Street
McMinnville, OR 97128
(503) 434-7312
www.mcminnvilleoregon.gov

STAFF REPORT

DATE: May 25, 2022
TO: Jeff Towery, City Manager
FROM: D. Renshaw, PW Operations Supt.
SUBJECT: Contract Extension: WRF Landscaping

Report in Brief:

This will extend the current contract for annual landscaping services at the Water Reclamation Facility (WRF).

Background:

This is the second extension of the Standard Public Contract for Goods and Services with AR Landscape to provide landscaping services at the WRF. The City's current contract will expire on June 30, 2022.

Discussion:

Based on cost increases for fuel, maintenance, labor, parts and materials, the contractor is requesting a ten percent increase in the monthly rate for landscaping services at the OSP facility:

Current Amount	Proposed Extension Amount
\$3,000/month	\$3,300/month

This results in an estimated annual cost increase for FY 22/23 of \$3,600, or 10%.

The aggregate cost of the contract including Change Order #2 will exceed \$75,000 signing authority of the City Manager and as such will require City Council approval:

<u>ITEM</u>	<u>AMOUNT</u>
Original Contract	\$7,500
Change Order #1	\$36,000
Change Order #2	\$39,600
<u>AGGREGATE TOTAL TO DATE</u>	\$83,100

Attachments:

1. Change Order #1
2. Original contract
3. Resolution No. 2022-50
4. Change Order #2

Fiscal Impact:

Funds for this project are included in the proposed FY22/23 budget. The contract extension work will commence on July 1, 2022 and will end on June 30, 2023.

This three-year term contract can be extended up to two times upon mutual agreement from both the City and AR Landscaping. This is the final extension and the contract will be re-bid in early 2023.

Recommendation:

Staff recommends that the City Council approves the proposed contract extension for the WRF Annual Landscape Maintenance Services Project to AR Landscaping at the proposed monthly cost increase described above with a total estimated annual cost of \$39,600.

CHANGE ORDER NO. 1
to the
STANDARD PUBLIC CONTRACT
for
Water Reclamation Facility Annual Landscape Maintenance Services
Project 2021-1

This Change Order No. 1 amends the standard public contract, dated May 3, 2021, between the City of McMinnville (City) and AR Landscape Inc (Contractor) for Water Reclamation Facility Annual Maintenance Services.

The parties mutually covenant and agree as follows:

1. EFFECTIVE DATE AND DURATION

The expiration date of the contract will be extended to June 30, 2022.

2. STATEMENT OF WORK

All the work requirements under the Contract dated May 3, 2021, remain in effect.

3. CONSIDERATION

The total 2021-2022 fiscal year annual contract for services remains unchanged at \$36,000.00.

4. OTHER CONDITIONS / REQUIREMENTS

The terms and conditions of the Standard Public Contract, except as modified herein, dated May 3, 2021, remain in full force and effect.

For the City:
Approved: **Jeffrey R. Towery**
By: _____
Digitally signed
by Jeffrey R.
Towery
Date: 2021.06.09
16:28:25 -07'00'

Title: _____

Date: _____

For the Contractor:
Approved: _____
By: _____

Title: PRESIDENT

Date: 6-6-2021

CITY OF McMinnville, OR

WATER RECLAMATION FACILITY ANNUAL LANDSCAPE MAINTENANCE SERVICES

Project No. 2021-1

**STANDARD PUBLIC CONTRACT
FOR GOODS AND SERVICES
NOT TO EXCEED \$150,000 (Quotes)**

This Contract is between the CITY OF McMinnville, a municipal corporation of the State of Oregon (City) and AR Landscape Inc. (Contractor). The City's Project Manager for this Contract is Josh Adelman, Project Manager.

The parties mutually covenant and agree as follows:

1. Effective Date and Duration.

The period of this contract shall be April 15, 2021 to June 30, 2021. The contract may be extended if agreed upon in writing by both the City and Contractor. The contract may be extended in one year increments for up to two additional years (to June 30, 2023).

2. Statement of Work.

The work required under this Contract is set forth in Technical Specifications, and is generally described as: WATER RECLAMATION FACILITY ANNUAL LANDSCAPE MAINTENANCE SERVICES. The Contractor shall comply in every way with the requirements of the Contract Documents that are made a part of this Contract by attachment and by this reference.

3. Consideration.

a. The City agrees to pay the Contractor, at the times and in the manner provided in the Contract Documents, in monthly payments of \$ 3,000.00 for a total sum of \$ 36,000.00 over the life of the contract. Payment will only be made for months in which the required services are performed, and will be made at the monthly rate contained in the Contractor's Proposal.

b. The City certifies that sufficient funds are available and authorized for expenditure to finance the cost of this Contract.

[CONTINUED ON NEXT PAGE]

CONTRACTOR DATA, CERTIFICATION, AND SIGNATURE

Name (please print): A. R. LANDSCAPE INC
Address: 1271 N Hwy 99 W #420
Social Security #: _____ Business License # _____
Federal Tax ID #: 93-1291560 State Tax ID #: _____
Construction Contractors Board #: 7251
Citizenship: Nonresident alien Yes No
Business Designation (check one): Individual Sole Proprietorship Partnership
 Corporation Government/Nonprofit

The above information must be provided prior to contract approval. Payment information will be reported to the Internal Revenue Service (IRS) under the name and taxpayer I.D. number provided above. (See IRS 1099 for additional instructions regarding taxpayer ID numbers.) Information not matching IRS records could subject you to 31 percent backup withholding.

I, the undersigned, understand that the Standard Terms and Conditions For Public Improvement Contracts and Exhibits A, B, C, and D are an integral part of this contract and agree to perform the work described in the Contract Documents in accordance with the terms and conditions of this contract; certify under penalty of perjury that I/my business am not/is not in violation of any Oregon tax laws; and certify I am an independent contractor as defined in ORS 670.600.

Signed by Contractor: [Signature] 4-27-2021
Signature/Title Date

NOTICE TO CONTRACTOR: This contract does not bind the City of McMinnville unless and until it has been executed by the appropriate parties.

CITY OF McMINNVILLE SIGNATURE Jeffrey R. Towerly
Digitally signed by Jeffrey R. Towerly
Date: 2021.05.03 09:48:23 -07'00'

By: _____ Date _____
City Manager or Designee

Approved as to form: [Signature] 5/3/21
City Attorney or Designee Date

CITY OF McMinnville
STANDARD TERMS AND CONDITIONS FOR
STANDARD PUBLIC CONTRACTS

1. Contractor is Independent Contractor

a. Contractor will perform the work required by this contract as an independent contractor. Although the City reserves the right (i) to determine (and modify) the delivery schedule for the work to be performed and (ii) to evaluate the quality of the completed performance, the City cannot and will not control the means or manner of the Contractor's performance. The Contractor is responsible for determining the appropriate means and manner of performing the work.

b. The Contractor represents and warrants that Contractor (i) is not currently an employee of the federal government or the State of Oregon, and (ii) meets the specific independent contractor standards of ORS 670.600, as certified on the Independent Contractor Certification Statement attached as Exhibit D.

c. Contractor will be responsible for any federal or state taxes applicable to any compensation or payment paid to Contractor under this contract.

d. If Contractor is a contributing member of the Public Employees' Retirement System, City will withhold Contractor's contribution to the retirement system from Contractor's compensation or payments under this contract and make a corresponding City contribution. Contractor is not eligible for any federal Social Security, unemployment insurance, or workers' compensation benefits from compensation or payments to Contractor under this contract, except as a self-employed individual.

2. Subcontracts and Assignment

Contractor will not subcontract any of the work required by this contract, or assign or transfer any of its interest in this contract, without the prior written consent of the City. Contractor agrees that if subcontractors are employed in the performance of this contract, the Contractor and its subcontractors are subject to the requirements and sanctions of ORS Chapter 656, Workers' Compensation.

3. No Third Party Beneficiaries

City and Contractor are the only parties to this contract and are the only parties entitled to enforce its terms. Nothing in this contract gives or provides any benefit or right, whether directly, indirectly, or otherwise, to third persons unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this contract.

4. Successors in Interest

The provisions of this contract will be binding upon and will inure to the benefit of the parties, and their respective successors and approved assigns, if any.

5. Contract Documents

The Contract Documents, which comprise the entire Contract between the City and Contractor, consist of the Instructions to Bidder, Bid, Technical Specifications, and this Contract.

All exhibits, schedules, and lists attached to the Contract Documents, or delivered pursuant to the Contract Documents, will be deemed a part of the Contract Documents and will be incorporated herein, where applicable, as if fully set forth herein.

6. Contractor's Representations

By executing this contract, the Contractor represents that:

- a. The Contractor has familiarized itself with the nature and extent of the Contract Documents, project work, site, locality, general nature of work to be performed by the City or others at the site that relates to the project work required by the Contract Documents, local conditions, and federal, state, and local laws and regulations that in any manner may affect cost, progress, performance, or furnishing of the project work.
- b. The Contractor has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) examinations, investigations, explorations, tests, and studies which pertain to the conditions (subsurface or physical) at or contiguous to the site or otherwise and which may affect the cost, progress, performance, or furnishing of the project work as the Contractor deems necessary for the performance and furnishing of the project work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents; and no additional or supplementary examinations, investigations, explorations, tests, reports, or similar information or data are or will be required by Contractor for those purposes.
- c. The Contractor has given the City written notice of conflicts, errors, ambiguities, or discrepancies that it has discovered in the Contract Documents, and the written resolution thereof by the City is acceptable to the Contractor, and the Contract Documents are generally sufficient to indicate and convey understanding of terms and conditions for performing and furnishing the project work.

7. Notice to Proceed

Written Notice to Proceed will be given by the City after the contract has been executed and all required insurance documents approved. The Contractor shall commence the project work within five (5) days of the date of the written Notice to Proceed, or April 15, 2021 whichever occurs later.

8. Early Termination

- a. The City and the Contractor, by mutual written agreement, may terminate this Contract at any time.
- b. The City, on 30 days written notice to the Contractor, may terminate this Contract for any reason deemed appropriate in its sole discretion.
- c. Either the City or the Contractor may terminate this Contract in the event of a breach of the Contract by the other party. Prior to termination, however, the party seeking the termination will give to the other party written notice of the breach and of the party's intent to terminate. If the Party has not entirely cured the breach within 15 days of the notice, then the party giving the notice may terminate the Contract at any time thereafter by giving a written notice of termination.

9. Payment on Early Termination

- a. If this Contract is terminated under 8(a) or 8(b), the City will pay the Contractor for work performed in accordance with the Contract prior to the termination date.
- b. If this Contract is terminated under 8(c), by the Contractor due to a breach by the City, then the City will pay the Contractor as provided in subsection (a) of this section.
- c. If this Contract is terminated under 8(c), by the City due to a breach by the Contractor, then the City will pay the Contractor as provided in subsection (a) of this section, subject to set off of excess costs, as provided for in section 10, Remedies.

10. Remedies

- a. In the event of termination under 8(c), by the City due to a breach by the Contractor, then the City may complete the work either itself, by agreement with another contractor, or by a combination thereof. In the event the cost of completing the work exceeds the remaining unpaid balance of the total compensation provided under this Contract, the Contractor will pay to the City the amount of the reasonable excess.
- b. The remedies provided to the City under sections 8 and 10 for a breach by the Contractor are not exclusive. The City will also be entitled to any other equitable and legal remedies that are available.
- c. In the event of breach of this Contract by the City, the Contractor's remedy will be limited to termination of the Contract and receipt of payment as provided in section 8(c) and 9(b).

11. Access to Records

The Contractor will maintain and the City, and its authorized representatives, will have access to all books, documents, papers and records of the Contractor which relate to this Contract for the purpose of making audit, examination, excerpts, and transcripts for a period of three years after final payment. Copies of applicable records will be made available upon request. Payment for cost of copies is reimbursable by the City.

12. Ownership of Work

All work products of the Contractor, including background data, documentation, and staff work that is preliminary to final reports, and which result from this Contract, are the property of the City. Contractor will retain no ownership interests or rights in the work product. Use of any work product of the Contractor for any purpose other than the use intended by this Contract is at the risk of the City.

13. Compliance with Applicable Law

Contractor will comply with all federal, state, and local laws and ordinances applicable to the work under this contract, including, without limitation, ORS chapter 279B, and specifically the provisions of ORS 279B.220, 279B.230, and 279B.235 as set forth on Exhibit A. Without limiting the foregoing, the Contractor expressly agrees to comply with: (i) Title VI of the Civil Rights Act of 1964; (ii) Section V of the Rehabilitation Act of 1973; (iii) the Americans with Disabilities Act of 1990 (Pub L No. 101-336), ORS 659A.142, and all regulations and administrative rules established pursuant to those laws; and (iv) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules, and regulations.

14. Progress Payments

The contractor shall submit a monthly invoice for services rendered to the City. The Contractor shall invoice only for services rendered. The invoice(s) shall be delivered to:

Finance Department
City of McMinnville
230 NE Second Street
McMinnville, OR 97028

The invoices must show the name, address, and telephone number of Contractor, invoice number, billing period, amount due for each site, and grand total.

Payment shall not exceed the amounts listed in the quote without the prior approval of the City. Total payments to Contractor shall not exceed the amount specified in the contract without prior written approval of the City. Payment will be made as promptly as the ordinary payment procedure of the City will permit.

15. Change Orders

The Contractor agrees to complete this Contract in accordance with the attached specifications and requirements, including any change orders. A change order submitted by the City must be agreed upon by the Contractor and the City, and in the event the parties fail to agree, the City may proceed with any additional work in any manner the City may choose. A decision by the City to proceed to have work done by another party will in no way relieve either the Contractor or City of this Contract and neither will it be cause for collection of damages by either party from the other party.

16. Inspection and Acceptance

Inspection and acceptance of all work required under this contract shall be performed by the City within 30 calendar days of Contractor's written notice that the work, or a specified phase of the work, is completed. The Contractor shall be advised of the acceptance or of any deficiencies in the deliverable items. The Contractor shall assume all risk of loss for the work and all materials used on the work, until such time as the work is accepted by the City.

17. Indemnity and Hold Harmless

The Contractor will defend, save, hold harmless, and indemnify the City, its officers, agents, and employees from all claims, suits, or actions arising out of the professional negligent acts, errors, or omissions of Contractor or its officers, employees, subcontractors, or agents under this contract.

18. Insurance

Contractor will provide insurance in accordance with Exhibit B. It is specifically understood that the City will be named as an additional insured under Contractor's policy and that Contractor's insurance shall be primary and non-contributory.

19. Waiver

The failure of the City to enforce any provision of this Contract will not constitute a waiver by the City of that or any other provision.

20. Errors

The Contractor will perform additional work as may be necessary to correct errors in the work required under this Contract without undue delay and without additional cost.

21. Governing Law

The provisions of this Contract will be construed in accordance with the laws of the State of Oregon and ordinances of the City of McMinnville, Oregon. Any action or suits involving any question arising under this Contract must be brought in the appropriate court in Yamhill County,

Oregon. Provided, however, if the claim must be brought in a federal forum, then it will be brought and conducted in the United States District Court for the District of Oregon.

22. Severability

If any term or provision of this Contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions will not be affected, and the rights and obligations of the parties will be construed and enforced as if the Contract did not contain the particular term or provision held invalid.

23. Attorney's Fees

If a suit or action is filed to enforce any of the terms of this Contract, the prevailing party will be entitled to recover from the other party, in addition to costs and disbursements provided by statute, any sum which a court, including any appellate court, may adjudge reasonable as attorney's fees.

24. Merger Clause

This Contract, including all contract documents, constitutes the entire agreement between the parties. No waiver, consent, modification or change of terms of this contract will bind either party unless in writing, signed by both parties. Any waiver, consent, modification, or change, if made, will be effective only in the specific instance and for the specific purpose given. There are no understandings, agreements, or representations, oral or written, not specified herein regarding this contract. By its signature, contractor acknowledges it has read and understands this contract, and agrees to be bound by its terms and conditions.

EXHIBIT A
COMPLIANCE WITH APPLICABLE LAW

279B.220 Conditions concerning payment, contributions, liens, withholding. Every public contract shall contain a condition that the contractor shall:

(1) Make payment promptly, as due, to all persons supplying to the contractor labor or material for the performance of the work provided for in the contract.

(2) Pay all contributions or amounts due the Industrial Accident Fund from the contractor or subcontractor incurred in the performance of the contract.

(3) Not permit any lien or claim to be filed or prosecuted against the state or a county, school district, municipality, municipal corporation or subdivision thereof, on account of any labor or material furnished.

(4) Pay to the Department of Revenue all sums withheld from employees under ORS 316.167. [2003 c.794 §76a]

279B.230 Condition concerning payment for medical care and providing workers' compensation. (1) Every public contract shall contain a condition that the contractor shall promptly, as due, make payment to any person, copartnership, association or corporation furnishing medical, surgical and hospital care services or other needed care and attention, incident to sickness or injury, to the employees of the contractor, of all sums that the contractor agrees to pay for the services and all moneys and sums that the contractor collected or deducted from the wages of employees under any law, contract or agreement for the purpose of providing or paying for the services.

(2) Every public contract shall contain a clause or condition that all subject employers working under the contract are either employers that will comply with ORS 656.017 or employers that are exempt under ORS 656.126. [2003 c.794 §76c]

279B.235 Condition concerning hours of labor. (1) Except as provided in subsections (3) to (6) of this section, every public contract subject to this chapter must contain a condition that a person may not be employed for more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity, emergency or when the public policy

absolutely requires it, and in such cases, except in cases of contracts for personal services designated under ORS 279A.055, the employee shall be paid at least time and a half pay:

(a)(A) For all overtime in excess of eight hours in any one day or 40 hours in any one week when the work week is five consecutive days, Monday through Friday; or

(B) For all overtime in excess of 10 hours in any one day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and

(b) For all work performed on Saturday and on any legal holiday specified in ORS 279B.020.

(2) An employer must give notice in writing to employees who work on a public contract, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

(3) In the case of contracts for personal services as described in ORS 279A.055, the contract shall contain a provision that the employee shall be paid at least time and a half for all overtime worked in excess of 40 hours in any one week, except for individuals under personal services contracts who are excluded under ORS 653.010 to 653.261 or under 29 U.S.C. 201 to 209 from receiving overtime.

(4) In the case of a contract for services at a county fair or for other events authorized by a county fair board, the contract must contain a provision that employees must be paid at least time and a half for work in excess of 10 hours in any one day or 40 hours in any one week. An employer shall give notice in writing to employees who work on such a contract, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that employees may be required to work.

(5)(a) Except as provided in subsection (4) of this section, contracts for services must contain a provision that requires that persons employed under the contracts shall receive at least time and a half pay for work performed on the legal holidays specified in a collective bargaining agreement or in ORS 279B.020 (1)(b)(B) to (G) and for all time worked in

excess of 10 hours in any one day or in excess of 40 hours in any one week, whichever is greater.

(b) An employer shall give notice in writing to employees who work on a contract for services, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

(6) This section does not apply to public contracts:

(a) With financial institutions as defined in ORS 706.008.

(b) Made pursuant to the authority of the State Forester or the State Board of Forestry under ORS 477.406 for labor performed in the prevention or suppression of fire.

(c) For goods or personal property. [2003 c.794 §77; 2005 c.103 §8f]

**EXHIBIT B
INSURANCE**

(The Project Manager must answer and initial 2, 3, 4, and 5 below).

During the term of this contract, Contractor will maintain in force at its own expense, each insurance noted below:

1. **Workers Compensation** insurance in compliance with ORS 656.017, which requires subject employers to provide Oregon workers' compensation coverage for all their subject workers. (Required of contractors with one or more employees, unless exempt under ORS 656.027). In addition to the statutory benefits described in ORS Chapter 656, the Contractor and all subcontractors will provide employers' liability insurance with limits of not less than: \$500,000 each accident for bodily injury by accident, \$500,000 each employee for bodily injury for disease, \$500,000 policy limit for bodily injury by disease.

Required by City I am exempt. Signed _____

2. **Professional Liability** insurance with a combined single limit of not less than \$1,200,000, \$2,000,000, or \$3,000,000 each claim, incident, or occurrence. This is to cover damages caused by errors, omissions, or negligent acts related to the professional services to be provided under this Contract. The coverage must remain in effect for at least one year two years after the Contract is completed.

Required by City Not required by City By: JA

3. **General Liability** insurance, on an occurrence basis, with a combined single limit of not less than \$1,200,000, ~~\$2,000,000~~^{\$1,000,000}, or \$3,000,000 each occurrence for Bodily Injury and Property Damage. It will include contractual liability coverage, product and completed operations coverage, and personal and advertising injury coverage.

Required by City Not required by City By: JA

4. **Automobile Liability** insurance with a combined single limit, or the equivalent of not less than \$1,200,000, ~~\$2,000,000~~^{\$500,000}, or \$3,000,000 each accident for Bodily Injury and Property Damage, including coverage for owned, hired, or non-owned vehicles.

Required by City Not required by City By: JA

5. During construction, **Builders Risk** insurance to the extent of 100 percent of the value of the work for the benefit of the parties to the Contract as their interest may appear. Coverage will also include: (1) formwork in place, (2) form lumber on site, (3) temporary structures, (4) equipment, and (5) supplies related to the work while at the site.

Required by City Not required by City By: JA

6. **Notice of cancellation or change.** There will be no cancellation, material change, reduction of limits, or intent not to renew the insurance coverage(s) without prior written notice from the Contractor or its insurer(s) to the City.

7. **Certificates of insurance.** As evidence of the insurance coverages required by this Contract, the Contractor will furnish acceptable insurance certificates to the City at the time the Contractor returns the signed contracts. For general liability insurance and automobile liability insurance, the certificate will provide that the City, and its agents, officers, and employees, are additional insureds, but only with respect to the Contractor's services to be provided under this Contract. The certificate will include the cancellation clause, and will include the deductible or retention level. Insuring companies or entities are subject to City acceptance. The Contractor will be financially responsible for all pertinent deductibles, self-insured retentions, and self-insurance, which shall not exceed 0.5% of the minimum required policy limit. If requested, complete copies of insurance policies will be provided to the City in the event that the City receives a tort claim notice pursuant to ORS 30.275 or is named in any lawsuit or other claim which the City reasonably believes is subject to the Contractor's indemnity obligation.



ARLANDS-01

MCOOPER

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

4/15/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER McMinnville Office PayneWest Insurance, Inc. 1411 NW Adams McMinnville, OR 97128		CONTACT NAME: PHONE (A/C, No, Ext): (503) 472-2121 FAK (A/C, No): (503) 434-5872 E-MAIL ADDRESS: ADDRESS:	
		INSURER(S) AFFORDING COVERAGE NAIC #	
		INSURER A: American Hallmark Insurance Co of Texas 43494	
INSURED A R Landscaping Inc 1271 NE Hwy 99 W #420 McMinnville, OR 97128		INSURER B: Wellfleet New York Insurance Company 20931	
		INSURER C: INSURER D: INSURER E: INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

NSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY	<input checked="" type="checkbox"/>	44CL49511603	8/4/2020	8/4/2021	EACH OCCURRENCE \$ 1,000,000	
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000	
						MED EXP (Any one person) \$ 5,000	
						PERSONAL & ADV INJURY \$ 1,000,000	
	GENL AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:					GENERAL AGGREGATE \$ 2,000,000	
						PRODUCTS - COMPROP AGG \$ 2,000,000	
	AUTOMOBILE LIABILITY					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$	
	<input type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY					EACH OCCURRENCE \$ AGGREGATE \$	
	UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE					DED <input type="checkbox"/> RETENTION \$ <input type="checkbox"/>	
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	N/A	ARX101350001	8/6/2020	8/6/2021	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)					E.L. EACH ACCIDENT \$ 500,000	
	If yes, describe under DESCRIPTION OF OPERATIONS below					E.L. DISEASE - EA EMPLOYEE \$ 500,000	
						E.L. DISEASE - POLICY LIMIT \$ 500,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER City of McMinnville 230 NE 2nd St McMinnville OR 97128	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
---	---

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**BLANKET ADDITIONAL INSURED ENDORSEMENT**

This endorsement modifies the insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE FORM

- A. SECTION II - WHO IS AN INSURED** is amended to include as an insured any person or organization (referred to below as Additional Insured) whom you are required to add as an additional insured on this policy under:
1. A written contract or agreement; and
 2. Where a certificate of insurance showing that person or organization as an additional insured has been issued; and
 3. When the written contract or agreement and the certificate of insurance are currently in effect or becoming in effect during the term of the policy and executed prior to the "bodily injury," "property damage" or "personal and advertising injury."
- B.** The insurance provided to the Additional Insured(s) is limited as follows:
1. The Additional Insured(s) is only an additional insured for:
 - a. "Bodily injury," "property damage" or "personal and advertising injury" caused in whole or in part by negligent acts or omissions of the Named Insured or anyone directly or indirectly employed by the Named Insured or for whose acts a Named Insured may be liable.
 - b. Liability arising out of your ongoing operations for the Additional Insured(s) by or for you. A person's or organization's status as an insured under this endorsement ends when your operations for that insured are completed.
 2. The Limits of Insurance applicable to the Additional Insured(s) are those specified in the written contract or agreement but not more than the Limits of Insurance specified in the Declarations of this policy. The Limits of Insurance applicable to the Additional Insured(s) are inclusive of and not in addition to the Limits of Insurance shown in the Declarations for the Named Insured.
- C.** In addition to the other exclusions applicable to Coverages A, B, and C, the insurance provided to the Additional Insured(s) does not apply to:
1. "Property damage" to:
 - a. Property owned, used, occupied by, loaned or rented to the Additional Insured(s);
 - b. Property in the care, custody or control of the Additional Insured(s) or over which the Additional Insured(s) are for any purpose exercising physical control; or
 - c. "Your work" performed for the Additional Insured(s).
 2. "Bodily injury," "property damage" or "personal and advertising injury" arising out of an architect's, engineer's or surveyor's rendering or failure to render any professional services for you, for the Additional Insured(s) or for others, including, but not limited to:
 - a. The preparing, approving or failure to prepare or approve maps, drawings, opinions, reports, surveys, change orders, designs or specifications; or
 - b. Supervisory, inspection or engineering services.
 3. "Bodily injury" or "property damage" occurring after:
 - a. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the site of the covered operations has been completed; or
 - b. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

DIVIDER

PAGE

Producer No: 74454
Pol Eff Dt: 04-05-2021

SAN: 1902157000000
Office: 99

Date Printed: 03-29-2021
Time Printed: 21:05:57

Trans Eff Dt: 04-05-2021
Insured Name: AR LANDSCAPE INC
Policy No: 9100247165
Trans Seq No: 003
Trans Type: Change Endorsement
Oper Init: 231533
Company Abbr: GK
Release Version: 21.01

User-Selected Sets	Copies	Printer
INSURED	01	RWPRINT8- HP LJ 9050
COMPANY	01	Don't print
CERTIFIED COPY	01	Don't print
CERTIFICATES	01	Don't print

Policy Number: 9100247165 02

AR LANDSCAPE INC
1271 NE HWY, OR-99W Apt. 420
MCMINNVILLE OR 97128

ATTACHED ARE DOCUMENTS FOR THE FOLLOWING NAMED INSURED:

AR LANDSCAPE INC
1271 NE HWY, OR-99W Apt. 420
MCMINNVILLE OR 97128



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
3/29/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER GEICO One GEICO Boulevard Fredericksburg, VA 22412	CONTACT NAME GEICO PHONE (A/C, No, Ext): 1-866-509-3444 FAX (A/C, No): Email Address: R1COMMEND@GEICO.COM INSURER(S) AFFORDING COVERAGE NAIC # INSURER A: GOVERNMENT EMPLOYEES INSURANCE COMPANY 22063 INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:
INSURED AR LANDSCAPE INC 1271 NE HWY, OR-99W Apt. 420 McMinnville, OR 97128	

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMPROP AGG. \$ _____ \$
A	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input checked="" type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY	X	X	9100247165 02	4/5/2021	4/5/2022	COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ 250,000 BODILY INJURY (Per accident) \$ 500,000 PROPERTY DAMAGE (Per accident) \$ 100,000 _____ \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ _____ \$
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 THE CITY OF MCMINNIVILLE IS NAMED AS ADDITIONAL INSURED.

CERTIFICATE HOLDER THE CITY OF MCMINNIVILLE 230 NE 2ND ST MCMINKVILLE, OR 97128-4831	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
--	--



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
3/29/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER GEICO One GEICO Boulevard Fredericksburg, VA 22412	CONTACT NAME:	GEICO			
	PHONE (A/C, No, Ext):	1-866-509-9444	FAX (A/C, No):		
	Email Address:	R1COMMEND@GEICO.COM			
	INSURER(S) AFFORDING COVERAGE				NAIC #
	INSURER A:	GOVERNMENT EMPLOYEES INSURANCE COMPANY			22063
	INSURER B:				
INSURED AR LANDSCAPE INC 1271 NE HWY, OR-99W Apt. 420 McMinnville, OR 97128	INSURER C:				
	INSURER D:				
	INSURER E:				
	INSURER F:				
	COVERAGE				
	CERTIFICATE NUMBER:		REVISION NUMBER:		

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCJR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ex occurrence) \$ MED. EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$	
A	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY	X	X	9130247165 02	4/5/2021	4/5/2022	COMBINED SINGLE LIMIT (Ex accident) \$ BODILY INJURY (Per person) \$ 250,000 BODILY INJURY (Per accident) \$ 500,000 PROPERTY DAMAGE (Per accident) \$ 100,000 \$	
	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$	
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A				PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
THE CITY OF MCMINNIVILLE IS NAMED AS ADDITIONAL INSURED.

CERTIFICATE HOLDER THE CITY OF MCMINNIVILLE 230 NE 2ND ST MCMINNIVILLE, OR 97128-4831	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
---	--



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
3/29/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER GEICO One GEICO Boulevard Fredericksburg, VA 22412	CONTACT NAME GEICO
	PHONE (A/C, No, Ext): 1-866-509-9444 FAX (A/C, No):
	Email Address: R1COMMEND@GEICO.COM
	INSURER(S) AFFORDING COVERAGE
INSURED AR LANDSCAPE INC 1271 NE HWY, OR-99W Apt. 420 MCMINNVILLE, OR 97128	INSURER A: GOVERNMENT EMPLOYEES INSURANCE COMPANY NAIC # 22063
	INSURER B:
	INSURER C:
	INSURER D:
	INSURER E:
	INSURER F:

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input type="checkbox"/> OCCUR <input type="checkbox"/> GENL AGGREGATE LIMIT APPLIES PER: POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMSES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG. \$
A	AUTOMOBILE LIABILITY ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input checked="" type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY <input checked="" type="checkbox"/>	X		91002471.65 00	4/5/2021	4/5/2022	COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ 250,000 BODILY INJURY (Per accident) \$ 500,000 PROPERTY DAMAGE (Per accident) \$ 100,000
	UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y/N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			N/A			PER STATE <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
THE CITY OF MCMINNVILLE IS NAMED AS ADDITIONAL INSURED.

CERTIFICATE HOLDER THE CITY OF MCMINNVILLE 230 NE 2ND ST MCMINNVILLE, OR 97128-4831	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
--	---

Policy Number
9100247165 02

THIS ENDORSEMENT CHANGES THE POLICY.
PLEASE READ IT CAREFULLY.
COMMON POLICY CHANGE ENDORSEMENT

Endorsement No. 002

Government Employees Insurance Company

Named Insured AR LANDSCAPE INC

Effective Date: 04-05-21
12:01 A.M., Standard Time

Agent Name Jason Knewtson

Agent No. 74454

This endorsement will not be used to decrease coverages, increase rates or deductibles or alter any terms or conditions of coverage unless at the sole request of the insured.

COVERAGE PART INFORMATION – Coverage parts affected by this change as indicated by [X] below.

- Commercial Property
- Commercial General Liability
- Commercial Crime
- Commercial Inland Marine
- COMMERCIAL AUTOMOBILE NO CHARGE
-

The following item(s):

- | | |
|--|---|
| <input type="checkbox"/> Insured's Name | <input type="checkbox"/> Insured's Mailing Address |
| <input type="checkbox"/> Policy Number | <input type="checkbox"/> Company |
| <input type="checkbox"/> Effective/Expiration Date | <input type="checkbox"/> Insured's Legal Status/Business of Insured |
| <input type="checkbox"/> Payment Plan | <input type="checkbox"/> Premium Determination |
| <input type="checkbox"/> Additional Interested Parties | <input type="checkbox"/> Coverage Forms and Endorsements |
| <input type="checkbox"/> Limits/Exposures | <input type="checkbox"/> Deductibles |
| <input type="checkbox"/> Covered Property/Location Description | <input type="checkbox"/> Classification/Class Codes |
| <input type="checkbox"/> Rates | <input type="checkbox"/> Underlying Exposure/Insurance |

is (are) changed to read {See Additional Page(s)}

SEE NEXT PAGE

The above amendments result in a change in the premium as follows:

This premium does not include taxes and surcharges.

<input checked="" type="checkbox"/> No Changes	<input type="checkbox"/> To be Adjusted at Audit	Additional NO CHARGE	Return NO CHARGE
--	--	----------------------	------------------

Tax and Surcharge Changes

Additional	Return
------------	--------

Countersigned By:

AUTHORIZED AGENT

Policy Number
9100247165 02

COMMON POLICY CHANGE ENDORSEMENT

Endorsement No. 002

Government Employees Insurance Company

Named Insured AR LANDSCAPE INC

Effective Date: 04-05-21
12:01 A.M., Standard Time

Agent Name Jason Knewtson

Agent No. 74454

POLICY CHANGES ENDORSEMENT DESCRIPTION (CONTD)

THE FOLLOWING ADDITIONAL INTEREST (ADDL INSURED) HAS BEEN ADDED TO THE POLICY:
THE CITY OF MCMINNVILLE
230 NE 2ND ST
MCMINNVILLE OR 97128-4831

THE FOLLOWING FORM(S) HAS BEEN ADDED:
BA2048 08-10 ADDITIONAL INSURED

ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME

REMOVAL PERMIT

If this policy includes the Commercial Property Coverage Part, the Standard Property Policy, or the Capital Assets Program (Output Policy) Coverage Part with all property scheduled on the Scheduled Location Endorsement **OP 14 01**, the following applies with respect to that Coverage Part or Policy:

If Covered Property is removed to a new location that is described on this Policy Change, you may extend this insurance to include that Covered Property at each location during the removal. Coverage at each location will apply in the proportion that the value at each location bears to the value of all Covered Property being removed. This permit applies up to 10 days after the effective date of this Policy Change; after that, this insurance does not apply at the previous location.

Policy Number
9100247165 02

SCHEDULE OF FORMS AND ENDORSEMENTS
Government Employees Insurance Company

Named Insured AR LANDSCAPE INC

Effective Date: 04-05-21
12:01 A.M., Standard Time

Agent Name Jason Knewtson

Agent No. 74454

COMMON POLICY FORMS AND ENDORSEMENTS

CW-CHANGEDESC	10-13	COMMON POLICY CHANGE ENDORSEMENT
FORM-SCHED	01-97	SCHEDULE OF FORMS AND ENDORSEMENTS

AUTOMOBILE FORMS AND ENDORSEMENTS

RA2048	08-10	ADDITIONAL INSURED
--------	-------	--------------------

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM
GARAGE COVERAGE FORM
MOTOR CARRIER COVERAGE FORM
TRUCKERS COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "insureds" under the Who Is An Insured Provision of the Coverage Form. This endorsement does not alter coverage provided in the Coverage Form.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Endorsement Effective: 04-05-2021	Countersigned By: (Authorized Representative)
Named Insured: AR LANDSCAPE INC	

SCHEDULE

Name of Person(s) or Organization(s): THE CITY OF MCMINNIVILLE 230 NE 2ND ST MCMINNIVILLE, OR 97128-4831
--

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to the endorsement.)

Each person or organization shown in the Schedule is an "insured" for Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured Provision contained in **Section II** of the Coverage Form.

EXHIBIT C
CERTIFICATION STATEMENT FOR
INDEPENDENT CONTRACTOR
 (Contractor complete A or B below, Project Manager complete C below.)

A. CONTRACTOR IS A CORPORATION

CORPORATION CERTIFICATION: I am authorized to act on behalf of the entity named below, and certify under penalty of perjury that it is a corporation.

A. N. Canoseph Inc Entity [Signature] Signature 4-27-2021 Date

B. CONTRACTOR IS INDEPENDENT.

Contractor certifies he/she meets the following standards:

1. The individual or business entity providing services is free from direction and control over the means and manner of providing the services, subject only to the right of the person for whom the services are provided to specify the desired results,
2. The individual or business entity is licensed under ORS chapters 671 or 701 if the individual or business entity provides services for which a license is required by ORS chapters 671 or 701,
3. The individual or business entity is responsible for obtaining other licenses or certificates necessary to provide the services,
4. The individual or business entity is customarily engaged in an independently established business, as any three of the following requirements are met (please check three or more of the following):
 - A. The person maintains a business location i) that is separate from the business or work location of the person for whom the services are provided or ii) that is in a portion of the person's residence and that portion is used primarily for the business.
 - B. The person bears the risk of loss related to the business or the provision of services as shown by factors such as i) the person enters into fixed-price contracts, ii) the person is required to correct defective work, iii) the person warrants the services provided, or iv) the person negotiates indemnification agreements or purchases liability insurance, performance bonds, or errors and omissions insurance.
 - C. The person provides contracted services for two or more different persons within a 12 month period or the person routinely engages in business advertising, solicitation, or other marketing efforts reasonably calculated to obtain new contracts to provide similar services.
 - D. The person makes a significant investment in the business, through means such as i) purchasing tools or equipment necessary to provide the services, ii) paying for the premises or facilities where the services are provided, or iii) paying for licenses, certificates, or specialized training required to provide the services.
 - E. The person has the authority to hire other persons to provide or to assist in providing the services and has the authority to fire those persons.

[Signature] Contractor Signature 4-27-2021 Date

(Project Manager complete C below.)

C. CITY APPROVAL

ORS 670.600 Independent contractor standards. As used in various provisions of ORS chapters 316, 656, 657, 671, and 701, an individual or business entity that performs services for remuneration will be considered to perform the services as an "independent contractor" if the standards of this section are met. The contractor meets the following standards:

1. The Contractor is free from direction and control over the means and manner of providing the services, subject only to the right of the City to specify the desired results,
2. The Contractor is responsible for obtaining licenses under ORS chapters 671 and 701 when these licenses are required to provide the services,

3. The Contractor is responsible for obtaining other licenses or certificates necessary to provide the services,
4. The Contractor has the authority to hire and fire employees to provide or assist in providing the services, and
5. The person is customarily engaged in an independently established business as indicated in B. 4 above.


Project Manager Signature

4/28/2021
Date

CITY OF McMinnville, Oregon

**WATER RECLAMATION FACILITY ANNUAL LANDSCAPE
MAINTENANCE SERVICES**

Project 2021-1

TECHNICAL SPECIFICATIONS

300 PROJECT REQUIREMENTS

301 Scope of Work

Contractor shall provide, at its own risk and cost, all labor, materials, tools, equipment, transportation, hauling, dumping, and other items needed to do the landscape maintenance work as specified or otherwise directed. The areas to be maintained shall include lawn and field grass areas, ground cover areas, shrubs, trees, and walkways at the City's Water Reclamation Facility (WRF) located at 3500 NE Clearwater Dr, McMinnville, OR 97128.

The required maintenance activities are limited to the areas delineated on the attached site maps (**Attachment A - Site Map**). Areas outside the limits shown on the site map are not the responsibility of the Contractor.

302 General Requirements

All work shall be performed in a professional manner. The proper equipment shall be used for the execution of the contract. The primary objective of the City is to maintain a high standard of professional landscape maintenance services. In addition to the following specific maintenance standards, the Contractor is expected to provide those services, which are reasonably necessary to maintain a clean, neat-appearing, operationally supportive environment. The Contractor shall so conduct its operations so as to cause the least possible obstruction and inconvenience to vehicle and pedestrian traffic while ensuring or maintaining the safety of traffic, staff and the public.

This is an annual contract that will begin when the notice to proceed is given by the City. Payment will only be made for months in which the required services are performed, and will be made at the monthly rate contained in the Contractor's Proposal.

The work to be performed under this contract will include mowing, edging, plant bed weeding, fertilizing, liming, pesticide application, leaf pickup, debris/litter removal, shrub pruning, and site cleanup, as specified herein.

The grass areas are divided into two types: lawn areas and field grass areas. The included map (Attachment A) indicates the general areas of each grass type.

Application of herbicides or pesticides is anticipated under this contract, and all applications shall be performed by an applicator licensed under Oregon law. Applications of herbicides will be reported to the Public Works Superintendent.

303 Mowing Standards

Lawn areas shall be mowed at a **height of 2"-2.5"** on a regular weekly schedule, for a minimum of 35 mowings per year. **Grass clippings will be removed every mowing on the lawn.**

Field grass shall be mowed at a **height of 2"-3.5"** on a regular bi-monthly schedule, for a minimum of 14 mowings per year **and when needed to keep a neat appearance.**

The mowing direction for both lawn areas and field grass areas is to be rotated to prevent wheel and grass pattern development. Mowing equipment is to be kept sufficiently sharp and properly adjusted to provide a cleanly cut appearance. Grass blade bruising, tearing, and shredding shall be avoided.

304 Edging Standards

All sidewalks, curbs, concrete edges, plant beds, tree circles, fence lines/perimeters or other objects in the lawn areas shall be **edged at least a minimum of every other mowing** to retain a neat appearance during the mowing season.

Care shall be taken not to damage the bases of trees with equipment. Edging of lawn areas shall be mechanical and not by use of herbicides. Fence lines and field grass areas may be edged and maintained with herbicides.

Extreme caution should be used to prevent chipping of concrete structures by edging equipment. Extreme caution must be used to prevent damage to desirable plants in areas where herbicides are used.

305 Weeding

For purposes of this contract, a weed is considered "any undesirable or misplaced plant". **The plant bed and median areas shown on the site map shall be kept in a weed-free condition. All plant bed and median areas shall be weeded by hand or mechanical means unless the City's representative grants prior approval for herbicide use.**

The Contractor shall provide City Safety Data Sheets (SDS) for all applied chemicals. The City reserves the right to allow and/or limit the use of specific herbicides and/or applications of said herbicides. Weeds killed through the application of herbicides shall be removed and disposed of properly. Contractor will remedy any damage to desirable plant material due to Contractor negligence or misuse of herbicides at his or her expense, in a timely manner.

306 Fertilizer & Lime

Lawn areas must be fertilized with weed control four (4) times per year or as needed. Lime application to both lawn area and field grass areas shall be performed once per year.

307 Pesticide Application

All lawn areas must receive treatment for European crane fly once per year, or as required for control. The Contractor must use an approved product specified for controlling European crane fly.

308 Irrigation System

The City staff is responsible for operation and maintenance of the existing irrigation system. The system is an automatic zone type with filters and other components. The City staff is responsible for spring start-up and winter shutdown and necessary adjustments. If system deficiencies or broken parts are observed by the Contractor, the Contractor shall notify the City staff.

In general, the lawn areas are irrigated and the field grass areas are not irrigated. At the WRF, irrigation water is supplied by the WRF's internal not potable water.

309 Leaf Pickup

Leaves on the ground and paved areas due to seasonal fall leaf drop must be picked up by the Contractor and disposed of as part of this contract. Fall leaf pickup shall occur weekly during this period until the seasonal leaf drop has ceased.

310 Debris/Litter Removal

Prior to mowing, the Contractor shall pick up and promptly dispose of, at Contractor's expense, all debris, rocks and litter on all areas of the Contractor's responsibility. Litter includes, but is not limited to, paper, plastic, bottles, broken glass, cans, cardboard, rags, and other foreign materials.

The Contractor shall promptly dispose of all debris accumulated as a result of maintenance operations. No debris shall remain on the paved areas or other walkways after 5:00 pm on the day on which it is collected.

Debris is defined as grass clippings, leaves, branches, paper, and all foreign matter, etc. Disposal of debris shall be performed at no additional cost to the City and shall be considered to be included as part of the Contractor's bid price.

311 Pruning Standards

The Contractor prune the shrubs and vegetation in the border and shrub bed areas as needed to contain the vegetation within the borders of the beds and to maintain a neat appearance. The Contractor shall also prune along the walkways to maintain a clear path and neat appearance. All pruned and removed material must be promptly removed and disposed of by the Contractor. The pruning shall be performed a minimum of two times during the contract period.

312 Clean-up

Walks and pathways will be left clean. Clipping or debris will not be dumped, blown, or left in the streets or paved areas.

313 Service Procedures

The Contractor shall complete all landscape maintenance work in one area, including removal of debris, then move to the next designated landscape maintenance area. The period within which an area is unavailable for public or staff use due to Contractor's maintenance activities is to be held to the minimum required to efficiently perform the required tasks.

The Contractor shall be responsible for providing, in writing, prior to commencing work on this contract, a general schedule identifying days of the week and times for completion of the work. The schedule may be updated, in writing, as needed. For the WRF, the schedule should be delivered to Michael Runge.

314 Safety and Health Standards / Accident Prevention

In accordance with generally accepted safety practice, the Contractor shall be solely and completely responsible for conditions on the job site, including safety of all persons and property during the performance of the work.

The Contractor shall instruct employees about and otherwise safeguard them against any possible injuries associated with landscape maintenance activities and equipment, as well as other potential hazards within the City's facilities. The Contractor shall comply with all applicable OSHA and Oregon OSHA laws, including hazardous materials identification rules. The Contractor shall properly and securely label all chemicals used on the City's premises. The Contractor shall properly dispose of chemical waste and chemical waste receptacles.

315 Performance Requirement

The Contractor shall perform all of the landscape maintenance requirements within the specifications. Failure of the Contractor to perform all of the required activities at the frequencies specified herein will result in the withholding of payment for the work.

When possible and practical, the City will notify the Contractor of noted maintenance deficiencies to allow for the Contractor to perform corrections. Failure of the City to provide notice of the deficiencies to the Contractor shall not excuse the Contractor from the requirements of these specifications, and shall not be the basis for payment claims by the Contractor.

The City shall consider four or more incidents of non-performance by the Contractor over the period of the contract, including any extension, sufficient cause for termination of the contract upon written notice.

316 Inclement Weather

The Contractor shall not work or perform any operations during inclement weather, which may destroy or damage ground cover or turf areas. The Contractor shall contact the WRF Operations Superintendent for the determination of non-operation conditions.

The Contractor shall be relieved of the performance requirements of these specifications during periods of non-operation conditions approved by the WRF Operations Superintendent.

317 Damages

The Contractor shall report, without delay, any damage to the City's equipment or property. The Contractor shall be liable for damages caused by the Contractor, Contractor's vehicular traffic, or Contractor's employees. The City may, at its option, repair any areas of Contractor damage and deduct the costs from any monies due the Contractor.

318 Service Request Response, Emergencies, and Emergency Numbers

Contractor shall be available for direct telephone contact by the City during the City's normal working hours. The Contractor shall employ person(s) to answer the telephone (complaints, requests for service, etc.). The Contractor shall respond to any routine request from the City within 24 hours.

In the event of emergency situations (health or safety) involving the City's buildings, equipment, or personnel, the Contractor or its agent shall immediately report same to the City. This shall include the reporting of water leaks.

The Contractor is further required to provide the City with two 24-hour emergency numbers for contact outside normal working hours. These emergency numbers shall be used to contact a responsible representative of Contractor who can take the necessary action required to alleviate an emergency condition which threatens to cause damage to any property.

The Contractor shall respond to any emergency call-out by the City within three (3) hours, except when delayed by problems caused by vehicle accidents or an Act of God. Any emergency call response shall be considered part of the normal contract.

319 Invoicing and Payment

The contract amount will be per the annual cost contained in the Contractor's proposal. The Contractor shall submit a monthly invoice (the monthly amount shall be the annual cost divided by 12) for services rendered to the City. The Contractor shall invoice only for services rendered. The Invoice(s) shall be delivered to:

Finance Department
City of McMinnville
230 NE Second Street

McMinnville, OR 97128

The invoice must show the name, address, and telephone number of Contractor, invoice number, billing period, amount due (including itemization for extra work).

Payment shall not exceed the amounts listed in the proposal without the prior approval of the City. Total payments to Contractor shall not exceed the amount specified in the contract without prior written approval of the City. Payment will be made as promptly as the ordinary payment procedure of the City will permit.

320 Additional Services ("Extra Work") Outside Contract

The City's representative must, in advance, authorize additional labor, materials, and/or "extra work" supplied by the contractor under this contract.

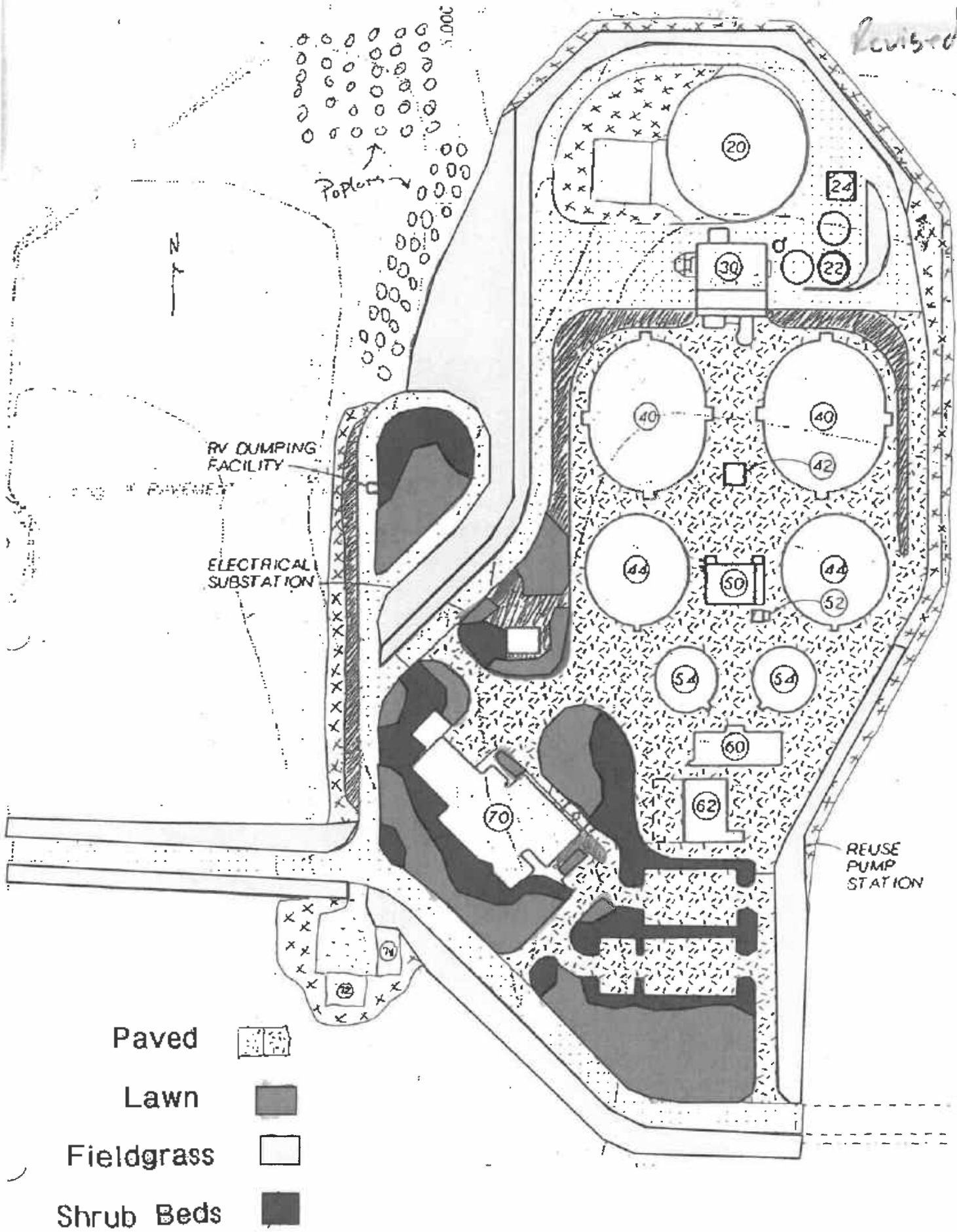
321 Contract Period and Renewal

The period of this contract shall be from the "Notice to Proceed" until June 30, 2021, which is the end of the City's fiscal year. The contract may be extended on an annual basis if agreed upon in writing by both the City and Contractor. There can be no more than two (2) one-year extensions of this contract. Annual renewals of the contract will be contingent upon the approval of the costs in the City's annual fiscal year budget.

Annual renewals of the contract may include a price adjustment if agreed upon by both the City and Contractor. The Contractor must submit written documentation supporting the price adjustment to the City for consideration at least 90 days prior to the expiration date of the contract.

WATER RECLAMATION FACILITY

Revised



Attachment A - Site Map

RESOLUTION NO. 2022-50

A Resolution Authorizing an Extension to the Goods and Services Contract for Water Reclamation Facility Landscaping with AR Landscape Inc.

RECITALS:

Whereas, on May 3, 2021 the City of McMinnville (City) and AR Landscape, Inc. entered into a Goods and Services Contract for landscaping services at the Water Reclamation Facility (WRF) through and Including June 30, 2021 (Original Term); and

Whereas, on June 9, 2021 via Change Order #1, the City extended their contract with the Contractor through June 30, 2022 with no rate Increase; and

Whereas, prior to the expiration of the extension, the City and Contractor engaged in good faith negotiations regarding the City's desire for continued landscaping services at the WRF and agreed upon a 10% rate Increase: and

Whereas, the funds for this service are Included In the approved fiscal year 2023 budget.

NOW, THEREFORE BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF MCMINNVILLE, OREGON, as follows:

1. The City Manager Is hereby authorized and directed to execute the contract extension, in substantially similar In form to Exhibit A attached hereto and Incorporated by reference herein.
2. That this resolution shall take effect Immediately upon passage and shall continue In full force and effect until revoked or replaced.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 28th day of June 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 28th day of June 2022

INTERIM MAYOR

Approved as to form:

Attest:

Interim City Attorney

City Recorder

CHANGE ORDER NO. 2

to the

SMALL SERVICES CONTRACT

For

Water Reclamation Facility Annual Landscape Maintenance Services

Project 2021-1

This Change Order No. 2 amends the Small Services Contract, dated May 3, 2021, between the City of McMinnville (City) and AR Landscape Inc (Contractor) for the Water Reclamation Facility Annual Landscape Maintenance Services Project.

The parties mutually covenant and agree as follows:

1. EFFECTIVE DATE AND DURATION

The expiration date of the contract will be extended to June 30, 2023.

2. STATE OF WORK

All of the work requirements under the Contract date May 3, 2021 remain in effect.

3. CONSIDERATION

The total 2022-2023 fiscal year annual contract for services shall be increased to \$39,600 to reflect increased fuel and material costs for the Contractor.

4. OTHER CONDITIONS/REQUIREMENTS

The terms and conditions of the Contract, except as modified herein, dated May 3, 2021, remain in full force and effect.

For the City:

For the Contractor:

Approved:

Approved:

By: _____

By: _____

Title: _____

Title: _____

Approved as to Form:

 5-26-2022

City Attorney

Date

STAFF REPORT

DATE: June 21, 2022
TO: City Council
FROM: Tim Symons, Police Captain
SUBJECT: Request to Permit a Waiver of the Noise Ordinance from Cruising McMinnville for August 27, 2022.

Report in Brief:

This action is the consideration of a request to permit a waiver of the Noise Ordinance.

Background:

Cruising McMinnville, through President Scott Hinchcliff, is requesting to extend the street use permit for the Cruising McMinnville event that is scheduled to take place on Saturday, August 27, 2022. The cruising event was initially scheduled to occur from 5:00 pm to 10:00 pm; however, they would like to extend the street use permit to last until 11:00 pm to allow for a more manageable dispersal of event participants when it is concluded.

The area for the event is historic 3rd Street and there are many hotels and residences that are in the general area. Each of these will be impacted by the extended use of the street.

The McMinnville Municipal Code, Section 8.10.260, specifies that:

A. A person in charge of a premises must not permit, allow or cause to exist any loud, disturbing or unnecessary noise that is injurious or detrimental to the health, safety or peace of other persons or property.

E. The prohibition described in this section do not apply to:

1. Activities occurring within the scope of any permit issued by the city under the provisions of the McMinnville Municipal Code.

In granting previous waivers, the City has requested that the applicant provide notice in advance to affected neighbors.

Attachments:

1. McMinnville Municipal Code (MMC) section 8.10.260 Noises.

Fiscal Impact:

There is no anticipated fiscal impact.

Recommendation:

Should the Council choose to vote in favor of a motion allowing this waiver, the City Manager will write a letter to Scott Hinchcliff, letting him know that he has the Council's approval.

8.10.260 Noise.

A. A person in charge of a premises must not permit, allow or cause to exist any loud, disturbing or unnecessary noise that is injurious or detrimental to the health, safety or peace of other persons or property.

B. It is prohibited for any person on a public way to cause to exist any loud, disturbing or unnecessary noise that either annoys, disturbs, injures or endangers the comfort, repose, health, safety or peace of other persons or property.

C. For the purposes of this section, noise exceeding the following thresholds when measured 25 feet from the source if in the right-of-way or 25 feet from the property line if the source is on private property, is presumed to be a nuisance in violation of subsection [A](#) of this section:

ZONE	7:00 a.m. to 8:00 p.m.	8:00 p.m. to 7:00 a.m.
Residential	55 dBA	50 dBA
Commercial	60 dBA	55 dBA
Light Industrial	70 dBA	65 dBA
Industrial	80 dBA	75 dBA

D. For the purposes of this section, “loud, disturbing or unnecessary noise” includes but is not limited to the following substances, conditions or acts:

1. *Animals and Birds.* The keeping of any bird or animal that disturbs the comfort and repose of any person in the vicinity by causing frequent or long continued noise;
2. *Dog Barking.* The keeping of a dog that barks for more than 10 minutes during any one-hour period when such barking is audible off the premises of the dog’s owner or keeper;
3. *Animal Bells.* The attaching of a bell to any animal or allowing a bell to remain on any animal that is disturbing to any person in the immediate vicinity;
4. *Vehicle Noises.* The use of any vehicle or engine, either stationary or moving, in a manner that causes or creates any loud or unnecessary grating, grinding, rattling or other noise, including the discharge in the open air of the exhaust of any steam engine, internal combustion engine, motor boat or motor vehicle except through a muffler or other device which will effectively prevent loud or explosive noises and the emission of annoying smoke;
5. *Horns and Signaling Devices.* The sounding of any horn or signaling device on any vehicle

on any street, public or private place, except as a necessary warning of danger;

6. *Nonemergency Signaling Devices.* The sounding of any amplified signal from any bell, chime, siren, whistle or similar device, intended primarily for nonemergency purposes, from any place for more than 10 consecutive seconds in any hourly period, except that the reasonable sounding of such devices by houses of religious worship, ice cream trucks, seasonal contribution solicitors or by the city for traffic control purposes are exempt;

7. *Construction Noise.* The erection, including excavation, demolition, alteration or repair, of any building in residential districts, other than between the hours of 7:00 a.m. and 8:00 p.m., except upon special permit granted by the city manager or designee;

8. *Noise Sensitive Areas: Adjacency to Schools, Churches and Hospitals.* The creation of any excessive noise on any street adjacent to any school, institution of learning, church or court of justice while the same are in use, or adjacent to any hospital or institution for the care of the sick or infirm which unreasonably interferes with the operation of such institution, or which disturbs or unduly annoys patients;

9. *Loudspeakers, Amplifiers, Public Address Systems and Similar Devices.* The use or operation of any automatic or electric piano, phonograph, radio, television, loudspeaker or any instrument for sound producing or any sound-amplifying device so loudly as to disturb persons in the vicinity thereof or in such a manner as renders the use thereof a nuisance; provided, however, that upon application to the city manager, permits may be granted to responsible persons or organizations to broadcast programs of music, news, speeches or general entertainment;

10. *Blowers and Similar Devices.* The operation of any noise-creating blower, power fan, power tools, or any internal combustion engine in a manner the operation of which causes noise due to the explosion of operating gases or fluids:

- a. In a residential district or noise sensitive areas between the hours of 8:00 p.m. and 7:00 a.m.; and
- b. In a manner that can be heard by persons on nearby residential property.

11. *Commercial Establishments Adjacent to Residential Property.* Unreasonably loud and raucous noise from the premises of any commercial establishment, including any outdoor area which is part of or under the control of the establishment, between the hours of 10:00 p.m. and 7:00 a.m., that is plainly audible to persons on any nearby residential property.

E. The prohibition described in this section do not apply to:

1. Activities occurring within the scope of any permit issued by the city under the provisions of the McMinnville Municipal Code;



City of McMinnville

POLICE

2. Emergency response activities;

3. Vehicles performing repairs or upgrades in the right-of-way, including but not limited to street sweeping, sewer cleaning, construction and maintenance activities occurring between the hours of 7:00 a.m. and 8:00 p.m.

F. In addition to any corrective action ordered by the city, a person found to have violated the provisions of this section may be assessed a civil penalty. The amount of the civil penalty assessed for each day of continuing violation will not exceed the amount established for a Class 5 code violation. (Ord. 5079 §1 (Exh. 1 (part)), 2019).



STAFF REPORT

DATE: June 13, 2022
TO: Jeff Towery, City Manager
FROM: Jeff Gooden, Project Manager
SUBJECT: Alley Way at the block NE 8th & NE 9th Ave, NE Alpine Ave & NE Lafayette Ave St Street Vacation Request (RV 1-22)

Report in Brief:

A resolution initiating the proceedings and setting a date and time for a public hearing to consider the proposed vacation of an alley way at the block NE 8th & NE 9th Ave, NE Alpine Ave & NE Lafayette Ave St (RV 1-22).

Background:

The processes for the vacation of public right of way within incorporated cities are outlined in Oregon Revised Statutes (ORS) Chapter 271. The vacation process may be initiated by the adjacent property owners. Under that process, the property owners must file a petition with the City describing the area to be vacated, outlining the purpose for which the vacated area will be used, and noting the reason(s) the vacation is in the best public interest.

The petition must include written consent from all owners abutting the vacation area, and the written consent from two-thirds of the "affected" property owners. Statute prescribes the definition of "affected" properties, and it is generally all properties within 200' laterally on each side of the vacated area and within 400' beyond the extension of the vacated area.

Upon receipt of a completed vacation petition, the City Council, via Resolution, shall set a public hearing date to consider public testimony regarding the proposed vacation. Affected utilities are notified of the proposal and allowed to comment. Notice of the hearing is published in the local newspaper, and the notice is posted at each end of the proposed vacation area.

Upon conclusion of the public hearing, the City Council will consider an Ordinance to vacate the subject area. If the vacation Ordinance is adopted by the City Council, it is recorded with the County Clerk's office, and title to the vacated area is attached to the adjacent properties.

The application fee for the property owner-initiated vacation process is \$750.00. Those fees cover the costs of processing the application, publishing, and mailing the vacation hearing notices.

Discussion:

The City has received a completed vacation petition, and associated application fee, from VVC Investment Fund, LLC (owner) by Kevin Kump and Sarita Springer, Managers requesting that the City initiate the proceedings to vacate roughly 200' of Alley Way located on the block of NE 8th & NE 9th Ave, NE Alpine Ave & NE Lafayette Ave St. That alley way is unimproved. The applicant has indicated that the vacation of the right-of-way will help facilitate development of the adjacent property at the SW corner of the intersection of NE Alpine Ave & NE 9th Ave.

The vacation petition included written consent from all owners abutting the vacation area (834 NE Alpine Ave). Additionally, the well written consent from 20 of the 28 affected property owners was received, meeting the "two-thirds" requirement in statute.

Per Chapter 271 of the Oregon Revised Statutes (ORS), the City Council shall fix a time for a formal hearing upon the request and shall cause the proper notice of the hearing to be published and posted.

The proposed timeline for the vacation process is as follows:

- June 28th – City Council resolution initiating the vacation process and setting a hearing date August 9th, 2022
- June 29th - Notice of proposed vacation to affected utilities
- July 13th – Deadline for comments from affected utilities
- July 25th – Post notice of the proposed vacation at ends of the vacation area Publish 1st notice of the proposed vacation in the News Register
- August 1st – Publish 2nd notice of the proposed vacation in the News Register
- August 9th – City Council hearing & adoption of vacation ordinance
- September 9th – Vacation ordinance effective & recorded

Attachments:

1. Resolution
2. Resolution Exhibit A
3. Completed street vacation application materials
4. Alley Way Right-of-Way

Recommendation:

Staff recommends that the City Council adopt the attached resolution initiating the proceedings and setting a date and time for a public hearing to vacate the Alley Way (RV 1-22).

RESOLUTION NO. 2022 –45

A Resolution initiating the proceedings and setting a date and time for a public hearing to vacate an Alley Way.

BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMinnville, OREGON, as follows:

1. That proceedings be initiated for the purpose of vacating the area as described as follows and as shown on attached Exhibit "A":

Description of real property for: VVC INVESTMENT FUND, LLC - Description of alley to be vacated in Block 3, OAK PARK ADDITION.

A tract of land located in Section 21, Township 4 South, Range 4 West of the Willamette Meridian, Yamhill County, Oregon, being all that portion of an alleyway inuring to Lots 1-8 inclusive, of Block 3 of OAK PARK ADDITION, in the City of McMinnville the boundary of said alley being more particularly described as follows:

Beginning at the northwest corner of said Lot 4; thence North 52°34'02" West 15.00 feet to the northeast corner of said Lot 5; thence South 37°25'42" West 200.08 feet to the southeast corner of said Lot 8; thence South 52°33'56" East 15.00 feet to the southwest corner of said Lot 1; thence North 37°25'42" East 200.08 feet to the POINT OF BEGINNING, containing 3,001 square feet of land, more or less.

END DESCRIPTION

2. That this resolution, having been duly discussed by the Council, shall constitute an initiation of such vacation proceedings.
3. That the Council does hereby and herein fix the 9th day of August 2022 at the hour of 7:00 p.m. in the McMinnville Civic Hall in the City of McMinnville, Oregon, as the time and place for the hearing upon said proposed vacation and objections thereto, if any.
4. That the Recorder is hereby instructed to give notice of such hearing by publishing a notice in the News Register, the City's official newspaper, once each week for two consecutive weeks prior to said hearing, which notice shall describe the area to be vacated, and within five days after the date of the first publication of said notice, to post or cause to be posted at or near each end of said proposed vacation, a copy of such notice which shall be headed, "Notice of Street Vacation", and such notice shall be posted in at least two conspicuous locations in such proposed vacation as above described.

5. That this Resolution shall take effect immediately upon passage and shall continue in full force and effect until revoked or replaced.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 28th day of June 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 28th day of June 2022.

INTERIM MAYOR

Approved as to form:

Attest:

City Attorney

City Recorder

EXHIBITS:

- A. Description of Property and Alley Vacation Map

RENEWS 31 DECEMBER 2022

Leland MacDonald & Assoc., LLC
Land Surveyors
3765 Riverside Drive
McMinnville, OR 97128
Phone: 472-7904
Fax: 472-0367

REGISTERED
PROFESSIONAL
LAND SURVEYOR



OREGON
JANUARY 16, 2002
Leland A. MacDonald
53226

EXHIBIT "A"

23 September 2021

Description of real property for: VVC INVESTMENT FUND, LLC - Description of alley to be vacated in Block 3, OAK PARK ADDITION.

A tract of land located in Section 21, Township 4 South, Range 4 West of the Willamette Meridian, Yamhill County, Oregon, being all that portion of an alleyway inuring to Lots 1-8 inclusive, of Block 3 of OAK PARK ADDITION, in the City of McMinnville the boundary of said alley being more particularly described as follows:

Beginning at the northwest corner of said Lot 4; thence North 52°34'02" West 15.00 feet to the northeast corner of said Lot 5; thence South 37°25'42" West 200.08 feet to the southeast corner of said Lot 8; thence South 52°33'56" East 15.00 feet to the southwest corner of said Lot 1; thence North 37°25'42" East 200.08 feet to the POINT OF BEGINNING, containing 3,001 square feet of land, more or less.

END DESCRIPTION

Alley Vacation Map for : WVC Investments, LLC

Location: NW 1/4 Section 21, T. 4 S., R. 4 W., WM.,
Lots 4 & 5 of Block 3, OAK PARK ADDITION,
City of McMinnville, Yamhill County, OR

Tax Lot: R 4421BA - 3400, 3500

Date: 23 September 2021

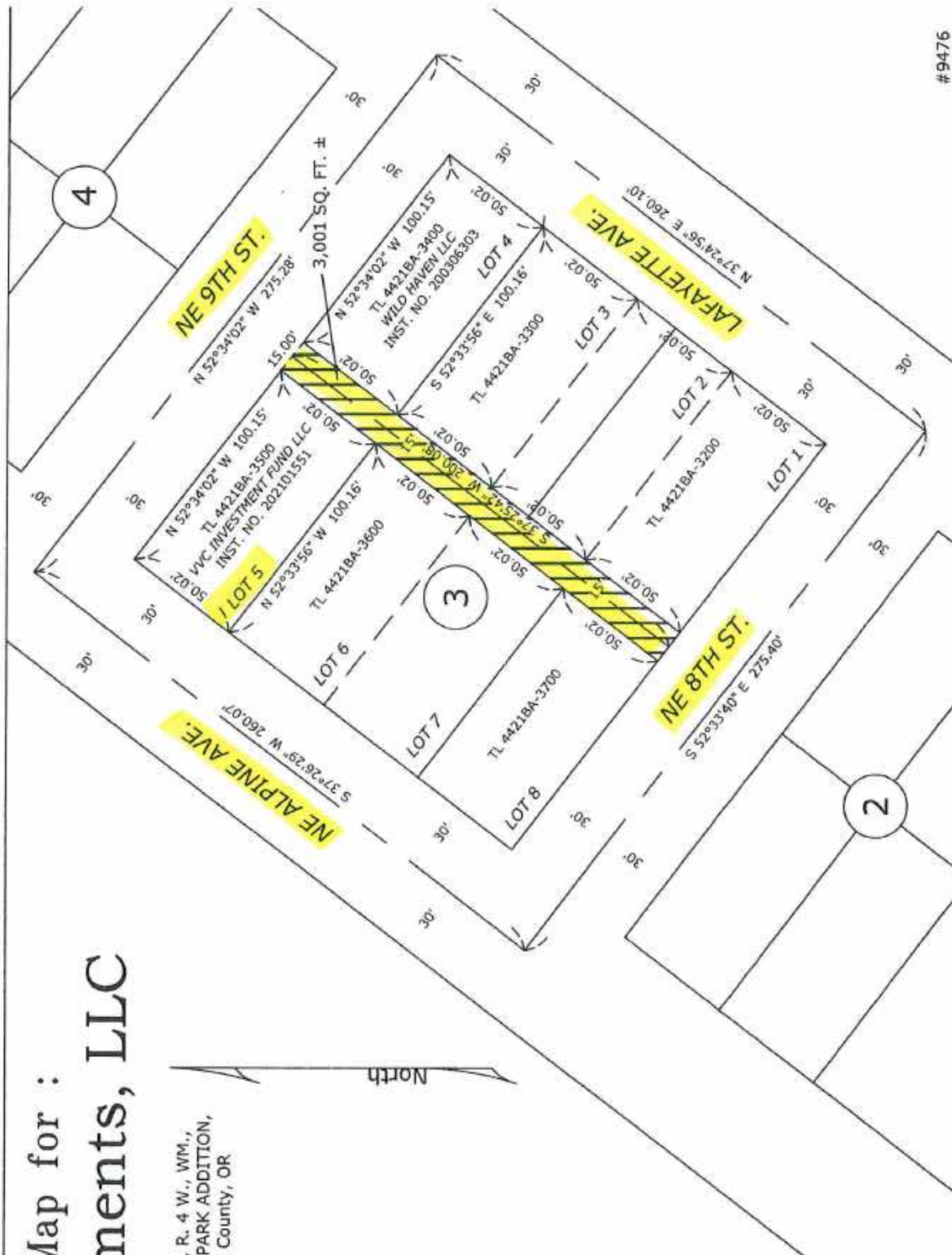
Scale: 1" = 50'

NOTE: DIMENSIONS OF BLOCK 3 ARE
RECORD OF CS-12152. NO FIELD
MEASUREMENTS HAVE BEEN TAKEN AT
THIS TIME.

By : Leland MacDonald & Assoc., LLC
Formerly dba Matt DuncKel & Assoc.
3765 Riverside Drive
McMinnville, Oregon 97128
Phone : 503-472-7904
Fax: 503-472-0367
Email: lee@macdonaldsurveying.com



Expires 31 December 2016





RECEIVED
APR 27 2022
COMMUNITY DEVELOPMENT
CENTER

RV-1-22

#509-22-000164
PLNG

Engineering Department
231 NE Fifth Street
McMinnville, Oregon 97128
(503) 434 - 7312 Office
(503) 474 - 4955 Fax
www.mcminnvilleoregon.gov

ROAD/STREET VACATION APPLICATION

We, the undersigned, request the described vacation and hereby acknowledge that we have read the above application and its attachments, understand the requirements described herein, and state that the information supplied is as complete and detailed as is currently possible, to the best of our knowledge.

Site Information

Site Address: 834 NE Alpine Ave., McMinnville, OR 97128

Subdivision Name: Oak Park Subdivision

Lot Number(s): Lot 5 of Block 3

Map & Tax Lot(s): Tax Lot 4421BA - 3500

Type of Vacation: Street Right-of-way Easement Other

Reason for Vacation: The alley between NE 8th St and NE 9th Ave is an unused, unimproved section of land that is neglected and blocked by trees, debris and other obstructions. The applicants are planning to improve the back portion of their property with new fencing, landscaping and off-street parking for their property and the adjacent property at 910 NE Alpine Ave to avoid vehicle congestion.

Proposed Use: Off-street parking and improved landscape design to improve the appearance and functionality of the land.

Applicant Information

Applicant's Name: VVC Investment Fund, LLC (Owner) by Kevin Kump and Sarita Springer, Managers

Mailing Address: 1271 NE Hwy 99W, #281

City, State, Zip: McMinnville, OR 97128

Phone Number: (503) 563-0505 Fax Number: (310) 861-8668

Email Address: kkump@aol.com and 1sdspringer@gmail.com

Applicant's Signature: [Signature] Date: April 25, 2022

Applicant's Signature: [Signature] Date: April 25, 2022

Note: A metes and bounds legal description and a map of the property to be vacated, prepared and stamped by a licensed surveyor, must be attached to this vacation application.

Office Use Only:				
File No. _____	Date Received _____	Fee _____	Receipt No. _____	Staff Member _____
Council Date: _____	Published Date(s): _____	Public Hearing Date: _____		



Engineering Department
231 NE Fifth Street
McMinnville, Oregon 97128
(503) 434 - 7312 Office
(503) 474 - 4955 Fax
www.mcminnvilleoregon.gov

VACATION PETITION

To: The Honorable Mayor and Council
of the City of McMinnville, Oregon

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, being the owners of the respective lots and parcels of land set opposite our respective names, do hereby consent to the vacation for purpose of Council jurisdiction and consideration, of all that portion of:

(insert metes and bounds legal description here)

See Attached Exhibit "A"

in the City of McMinnville, County of Yamhill, State of Oregon, and we do hereby represent and guarantee that we are the lawful owner of the property set opposite our respective names.

Reason for vacation: The unimproved, neglected alleyway has never been developed or used as an alley. As it currently sits, the alley is impeded by trees, shrubs, debris and other obstructions. As such, it is not accessible by car from NE 8th St to NE 9th Ave. The owners propose to use the alley for additional off-street parking behind their newly renovated bungalow at 834 NE Alpine Ave. When Alpine Avenue was redeveloped by the City as a pedestrian-friendly street, much needed parking was eliminated, including the sole parking spaces that were directly in front of the applicants' property (now blocked by planter boxes). Adding dedicated, off-street parking will alleviate congestion as the NE Gateway continues to be developed and improved.

Proposed use of vacated property: For dedicated off-street parking and enhanced landscape design that will serve to improve the area and benefit the neighborhood by alleviating parking / traffic congestion.

RENEWS 31 DECEMBER 2022

Leland MacDonald & Assoc., LLC
Land Surveyors
3765 Riverside Drive
McMinnville, OR 97128
Phone: 472-7904
Fax: 472-0367

REGISTERED
PROFESSIONAL
LAND SURVEYOR



OREGON
JANUARY 16, 2002
Leland A. MacDonald
53226

EXHIBIT "A"

23 September 2021

Description of real property for: VVC INVESTMENT FUND, LLC - Description of alley to be vacated in Block 3, OAK PARK ADDITION.

A tract of land located in Section 21, Township 4 South, Range 4 West of the Willamette Meridian, Yamhill County, Oregon, being all that portion of an alleyway inuring to Lots 1-8 inclusive, of Block 3 of OAK PARK ADDITION, in the City of McMinnville the boundary of said alley being more particularly described as follows:

Beginning at the northwest corner of said Lot 4; thence North $52^{\circ}34'02''$ West 15.00 feet to the northeast corner of said Lot 5; thence South $37^{\circ}25'42''$ West 200.08 feet to the southeast corner of said Lot 8; thence South $52^{\circ}33'56''$ East 15.00 feet to the southwest corner of said Lot 1; thence North $37^{\circ}25'42''$ East 200.08 feet to the POINT OF BEGINNING, containing 3,001 square feet of land, more or less.

END DESCRIPTION

Alley Vacation Map for : WVC Investments, LLC

Location: NW 1/4 Section 21, T. 4 S., R. 4 W., WM.,
Lots 4 & 5 of Block 3, OAK PARK ADDITION,
City of McMinnville, Yamhill County, OR

Tax Lot: R 4421BA - 3400, 3500

Date: 23 September 2021

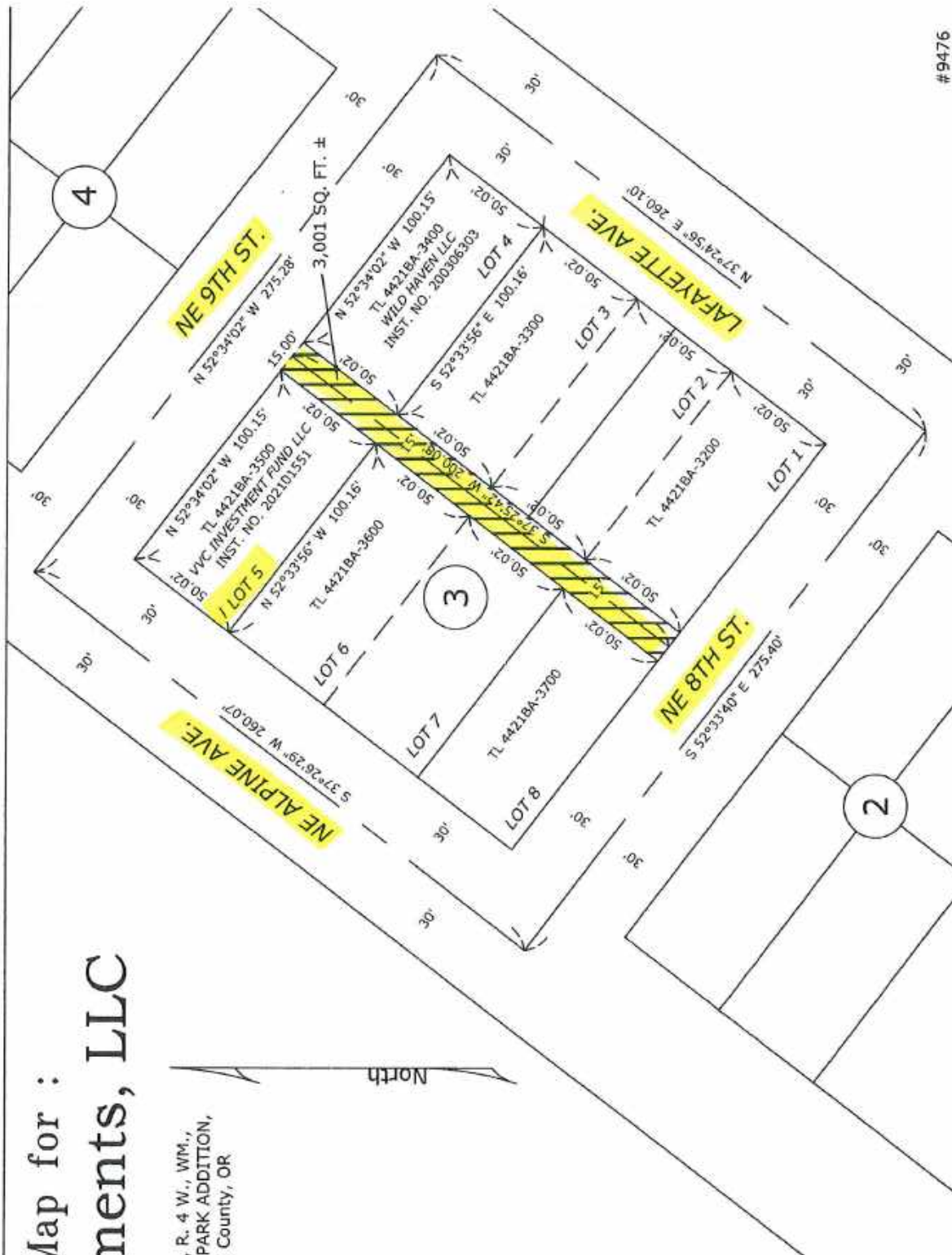
Scale: 1" = 50'

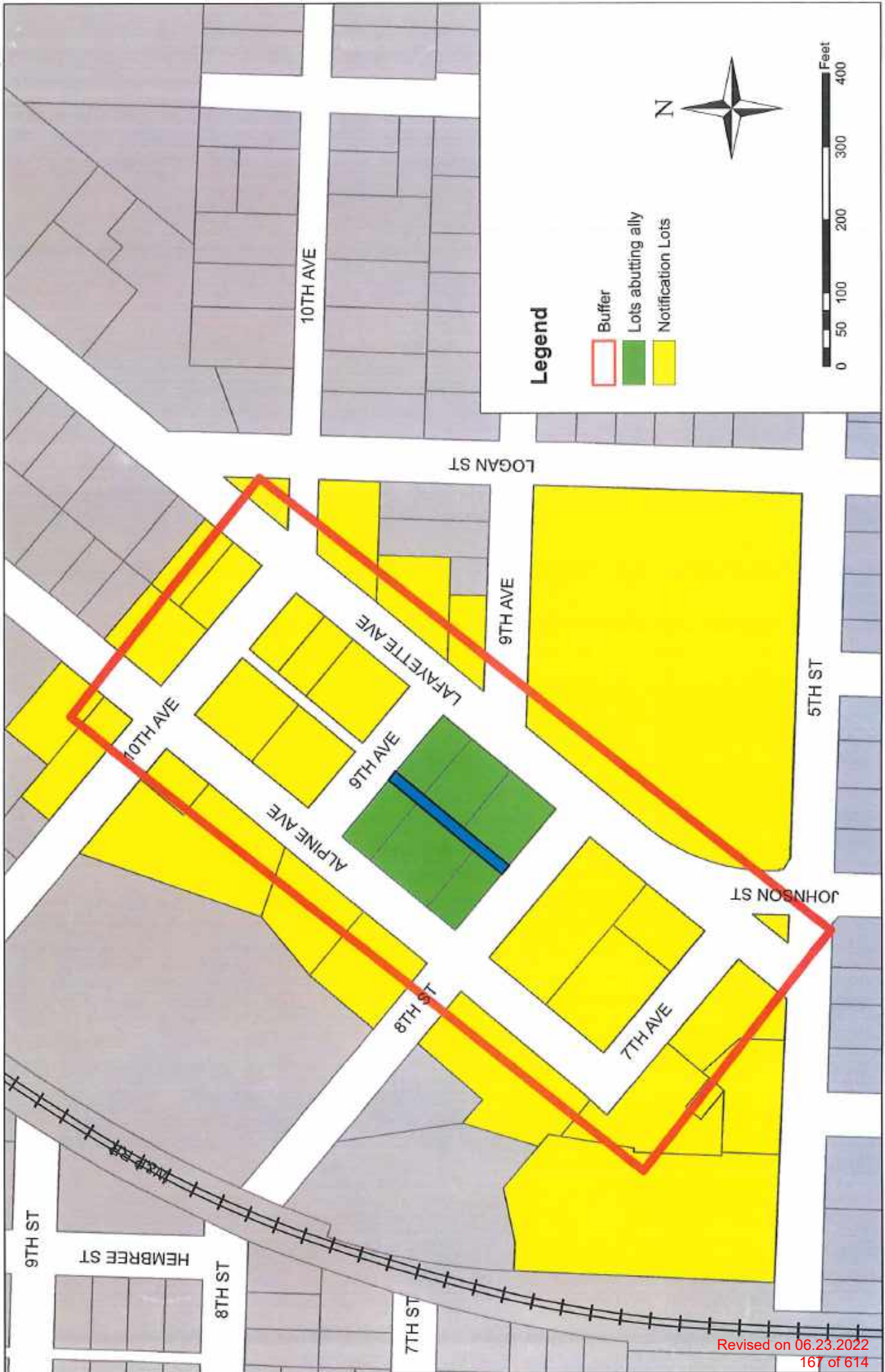
NOTE: DIMENSIONS OF BLOCK 3 ARE
RECORD OF CS-12152. NO FIELD
MEASUREMENTS HAVE BEEN TAKEN AT
THIS TIME.

By : Leland MacDonald & Assoc., LLC
Formerly dba Matt DuncKel & Assoc.
3765 Riverside Drive
McMinnville, Oregon 97128
Phone : 503-472-7904
Fax: 503-472-0367
Email: lee@macdonaldsurveying.com



Expires 31 December 2016

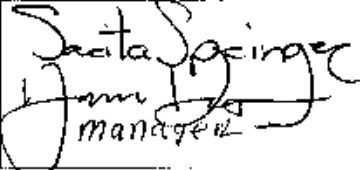






Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov

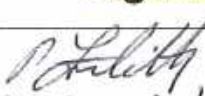
ABUTTING PROPERTY OWNER SIGNATURES (100%)

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owner: VVC Investment Fund LLC Address: 834 NE Alpine Ave., McMinnville, OR 97128 Map & Tax Lot Number: R4421BA03500	 Jacinta Springer manager	2/24/2022



Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov


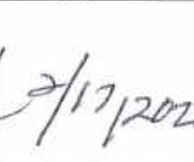
ABUTTING PROPERTY OWNER SIGNATURES (100%)

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owner: WILD HAVEN LLC Address: 833 NE Lafayette Ave., McMinnville, OR 97128 Map & Tax Lot Number: R4421BA03400	 Phillip Frischmuth Managing Member Wild Haven LLC	1/31/22



Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov

ABUTTING PROPERTY OWNER SIGNATURES (100%)

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owner: Richard and Mary Park Address: 813 NE Lafayette Ave., McMinnville, OR 97128 Map & Tax Lot Number: R4421BA03200		

City Of

McMinnville



Engineering Department

231 NE Fifth Street

McMinnville, Oregon 97128

(503) 434 – 7312 Office

(503) 474 – 4955 Fax

www.mcminnvilleoregon.gov



ABUTTING PROPERTY OWNER SIGNATURES (100%)

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owner: Lucas J Blanchard Address: 823 NE Lafayette Ave., McMinnville, OR 97128 Map & Tax Lot Number: R4421BA03300	DocuSigned by: <i>Lucas Blanchard</i> 288D2CF583E14E...	2/22/2022



Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov

ABUTTING PROPERTY OWNER SIGNATURES (100%)

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owner: Stephen and Anna Druse Address: 810 NE Alpine Ave., McMinnville, OR 97128 Map & Tax Lot Number: R4421BA03600		



Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov


ABUTTING PROPERTY OWNER SIGNATURES (100%)

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owner: Pereda Conrado & Ma-Auxilio Address: 802 NE Alpine Ave., McMinnville, OR 97128 Map & Tax Lot Number: R4421BA03700	<i>See attached consent form signed by owner, Conrado Pereda, on 2/17/2022</i>	



Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov

~~AFFECTED~~ PROPERTY OWNER SIGNATURES (~~2~~¹)

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owners: SCHREIBER MTN DEVELOPMENT LLC 12% & WINTERS MTN DEVELOPMENT LLC 8% & STEPHAN MTN DEVELOPEMENT LLC 20% & Address: 845 NE 5TH ST SUITE 200, McMinnville, OR 97128 Map & Tax Lot Number: R4421BA04702		
862 Alpine McMinnville Or Conrado Pereda & Mia Auxilio Conrado Pereda		2-17-22

City Of

McMinnville



Engineering Department
231 NE Fifth Street
McMinnville, Oregon 97128
(503) 434 - 7312 Office
(503) 474 - 4955 Fax
www.mcminnvilleoregon.gov


AFFECTED PROPERTY OWNER SIGNATURES (2/3^{rds})

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owner: Peggy Talmadge Address: 950 NE ALPINE AVE, McMinnville, OR 97128 Map & Tax Lot Number: R4421BA93000	<i>Peggy Talmadge</i>	4/11/22



Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov


AFFECTED PROPERTY OWNER SIGNATURES (2/3^{rds})

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owners: Ricardo Ramirez and Anarosa Bautista Address: 925 NE LAFAYETTE AVE, McMinnville, OR 97128 Map & Tax Lot Number: R4421BA02800		2-19-22
		



Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov


AFFECTED PROPERTY OWNER SIGNATURES (2/3rds)

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owners: OHANA MAC LLC Address: 920 NE 10TH AVE, McMinnville, OR 97128 Map & Tax Lot Number: R4421BA03801		2/15/22



Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov

AFFECTED PROPERTY OWNER SIGNATURES (2/3^{rds})

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owners: S R Yutzy Address: 1005 NE LAFAYETTE AVE, McMinnville, OR 97128 Map & Tax Lot Number: R4421BA00100		2-7-22



Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov

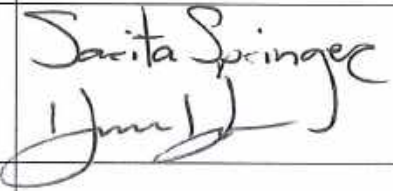
AFFECTED PROPERTY OWNER SIGNATURES (2/3^{rds})

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owners: CARE FOR KIDS, INC Address: 835 NE 8th St., McMinnville, OR 97128 Map & Tax Lot Number: R4421BA03804	Sandra Stevenson Executive Director	2.3.22



Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov


AFFECTED PROPERTY OWNER SIGNATURES (2/3^{rds})

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owner: The Boutique Retreat LLC Address: 910 NE Alpine Ave., McMinnville, OR 97128 Map & Tax Lot Number: R4421BA03001		3/1/2022



Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov

AFFECTED PROPERTY OWNER SIGNATURES (2/3^{rds})

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owners: SCHREIBER MTN DEVELOPMENT LLC 12% & WINTERS MTN DEVELOPMENT LLC 8% & STEPHAN MTN DEVELOPEMT LLC 20% & Address: 845 NE 5TH ST SUITE 200, McMinnville, OR 97128 Map & Tax Lot Number: R4421BA04702		2/7/22

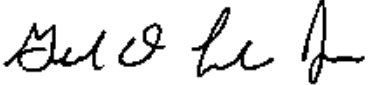
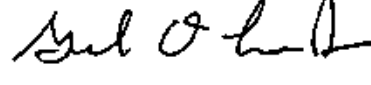
City Of

McMinnville



Engineering Department
231 NE Fifth Street
McMinnville, Oregon 97128
(503) 434 – 7312 Office
(503) 474 – 4955 Fax
www.mcminnvilleoregon.gov


AFFECTED PROPERTY OWNER SIGNATURES (2/3rds)

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owner: Legard Family LLC Address: 855 NE 5th Street, McMinnville, OR 97128 Map & Tax Lot Number: R4421BA04701		4-25-2022
Owner: Legard Family LLC Address: No Situs Listed Map & Tax Lot Number: R4421BA03901		4-25-2022



Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov

AFFECTED PROPERTY OWNER SIGNATURES (2/3rds)


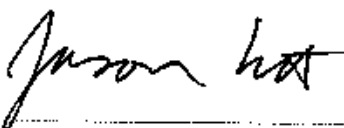

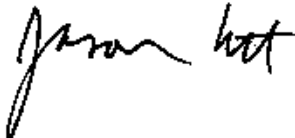
Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owners: ULTIMATE RB INC Address: 835 NE Alpine Ave, McMinnville, OR 97128 Map & Tax Lot Number: R4421BA03805		4-6-22

City Of



Engineering Department
231 NE Fifth Street
McMinnville, Oregon 97128
(503) 434 – 7312 Office
(503) 474 – 4955 Fax
www.mcminnvilleoregon.gov






AFFECTED PROPERTY OWNER SIGNATURES (2/3^{rds})

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owners: D & D Vineyards Inc Address: 1011 NE ALPINE AVE, McMINSVILLE, OR 97128 Map & Tax Lot Number: R4421BA02100		2/16
Owners: D & D Vineyards Inc Address: 935 NE 16TH AVE, McMINNVIJE, OR 97128 Map & Tax Lot Number: R4421BA01400		2/16
Owners: D & D Vineyards Inc Address: No Situs Listed Map & Tax Lot Number: R4421BA03806 (1015 NE 10 th Ave?)		2/16
OWNERS: D+D Vineyards Inc Address: 1026 Alpine Map + Tax Lot Number:		2/16



Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov

AFFECTED PROPERTY OWNER SIGNATURES (2/3^{rds})

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owners: McDonald Industrial Properties LLC, Zalina Mtn Development LLC, Schreiber Mtn Development LLC Address: 845 NE 5TH ST 100, McMINNVILLE, OR 97128 Map & Tax Lot Number: R4421BA04700		2/7/22
Owners: McDonald Industrial Properties LLC, Zalina Mtn Development LLC, Schreiber Mtn Development LLC Address: No Situs Listed Map & Tax Lot Number: R4421BA04800		2/7/22
Owners: McDonald Industrial Properties LLC, Zalina Mtn Development LLC, Schreiber Mtn Development LLC Address: 925 NE 7TH AVE, McMINNVILLE, OR 97128 Map & Tax Lot Number: R4421BA03900		2/7/22
Owners: McDonald Industrial Properties LLC, Zalina Mtn Development LLC, Schreiber Mtn Development LLC Address: 750 NE ALPINE AVE, McMINNVILLE, OR 97128 Map & Tax Lot Number: R4421BA04000		2/7/22
Owners: McDonald Industrial Properties LLC, Zalina Mtn Development LLC, Schreiber Mtn Development LLC Address: 755 NE ALPINE AVE, McMINNVILLE, OR 97128 Map & Tax Lot Number: R4421BA04400		2/7/22

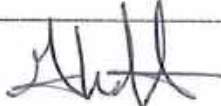


Engineering Department
 231 NE Fifth Street
 McMinnville, Oregon 97128
 (503) 434 – 7312 Office
 (503) 474 – 4955 Fax
www.mcminnvilleoregon.gov

AFFECTED PROPERTY OWNER SIGNATURES (2/3^{rds})

Item Holder
 →

Property Owner

Owner Name/Address/Map & Tax Lot Number	Signature*	Date Signed
Owners: Alan T and Nancy J White, Trustees Trustees of the Alan T and Nancy J Living Trust Address: 1015 NE Alpine Ave, McMinnville, OR 97128 Map & Tax Lot Number: R4421BA01605		
<i>AME LLC. Nathan Zook, Greg White 1015 NE Alpine Ave. McMinnville Or, 97128</i>	 <i>President.</i>	<i>2-14-22</i>

Alley Way



STAFF REPORT

DATE: June 28, 2022
TO: Jeff Towery, City Manager
FROM: Jennifer Cuellar, Finance Director
SUBJECT: A Resolution extending workers' compensation coverage to City of McMinnville volunteers

Strategic Priority and Goal:



CITY GOVERNMENT CAPACITY

Strengthen the City's ability to prioritize & deliver municipal services with discipline and focus.

Discussion:

For purposes of workers compensation coverage, Oregon Revised Statute (ORS) 656.031 defines municipal personnel, other than those employed full-time or part-time, as volunteer personnel. A city utilizing volunteer personnel may elect to have such personnel covered by workers compensation insurance by filing a written application with the city's insurer. The city must also submit a resolution to the insurer declaring its intent to cover volunteer personnel and provide a description of the work to be performed by such personnel.

The City annually submits a written application to SAIF electing to cover volunteer personnel under its workers compensation insurance plan. The attached Resolution extends workers' compensation coverage to City of McMinnville volunteers and meets ORS and SAIF requirements.

Fiscal Impact:

The cost for this component of the workers comp policy is included in the FY2022-23 budget.

Recommendation:

Approve the Resolution.

Attachments:

Resolution 2022-46

Exhibit A - Workers' Compensation Renewal Boards, Commissions, Councils, and Committee NCII Code #8742V 2022 – 2023.

RESOLUTION NO. 2022-46

A Resolution extending workers' compensation coverage to City of McMinnville volunteers.

RECITALS:

WHEREAS, The City of McMinnville's insurance provider is SAIF Workers Comp Insurance. SAIF provides coverage to City volunteers under certain circumstances. Adoption of a resolution setting out the information below is a prerequisite to coverage that will be provided during the fiscal year beginning July 1, 2022.

NOW THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMINNVILLE, OREGON as follows:

Pursuant to ORS 656.031, workers' compensation coverage will be provided to the classes of volunteers listed in this resolution, noted on SAIF payroll schedule, and verified at audit:

1. Public safety volunteers

Used for public safety volunteers in the following volunteer positions:

- Police reserve
- Firefighter

2. Police and Fire non-public safety volunteers

The following Police and Fire volunteers:

- Parking and code enforcement
- Police chaplains
- Fire and Life Safety

3. Volunteer boards, commissions and councils for the performance of administrative duties.

An aggregate assumed annual wage will be used per each volunteer board, commission, or council for the performance of administrative duties. The covered bodies are specified on Attachment A, attached to and incorporated into this Resolution by this reference.

4. Non-public safety volunteers

All non-public safety volunteers listed below will track their hours for both premium and benefits calculations. SAIF will assign the appropriate classification code according to the type of volunteer work being performed.

- Parks and Recreation
- Senior Center
- Public Works
- Library
- Park Watch

5. Public Events

Volunteers at the following public events will be covered by workers' compensation policy:

- City sponsored community events

6. Community Service Volunteers/Inmates

Pursuant to ORS 656.041, workers' compensation coverage will be provided to community service volunteers commuting their sentences by performing work authorized by McMinnville Municipal Court.

Hourly tracking will be used for both premium and benefit calculations, verifiable by providing a copy of the roster and/or sentencing agreement from the court.

7. Other volunteers

Volunteer exposures not addressed here will have workers' compensation coverage if, prior to the onset of the work:

- a. City provides advance written notice to SAIF underwriting requesting the coverage,
- b. SAIF approves the coverage and date of coverage, and
- c. SAIF provides written confirmation of coverage.

8. Rosters

The City will maintain rosters for all volunteers and will make them available at the time of a claim or audit to verify coverage.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 28th day of June, 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 28th day of June 2022.

INTERIM MAYOR

Approved as to form:

Attest:

City Attorney

City Recorder

Exhibits:

- Attachment A: Workers' Compensation Renewal Boards, Commissions, Councils, and Committee NCII Code #8742V 2022 – 2023.

**Workers' Compensation Renewal
Boards, Commissions, Councils, and Committee NCII Code #8742V
2022 - 2023**

WC Volunteer Resolution Attachment A

Type of City Organization
City Council
Mayor
City Councilor Ward # 1
City Councilor Ward # 1
City Councilor Ward # 2
City Councilor Ward # 2
City Councilor Ward # 3
City Councilor Ward # 3
Airport Commission
Audit Committee
Board of Appeals
Budget Committee
Advisory Board - Building Code
Citizen's Advisory Committee
Diversity, Equity, and Inclusion Advisory Committee
Economic Vitality Leadership Council
Historic Landmarks Committee
Landscape Review Committee
McMinnville Affordable Housing Task Force
McMinnville Urban Area Mgt Commission
McMinnville Urban Renewal Advisory Committee
MacPac
Planning Commission

STAFF REPORT

DATE: June 28, 2022
TO: Jeff Towery, City Manager
FROM: Jennifer Cuellar, Finance Director
SUBJECT: A Resolution certifying provision of municipal services by the City of McMinnville

Strategic Priority and Goal:



CITY GOVERNMENT CAPACITY

Strengthen the City's ability to prioritize & deliver municipal services with discipline and focus.

Discussion:

Oregon Revised Statute (ORS) 221.760(1) designates certain prerequisites for cities in a county of over 100,000 population to receive State shared revenues from cigarette, gas, and liquor taxes. The ORS states that the officer responsible for disbursing such funds to cities shall disburse such funds, in the case of a city located within a county having more than 100,000 inhabitants, only if the officer reasonably is satisfied that the city provides four or more of the following municipal services:

- a) Police protection
- b) Fire protection
- c) Street construction, maintenance and lighting
- d) Sanitary sewers
- e) Storm sewers
- f) Planning, zoning and subdivision control
- g) One or more utility services

The attached Resolution certifies that the City meets the prerequisites for receiving cigarette, gas and liquor taxes.

Fiscal Impact:

The City anticipates receiving \$502,000 in state shared revenues, a vital source of unrestricted general fund revenues to support public services.

Recommendation:

Approve the Resolution.

Attachments:

Resolution 2022-47

RESOLUTION NO. 2022-47

A Resolution certifying provision of municipal services by the City of McMinnville as required by ORS 221.760.

RECITALS:

WHEREAS, ORS 221.760 provides that a city located within a county that has more than 100,000 inhabitants according to the most recent federal decennial census must provide four or more municipal services in order to qualify to receive revenues from cigarette, gas, and liquor taxes (Shared Revenues). These revenues are provided for in ORS 323.455, 366.785 to 366.820, and 471.805.

The services to be considered are:

- 1) Police protection
- 2) Fire protection
- 3) Street construction, maintenance, lighting
- 4) Sanitary sewer
- 5) Storm sewer
- 6) Planning, zoning, subdivision control
- 7) One or more utility services

WHEREAS, To assist the state officer responsible for determining the eligibility of the City to receive these revenues in accordance with ORS 221.760, the City may certify its eligibility.

NOW THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMINNVILLE, OREGON as follows:

- 1. The City certifies that it provides the following municipal services as enumerated in ORS 221.760(1):
 - 1) Police protection—Yes
 - 2) Fire protection—Yes
 - 3) Street construction, maintenance, lighting—McMinnville Water and Light provides lighting, otherwise Yes
 - 4) Sanitary sewer—Yes
 - 5) Storm sewer—Yes
 - 6) Planning, zoning, subdivision control—Yes
- 2. This Resolution will take effect immediately upon passage and shall continue in full force and effect until revoked or replaced.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 28th day of June, 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 28th day of June 2022.

INTERIM MAYOR

Approved as to form:

Attest:

City Attorney

City Recorder

STAFF REPORT

DATE: June 28, 2022
TO: Jeff Towery, City Manager
FROM: Jennifer Cuellar, Finance Director
SUBJECT: A Resolution declaring the City's election to receive certain state shared revenues

Strategic Priority and Goal:



CITY GOVERNMENT CAPACITY

Strengthen the City's ability to prioritize & deliver municipal services with discipline and focus.

Discussion:

Oregon Revised Statute (ORS) 221.770(1) designates that a share of certain revenues of the state of Oregon shall be apportioned among and distributed to the cities of the state for general purposes as provided for in the ORS. The City shall not be included in apportionments or receive distributions of state shared revenues unless the city:

- Elects to receive distributions for the fiscal year by enactment of a resolution expressing that election and filing a copy of the resolution with the Oregon Department of Administrative Services not later than July 31 of the fiscal year
- Holds at least one public hearing, after adequate public notice, at which citizens have the opportunity to provide comment to the authority responsible for approving the proposed budget for the fiscal year on the possible uses of the State distributions and certifies its compliance as required by ORS 221.770(1)(b)
- Holds at least one public hearing, after adequate public notice, at which citizens have the opportunity to provide comment to, and ask questions of, the authority responsible for adopting the city budget on the proposed use of distributions in relation to the entire budget of the city for the fiscal year and certifies its compliance as required by ORS 221.770(1)(c)
- Levied a property tax for the year preceding the year in which revenue sharing is due under ORS 471.810 (Distribution of available moneys in Oregon Liquor Control Commission Account)

The City of McMinnville has complied with the requirements to hold public hearings, after adequate public notice, and has levied a property tax for the year preceding the year in which revenue sharing is due.

The attached Resolution satisfies the requirement of 221.770(1)(a) which requires the City to elect to receive distribution of State shared funds by adopting such resolution. Upon Council adoption, City staff will file the Resolution with the Department of Administrative Services no later than July 31, 2022.

Fiscal Impact:

The City anticipates receiving \$502,000 in state shared revenues, a vital source of unrestricted general fund revenues to support public services.

Recommendation:

Approve the Resolution.

Attachments:

Resolution 2022-48

RESOLUTION NO. 2022-48

A Resolution declaring the City’s election to receive certain state shared revenues.

BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMINNVILLE, OREGON, as follows:

1. Pursuant to ORS 221.770, the City hereby elects to receive state shared revenues for fiscal year 2022 – 2023.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 28th day of June, 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 28th day of June 2022.

INTERIM MAYOR

Approved as to form:

Attest:

City Attorney

City Recorder

I certify that a public hearing before the Budget Committee was held on May 17, 2022 and a public hearing before the City Council was held on June 14, 2022, giving citizens an opportunity to comment on use of State Revenue Sharing.

CITY RECORDER

STAFF REPORT

DATE: June 28, 2022
TO: Jeff Towery, City Manager
FROM: Jennifer Cuellar, Finance Director
SUBJECT: A Resolution adopting the budget for fiscal year beginning July 1, 2022; making the appropriations; imposing the property taxes; and categorizing the property taxes

Strategic Priority and Goal:



CITY GOVERNMENT CAPACITY

Strengthen the City's ability to prioritize & deliver municipal services with discipline and focus.

Report in Brief:

Oregon Revised Statute (ORS) 294.456 requires the City to enact a resolution to adopt the City's budget for the fiscal year. Resolution 2022-49 adopts the FY2022-23 budget for the fiscal year beginning July 1, 2022, makes appropriations, imposes property taxes, and categorizes the property taxes, as required by the ORS.

ORS 294.456 also allows the City Council to make changes to the budget that was approved by the Budget Committee. If a change increases expenditures by more than 10 percent, the City must publish a revised financial summary and hold a second budget hearing before the adjusted budget can be adopted. For the FY2022-23 budget, a revised financial summary was published on June 21, 2022, and a second public hearing will be held on June 28, 2022, prior to consideration of this resolution by Council.

Discussion of Changes in Budget Appropriation Levels:

A handful of changes to the 2022-23 Budget approved by the Budget Committee on May 18, 2022, are included in the Budget that is being presented to the Council for adoption. The attached schedule shows the difference for each fund between the approved and appropriation budget by appropriation category. The notated reasons for the changes are as follows:

1. For the General Fund, the purchase of a dish washer for the Senior Center to support the higher number of people utilizing its programming this summer is funded by moving \$15,000 in unspent FY2021-22 maintenance and repairs dollars to FY2022-23. Revenue estimate revisions upwards in Transient Lodging Taxes in both FY2021-22 and FY2022-23 resulted in an increase to FY2022-23

unappropriated ending fund balance in the General Fund of \$163,300. Reducing Transfers In revenue because the Public Works Director will be able to delegate management duties to an airport manager and the appropriation transfer of \$15,000 for the Senior Center combine to reduce the unappropriated fund balance by \$64,500.

2. The Transient Lodging Tax revenue estimate was revised upward after the trend of recovery in the tourism sector from the impacts of the covid 19 pandemic was confirmed with Q3-FY22 actual receipts. We now estimate \$249,000 more in revenue will be received in FY2022-23 relative the amount projected in the budget approved by the Budget Committee. This change represented an increase of over 10 percent, one of the funds driving the need to have a second public hearing on this year's budget.
3. Projects and purchases in the Street Fund (\$177,000) previously scheduled in FY2021-22 will take place in FY2022-23. In addition, its ending fund balance rose (\$12,000) due to updates in FY2021-22 estimated expenditures that will also not be spent next year.
4. Projects in the Airport Fund (\$17,000) will be moved from the prior fiscal year to FY2022-23. In addition, one project is anticipated to have a higher cost than previously anticipated (\$3,000), which will also mean a reduction in the Airport Fund's ending fund balance (\$3,000). As noted above, an airport manager will alleviate the need for the Public Works Director to allocate as much of her time to the Airport Fund thus transfers out are reduced and the ending fund balance will increase by the same amount (\$49,500).
5. A number of activities in the Wastewater Capital Fund are being reprogrammed from the FY2021-22 budget to FY2022-23 (\$2.4 million). The impact on the ending fund balance is mitigated by an increase in estimated beginning balance of \$260,000. Details are noted in Attachment 2.

Fiscal Impact:

Enacting the annual budget allows the city to impose property taxes, the largest source of unrestricted general fund revenues to support public services.

Recommendation:

Approve the Resolution 2022-49

1. adopting the budget for the fiscal year beginning July 1, 2022, in the amount of \$136,397,266
2. making appropriations in the amount of \$88,307,768
- 3a. imposing the property taxes at the City of McMinnville's permanent property tax rate of \$5.0200 per \$1,000 assessed value for general operations
- 3b. imposing property tax in the amount of \$2,934,540 for general obligation bond debt service

Attachments:

1. FY2022-23 Budget Appropriation Comparison
2. FY2022-23 Budget Appropriation Update Line Item Detail
3. Resolution 2022-49

City of McMinnville

FY2022-23 Budget Appropriation Comparison

<u>Fund, Dept and Budget Category</u>	<u>Approved Budget</u>	<u>Updates in 6.21.2022 Notice</u>	<u>Additional Changes</u>	<u>Proposed Budget for Appropriation</u>
General Fund				
Administration	1,826,360			1,826,360
Finance	981,469			981,469
Engineering	1,189,151			1,189,151
Planning	3,139,028			3,139,028
Police	10,154,087			10,154,087
Muni Court	632,065			632,065
Fire	10,830,170			10,830,170
Park+Rec	2,752,168		15,000	2,767,168 ¹
Park Maint	1,496,644			1,496,644
Library	2,494,658			2,494,658
Unemployment	14,999			14,999
Debt	583,070			583,070
Transfers	1,361,719			1,361,719
Contingency	1,000,000			1,000,000
General Fund Total	38,455,588	0	15,000	38,470,588
Grant and Special Assessment Fund				
Program	2,460,000			2,460,000
Transfers	9,470			9,470
Contingency	0			0
Special Assessment Total	2,469,470	0	0	2,469,470
Transient Lodging Fund				
Program	1,154,267	174,750		1,329,017 ²
Transfers	525,933	74,450		600,383 ²
Transient Lodging Fund Total	1,680,200	249,200	0	1,929,400
Affordable Housing Fund				
Program	3,920,000			3,920,000
Transfers	180,000			180,000
Affordable Housing Fund Total	4,100,000	0	0	4,100,000

Fund, Dept and Budget Category	Approved Budget	Updates in 6.21.2022 Notice	Additional Changes	Proposed Budget for Appropriation
Telecommunications Fund				
Program	252,200			252,200
Contingency	1,500			1,500
Telecommunications Fund Total	253,700	0	0	253,700
Emergency Communications Fund				
Program	723,496			723,496
Debt	37,172			37,172
Transfers	1,718			1,718
Contingency	45,000			45,000
Emergency Comms Fund Total	807,386	0	0	807,386
Street Fund				
Program	2,510,908	177,105		2,688,013 ³
Transfers	724,210			724,210
Contingency	500,000			500,000
Street Fund Total	3,735,118	177,105	0	3,912,223
Airport Maintenance Fund				
Program	698,800	20,000		718,800 ⁴
Transfers	103,274		(49,473)	53,801 ⁵
Contingency	300,000			300,000
Airport Maintenance Fund Total	1,102,074	20,000	(49,473)	1,072,601
Transportation Fund				
Program	1,142,300			1,142,300
Debt	201,249			201,249
Transfers	120,219			120,219
Contingency	500,000			500,000
Transportation Fund Total	1,963,768	0	0	1,963,768
Park Development Fund				
Program	240,800			240,800
Transfers	58,460			58,460
Contingency	500,000			500,000
Park Development Fund Total	799,260	0	0	799,260

Fund, Dept and Budget Category	Approved Budget	Updates in 6.21.2022 Notice	Additional Changes	Proposed Budget for Appropriation
Debt Service Fund				
Debt	3,002,150			3,002,150
Debt Service Total	3,002,150	0	0	3,002,150
Building Fund				
Program	784,744			784,744
Transfers	37,065			37,065
Contingency	200,000			200,000
Building Fund Total	1,021,809	0	0	1,021,809
Wastewater Services Fund				
Program	5,168,404			5,168,404
Transfers	6,651,088			6,651,088
Contingency	900,000			900,000
WW Services Fund Total	12,719,492	0	0	12,719,492
Wastewater Capital Fund				
Program	8,257,000	2,400,000		10,657,000 ⁶
Transfers	229,238			229,238
Contingency	1,500,000			1,500,000
Wastewater Capital Fund Total	9,986,238	2,400,000	0	12,386,238
Information Services Fund				
Program	1,517,278			1,517,278
Contingency	75,000			75,000
Information Services Fund Total	1,592,278	0	0	1,592,278
Insurance Services Fund				
Program	1,422,630			1,422,630
Transfers	234,775			234,775
Contingency	150,000			150,000
Insurance Services Total	1,807,405	0	0	1,807,405

Fund, Dept and Budget Category	Approved Budget	Updates in 6.21.2022 Notice	Additional Changes	Proposed Budget for Appropriation
Total City of McMinnville				
Program	65,763,626	2,771,855	15,000	68,550,481 ⁷
Debt	3,823,641			3,823,641
Transfers	10,237,169	74,450	(49,473)	10,262,146 ⁷
Special Payments	0			0
Contingency	5,671,500			5,671,500
City of McMinnville Appropriation	85,495,936	2,846,305	(34,473)	88,307,768
Unappropriated Ending Fund Balance				
General Fund	3,756,928	163,269	(64,473)	3,855,724 ⁸
Wastewater Services + Capital	37,200,122	(2,140,000)		35,060,122 ⁸
Transportation Fund	2,452,591			2,452,591
Debt Service Fund	383,848			383,848
Building Fund	1,229,714			1,229,714
Internal Service Funds	312,192			312,192
Street Fund	1,423,811	12,396		1,436,207 ⁸
Park Development Fund	1,548,781			1,548,781
Grant and Assessment Fund	1,507,049			1,507,049
Other Funds	256,797	(3,000)	49,473	303,270 ⁸
Unappropriated E F B Total	50,071,833	(1,967,335)	(15,000)	48,089,498
Total City of McMinnville Budget	135,567,769	878,970	(49,473)	136,397,266

¹ Senior Center dishwasher move FY22 to FY23

² Stronger recovery in tourism sector than anticipated so have increased FY23 estimates for TLT

³ Street fund expenditures planned for FY22 will be moved to FY23

⁴ Wastewater Capital fund work planned for FY22 will be moved to FY23 and higher cost estimate

⁵ Airport fund reduce transfers out as new PT staffer will administer, not the Public Works Director

⁶ Wastewater Capital fund expenditures planned for FY22 will be moved to FY23 and higher cost estimate

⁷ Total program and transfer budget increases/decreases across the city organization for above reason

⁸ Net impact of changes in beginning fund balances and expenditures on ending fund balances

Attachment 2

City of McMinnville

FY2022-23 Budget Appropriation Update Line Item Detail

Line Item Detail	Approved Budget	Changes	Proposed Appropriation	Notes
Fund 01 - General				
REVENUE				
<u>Beginning Fund Balance</u>				
4090 Beginning Fund Balance	4,334,365	88,819	4,423,184	Higher revenue from FY22 TLT increased estimate
<u>01-99 Non-departmental Transfers In</u>				
6900-07 Transfers In Transient Lodging Tax	525,933	74,450	600,383	Higher revenue from FY23 TLT increased estimate
6900-25 Transfers In Airport	103,274	(49,473)	53,801	PW Dir delegates to airport manager
General Fund Revenue Total Change		113,796		
EXPENSE				
<u>01-17-099-501 Parks and Rec Department - Senior Center</u>				
8800 Building Improvements	0	15,000	15,000	Dishwasher Wortman Park Café
<u>01-99 Non-departmental</u>				
9999 Unappropriated Ending Fd Balance	2,906,928	98,796	3,005,724	Net impact of higher TLT estimated resources; lower transfers in from the Airport due to hire of PT Airport Manager and lower need for Public Works Director for airport activities; Senior Center dishwasher
General Fund Expense Total Change		113,796		
Fund 07 - Transient Lodging Tax				
REVENUE				
4220 Transient Lodging Tax	1,680,000	249,200	1,929,200	Higher revenue from FY23 TLT increased estimate
Grants and Special Assessments Fund Revenue Total Change		249,200		
EXPENSE				
8017 Tourism Promotion & Programs	1,146,965	174,750	1,321,715	Higher distributions given FY23 TLT increased estimate
9700-01 Transfers Out General Fund	525,933	74,450	600,383	
Grants and Special Assessments Fund Expense Total Change		249,200		
Fund 20 - Street				
REVENUE				
4090 Beginning Fund Balance	2,391,406	189,501	2,580,907	Higher beginning balance due principally to moving FY22 expenditures to FY23
Street Fund Revenue Total Change		189,501		
EXPENSE				
7620 Telecommunications	10,500	7,625	18,125	Radios ordered in FY22 will not arrive til this fall
7750 Professional Services	21,000	6,000	27,000	Pavement rating services
7780-12 Contract Services Street Maintenance	422,800	50,000	472,800	Local pavement repair projects moved from FY22 to FY23
7800 M & S Equipment	3,000	2,500	5,500	Plate compactor ordered in FY22 that will arrive in FY23
8710 Equipment	160,000	110,980	270,980	Supply chain issues delaying arrival of equipment
9999 Unappropriated Ending Fd Balance	1,423,811	12,396	1,436,207	Additional fund balance due to update of FY22 estimates
Street Fund Expense Total Change		189,501		

Line Item Detail	Approved Budget	Changes	Proposed Appropriation	Notes
Fund 25 - Airport Maintenance				
REVENUE				
4090 Beginning Fund Balance	564,081	17,000	581,081	Higher beginning balance due to moving FY22 expenditures to FY23
Airport Maintenance Fund Revenue Total Change		17,000		
EXPENSE				
7740-10 Rental Property Repair & Maint OSP	113,780	20,000	133,780	HVAC project from FY22 with anticipated higher cost
9700-01 Transfers Out General Fund	103,274	(49,473)	53,801	PW Dir delegate to airport manager so lower transfer to reimburse her salary in general fund
9999 Unappropriated Ending Fd Balance	170,007	46,473	216,480	Net impact of updates on ending fund bal
Airport Fund Expense Total Change		17,000		
Fund 77 - Wastewater Capital				
REVENUE				
4090 Beginning Fund Balance	35,940,799	260,000	36,200,799	Higher beginning balance due to moving FY22 expenditures to FY23
Wastewater Capital Fund Revenue Total Change		260,000		
EXPENSE				
7770-05 Professional Services - Projects Master Plan Update	800,000	300,000	1,100,000	
7770-41 Professional Services - Projects New 1MB tank & mixer	1,500,000	500,000	2,000,000	Master planning, solids expansion project, admin building project activities budgeted in FY22 will be moved forward to the FY23 period; I&I project engineering cost came in higher than anticipated
7770-57 Professional Services - Projects I&I Reduction Design	140,000	200,000	340,000	
7770-59 Professional Services - Projects Admin Building Addition/Upgrade	800,000	400,000	1,200,000	
8710 Equipment	900,000	200,000	1,100,000	Cozine generator project will continue into FY23
9120-25 Sewer Construction I&I Reduction Projects	1,660,000	(200,000)	1,460,000	Offset for higher I&I engineering estimate
9120-41 Sewer Construction New 1MG Tank & Mixer	1,000,000	1,000,000	2,000,000	Construction work will begin in April 2023
9999 Unappropriated Ending Fd Balance	33,402,759	(2,140,000)	31,262,759	Net impact of updates on ending fund bal
Wastewater Capital Fund Expense Total Change		260,000		

RESOLUTION NO. 2022 - 49

A Resolution adopting the budget for the fiscal year beginning July 1, 2022; making the appropriations; imposing the property taxes; and categorizing the property taxes.

NOW, THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMinnville, OREGON, as follows:

1. Adopting the Budget: The City Council for the City of McMinnville hereby adopts the budget for 2022 - 2023, now on file at City Hall, 230 NE Second Street, McMinnville, Oregon, as approved by the Budget Committee and amended by the City Council, in the sum of **136,397,266**

2. Making Appropriations: The amounts for the fiscal year beginning July 1, 2022 are for the purposes shown below and are hereby appropriated as follows:

General Fund

Administration	1,826,360
Finance	981,469
Engineering	1,189,151
Planning	3,139,028
Police	10,154,087
Municipal Court	632,065
Fire	10,830,170
Parks & Recreation	2,767,168
Park Maintenance	1,496,644
Library	2,494,658
Not Allocated to Organizational Unit or Program:	
Unemployment	14,999
Debt Service	583,070
Transfers Out To Other Funds	1,361,719
Operating Contingencies	1,000,000
	38,470,588
Total General Fund Appropriation	\$ 38,470,588

Grant and Special Assessment Fund

Community Assessments	2,460,000
Transfers Out To Other Funds	9,470
Operating Contingencies	-
	2,469,470
Total Grant and Special Assessment Fund Appropriation	\$ 2,469,470

Transient Lodging Tax Fund

Tourism Promotion and Programs	1,329,017
Transfers out to Other Funds	600,383
	1,929,400
Total Transient Lodging Tax Fund Appropriation	\$ 1,929,400

Affordable Housing Fund	
Affordable Housing Programming	3,920,000
Operating Contingencies	180,000
Total Affordable Housing Fund Appropriation	\$ 4,100,000

Telecommunications Fund	
Public Education Access	252,200
Operating Contingencies	1,500
Total Telecommunications Fund Appropriation	\$ 253,700

Emergency Communications Fund	
911 Emergency Communications	723,496
Debt Service	37,172
Transfers out to Other Funds	1,718
Operating Contingencies	45,000
Total Emergency Communications Fund Appropriation	\$ 807,386

Street (State Gas Tax) Fund	
Street Maintenance and Improvements	2,688,013
Transfers Out To Other Funds	724,210
Operating Contingencies	500,000
Total Street (State Gas Tax) Fund Appropriation	\$ 3,912,223

Airport Maintenance Fund	
Airport Maintenance and Operations	718,800
Transfers Out To Other Funds	53,801
Operating Contingencies	300,000
Total Airport Maintenance Fund Appropriation	\$ 1,072,601

Transportation Fund	
Street Capital Improvements	1,142,300
Debt Service	201,249
Transfers Out To Other Funds	120,219
Project Contingencies	500,000
Total Transportation Fund Appropriation	\$ 1,963,768

Park Development Fund	
Park Acquisition and Improvements	240,800
Transfers Out To Other Funds	58,460
Project Contingencies	500,000
Total Park Development Fund Appropriation	\$ 799,260

Debt Service Fund	
General Obligation Bond Debt Service	3,002,150
Total Debt Service Fund Appropriation	\$ 3,002,150
Building Fund	
Building Plan Review and Inspection	784,744
Transfers Out To Other Funds	37,065
Operating Contingencies	200,000
Total Building Fund Appropriation	\$ 1,021,809
Wastewater Services Fund	
Wastewater Services Program	5,168,404
Transfers Out To Other Funds	6,651,088
Operating Contingencies	900,000
Total Wastewater Services Fund Appropriation	\$ 12,719,492
Wastewater Capital Fund	
Sewer Capital Improvements	10,657,000
Transfers Out To Other Funds	229,238
Project Contingencies	1,500,000
Total Wastewater Capital Fund Appropriation	\$ 12,386,238
Information Systems & Services Fund	
Information Technology Services	1,517,278
Operating Contingencies	75,000
Total Information Systems & Services Fund Appropriation	\$ 1,592,278
Insurance Services Fund	
Property, Liability and Workers Compensation Insurance	1,422,630
Transfers Out To Other Funds	234,775
Operating Contingencies	150,000
Total Insurance Services Fund Appropriation	\$ 1,807,405
Total Appropriations, All Funds	\$ 88,307,768
Total Unappropriated and Reserved Amounts, All Funds	48,089,498
Total Adopted Budget	136,397,266

3. Imposing & Categorizing Property Taxes: The City Council for the City of McMinnville hereby imposes the property taxes provided for in the Adopted Budget at the rate of \$5.0200 per \$1,000 of assessed value for general operations and in the amount of \$2,934,540 for general obligation bond debt service; and that these taxes are hereby imposed and categorized for tax year 2022 - 2023 upon the assessed value of all taxable property within the City.

	Subject to General Government Limitation	Excluded from General Government Limitation
General Fund	\$5.0200 / \$1,000	
General Obligation Bond Debt Service Fund		2,934,540
Category Totals	\$5.0200 / \$1,000	2,934,540

This resolution shall take effect immediately upon passage and shall continue in full force and effect until revoked or replaced.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 28th day of June 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 28th day of June 2022.

MAYOR

Approved as to form:

Attest

CITY ATTORNEY

CITY RECORDER

STAFF REPORT

DATE: June 28, 2022
TO: Jeff Towery, City Manager
FROM: Jennifer Cuellar, Finance Director
SUBJECT: City Services Charge and replacing \$1.8 million in American Rescue Plan Act (ARPA) Funds in FY2022-23 budget

Strategic Priority and Goal:



CITY GOVERNMENT CAPACITY

Strengthen the City's ability to prioritize & deliver municipal services with discipline and focus.

Report in Brief:

At the Council's 6/22/2021 meeting, the governing body adopted its 2021 Annual Goals; included among them is the following goal under City Government Capacity:

Right-Size Services: Address insufficient resources by finding new sustainable funding sources: Looking for ways to bring additional revenue into the City's general fund

The City Council and the Budget Committee recommended the city follow up on initiating a service fee, among other actions, to support general city services at its October 20, 2021, joint meeting. Resolution 2021-55 regarding sustainable funding sources was adopted by the City Council on November 9, 2021, which formalized the recommendation from the month before.

The FY2022-23 budget approved by the Budget Committee on May 18, 2022, did not include substantial new sustainable resources for the City's general fund and, to avoid budget service reductions for next year, \$1.8 million in ARPA funds were used to balance the budget.

At the May 24, 2022, Council meeting, Mayor Remy Drabkin received support from council to renew discussions regarding resource options that had been considered and recommended as part last year's effort to address insufficient resources available to the general fund in hopes of eliminating the need of utilizing ARPA funds for general operating needs.

City Services Charge Implementation in FY2022-23:

Setting a base monthly City Services Charge rate of \$13.00 will allow the Council to replace the \$1.8 million in ARPA dollars included in the FY2022-23 city budget

appropriation documents also included in the June 28, 2022, Council meeting packet.

McMinnville City Services Charge Rate Dashboard

Base Assumptions	EDU Factors	Monthly Charge
Base Rate per EDU/Month		\$ 13.00
Low Income Discount	10%	\$ 1.30
Multifamily Unit EDU %	75%	\$ 9.75

Customer Class	Uniform EDU Rate*
Residential**	\$ 1,475,916
Res Multi-Dwelling	\$ 343,161
General Service	\$ 398,736
TOTAL REVENUE	\$ 2,217,813
ANNUAL REVENUE (%)	
Residential**	66.55%
Res Multi-Dwelling	15.47%
General Service	17.98%
TOTAL	100.00%

* preferred option 3 structure, including use of electric meters for residential customers and update to remove multi-unit general service counts

** includes estimate for 1,000 low income discounts for residential payers

Considerable attention has been given to equity measures to apply discounts for residents in McMinnville who live in multi-family residential areas and for those who face economic hardship and qualify for other low-income assistance programs.

While we do not know the “burdened” rate of households in multi-family vs single-family (burdened is a calculation from the Department of Housing and Urban Development for households that pay more than 30% of their income on housing), we do know that 52% of renters in McMinnville are cost burdened, compared to 25% or homeowners. Based on this information and the general approach our rate consultant has seen other cities utilize for similar service charges, the proposed dwelling unit proportion to the base fee reflects a 25% discount for people who live in apartments and mobile home parks. For members of our community who meet standards utilized for federal assistance, the discount is 90%.

This rate structure should be sufficient to replace the ARPA funds currently supporting the general fund budget in combination with the additional resources estimated to be available due to updating the Transient Lodging Tax (TLT) dollars coming to the City both in FY2021-22 and FY2022-23.

It merits noting that local government budgets are appropriated by expenses, not revenues. Therefore, replacing one revenue source for another does not affect the

budget appropriation itself. In this case, because TLT revenues play a part in reaching the \$1.8 million level, a minor change to the general fund's ending fund balance (which is included in the budget appropriation) would be needed, an action which can be addressed as a FY2022-23 supplemental budget at a later date.

FY2022-23 ARPA replacement revenue	
1,663,360	City Services Charge Revenue est raised Oct 2022-Jun 2023
163,269	TLT increases already contemplated in Appropriated Budget
1,826,629	

The rate structure presented here is based on Option 3 out of the four possible designs prepared by the City's rate consultant. At the Council meeting on May 22,2022, staff received feedback from elected officials that the Option 3 was the preferred methodology.

The rate structure presented today has two updates to it based on discussions with McMinnville Water and Light on June 14, 2022:

1. Residential city service charges will be based on electric meters and will preserve the ability to also include a lower rate for multi-family housing residents. These measures will be critical in meeting equity objectives and reducing the impact of this charge on the most economically vulnerable members of the community.
2. General Service customers will continue to have their rate based on water meter size and that the model will remove the multi-site component previously used in Option 3 of the model. The thinking here is that it would be more equitable for small businesses that share a larger water meter to divide that cost with their co-tenants in whatever manner they agree to over issuing individual invoices at a cost determined by the City.

The rate summary underlying the above methodology applied to the \$13.00 base rate is below.

City Services Charge Rate Summary

Meter Size	Meters ¹	Meter Factor	\$/Month	
Residential	9,361	1.00	\$13.00	
Res low income discount	1,000	0.10	\$1.30	
Res multi fam discount	2,933	0.50	\$6.50	
Gen Svc 3/4"	349	1.00	\$13.00	
1"	211	1.67	\$21.67	
1 1/4"	-	2.00	\$26.00	
1 1/2"	119	3.33	\$43.33	
2"	142	5.33	\$69.33	
3"	22	10.67	\$138.67	
4"	20	16.67	\$216.67	
6"	4	33.33	\$433.33	
8"	-	53.33	\$693.33	No sewer customers with water meters this large
10"	-	140.00	\$1,820.00	No sewer customers with water meters this large

¹ Does not include MWL "Water Only" customers.

While the data set available regarding electric and water customers and rate structure calculations produce specific numbers, the actual numbers will vary. In addition, further work in partnership with McMinnville Water and Light and their billing software company will likely result in further updates to the rate model. Finally testing the data with a mock billing will further allow us insights to assure that no resident or business is inadvertently double billed based on water meters for general service (commercial and industrial customers) and electric meters for residential utility users. It is possible this work will allow a change, more likely a reduction, to the \$13.00 base rate.

Next steps:

In addition to continued work with McMinnville Water and Light, staff will also need to draft an ordinance establishing the City Services Charge and a resolution setting the rate, defining the rate structure, finalizing equity measures, and enumerating other details associated with a new revenue stream.

Fiscal Impact:

Moving forward with the City Services Charge at the \$13.00 base rate, in combination with TLT increases, will allow the City to remove ARPA dollars for general operating costs in the general fund in the FY2022-23 budget.

Recommendation:

Adopt Resolution 2022-51

Attachments:

Resolution 2022-51

RESOLUTION NO. 2022-51

A Resolution removing \$1.8 million in American Rescue Plan Act (ARPA) revenue for general operating purposes in the general fund.

RECITALS:

The City of McMinnville’s FY2022-23 budget includes \$1.8 million in ARPA funds for general operating purposes within the General Fund. Implementation of a City Services Charge during the first half of FY2022-23, in combination with higher estimates revenues from Transient Lodging Tax, will allow the city to remove the ARPA funds from the budget without negatively impacting FY2022-23 programming.

Whereas, Transient Lodging Tax projections have been increased for both FY2021-22 and FY2022-23 in prior resolutions, generating a projected \$163,000 in new revenue; and

Whereas, nine months of a new City Services Charge is estimated to raise \$1.66 million more in new revenues for the FY2022-23 period,

NOW THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMINNVILLE, OREGON as follows:

1. The City will adopt a City Services Charge during FY2022-23, the program to be established with an upcoming Ordinance process and with detailed terms and conditions defined in a companion resolution, to be established during FY2022-23
2. The City will remove the \$1.8 million in ARPA general operating revenue for the General Fund from the FY2022-23 budget

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 28th day of June, 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 28th day of June 2022

INTERIM MAYOR

Approved as to form:

Attest:

Interim City Attorney

City Recorder

STAFF REPORT

DATE: June 28, 2022
TO: Jeff Towery, City Manager
FROM: Jennifer Cuellar, Finance Director
SUBJECT: FY2021-22 Supplemental Budget Resolution Year End Review



CITY GOVERNMENT CAPACITY

Strengthen the City's ability to prioritize & deliver municipal services with discipline and focus.

Report in Brief: The Supplemental Budget resolution addresses a handful of budget adjustments needed after conducting the year-end budget review. These changes will be funded with Contingency Transfers or offsetting revenues.

Discussion of Resolution Action:

Oregon Revised Statute (ORS) 294.471 allows a local government to prepare a supplemental budget when an occurrence or condition that was not known at the time the budget was prepared requires a change in financial planning.

As the total of this supplemental budget action for each fund does not exceed a 10% change in expenditures, the budget amendment may be made by Council resolution.

Over the course of the current fiscal year, some new circumstances have arisen that I propose be addressed in a year-end supplemental budget package. Because the FY2021-22 budget was built in austerity mode, the ability for departments to absorb unanticipated costs due to staff turnover or unanticipated events is more limited than it has been historically.

General Fund

The following represent General Fund expenditures not known at the time of preparing the FY2021-22 budget and will be added to the appropriation for that budget year:

1. Administration: higher outside counsel needs with staff transition in legal department (\$20,000) and community art (\$20,000 – to be funded by a donation).
2. Finance: overtime costs (\$10,000) are needed; no budget for OT was contemplated at beginning of the year but unusual activity for finance department personnel this year has required some staff to work extra hours. Various costs for additional notices; mailings and the DEID renewal; professional services to support bypass lending review and other CPA support; onboarding and new staff training and supplies (\$17,000).
3. Municipal Court: staffing transition for the court supervisor and judge, an equity review and an extended FMLA absence required additional resources for out of class work and additional hours during transition periods, different health insurance elections in payroll (\$30,000). Delayed implementation of the online

payment system meant credit card fees under the old system were incurred for part of the year (\$4,000) and contract judge as well as court appointed attorney costs were higher than anticipated (\$17,000).

4. Fire department: costs were higher in several categories: fuel (\$25,000), HVAC and building repairs (\$55,000), vehicle repair and maintenance (\$60,000) and professional services for labor attorney and fire district support (\$56,000). These appropriations will be funded by GEMT revenue that has come in significantly higher than anticipated.
5. Library: Utility costs (\$7,000), building maintenance needs (\$5,000) and a state library grant (\$8,000 – which will be offset by the grant revenue) make up the year-end additional spending authority needed.

The supplemental appropriation total for the General Fund is \$334,000. Of this amount, \$224,000 will be funded by new budgeted revenues and \$110,000 will require a contingency transfer.

Transfer corrections from Class and Comp Supplemental Budget Action

I made a technical error in the way the updated transfers associated with the Class and Compensation supplemental action were budgeted. The FY22 Amended Budget has higher total revenues than total expenditures in the General Fund (\$51,781), Street Fund (\$239), Building Fund (\$120), Wastewater Services Fund (\$597) and Information Systems Fund (\$15,951). These amounts are all equivalent to the transfer revenue increases in each fund. To correct this error, Ending Fund balances in the respective funds will be increased by the noted amounts, which will allow total expenditures to be equal to total revenues for every fund.

Telecommunications Fund

The franchise fee revenues received to date are trending slightly higher than budgeted. In order to have budget appropriations adequate to fully turn the resources received to McMinnville Community Media, an increased appropriation of \$24,000 will be added for that program; an amount that will be fully covered by an equivalent increase in revenue.

Fiscal Impact:

The General Fund supplemental appropriations reduce the amount of contingencies available for unanticipated needs for the rest of the year. Higher appropriations that are funded by new revenue have no fiscal impact on those funds.

Recommendation: Staff recommends adoption of the FY2021-22 budget amendments that address needs identified in the Year-End Review.

Documents:

Resolution 2022-52 - FY2021-22 Supplemental Budget Year-End Review

RESOLUTION NO. 2022 - 52

A Resolution adopting a supplemental budget for fiscal year 2021-2022 and making supplemental appropriations and Contingency Transfers.

RECITALS:

WHEREAS, This resolution proposes a supplemental budget for the General Fund, Street Fund, Building Fund, Wastewater Services Fund, Information Services Fund and Telecommunication Fund.

WHEREAS, A supplemental budget is to accommodate unknown circumstances at the time the budget was adopted based on a Year-End Review of the City’s budget status.

WHEREAS, Oregon Local Budget Law allows a local government to prepare a supplemental budget when state or federal funds are made available that were unknown at the time the budget was prepared thus requiring a change in financial planning (ORS 294.471). The governing body must adopt a resolution to adopt the supplemental budget and make any necessary appropriations.

WHEREAS, Because the supplemental budget for General Fund, Street Fund, Building Fund, Wastewater Services Fund, Information Services Fund and Telecommunication Fund expenditures are not changed by more than 10%, a public hearing is not required.

WHEREAS, Contingency transfers are limited to 15% of the total appropriation in the fund; the General Fund contingency transfer is within this statutory limit (ORS 294.463(2)).

NOW, THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMinnville, OREGON, as follows:

1. **Adopt the following Supplemental Budget:** The Common Council of the City of McMinnville adopts the following Supplemental Budget for 2021-2022 in the General Fund, Street Fund, Building Fund, Wastewater Services Fund, Information Services Fund and Telecommunication Fund.
2. **Make Supplemental Appropriations:** The additional appropriations for fiscal year 2021-2022 are hereby appropriated as detailed in Attachment A.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 28th day of June 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 28th day of June 2022

INTERIM MAYOR

Approved as to form:

Attest:

Interim City Attorney

City Recorder

EXHIBITS:

- A. Supplemental Budget Appropriations

Attachment A: Supplemental Budget Appropriations

FY2021-22 Year End Review

	Original Appropriation	Year End Review	Supplemental Appropriation
General Fund			
Administration	1,443,624	40,000	1,483,624
Finance	657,173	27,000	684,173
Engineering	1,057,828		1,057,828
Planning	1,373,531		1,373,531
Police	9,073,617		9,073,617
Municipal Court	505,812	51,000	556,812
Fire	9,400,338	196,000	9,596,338
Parks & Recreation	3,133,535		3,133,535
Park Maintenance	1,389,713		1,389,713
Library	1,835,005	20,000	1,855,005
Not Allocated to Organizational Unit or Program:			
Unemployment	51,097		51,097
Debt Service	748,674		748,674
Transfers Out To Other Funds	1,437,784		1,437,784
Operating Contingencies	1,000,000	-110,000	890,000
Total General Fund	\$ 33,107,731	224,000	33,331,731
Revenue Budget Adjustment:			
Intergovernmental	3,267,521	204,000	3,471,521
Other Income (donations)	800,168	20,000	820,168
All other unchanged	31,196,465		31,196,465
	35,264,154	224,000	35,488,154
Telecommunication Fund			
Program budget	248,000	24,000	272,000
Operating Contingencies	1,500		1,500
Ending Fund Balance	467		467
Total Special Assessment Fund	\$ 249,967	24,000	273,967
Revenue Budget Adjustment:			
Licenses and Permits	248,000	24,000	272,000
All other unchanged	1,967		1,967
	249,967	24,000	273,967
Unappropriated Ending Fund Balance (Class and Comp Correction for Transfer Revenue Increase)			
General Fund	2,156,423	51,781	2,208,204
Wastewater Services	2,340,687	597	2,341,284
Building Fund	73,405	120	73,525
Information Services Fund	329,010	15,951	344,961
Street Fund	856,104	239	856,343
Unappropriated E F B Total	5,755,629	68,688	5,824,317



City of McMinnville
Planning Department
231 NE Fifth Street
McMinnville, OR 97128
(503) 434-7311

www.mcminnvilleoregon.gov

STAFF REPORT

DATE: June 28, 2022
TO: Mayor and City Councilors
FROM: Monica Bilodeau, Senior Planner
SUBJECT: Ordinance No. 5116: Elysian Subdivision ZC 1-22 (Zone Change), PD 1-21 (Planned Development), S 1-21 (Subdivision)

STRATEGIC PRIORITY & GOAL:



HOUSING OPPORTUNITIES (ACROSS THE INCOME SPECTRUM)
Create diverse housing opportunities that support great neighborhoods.

OBJECTIVE/S: Collaborate to improve the financial feasibility of diverse housing development opportunities

Report in Brief:

This is the consideration of Ordinance No. 5116 approving a rezone request from R-1 to R-3 and Planned Development Overlay, and subdivision for the 3.79 acre parcel (R4418 00204).

The application is subject to the 120-day processing timeline. The 120-day deadline is June 25, 2022. The applicant has agreed to extend the application deadline by 30 days to July 25, 2022.

This proceeding is a quasi-judicial land use item for City Council to consider three applications on a 3.79 acre parcel located generally east of Meadows Drive and south of 23rd Street and Fendle Way (R4418 00204).

- ZC 1-22. Zone Change from R-1 to R-3
- PD 1-21 Planned Development Overlay
- S 1-21. Subdivision Tentative Plan for an 18-lot residential subdivision

The Planning Commission hosted a public hearing on April 21, 2022, at which time public testimony was received. During deliberation, the Planning Commission decided to continue the item to May 19, 2022, in order for staff to make revisions to the conditions and come back with additional information on the stormwater and drainage plan for the site.

Attachments:

- Attachment A: Application for ZC 1-22, PD 1-21, S 1-21*
- Attachment B: Agency Comments*
- Attachment C: Planning Commission Minutes from May 19, 2022.*
- Attachment D: Ordinance 5116 with Decision Document*

The Planning Commission hosted the second public hearing on May 19, 2022. Staff presented the revised conditions as well as provided the full Stormwater report. Public testimony was also opened again to ensure all comments were received. The Planning Commission then voted 7-0 to recommend approval of the zone change, planned development, and subdivision to the City Council.

Background:

The proposal is an application for Zone Change (ZC 1-22) to rezone the property from R-1 to R-3, Planned Development overlay (PD 1-21), and phased 18-lot subdivision (S 1-21) for the property. The zone change will allow the lot size to be reduced from 9,000 square feet to 6,000 square feet. The planned development overlay would allow for the side setbacks to be reduced from seven and a half feet to five feet, all other setbacks would conform to the R-3 standards.

The subject property is a 3.79 acre parcel located generally east of Meadows Drive and south of 23rd Street and Fendle Way. The proposed subdivision will extend Meadows drive, creating a finished through street, and Fendle Way is proposed to be continued into the subdivision and terminated with a cul-de-sac. There is also a 16,925 SF open space tract along the southern property line which will contain a stormwater facility and adjacent will be a 20-foot wide pedestrian access easement and 10-foot wide paved connection from Fendle to Meadows Drive. The project will also be conditioned to site and design a direct Pedestrian connection to the Jay Pearson Park and trail corridor.

The subject property and properties to the north, east, and west, are zoned R-1, and property to the south is zoned R-2. Although the actual sizes of adjacent lots in the R-1 zone range from 4,600 to 6,400 square feet. The average lots proposed in this subdivision range between 5,436 at the smallest and 8,363 square feet at the largest. The proposed lot sizes are similar to the adjacent lots. The predominant surrounding uses are single-family homes and duplexes to the north, single-family homes to the east and south, and Jay Pearson Neighborhood Park to the west. The subject property is currently vacant with a natural drainageway generally running north to south on the property. Most lots would access off the proposed extension of Fendle Way, and six of the lots would access directly off of Meadows Drive

Attachments:

Attachment A. Application for ZC 1-22, PD 1-21, S 1-21

Attachment B: Agency Comments

Attachment C: Planning Commission Minutes from May 19, 2022.

Attachment D. Ordinance 5116 with Decision Document

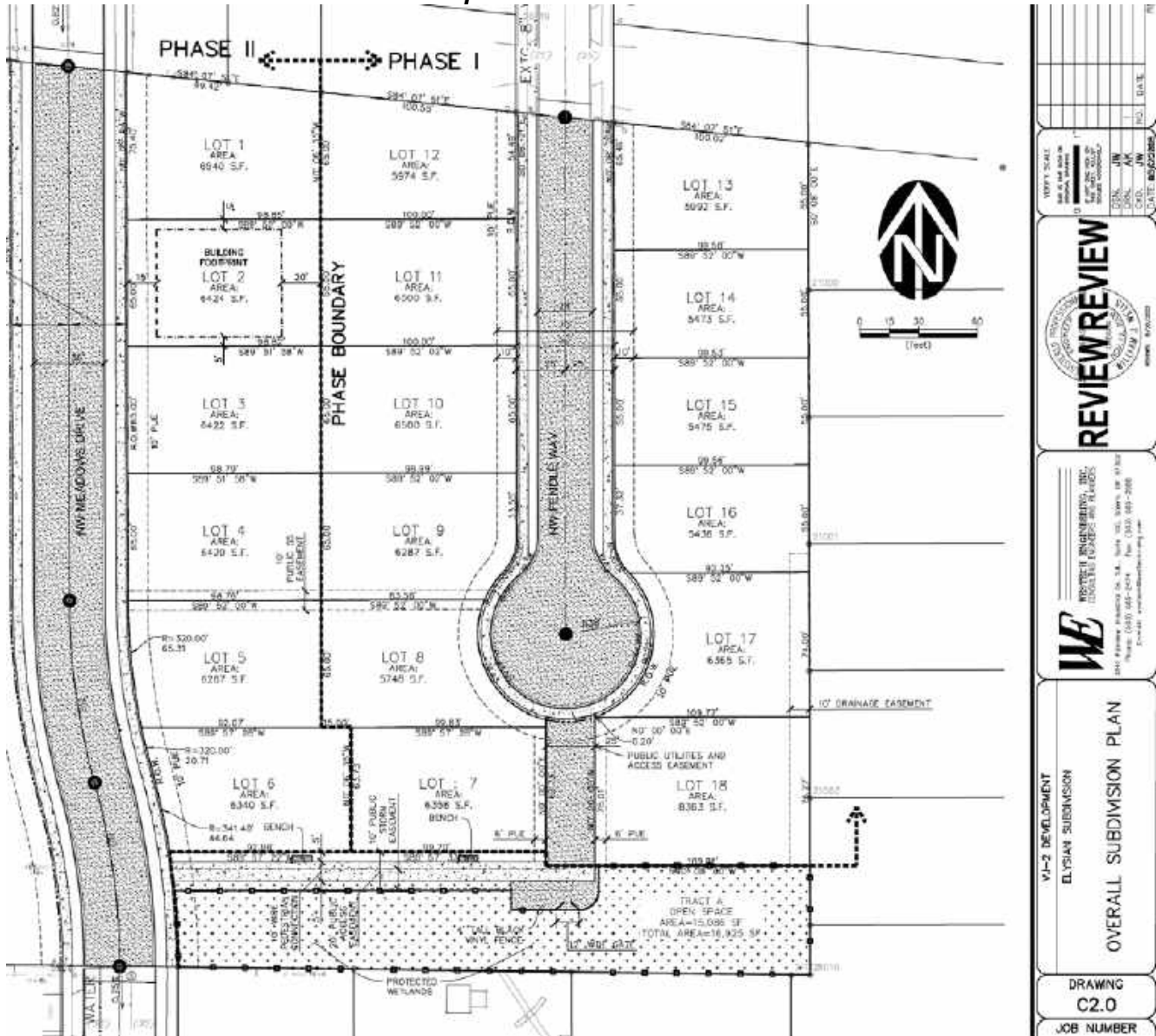
Exhibit 1. Vicinity Map & Aerial Photo



Attachments:

- Attachment A. Application for ZC 1-22, PD 1-21, S 1-21
- Attachment B: Agency Comments
- Attachment C: Planning Commission Minutes from May 19, 2022.
- Attachment D. Ordinance 5116 with Decision Document

Exhibit 2. Proposed Subdivision Tentative Plan



Discussion:

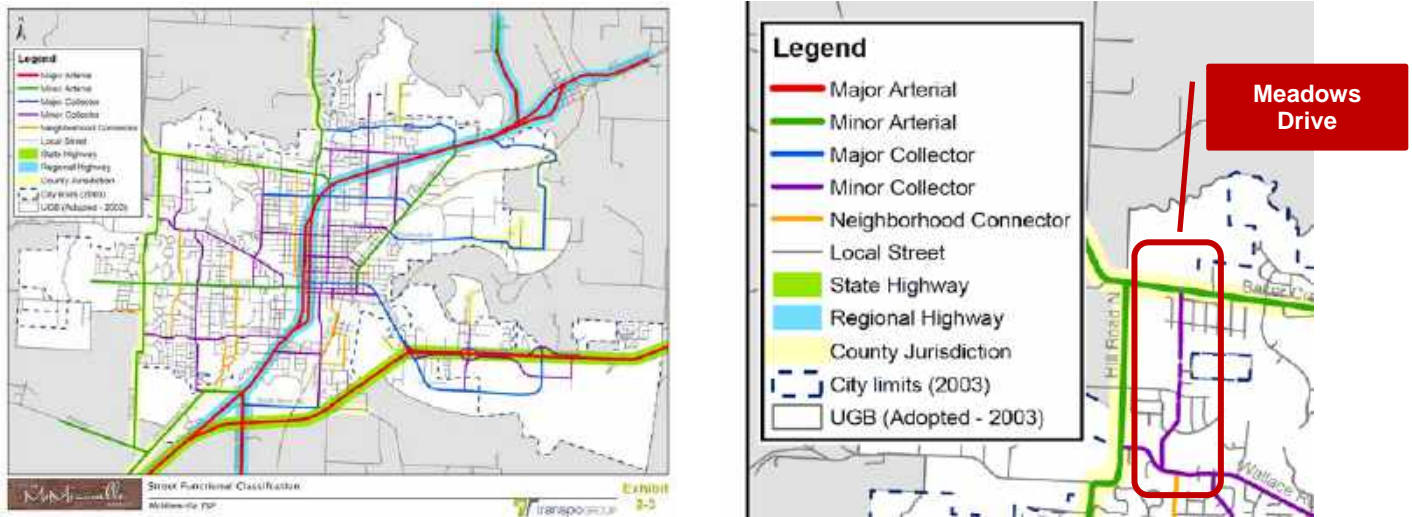
At their meeting on April 21, 2022, the Planning Commission hosted a public hearing. Several people from the neighborhood testified in opposition to the application based on their concerns relative to Meadows Drive becoming a connected street and some stormwater drainage issues in the area.

Meadows Drive is classified as a Minor Collector in the McMinnville Transportation Plan and is intended to be a connected street that collects vehicle trips from the local neighborhoods and then distributes those vehicle trips to Baker Creek Road and Wallace Road. (See Exhibit 3 Below).

Attachments:

- Attachment A. Application for ZC 1-22, PD 1-21, S 1-21
- Attachment B: Agency Comments
- Attachment C: Planning Commission Minutes from May 19, 2022.
- Attachment D. Ordinance 5116 with Decision Document

Exhibit 3. Transportation System Plan, Street Classification Map



There were also some concerns expressed about the Meadows Drive intersection with Wallace Road relative to the visibility of drivers on Wallace Road seeing the cars that want to turn onto Wallace Road from Meadows Drive. This issue was referred to the Engineering and Streets Division for further consideration.

The Planning Commission elected to continue their deliberation to their next meeting on May 19, 2022, directing planning staff to work with the engineering team and consultant on the stormwater retention plans to ensure that no additional flooding issues would result due to this construction project.

On May 19, 2022, the applicant’s engineer and the city’s engineering staff answered the Planning Commission’s questions relative to the stormwater retention plan for the development. Much of the backyard flooding on existing homes adjacent to the development is due to other reasons, and it was determined that the stormwater drainage and retention plans would not further exacerbate those problems and might even actually help to alleviate some of the neighbor’s stormwater drainage problems.

The Planning Commission then voted unanimously to recommend approval of the three land-use applications to the City Council.

The City Council must base its decision on the information in the record and cannot consider new evidence in their review of the Planning Commission recommendation unless the City Council elects to host a public hearing to open up the public record for the application allowing additional public testimony and rebuttal from the applicant.

Attachments:

- Application for ZC 1-22, PD 1-21, S 1-21
- Agency Comments
- Planning Commission Minutes from May 19, 2022
- Ordinance No. 5116 with Decision Document

Attachments:

- Attachment A. Application for ZC 1-22, PD 1-21, S 1-21*
- Attachment B: Agency Comments*
- Attachment C: Planning Commission Minutes from May 19, 2022.*
- Attachment D. Ordinance 5116 with Decision Document*

Fiscal Impact:

Not Applicable

City Council Options

1. **ADOPT THE ORDINANCE** approving ZC 1-22, PD 1-21, and S1-21 and adopting the Decision, Conditions of Approval, Findings of Fact, and Conclusionary Findings per the decision document provided.
2. **CALL FOR A PUBLIC HEARING**, date-specific to a future City Council meeting. In order to meet the application deadline of July 25, 2022, the public hearing would need to be scheduled no later than July 19, 2022.
3. **DO NOT ADOPT THE ORDINANCE**, providing findings of fact and/or conclusionary findings based upon specific criteria to deny the application in the motion to not approve Ordinance No. 5116.

Ordinance 5116 (ZC 1-22, PD1-21, and S 1-21) Recommendation:

The Planning Commission reviewed the proposal for consistency with the applicable criteria. The Planning Commission found the criteria for the zone change, planned development, subdivision were satisfied and **RECOMMENDED APPROVAL WITH CONDITIONS** of the application.

Staff **RECOMMENDS APPROVAL WITH CONDITIONS** of the application as recommended by the Planning Commission.

Recommended Motion:

“BASED ON THE FINDINGS OF FACT, THE CONCLUSION FINDINGS FOR APPROVAL, THE MATERIALS SUBMITTED BY THE APPLICANT, AND EVIDENCE IN THE RECORD, I MOVE TO ADOPT ORDINANCE NO. 5116.”

Attachments:

Attachment A. Application for ZC 1-22, PD 1-21, S 1-21

Attachment B: Agency Comments

Attachment C: Planning Commission Minutes from May 19, 2022.

Attachment D. Ordinance 5116 with Decision Document

Comprehensive Plan Map Amendment & Zone Change Information & Submittal Requirements



Planning Department
231 NE Fifth Street ◦ McMinnville, OR 97128
(503) 434-7311 Office ◦ (503) 474-4955 Fax
www.mcminnvilleoregon.gov

Overview

The comprehensive plan map describes the long-term direction and vision for the growth and development of our community. The zoning map describes the various zoning classifications for each parcel in McMinnville, as it exists today. Requests to amend either of these maps can be initiated by a property owner and are subject to review and approval by the McMinnville Planning Commission and City Council. Prior to submitting a request to amend either map, you are strongly encouraged to meet with Planning Department staff to discuss application and submittal requirements, scheduling, and the details of your proposal and its consistency with the McMinnville comprehensive plan. Further information regarding these processes can be found in Sections 17.72.120 (Applications – Public Hearings) to 17.72.0130 (Public Hearing Process) and 17.74.020 (Comprehensive Plan Map Amendment and Zone Change - Review Criteria) of the McMinnville Zoning Ordinance.

Application Submittal

The following materials must be provided at the time of submittal, or the application will not be accepted for processing.

- A completed Comprehensive Plan Map Amendment and/or Zone Change application form. If additional explanation or materials would assist or support the request, include them with the application form.
- A site plan (drawn to scale, with a north arrow, legible, and of a reproducible size), indicating existing and proposed features within and adjacent to the subject site, such as: access; lot and street lines with dimensions; distances from property lines to structures; improvements; and significant features (slope, vegetation, adjacent development, drainage, etc.). If of a larger size, provide five (5) copies in addition to **an electronic copy** with the submittal.
- A legal description of the subject site, preferably taken from the deed.
- Compliance of Neighborhood Meeting Requirements
- Payment of the applicable review fee.

Review Process

A request to amend the zoning map or comprehensive plan map is subject to review by the Planning Commission at a public hearing, who then forwards a recommendation to the City Council for their approval. In advance of the Commission hearing, notice is mailed to neighboring property owners advising them of the requested action and inviting their participation in the upcoming hearing. The process for providing notification and reviewing a request to amend the zoning map or comprehensive

plan map is outlined in Sections 17.72.120 (Applications-Public Hearings) and 17.72.130 (Public Hearing Process) of the Zoning Ordinance. While a complete application for a request to amend the zoning map must be submitted 35 (thirty-five) days prior to the date of the first public hearing, a request to amend the comprehensive plan map must be submitted 45 (forty-five) days prior to the date of the public hearing to ensure that notice of the application is provided to the Department of Land Conservation and Development, as required by State law.

The Planning Commission will use the following criteria in reaching a decision to approve, approve with conditions, or deny an application to amend the zoning map or comprehensive plan map.

- A. The proposed amendment is consistent with the goals and policies of the Comprehensive Plan;
- B. The proposed amendment is orderly and timely, considering the pattern of development in the area, surrounding land uses, and any changes which may have occurred in the neighborhood or community to warrant the proposed amendment; and
- C. Utilities and services can be efficiently provided to serve the proposed uses or other potential uses in the proposed zoning district.

The Planning Commission will make a recommendation to the City Council to either approve or deny the request or approve the request in a different form. The City Council will either adopt an ordinance reflecting the proposed map amendment or zone change, or call for a public hearing.

The decision made by the Planning Commission may be appealed to the City Council as stated in Section 17.72.180 (Appeal from Ruling of Planning Commission) of the Zoning Ordinance. A decision of the City Council may be appealed to the Oregon Land Use Board of Appeals (LUBA), if filed in accordance with the requirements of State law.



Planning Department
 231 NE Fifth Street ◦ McMinnville, OR 97128
 (503) 434-7311 Office ◦ (503) 474-4955 Fax
www.mcminnvilleoregon.gov

Office Use Only:	
File No.	_____
Date Received	_____
Fee	_____
Receipt No.	_____
Received by	_____

Comprehensive Plan Map Amendment/ Zone Change Application

Applicant Information

Applicant is: Property Owner Contract Buyer Option Holder Agent Other _____

Applicant Name VJ2 Developers Phone 503.362.8232

Contact Name Don Jones Phone _____
(If different than above)

Address 695 Commercial Street

City, State, Zip Salem, OR 97301

Contact Email _____

Property Owner Information

Property Owner Name _____ Phone _____
(If different than above)

Contact Name _____ Phone _____

Address _____

City, State, Zip _____

Contact Email _____

Site Location and Description

(If metes and bounds description, indicate on separate sheet)

Note: See Attached for Site Location

Property Address 2280-2298 NW Fendle Way

Assessor Map No. R4 418 00204 - Total Site Area 4.977 AC

Subdivision Elysian Subdivision Block _____ Lot _____

Comprehensive Plan Designation Residential Zoning Designation R-1

This request is for a:

Comprehensive Plan Amendment

Zone Change

1. What, in detail, are you asking for? State the reason(s) for the request and the intended use(s) of the property. _____

The applicant is asking for a zone change from R-1 to R-3 in combination with a subdivision and planned development application. We are requesting the zone change from a R-1 to R-3 so that the proposed subdivision average lot size can be reduced from 9000 SF (R-1) to 6000SF.

2. Show in detail, by citing specific goals and policies, how your request is consistent with applicable goals and policies of the McMinnville Comprehensive Plan (Vol. 2). _____

SEE ATTACHED Written Narrative

3. If your request is subject to the provisions of a planned development overlay, show, in detail, how the request conforms to the requirements of the overlay. _____

SEE ATTACHED Written Narrative

4. If you are requesting a Planned Development, state how the proposal deviates from the requirements of the Zoning Ordinance and give justification for such deviation. _____

SEE ATTACHED Written Narrative

5. Considering the pattern of development in the area and surrounding land uses, show, in detail, how the proposed amendment is orderly and timely. _____

SEE ATTACHED Written Narrative

6. Describe any changes in the neighborhood or surrounding area which might support or warrant the request. _____

SEE ATTACHED Written Narrative

7. Document how the site can be efficiently provided with public utilities, including water, sewer, electricity, and natural gas, if needed, and that there is sufficient capacity to serve the proposed use.

SEE ATTACHED Written Narrative

8. Describe, in detail, how the proposed use will affect traffic in the area. What is the expected trip generation?

SEE ATTACHED Written Narrative

In addition to this completed application, the applicant must provide the following:

- A site plan (drawn to scale, with a north arrow, legible, and of a reproducible size), indicating existing and proposed features within and adjacent to the subject site, such as: access; lot and street lines with dimensions; distances from property lines to structures; improvements; and significant features (slope, vegetation, adjacent development, drainage, etc.). If of a larger size, provide five (5) copies in addition to **an electronic copy** with the submittal.
- A legal description of the parcel(s), preferably taken from the deed.
- Compliance of Neighborhood Meeting Requirements.
- Payment of the applicable review fee, which can be found on the Planning Department web page.

I certify the statements contained herein, along with the evidence submitted, are in all respects true and are correct to the best of my knowledge and belief.

V5-7 Development, Inc
Walter G. Jones
Applicant's Signature

1/25/22
Date

Property Owner's Signature

Date

Planned Development Information & Submittal Requirements



Planning Department
231 NE Fifth Street ◊ McMinnville, OR 97128
(503) 434-7311 Office ◊ (503) 474-4955 Fax
www.mcminnvilleoregon.gov

Overview

A Planned Development is applied to property as a vehicle to encourage variety in the development pattern of the community; encourage mixed uses in a planned area; encourage developers to use a creative approach and apply new technology in land development; preserve significant man-made and natural features; facilitate a desirable aesthetic and efficient use of open space; and create public and private open spaces. A Planned Development is not intended as a guise to circumvent the intent of the Zoning Ordinance. Once adopted and applied to a property, the Planned Development -- in concert with the Zoning Ordinance -- guides development within the subject property.

Application Submittal

The following materials must be provided at the time of submittal, or the application will not be accepted for processing.

- A completed Planned Development application form. If additional explanation or materials would assist or support the request, please include them with the application form.
- A site plan (drawn to scale, with a north direction arrow, legible, and of a reproducible size), indicating existing and proposed features such as: access; lot and street lines with dimensions in feet; distances from property lines; improvements; and significant features (slope, vegetation, adjacent development, drainage, etc.).
- A legal description of the subject site, preferably taken from the deed.
- Compliance of Neighborhood Meeting Requirements.
- Payment of the applicable review fee.

Review Process

Upon receipt of a complete application for a Planned Development, the Planning Department will schedule a date and time for the Planning Commission's public hearing on the request, and provide notification of the proposed Planned Development to property owners within 300 feet of the subject site. The Planning Commission's public hearing will follow the procedures as stated in Sections 17.72.120 (Applications – Public Hearings) and 17.72.130 (Public Hearing Process) of the Zoning Ordinance.

Approval of a Planned Development requires that the applicant demonstrate that the following criteria, as stated in Section 17.74.070 (Planned Development Amendment – Review Criteria) of the Zoning Ordinance have been met:

- A. There are special physical conditions or objectives of a development which the proposal will satisfy to warrant a departure from the standard regulation requirements;
- B. Resulting development will not be inconsistent with the Comprehensive Plan objectives of the area;
- C. The development shall be designed so as to provide for adequate access to, and efficient provision of, services to adjoining parcels;
- D. The plan can be completed within a reasonable period of time;
- E. The streets are adequate to support the anticipated traffic, and the development will not overload the streets outside the planned area;
- F. Proposed utility and drainage facilities are adequate for the population densities and type of development proposed;
- G. The noise, air, and water pollutants caused by the development do not have an adverse effect upon surrounding areas, public utilities, or the city as a whole.

Following the close of the hearing, the Commission will vote to forward a recommendation to the City Council to approve the requested Planned Development, or approve it with a different form. If the Commission recommends the request be denied, no further proceedings shall be held, unless an appeal of the Commission's decision is filed, as stated in Section 17.72.180 (Appeal from Ruling of Planning Commission) of the Zoning Ordinance.

Upon receipt of the decision of the Planning Commission to recommend approval the Council shall:

- A. Based on the material in the record and the findings adopted by the Commission and transmitted to the City Council, adopt an ordinance effecting the proposed change, or;
- B. Call for a public hearing on the proposal subject to the notice requirements stated in Section 17.72.120(D-F) (Applications – Public Hearings) of the Zoning Ordinance.



Planning Department
231 NE Fifth Street ◊ McMinnville, OR 97128
(503) 434-7311 Office ◊ (503) 474-4955 Fax
www.mcminnvilleoregon.gov

Office Use Only:
File No. _____
Date Received _____
Fee _____
Receipt No. _____
Received by _____

Planned Development Application

Applicant Information

Applicant is: Property Owner Contract Buyer Option Holder Agent Other _____

Applicant Name VJ2 Developers Phone 503-362-8232

Contact Name Don Jones Phone _____
(If different than above)

Address 695 Commercial Street

City, State, Zip Salem, OR 97301

Contact Email _____

Property Owner Information

Property Owner Name _____ Phone _____
(If different than above)

Contact Name _____ Phone _____

Address _____

City, State, Zip _____

Contact Email _____

Site Location and Description

(If metes and bounds description, indicate on separate sheet)

Property Address 2280-2298 NW Fendle Way

Assessor Map No. R4 418 00204 Total Site Area 3.79 AC

Subdivision Elysian Subdivision Block _____ Lot _____

Comprehensive Plan Designation Residential Zoning Designation R-1

1. Show in detail your request for a Planned Development. State the reason(s) for the request and the intended use(s) of the property:_____

The reason that a 5 FT setback for sideyards is proposed is to conform to similar planned developments in the area and to maximize building footprint area. The proposed use of the property is to be Low-Density Residential (R-1).

2. Describe the specific regulations this proposal wishes to modify (e.g., setbacks, density) and how the physical site conditions or objectives of the proposed development warrant a departure from those regulations:_____

The proposed planned development is requesting to modify the 10 FT setback per Chapter 17.12 Section 040 of the McMinnville Municipal Code for side yards to a 5FT setback from the property line to the edge of the building.

The proposed planned development is requesting to modify the minimum lot size standards of the R-1 zone from 9,000 square feet to 5,436 square feet.

3. Show in detail, by citing specific goals and policies, how your request is consistent with applicable goals and policies of the McMinnville Comprehensive Plan (Volume II):_____

See attached writeup.

4. Considering the pattern of development in the area and surrounding land uses, show, in detail, how the proposal is orderly and timely: _____

The proposed planned development is bordered on all sides by areas zoned as Residential (R-1). The property located to the west of the project site is zoned as Residential (R-1) and currently serves as a community park. See attached writeup for how the proposed planned development is consistent with the goals and policies of the City of McMinnville Comprehensive Plan (Volume II).

5. Describe any changes in the neighborhood or surrounding area which might support or warrant the request: _____

The surrounding planned developments ranges from 3-5 FT side yard setbacks. The proposed planned development will be consistent with the surrounding developments.

6. Document how the site can be efficiently provided with public utilities, including water, sewer, electricity, and natural gas, if needed, and that there is sufficient capacity to serve the proposed use: _____

See attached for the utilities plan.

7. Describe, in detail, how the proposed use will affect traffic in the area. What is the expected trip generation?

The proposed use is in accordance with the current zoning. The planned development proposes to connect the north and south dead ends of NW Meadows Drive. Therefore, this project will benefit traffic flow in the area and not have a negative impact.

The expected trip generation for this site is 7 trips per household, totaling to 126 trips for the 18-lot subdivision.

In addition to this completed application, the applicant must provide the following:

- A site plan (drawn to scale, legible, and of a reproducible size) indicating existing and proposed features such as: access; lot and street lines with dimensions in feet; distances from property lines; improvements; north direction arrow, and significant features (slope, vegetation, adjacent development, drainage, etc.).
- A legal description of the subject site, preferably taken from the deed.
- Compliance of Neighborhood Meeting Requirements.
- Payment of the applicable review fee, which can be found on the Planning Department web page.

I certify the statements contained herein, along with the evidence submitted, are in all respects true and are correct to the best of my knowledge and belief.


Applicant's Signature

8/21/20
Date

Property Owner's Signature

Date



Planning Department
 231 NE Fifth Street ◦ McMinnville, OR 97128
 (503) 434-7311 Office ◦ (503) 474-4955 Fax
www.mcminnvilleoregon.gov

569-21-000377-Plng

Office Use Only:	
File No.	S 1-21
Date Received	9-1-21
Fee	5783.-
Receipt No.	
Received by	gjt

Tentative Subdivision Application

Applicant Information

Applicant is: Property Owner Contract Buyer Option Holder Agent Other _____

Applicant Name VJ2 Developers Phone 503-362-8232

Contact Name Don Jones Phone _____
(If different than above)

Address 695 Commercial Street

City, State, Zip Salem, OR 97301

Contact Email _____

Property Owner Information

Property Owner Name _____ Phone _____
(If different than above)

Contact Name _____ Phone _____

Address _____

City, State, Zip _____

Contact Email _____

Site Location and Description

(If metes and bounds description, indicate on separate sheet)

Note: See Attached for Site Location

Property Address 2280-2298 NW Fendle Way

Assessor Map No. R4 418 00204 Total Site Area 4.977 AC

Subdivision Elysian Subdivision Block _____ Lot _____

Comprehensive Plan Designation Residential Zoning Designation R-1

Subdivision Information

1. What is this application for?

- Subdivision (10 (ten) or fewer lots)
- Subdivision (more than 10 (ten) lots)

2. Briefly describe the project: The project includes construction of a subdivision, consisting of 18 single-family homes with associated site improvements. The project includes site preparation and construction of the facilities which will include new roads, sidewalks, and associated public improvements.

3. Name of proposed subdivision: Elysian Subdivision

4. Size of proposed subdivision in acres or square feet: 3.08 AC or 134,000 SF

5. Number of lots: 18 Minimum lot size: 5,436 SF

6. Number and type of Residential Units: 18 Single-Family Homes

7. Average lot size: 6,370 SF Gross density per acre of entire subdivision: 5.8 Units/AC

8. Total anticipated population: 51

9. Size of park(s)/open space in acres or square feet: 1.269 AC or 55,290 SF

10. General description of the subject site and current land use: The existing site is currently undeveloped.

11. Describe existing uses and zoning of surrounding properties:

	<u>Zoning</u>	<u>Current Use</u>
North	<u>R-1</u>	<u>Residential Lots</u>
South	<u>R-1/R-2</u>	<u>Residential Lots</u>
East	<u>R-1</u>	<u>Residential Lots</u>
West	<u>R-1</u>	<u>Open space/ pedestrian path</u>

12. Describe the topography of the subject site: The existing topography of the site is predominately flat with a ditch running from northwest to southeast. The existing site is predominately covered in grass.

Note: See attached for Existing Topography

13. Does the site contain any existing structures, wells, septic tanks? Explain _____
The site does not contain any existing structures.

14. How will the proposed subdivision be served by utilities? Note the location and size of all service lines (water, sanitary sewer, storm sewer, natural gas, electricity). _____
Stormwater will be conveyed through weep holes in the curb draining to catch basins, into a 15" storm pipe, into Flow control Manhole, to an existing ditch.
8" Water; 8" Sewer

Note: See attached for Utility Plan

15. What is the anticipated date construction will begin? Spring 2021

16. What is the anticipated date of completion? Winter 2021

17. If applicable, explain how the subdivision will be phased? Yes, Phase 1 will consist of constructing the stormwater facilities, grading lots 7-18, and extending Fendle Way. Phase 2 will consist of constructing the connection of Meadow Drive as well as grading lots 1 through 6.

Note: See attached for Phasing Plan

18. Does your tentative subdivision plan delineate the general location of all previously recorded easements and encumbrances presently binding upon the subdivision site? (A current title report or subdivision guarantee for the site would disclose such easements or encumbrances).

Yes No N/A

19. Does your tentative subdivision plan delineate necessary access and utility easements?

Yes No N/A

In addition to this completed application, the applicant must provide the following:

A site plan (drawn to scale, with a north arrow, legible, and of a reproducible size), tentative subdivision plan, and supplementary data. Tentative plans should be accompanied by improvement plans so that the general programs and objectives are clear to the reviewer. The information to be included in the tentative subdivision plan as listed in the information sheet and in Section 17.53.070 (Submission of Tentative Subdivision Plan) of the Zoning Ordinance. If of a larger size, provide five (5) copies in addition to **an electronic copy** with the submittal.

Compliance of Neighborhood Meeting Requirements.

Payment of the applicable review fee, which can be found on the Planning Department web page.

I certify the statements contained herein, along with the evidence submitted, are in all respects true and are correct to the best of my knowledge and belief.


Applicant's Signature

5/24/20
Date

Property Owner's Signature

Date

7-20-2021

Don Jones Neighborhood Meeting (Zoom) Notes:

Zoom Info:

Meeting ID: 988 5095 4095

Passcode:tfZ9cw

Zoom meeting has been recorded. Can provide recording upon request.

Neighborhood Comments:

Anna:

Doesn't want street to go through, sent in an idea. Possible speed bumps to deter traffic.

Tomvail:

Concerned about wetlands and how that will be maintained.

Marlene Garvey:

Concern about slowing down traffic on Meadows Dr. Concern about wetland maintenance.

Kara Garcia:

Question about signage for 4 way stop on Meadows Dr.

Mohr Family:

Concerned about pedestrian safety on Meadows Dr. (through traffic). Possible signage or speed bumps to slow down traffic.

NOTICE OF NEIGHBORHOOD MEETING

MEETING INFORMATION:

DATE: July 20, 2021

TIME: 6:00 PM

LOCATION: Online (Zoom Meeting)

Join Zoom Meeting at:

<https://zoom.us/j/98850954095?pwd=MWpnaVJhRUhoZE1WcGhzME9XWXF6Zz09>

Meeting ID: 988 5095 4095

Passcode: tfZ9cw

PROPOSAL AND PROJECT DESCRIPTION:

The proposed project is located on an approximate 4.96-acre parcel south of West Baker Creek Road and between the north and south termini of Meadows Drive in McMinnville, Oregon in Yamhill County. The proposed land use for this lot will be Residential. Refer to the attached tax map and vicinity map for details.

The project scope is to develop the site for 18 single-family residential lots with associated improvements, connecting Meadows Drive from the north-south, and designated open grassed areas. The lot sizes range from approximately 5400 SF to 8350 SF. The project will include construction of new roads, sidewalks, and associated public improvements. Refer to the conceptual site plan for more information. Building heights and dimensions to be determined by the contractor.

TENTATIVE MEETING AGENDA ON 07/20/2021

- | | |
|-------------------|--|
| 6:00 PM – 6:05 PM | Introduction |
| 6:05 PM – 6:15 PM | Description of major elements of the project, including land uses, building sizes/height, access and parking, buffering, and protection of natural resources and wetlands. |
| 6:15 PM – End | Opportunity for attendees to speak and ask questions. |

If you have any questions about the meeting please contact Daniel Thompson at Westech Engineering, Inc. Contact information is provided below.

CONTACT NAME: Daniel Thompson

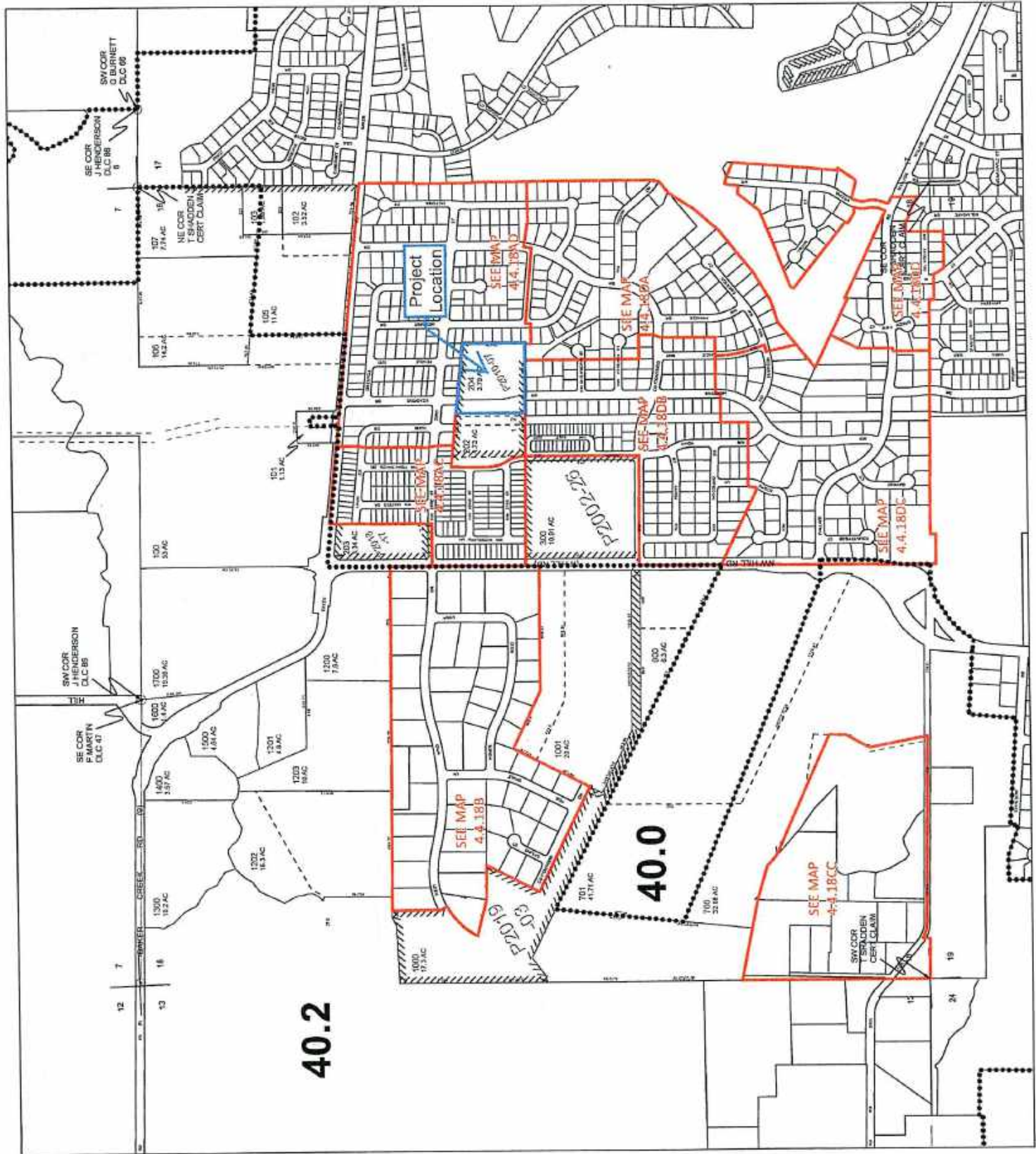
CONTACT EMAIL: dthompson@westech-eng.com

CONTACT NUMBER: 503-585-2474



ASSESSMENT & TAX
CARTOGRAPHY

SECTION 18 T.4S. R.4W. W.M.
YAMHILL COUNTY OREGON
1" = 400'



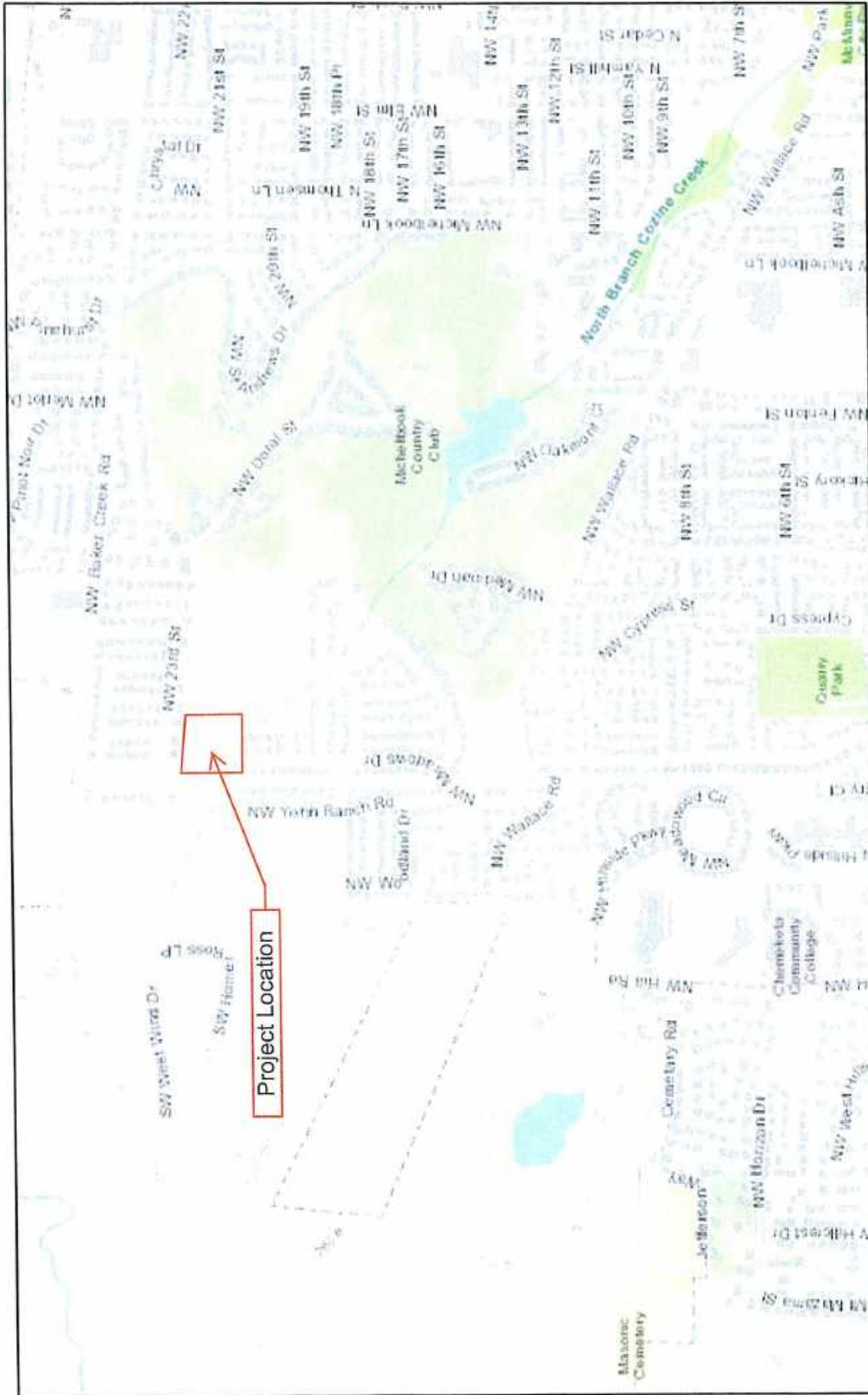
CANCELLED TAXLOTS:

1100
600
600
501
401
401
400
306
306
304
303
302
301
104
2404
200
200
200
1000

DATE PRINTED: 6/27/2019

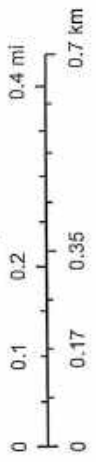
This product is for Assessment and Taxation (AST) purposes only and has not been prepared or is suitable for legal, engineering, surveying or any purposes other than assessment and taxation.

Vicinity Map



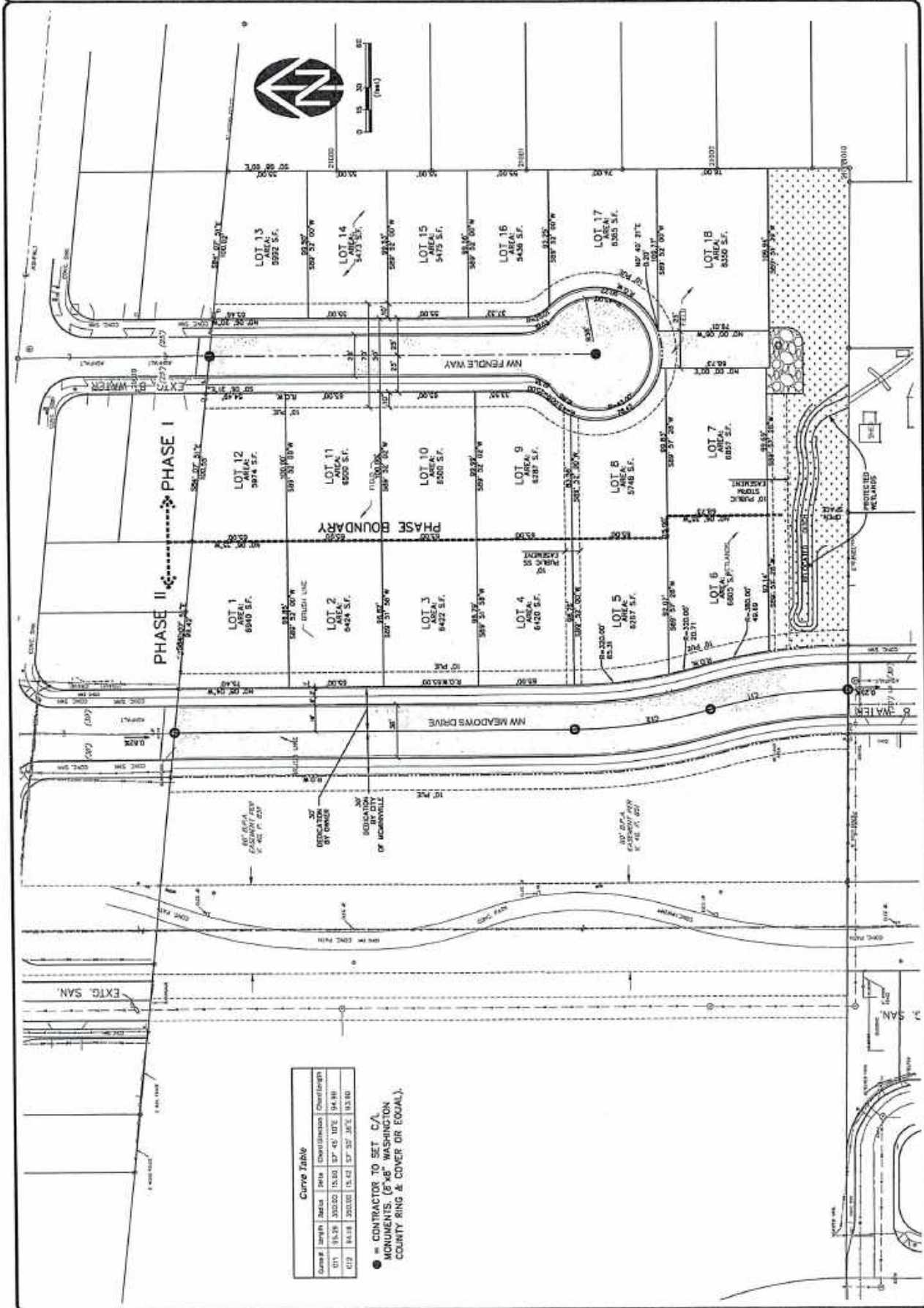
1:18,056

2/20/2020, 9:24:42 AM



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

City of McMinnville, Oregon Metro, Bureau of Land Management, State of Oregon DOT, State of Oregon GEO, Esri, HERE, Garmin, INCREMENT P, USGS, METWASA, EPA, USDA |



Curve #	Length	Area	Delta	Chord Length	Chord Length
011	15.28	300.00	15.00	57.42	94.81
012	14.18	200.00	15.42	57.37	83.90

● = CONTRACTOR TO SET C/A MONUMENTS. (8"Ø" WASHINGTON COUNTY RING & COVER OR EQUAL).

NO.	DATE	REVISIONS
1		DESIGN
2		REVISIONS
3		
4		
5		
6		
7		
8		
9		
10		

REVIEW

REVIEWED BY: [Signature]

DATE: [Date]

MB

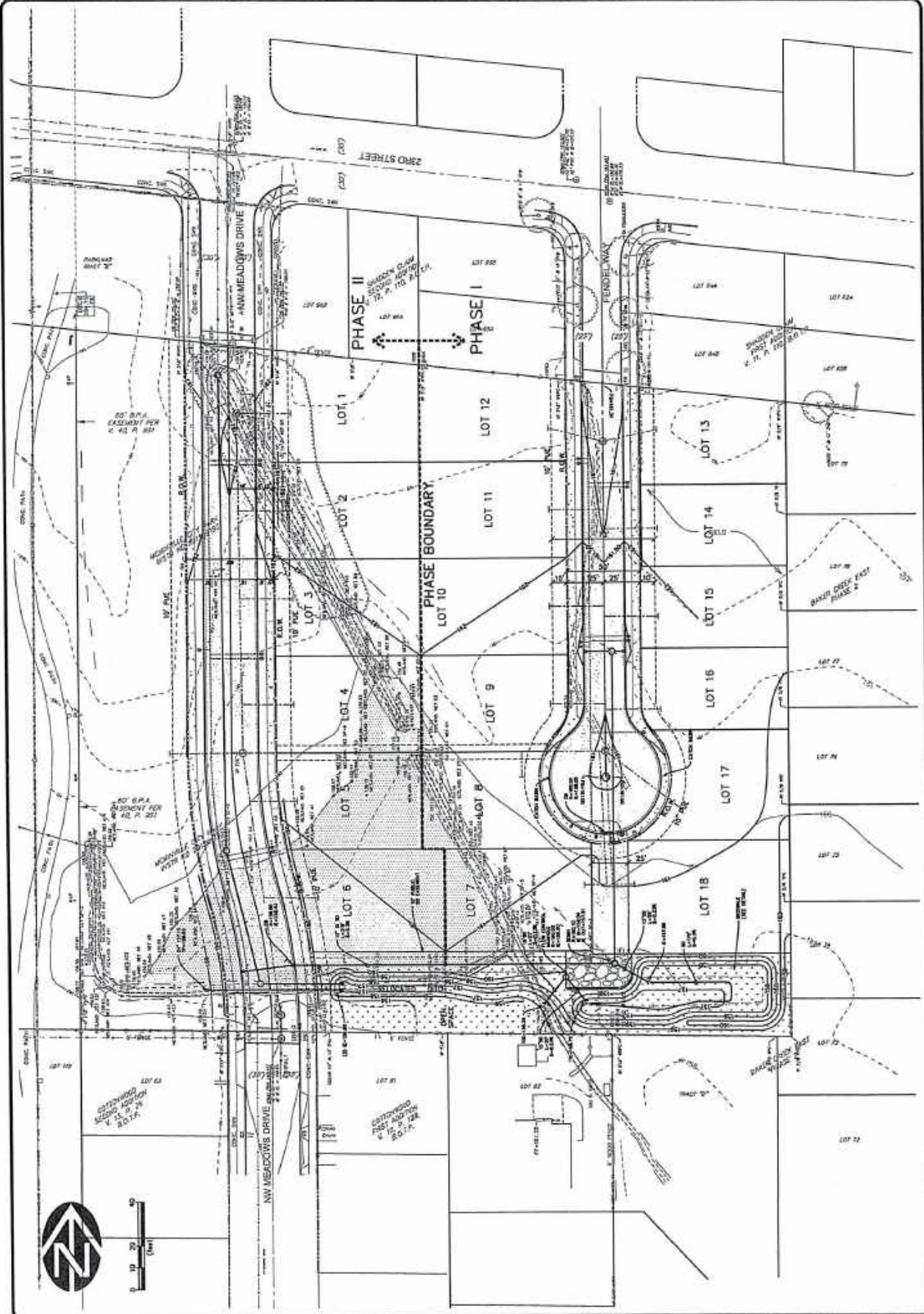
MERRILL BROS. ENGINEERING & ARCHITECTURE

1000 15th St. N.W. Suite 1000
 Phone: (202) 331-2171 Fax: (202) 331-2888
 E-mail: merrill@mb-engineering.com

OVERALL GRADING AND DRAINAGE PLAN

ELYSIAN SUBDIVISION
 V1-2 DEVELOPMENT

DRAWING
 C-3.0
 JOB NUMBER
 29331.0000.0







OwnerNameLabelFormat	OwnerNmFirst	OwnerNmLast	OwnerAddr	OwnerCityNm	OwnerStat	OwnerZIP
Kimbire Chapman	Kimbire	Chapman	1754 NW 23rd St	McMinnville	OR	97128
Dk Rentals LLC		Dk Rentals LLC	1339 NW Constellation Dr	Bend	OR	97703
Vernon & Starlene Dreyer	Vernon	Dreyer	2320 NW McGarey Dr	McMinnville	OR	97128
Paul Long	Paul	Long	29380 NE Owls Ln	Newberg	OR	97132
Collier Frances J Trustee Of McMinnville City Of		Collier Frances J Trustee Of McMinnville City Of	2632 NW Pinehurst Dr 230 NE 2nd St	McMinnville	OR	97128
Howland, Peter M Trustee	Peter	Howland	1775 NW 23rd St	McMinnville	OR	97128
Crystal Bartell	Crystal	Bartell	2287 NW Mahala Way	McMinnville	OR	97128
Amh 2014-2 Borrower LLC		Amh 2014-2 Borrower LLC	23975 Park Sorrento Ste 300	Calabasas	CA	91302
Collier Frances J Rev Living Trust		Collier Frances J Rev Living Trust	2632 NW Pinehurst Dr	McMinnville	OR	97128
Fax, J Nicholas Jr Trustee	Nicholas	Fax Jr	13955 NW Willis Rd	McMinnville	OR	97128
Lisa Garvey	Lisa	Garvey	2325 NW McGarey Dr	McMinnville	OR	97128
Fax, J Nicholas Jr Trustee	Nicholas	Fax Jr	13955 NW Willis Rd	McMinnville	OR	97128
Robert & Marlene Garvey	Robert	Garvey	2332 NW Meadows Dr	McMinnville	OR	97128
Jennifer Harmes	Jennifer	Harmes	2320 NW Meadows Dr	McMinnville	OR	97128
Maria Olague	Maria	Olague	2314 NW Meadows Dr	McMinnville	OR	97128
Linda Cadinha & Shannon Handy	Linda	Cadinha	19701 NE Trunk Rd	Dundee	OR	97115
Linda Cadinha & Shannon Handy	Linda	Cadinha	19701 NE Trunk Rd	Dundee	OR	97115
Eva Anderson	Eva	Anderson	2331 NW Fendle Wy	McMinnville	OR	97128
Randall & Norieda Leno	Randall	Leno	2328 NW Fendle Wy	McMinnville	OR	97128
Cronin, Donald M Trustee	Donald	Cronin	4375 SE Whiteson Rd	McMinnville	OR	97128
Gregory & Rebecca Brandt	Gregory	Brandt	2310 NW Fendle Way	McMinnville	OR	97128
Ten Pools LLC		Ten Pools LLC	3627 NW 24th Cir	Camas	WA	98607
Hpa II Borrower 2020-1 LLC		Hpa II Borrower 2020-1 LLC	120 S Riverside Plaza Ste 2000	Chicago	IL	60606
Sherry Belding	Sherry	Belding	2283 NW Fendle Wy	McMinnville	OR	97128
Jack & Jean Brooks	Jack	Brooks	2291 NW Fendle Way	McMinnville	OR	97128
Thomas & Shelley Brendie	Thomas	Brendie	1860 NW 23rd St	McMinnville	OR	97128
Hayes, Tracy J Trustee	Tracy	Hayes	1866 NW 23rd St	McMinnville	OR	97128
McMinnville City Of		McMinnville City Of	230 NE 2nd St	McMinnville	OR	97128
McMinnville City Of		McMinnville City Of	230 NE 2nd St	McMinnville	OR	97128
Benton Donald A & Collene R Trustee		Benton Donald A & Collene R Trus	2313 NW Haun Dr	McMinnville	OR	97128
Wayne & Melva Semon	Wayne	Semon	2293 NW Haun Dr	McMinnville	OR	97128
Nicholas Scarla & Tara Turnidge	Nicholas	Scarla	2068 NW Meadows Dr	McMinnville	OR	97128
Gregory Smith	Gregory	Smith	2036 NW Meadows Dr	McMinnville	OR	97128
Brown, Nancy E Trust	Nancy	Brown	2024 NW Meadows Dr	McMinnville	OR	97128
Lori Durand	Lori	Durand	1825 NW Snowberry St	McMinnville	OR	97128
Dewitt Living Trust		Dewitt Living Trust	1833 NW Snowberry St	McMinnville	OR	97128
Charles Wilson Jr	Charles	Wilson Jr	1841 NW Snowberry St	McMinnville	OR	97128
Seehawer Lyle R Jr & Judy A Trustees		Seehawer Lyle R Jr & Judy A Truste	2022 NW Meadows Dr	McMinnville	OR	97128
Preston & Cynthia Probasco	Preston	Probasco	2044 NW Meadows Dr	McMinnville	OR	97128
Jennifer Kausch	Jennifer	Kausch	2076 NW Meadows Dr	McMinnville	OR	97128
Timothy & Natalie Spidal	Timothy	Spidal	1973 NW Meadows Dr	McMinnville	OR	97128
Brent & Anna Bergum	Brent	Bergum	2015 NW Meadows Dr	McMinnville	OR	97128
Robert Hamilton	Robert	Hamilton	2037 NW Meadows Dr	McMinnville	OR	97128
Daniel & Jamnian Wales	Daniel	Wales	2059 NW Meadows Dr	McMinnville	OR	97128
Chrisopher & Tracey Arnett	Chrisopher	Arnett	1050 33rd Pl	Forest Grove	OR	97116
The Public		The Public	1341 NW Green View Ct	McMinnville	OR	97128
Cody Staebler	Cody	Staebler	2022 NW Kale Wy	McMinnville	OR	97128
Alan Ruden Inc		Alan Ruden Inc	PO Box 570	McMinnville	OR	97128
Alan Ruden Inc		Alan Ruden Inc	PO Box 570	McMinnville	OR	97128
Alan Ruden Inc		Alan Ruden Inc	PO Box 570	McMinnville	OR	97128
Alan Ruden Inc		Alan Ruden Inc	PO Box 570	McMinnville	OR	97128
Alan Ruden Inc		Alan Ruden Inc	PO Box 570	McMinnville	OR	97128
Alan Ruden Inc		Alan Ruden Inc	PO Box 570	McMinnville	OR	97128
Alan Ruden Inc		Alan Ruden Inc	PO Box 570	McMinnville	OR	97128
Howard & Margaret Aster	Howard	Aster	PO Box 731	McMinnville	OR	97128
Thomas Hunter	Thomas	Hunter	2265 NW Mahala Way	McMinnville	OR	97128
Erin Thompson & Matthew Pantaleoi	Erin	Thompson	2281 NW Mahala Way	McMinnville	OR	97128
Kathryn & Thomas Manning	Kathryn	Manning	2280 NW McGarey Dr	McMinnville	OR	97128
Richard & Sally Tucker	Richard	Tucker	2266 NW McGarey Dr	McMinnville	OR	97128
Justin & Danielle Zemlicka	Justin	Zemlicka	2224 NW McGarey Dr	McMinnville	OR	97128
Reid & Olivia Tramelli	Reid	Tramelli	2178 NW McGarey Dr	McMinnville	OR	97128
Pamela Lyle	Pamela	Lyle	2132 NW McGarey Dr	McMinnville	OR	97128
Michael & Blaine Moberg	Michael	Moberg	1783 NW Nolan Dr	McMinnville	OR	97128
Alex & Cameran Jaskoviak	Alex	Jaskoviak	1751 NW Nolan Dr	McMinnville	OR	97128

Davidson, Frances G Trust	Frances	Davidson	1739 NW Nolan Dr	McMinnville	OR	97128
Suzanne & Michael Oliver	Suzanne	Oliver	2275 NW McGarey Dr	McMinnville	OR	97128
Hunter Smith & Brenna Collins	Hunter	Smith	2241 NW McGarey Dr	McMinnville	OR	97128
Wuellner Family Trust		Wuellner Family Trust	2209 NW McGarey Dr	McMinnville	OR	97128
David & Sheri Mooney	David	Mooney	2169 NW McGarey Dr	McMinnville	OR	97128
Uriel & Kara Garcia	Uriel	Garcia	2123 NW McGarey Dr	McMinnville	OR	97128
Vicki Fowler	Vicki	Fowler	PO Box 899	Carlton	OR	97111
Josefchak P S & Doland C Trust		Josefchak P S & Doland C Trust	2083 NW McGarey Dr	McMinnville	OR	97128
Stephanie & Brett Rudolph	Stephanie	Rudolph	2049 NW McGarey Dr	McMinnville	OR	97128
Jacob Rex	Jacob	Rex	2051 NW McGarey Dr	McMinnville	OR	97128
Wagner B & Carrington D Rev Trust		Wagner B & Carrington D Rev Tru:	2042 NW McGarey Dr	McMinnville	OR	97128
Katherine & Matthew Foss	Katherine	Foss	1746 NW Nolan Dr	McMinnville	OR	97128
Yan Ke	Yan	Ke	1772 NW Nolan Dr	McMinnville	OR	97128
Jerald & Michelle Buczynski	Jerald	Buczynski	2062 NW McGarey Dr	McMinnville	OR	97128
Christopher & Jocelyn Rich	Christopher	Rich	2059 NW McGarey Dr	McMinnville	OR	97128
Eric & Peggy Fricke	Eric	Fricke	2067 NW McGarey Dr	McMinnville	OR	97128
Stafford Development Company LLC		Stafford Development Company L	485 S State St	Lake Oswego	OR	97034
Joshua & Christy Mohr	Joshua	Mohr	1823 NW Snowberry St	McMinnville	OR	97128
Stafford Development Company LLC		Stafford Development Company L	485 S State St	Lake Oswego	OR	97034

Amended – Applicants Written Findings

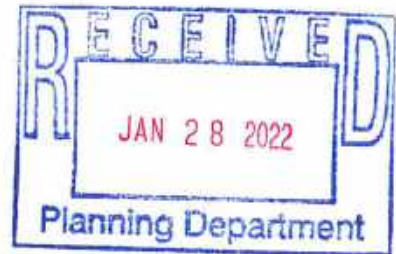
Great Neighborhood Principles, Planned Development, Comp Plan Volume II Goals and Policy, and Zone Change Findings

Request:

The applicant is requesting for a phased 18 lot Subdivision, with a Planned Development Overlay adjusting the zone side yard setbacks from 7 to 5 feet, and Zone Change Application (R-1 to R-3), which will allow an average lot size to be reduced from 9000 SF to 6000 SF. The applicant and City of McMinnville are currently in the DSL/ACOE wetland fill process and are now to the point that land use approval is required prior to wetland fill approval. The reason this is a joint (City and applicant) fill application is because a portion of the wetlands are located on the City parks property that will be dedicated to allow the construction of NW Meadows Drive.

List of Exhibits:

- Civil Drawings
 - Existing Conditions Plan
 - Subdivision Plan
 - Overall Utility Plan
 - Grading & Drainage Plan
 - Street & Storm Drain Plan and Profiles
 - Sanitary Sewer Plan & Profiles
 - Water Plans
- Revised Drainage Rehabilitation Plan (Terra Science)



Below are the required sections that must be addressed in order to obtain an approved Development Application. The relevant code sections are followed by the applicant's response in *italics*.

McMinnville Comprehensive Plan Vol. 2 – Great Neighborhood Principles: Policies:

187.10

The City of McMinnville shall establish Great Neighborhood Principles to guide the land use patterns, design, and development of the places that McMinnville VOLUME II Goals and Policies Page 70 citizens live, work, and play. The Great Neighborhood Principles will ensure that all developed places include characteristics and elements that create a livable, egalitarian,

healthy, social, inclusive, safe, and vibrant neighborhood with enduring value, whether that place is a completely new development or a redevelopment or infill project within an existing built area.

Applicant's response: The proposed subdivision is in accordance with the purpose of Policy 187.10 by creating a livable subdivision next to a city park. The project is an infill development with all infrastructure to be built per city standards with characteristics that create an egalitarian and vibrant neighborhood with enduring value. The project provides pedestrian access next to a city park to create a social, inclusive and safe neighborhood.

187.20

The Great Neighborhood Principles shall encompass a wide range of characteristics and elements, but those characteristics and elements will not function independently. The Great Neighborhood Principles shall be applied together as an integrated and assembled approach to neighborhood design and development to create a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood, and to create a neighborhood that supports today's technology and infrastructure, and can accommodate future technology and infrastructure.

Applicant's response: The proposed subdivision has applied the Great Neighborhood Principle together in the neighborhood design and development to create a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood, and to create a neighborhood that supports today's technology and infrastructure, and can accommodate future technology and infrastructure. In addition, the infill development is located next to a city park with pedestrian access to apply the Great Neighborhood Principles.

187.30

The Great Neighborhood Principles shall be applied in all areas of the city to ensure equitable access to a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood for all McMinnville citizens.

Applicant's response: The proposed infill development ensures equitable access to a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood for all McMinnville citizens by providing pedestrian access to the nearby city park and sidewalks throughout the development.

187.40

The Great Neighborhood Principles shall guide long range planning efforts including, but not limited to, master plans, small area plans, and annexation requests. The Great Neighborhood Principles shall also guide applicable current land use and development applications.

Applicant's response: The proposed subdivision is in accordance with the City of McMinnville Master Plan by using the Great Neighborhood Principles to guide the design and construction of the infill development.

187.50

The McMinnville Great Neighborhood Principles are provided below. Each Great Neighborhood Principle is identified by number below (numbers 1 – 13), and is followed by more specific direction on how to achieve each individual principle.

1. Natural Feature Preservation. Great Neighborhoods are sensitive to the natural conditions and features of the land.
 - a. Neighborhoods shall be designed to preserve significant natural features including, but not limited to, watercourses, sensitive lands, steep slopes, wetlands, wooded areas, and landmark trees.
2. Scenic Views. Great Neighborhoods preserve scenic views in areas that everyone can access.
 - a. Public and private open spaces and streets shall be located and oriented to capture and preserve scenic views, including, but not limited to, views of significant natural features, landscapes, vistas, skylines, and other important features.
3. Parks and Open Spaces. Great Neighborhoods have open and recreational spaces to walk, play, gather, and commune as a neighborhood.
 - a. Parks, trails, and open spaces shall be provided at a size and scale that is variable based on the size of the proposed development and the number of VOLUME II Goals and Policies Page 71 dwelling units.
 - b. Central parks and plazas shall be used to create public gathering spaces where appropriate.
 - c. Neighborhood and community parks shall be developed in appropriate locations consistent with the policies in the Parks Master Plan.
4. Pedestrian Friendly. Great Neighborhoods are pedestrian friendly for people of all ages and abilities.
 - a. Neighborhoods shall include a pedestrian network that provides for a safe and enjoyable pedestrian experience, and that encourages walking for a variety of reasons including, but not limited to, health, transportation, recreation, and social interaction.
 - b. Pedestrian connections shall be provided to commercial areas, schools, community facilities, parks, trails, and open spaces, and shall also be provided between streets that are disconnected (such as cul-de-sacs or blocks with lengths greater than 400 feet).
5. Bike Friendly. Great Neighborhoods are bike friendly for people of all ages and abilities.
 - a. Neighborhoods shall include a bike network that provides for a safe and enjoyable biking experience, and that encourages an increased use of bikes by people of all abilities for a variety of reasons, including, but not limited to, health, transportation, and recreation.
 - b. Bike connections shall be provided to commercial areas, schools, community facilities, parks, trails, and open spaces.
6. Connected Streets. Great Neighborhoods have interconnected streets that provide safe travel route options, increased connectivity between places and destinations, and easy pedestrian and bike use.
 - a. Streets shall be designed to function and connect with the surrounding built environment and the existing and future street network, and shall incorporate human scale elements including, but not limited to, Complete Streets features as defined in the Comprehensive Plan, grid street networks, neighborhood traffic management techniques, traffic calming, and safety enhancements.

- b. Streets shall be designed to encourage more bicycle, pedestrian and transit mobility with a goal of less reliance on vehicular mobility. VOLUME II Goals and Policies Page 72
- 7. Accessibility. Great Neighborhoods are designed to be accessible and allow for ease of use for people of all ages and abilities.
 - a. To the best extent possible all features within a neighborhood shall be designed to be accessible and feature elements and principles of Universal Design.
 - b. Design practices should strive for best practices and not minimum practices.
- 8. Human Scale Design. Great Neighborhoods have buildings and spaces that are designed to be comfortable at a human scale and that foster human interaction within the built environment.
 - a. The size, form, and proportionality of development is designed to function and be balanced with the existing built environment.
 - b. Buildings include design elements that promote inclusion and interaction with the right-of-way and public spaces, including, but not limited to, building orientation towards the street or a public space and placement of vehicle oriented uses in less prominent locations.
 - c. Public spaces include design elements that promote comfortability and ease of use at a human scale, including, but not limited to, street trees, landscaping, lighted public areas, and principles of Crime Prevention through Environmental Design (CPTED).
- 9. Mix of Activities. Great Neighborhoods provide easy and convenient access to many of the destinations, activities, and local services that residents use on a daily basis.
 - a. Neighborhood destinations including, but not limited to, neighborhood serving commercial uses, schools, parks, and other community services, shall be provided in locations that are easily accessible to surrounding residential uses.
 - b. Neighborhood-serving commercial uses are integrated into the built environment at a scale that is appropriate with the surrounding area.
 - c. Neighborhoods are designed such that owning a vehicle can be optional.
- 10. Urban-Rural Interface. Great Neighborhoods complement adjacent rural areas and transition between urban and rural uses.
 - a. Buffers or transitions in the scale of uses, buildings, or lots shall be provided on urban lands adjacent to rural lands to ensure compatibility.
- 11. Housing for Diverse Incomes and Generations. Great Neighborhoods provide housing opportunities for people and families with a wide range of incomes, and VOLUME II Goals and Policies Page 73 for people and families in all stages of life.
 - a. A range of housing forms and types shall be provided and integrated into neighborhoods to provide for housing choice at different income levels and for different generations.
- 12. Housing Variety. Great Neighborhoods have a variety of building forms and architectural variety to avoid monoculture design.
 - a. Neighborhoods shall have several different housing types.
 - b. Similar housing types, when immediately adjacent to one another, shall provide variety in building form and design.
- 13. Unique and Integrated Design Elements. Great Neighborhoods have unique features, designs, and focal points to create neighborhood character and identity. Neighborhoods shall be encouraged to have:

- a. Environmentally friendly construction techniques, green infrastructure systems, and energy efficiency incorporated into the built environment.
- b. Opportunities for public art provided in private and public spaces.
- c. Neighborhood elements and features including, but not limited to, signs, benches, park shelters, street lights, bike racks, banners, landscaping, paved surfaces, and fences, with a consistent and integrated design that are unique to and define the neighborhood. (Ord 5066 §2, April 9, 2019)

Applicant's response:

- (1.) *The proposed subdivision is proposing to relocate the man made ditches and wetlands associated with the construction of the Shadden Claim development. A portion of the existing man made wetlands will be preserved and enhanced along the southern section of the development (refer to the Drainage Rehabilitation Plan). The existing man made ditch and associated wetlands are proposed to be filled in order to connect Meadows Drive and provide lots along the street to border the neighborhood park, while the wetlands along the southern boundary of the subject property are proposed to be enhanced. The enhanced drainage ditch allows drainage from the parks property to the west to match the existing flow path to the east, connecting to the existing ditch. The existing ditch/wetlands will be enhanced with landscaping as shown the wetland-fill landscape restoration plan (refer to the Drainage Rehabilitation Plan). Therefore, the intent of the principle has been met.*
- (2.) *The proposed subdivision is located near a park and provides approximately 15,086 square feet of open space to preserve the scenic views that currently exist.*
- (3.) *The proposed subdivision is located across the street from the Jay Pearson Neighborhood Park. In addition, a public access is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park.*
- (4.) *Sidewalks are proposed along the Meadows Drive connection as well as the proposed cul-de-sac extension of NW Fendle Way. In addition, a 10ft wide multiuse public access sidewalk is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park.*
- (5.) *The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. Per the TSP a local street and minor collectors have shared street access with bikes and vehicle's. In addition, a 10ft wide concrete multiuse path is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. Therefore, the development is bike friendly and provides bike connections to the surrounding neighborhood.*
- (6.) *The proposed subdivision will connect the north and south dead-end street of Meadows Drive and extend Fendle Way to terminate in a cul-de-sac. The proposed development will also be constructed with sidewalks and a multiuse path to connect NW Fendle Way and Meadows Drive. This connection will provide multiuse access from the neighborhood to the city park located west of the subdivision.*

- (7.) *The proposed subdivision street, sidewalk and pedestrian access grades are relatively flat and will be designed to meet all public works design standards and ADA Standards. Therefore, the development will allow ease of use people with all ages. Except for the proposed wetlands that are being preserved, all of the proposed development is proposed to be designed.*
- (8.) *The proposed development is an infill development. The proposed lots will face either the extension of Fendle Way or the connection of Meadows Drive or a public use area. The building will have garages so the vehicles could be stored out of view. The allowable building sizes based on the setbacks will balance with the proposed street extensions and be compatible with the surrounding neighborhood. Meadows Drive and Fendle Way will all have landscaping, street lights, street trees to promote a comfortable and ease of use throughout the built environment. In addition, the 10ft wide multiuse path to connect the public built environment of Fendle Way and NW Meadows Drive that provide a greater ease of use of the built environment. These design elements promote comfort, ease of use and the principles of Crime Prevention through Environmental Design.*
- (9.) *The proposed subdivision provides public access along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. This connection will provide efficient pedestrian access that allows for owning a vehicle to be optional.*
- (10.) *The proposed subdivision is designed in accordance to blend with the surrounding neighborhood with lot sizes and building design that is consistent with the existing surrounding neighborhood.*
- (11.) *The proposed development provides housing for diverse incomes and different generations by the combination of varying lots sizes, rezoning from R-1 to R-3 and HB 2001. As shown on the subdivision plan the lot sizes vary from 5436 SF to 8363 SF, which would not be allowed under current zoning. In addition, the R-3 zone allows dual family living in addition to single family dwelling. This coupled with HB 2001, which allows multifamily development on single family residential zoned property creates the option for numerous housing types for diverse incomes spanning different generations.*
- (12.) *The applicant is proposing to sell the lots to multiple buyers, therefore, building types will be varied by each buyer. This can be ensured with a condition of approval.*
- (13.) *The proposed infill development will have unique features, designs, and focal points to create neighborhood character and identity. As shown on the Grading Plan, the development utilizes green infrastructure system known as a bioswale to treat stormwater prior to entering the existing drainage way. Another unique feature will be the relocated and enhanced wetland (Refer to the Drainage Rehabilitation Plan) that will be adjacent to the multiuse path connecting Fendle Way and Meadows. The proposed homes will all be required to be constructed per the new building and energy codes, this will ensure energy efficiency into the built environment. The development does not preclude opportunities for public art provided in private and public spaces. This can be ensured by a condition of approval that the City has to review and approve the HOA governing documents to ensure public art is not excluded. As shown on the subdivision plan there are two benches located along the concrete multiuse path, with enhanced landscaping in the relocated wetland and the green stormwater system, a fence along the wetland and green stormwater system. All*

these components provide a consistent and integrated design that are unique to define the neighborhood.

Planned Development – Chapter 17.51:

17.51.010 – Purpose

The purpose of a planned development is to provide greater flexibility and greater freedom of design in the development of land than may be possible under strict interpretation of the provisions of the zoning ordinance. Further, the purpose of a planned development is to encourage a variety in the development pattern of the community; encourage mixed uses in a planned area; encourage developers to use a creative approach and apply new technology in land development; preserve significant man-made and natural features; facilitate a desirable aesthetic and efficient use of open space; and create public and private common open spaces. A planned development is not intended to be simply a guise to circumvent the intent of the zoning ordinance. Such plan should accomplish substantially the same general objectives as proposed by the comprehensive plan and zoning ordinance for the area;

Applicant's response: There are many special objectives of the development of the subject properties the Applicant is attempting to achieve with the application for the proposed planned development overlay.

(1) Provide a diversity of lot sizes that will contribute to variety in the development pattern of the community housing, and varied housing sizes and styles, which will correlate to various price points to meet today's market need of home consumers in McMinnville. The applicant is proposing meet this special objective with a concurrent zone change from R-1 to R-3 to provide lot sizes ranging from rezoning from 5436 SF to 8363 SF and reduced side yard setbacks from 7ft to 5ft, which would not be allowed under current zoning. In addition, the R-3 zone allows dual family living in addition to single family dwelling. This coupled with HB 2001, which allows multifamily development on single family residential zoned property creates the option for numerous housing types for diverse incomes spanning different generations. The applicant is proposing to sell the lots to several different builders to further provide variety in the development pattern.

(2) Meet a desire to preserve and enhance the manmade features to create desirable aesthetic and efficient use of public open spaces. The applicant proposes to meet this important objective by enhancing the manmade drainage way along the southern property boundary by expanding it and landscaping the existing drainage ditch to provide aesthetically pleasing open area (Refer to the Drainage Rehabilitation Plan). Adjacent to this open area will be a 10ft wide multipurpose access way with benches that can be utilized by the public. This open area will enhance the existing manmade features providing and aesthetically pleasing open area that is also an efficient use of public open spaces.

17.51.020 Standards and requirements.

The following standards and requirements shall govern the application of a planned development in a zone in which it is permitted:

A. The principal use of land in a planned development shall reflect the type of use indicated on the comprehensive plan or zoning map for the area. Accessory uses within the development may include uses permitted in any zone, except uses permitted only in the M-2 zone are excluded from all other zones. Accessory uses shall not occupy more than twenty-five percent of the lot area of the principal use;

Applicant’s response: The subject property has a residential designation on the comprehensive plan. The proposed development is a residential development, therefore this objective has been met.

B. Density for residential planned development shall be determined by the underlying zone designations. (Ord. 4128 (part), 1981; Ord. 3380 (part), 1968).

The proposed development with concurrent zone change to R-3, subdivision and PD, the proposed lot size ranges in size from 5,436 SF to 8,363 SF, and lot density of 4.8 dwelling units/acre. The proposed density can be met with the approval of the concurrent application. This Policy can be met and can be ensured by conditions of approval for the concurrent zone change, PD and subdivision applications.

17.51.030 (C.) – Procedure

C. The Commission shall consider the preliminary development plan at a meeting at which time the findings of persons reviewing the proposal shall also be considered. In reviewing the plan, the Commission shall need to determine that:

1. There are special physical conditions or objectives of a development which the proposal will satisfy to warrant a departure from the standard regulation requirements;

Applicant’s response: There are special physical conditions and objectives of the development of the subject property the Applicant is attempting to achieve with the application for the proposed planned development overlay.

Special Physical Conditions (1) The special physical conditions of the site include the infill nature of the development (surrounded by residential development with a neighborhood park to the west) and the manmade drainages onsite limit the configurations of development. In addition, the manmade wetlands under the Meadows Drive connection and along the phase line are proposed to be filled. However, the applicant is proposing to enhance the manmade wetland ditch along the south property line to ensure proper drainage, and provide enhanced physical conditions of the site. The special conditions warrant deviation of the standard requirements.

Objective (1) Provide a diversity of lot sizes and setback flexibility that will contribute to variety in the development pattern of the community housing, and varied housing sizes and styles. The applicant is also proposing a concurrent zone change from R-1 to R-3 to provide lot sizes ranging from rezoning from 5436 SF to 8363 SF and reduced side yard setbacks from 7ft to 5ft, which would not be allowed with a Planned Development Overlay and/or Zone Change. The applicant is proposing to sell the lots to several different builders to further provide variety in housing types and styles to home consumers in McMinnville. The reduced side yard setback provides the builders more flexibility in housing types and styles.

2. Resulting development will not be inconsistent with the Comprehensive Plan objectives of the area;

Applicant's response: Please refer to the applicant's response to the Comprehensive Plan objectives below. The application is consistent with the Comprehensive Plan.

3. The development shall be designed so as to provide for adequate access to and efficient provision of services to adjoining parcels;

Applicant's response: The proposed development is an infill development. The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. In addition, a 10ft wide concrete multiuse path is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. Therefore, access to the existing surrounding streets will provide efficient access to services to adjoining parcels.

4. The plan can be completed within a reasonable period of time;

Applicant's response: The applicant is proposing to construct the improvements in the summer of 2022 for lots to be sold in the fall and winter of 2022. This development is typical in the industry. Therefore, this objective has been met.

5. The streets are adequate to support the anticipated traffic, and the development will not overload the streets outside the planned area;

Applicant's response: The proposed development is an infill development. The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. In addition, a 10ft wide concrete multiuse path. The density of units is consistent with the City's TSP and therefore will not overload the streets outside the planned area.

6. Proposed utility and drainage facilities are adequate for the population densities and type of development proposed;

Applicant's response: Refer to the civil plans. As shown the civil plans, the applicant is proposing to extend existing sewer and water systems to service the development. The proposed density (4.8 units/acre) is less than the 6 units/acre utilized in the City Sanitary Sewer Conveyance System Master Plan to size the sewer mains. The applicant is proposing to provide stormwater detention in accordance with the City's Storm Drainage Master Plan, which accounts for lot density. All utility design will be in accordance with City standards. Therefore this standard is met.

7. The noise, air, and water pollutants caused by the development do not have an adverse effect upon surrounding areas, public utilities, or the city as a whole;

Applicant's response: The proposed development will not create a land use that will cause noise incompatibility with surrounding uses. The proposed development will not facilitate any use generating major air emissions beyond what is expected for residential development. The proposed development plans to capture, detain and treat stormwater runoff in a combination swale and detention facility, therefore typical stormwater pollutants and will not have an adverse affect on surrounding areas. The public utilities are all sized to be consistent with the City's Sewer Conveyance and Storm Drainage Master Plans, and therefore will not have an adverse effect on public utilities or the City as a whole.

Comprehensive Plan Volume II Goals & Policies

GOAL V 2: TO PROMOTE A RESIDENTIAL DEVELOPMENT PATTERN THAT IS LAND INTENSIVE AND ENERGY-EFFICIENT, THAT PROVIDES FOR AN URBAN LEVEL OF PUBLIC AND PRIVATE SERVICES, AND THAT ALLOWS UNIQUE AND INNOVATIVE DEVELOPMENT TECHNIQUES TO BE EMPLOYED IN RESIDENTIAL DESIGNS.

Policies:

68.00 The City of McMinnville shall encourage a compact form of urban development by directing residential growth close to the city center, to designated neighborhood activity centers, and to those areas where urban services are already available before committing alternate areas to residential use. (Ord. 5098, December 8, 2020)

Applicant's response: The proposed development is an infill development located within and existing neighborhood, where urban services such as parks (across the street), connecting streets (Meadows Lane and Fendle Way), sewer, water and drainage are all available to service the proposed development.

69.00 The City of McMinnville shall explore the utilization of innovative land use regulatory ordinances which seek to integrate the functions of housing, commercial, and industrial developments into a compatible framework within the city.

Applicant's response: The existing property is zoned residential and is within and compliant with the existing land use regulatory ordinances.

70.00 The City of McMinnville shall continue to update zoning and subdivision ordinances to include innovative land development techniques and incentives that provide for a variety of housing types, densities, and price ranges that will adequately meet the present and future needs of the community.

Applicant's response: The City has updated zoning and subdivision ordinances including the Great Neighborhood Principles, allows PD's which vary lot size and provide different housing types, densities and corresponding price ranges, such as the proposed development.

71.00 The City of McMinnville shall designate specific lands inside the urban growth boundary as residential to meet future projected housing needs. Lands so designated may be developed for a variety of housing types. All residential zoning classifications shall be allowed in areas designated as residential on the Comprehensive Plan Map.

Applicant's response: The proposal is allowed within the residential designation of on the Comprehensive Plan and will provide land intensive, energy efficient housing types.

71.05 The City of McMinnville shall encourage annexations and rezoning which are consistent with the policies of the Comprehensive Plan so as to achieve a continuous five-year supply of

buildable land planned and zoned for all needed housing types. (Ord.4840, January 11, 2006; Ord. 4243, April 5, 1983; Ord. 4218, November 23, 1982)

Applicant's response: The proposed development is consistent with the policies of the Comprehensive Plan. The proposed development proposes to increase the density to provide a supply of several different types of needed housing.

71.09 Medium and High-Density Residential (R-3 and R-4) - The majority of residential lands in McMinnville are planned to develop at medium density range (4 – 8 dwelling units per net acre). Medium density residential development uses include small lot single-family detached uses, single family attached units, duplexes and triplexes, and townhouses. High density residential development (8 – 30 dwelling units per net acre) uses typically include townhouses, condominiums, and apartments:

Applicant's response: The proposal proposes to develop the residential land at 4.8 dwelling units/acre with the proposed R-1 to R-3 zone change, therefore we are proposing to develop on the low end of the medium density range which is consistent with the standard.

1. Areas that are not committed to low density development;

Applicant's response: The proposed development is not located on residential ground committed to low density development.

2. Areas that have direct access from collector or arterial streets; or a local collector street within 600' of a collector or arterial street;

Applicant's response: The proposed development is located adjacent a collector (NW Meadows Drive).

3. Areas that are not subject to development limitations such as topography, flooding, or poor drainage;

Applicant's response: The site is relatively flat (refer to the Existing Conditions Plan and Grading and Drainage Plans) and is not located within a mapped flood plain. The applicant is proposing to enhance the wetlands onsite and provide drainage improvements. Therefore this policy is met.

4. Areas where the existing facilities have the capacity for additional development;

Applicant's response: The proposed development is an infill development consistent with surrounding landuse density, adjacent a public park, a minor collector, and a local street, and will meet the City Facilities Plan, TSP and Drainage Master Plan for development.

5. Areas within one-quarter mile of existing or planned public transportation.

Applicant's response: There is public transportation located along Baker Creek Road. The proposed project is 755 ft from Baker Creek Road with is within ¼ mile of the existing public transportation.

Planned Development Policies:

72.00 Planned developments shall be encouraged as a favored form of residential development as long as social, economic, and environmental savings will accrue to the residents of the development and the city.

Applicant's response: The proposal is for the purpose of providing for cost effective and efficient single family detached units. The residents of the proposed Planned Development have ready access to a designated neighborhood park, within a ¼ mile of an existing private golf course, and adjacent to Rehabilitated Drainage. The proposal will allow the construction of a Planned Development that will provide for a variety of homes with a variety of housing costs to the citizens of McMinnville. This Policy has been met.

73.00 Planned residential developments which offer a variety and mix of housing types and prices shall be encouraged.

Applicant's response: The proposal will provide for single family residential homes on individual lots of various sizes, ranging from 5,436 SF to 8,363 SF. It will provide for homes that will be affordable to the residents of the City with moderate incomes. This Policy has been met.

74.00 Distinctive natural, topographic, and aesthetic features within planned developments shall be retained in all development designs.

Applicant's response: As shown on the survey there are a couple of man made drainage ditches that were intended to be temporary with the Shadden Claim development to the north. There are two ditches, one that drains the park and the other that drains Meadows Drive. These ditches are considered wetlands by the most recent standards. We are proposing to fill the drainage ditch under Meadows Drive and widen and enhance the existing drainage ditch/wetlands that drains the park and flows along the southern property boundary. This ditch is proposed to be retained and enhanced, therefore this policy has been met.

75.00 Common open space in residential planned developments shall be designed to directly benefit the future residents of the developments. When the open space is not dedicated to or accepted by the City, a mechanism such as a homeowners association, assessment district, or escrow fund will be required to maintain the common area. VOLUME II Goals and Policies Page 26.

Applicant's response: The dedicated open space is proposed to be owned by a homeowners association and will thereby benefit the future residents of the development. This can be ensured by a condition of approval.

76.00 Parks, recreation facilities, and community centers within planned developments shall be located in areas readily accessible to all occupants.

Applicant's response: The open space and associated multiuse path with benches is connected to all lots of the proposed development by a sidewalk in accordance with ADA standards and therefore is readily accessible to all applicants.

77.00 The internal traffic system in planned developments shall be designed to promote safe and efficient traffic flow and give full consideration to providing pedestrian and bicycle pathways.

Applicant's response: The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. Per the TSP a local street and minor collectors have shared street access with bikes and vehicle's. In addition, a 10ft wide concrete multiuse path is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. Therefore, the development has given full consideration to providing pedestrian and bicycle pathways.

78.00 Traffic systems within planned developments shall be designed

Applicant's response: The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. These streets are proposed to be designed to meet the City design standards, TSP and prepared by a licensed civil engineer. Therefore this policy is met.

Residential Design Policies:

79.00 The density allowed for residential developments shall be contingent on the zoning classification, the topographical features of the property, and the capacities and availability of public services including but not limited to sewer and water. Where densities are determined to be less than that allowed under the zoning classification, the allowed density shall be set through adopted clear and objective code standards enumerating the reason for the limitations, or shall be applied to the specific area through a planned development overlay. Densities greater than those allowed by the zoning classification may be allowed through the planned development process or where specifically provided in the zoning ordinance or by plan policy. (Ord. 4796, October 14, 2003)

Applicant's response: The proposed development with concurrent zone change to R-3, subdivision and PD, the lot size ranges in size from 5,436 SF to 8,363 SF, and lot density of 4.8 dwelling units/acre. The proposed density can be met with the approval of the concurrent application. This Policy can be met and can be ensured by conditions of approval for the concurrent zone change, PD and subdivision applications.

80.00 In proposed residential developments, distinctive or unique natural features such as wooded areas, isolated preservable trees, and drainage swales shall be preserved wherever feasible.

Applicant's response: As shown on the survey there are a couple of man made drainage ditches that were intended to be temporary with the Shadden Claim development to the north. There are two ditches, one that drains the park and the other that drains Meadows Drive. These ditches are considered wetlands by the most recent standards. We are proposing to fill the drainage ditch under Meadows Drive and widen and enhance the existing drainage ditch/wetlands that drains the park and flows along the southern property boundary. This ditch is proposed to be retained and enhanced (Refer to the Drainage Rehabilitation Plan), therefore this policy has been met.

81.00 Residential designs which incorporate pedestrian and bikeway paths to connect with activity areas such as schools, commercial facilities, parks, and other residential areas, shall be encouraged.

Applicant's response: The concurrent proposed Zone Change/PD/Subdivision will provide necessary street improvements including the provision of curbs, gutter, sidewalks and planter strips on all of the streets within the proposed development. The necessary linkage for pedestrians in this area to the school property, park, commercial area and the private open spaces has been met.

82.00 The layout of streets in residential areas shall be designed in a manner that preserves the development potential of adjacent properties if such properties are recognized for development on the McMinnville Comprehensive Plan Map.

Applicant's response: The proposed development is an infill development and the adjacent properties are already developed, therefore this policy is met.

83.00 The City of McMinnville shall review the design of residential developments to insure site orientation that preserves the potential for future utilization of solar energy.

Applicant's response: The lots have been as detached dwelling units, therefore they can have windows on all four sides of each building allowing for solar passive gains. Upon development of the lots the contractor could install solar panel on structures, but is not included in this proposal. This policy has been met.

Zone Change Criteria:

- A. The proposed amendment is consistent with the goals and policies of the Comprehensive Plan

Applicant's response: Please refer to the Comprehensive plan goals and policies written findings above.

- B. The proposed amendment is orderly and timely, considering the pattern of development in the area, surrounding land uses, and any changes with may have occurred in the neighborhood of community to warrant the proposed amendment.

Applicant's response: The proposed development is an infill development that proposes to connect existing streets and extend existing streets and provide pedestrian and bike access between both new public streets. The applicant is proposing to construct the improvements in the summer of 2022 for lots to be sold in the fall and winter of 2022. Therefore, the amendment is orderly and timely. In the last couple years the surrounding area has developed as a medium density neighborhood (Baker Creek West Subdivision). The proposed lot density is similar to the surrounding area. The applicant is proposing to provide a medium density neighborhood with a variety of lot sizes, therefore this criteria has been meet.

- C. Utilities and services can be efficiently provided to serve the proposed uses or other potential uses in the proposed zoning district.

Applicant's response: Refer to the civil plans. The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. In addition, a 10ft wide concrete multiuse path. The density of units is consistent with the City's TSP and therefore will not overload the streets outside the planned area.

As shown the civil plans, the applicant is proposing to extend existing sewer and water systems to service the development. The proposed density (4.8 units/acre) is less than the 6 units/acre utilized in the City Sanitary Sewer Conveyance System Master Plan to size the sewer mains. The applicant is proposing to provide stormwater detention in accordance with the City's Storm Drainage Master Plan, which accounts for lot density. All utility design will be in accordance with City standards. Therefore this criteria is met.

TERRA SCIENCE, INC.

Soil, Water & Wetland Consultants

**REVISED DRAINAGE REHABILITATION PLAN FOR THE
ELYSIAN IN-FILL SUBDIVISION PROJECCT
CITY OF MCMINNVILLE, YAMHILL COUNTY, OREGON**

Prepared for

OREGON DEPARTMENT OF STATE LANDS

775 Summer Street Northeast, Suite 100

Salem, Oregon 97301-1279

(Application 62609-RF)

and

U.S. ARMY CORPS OF ENGINEERS

Permit Compliance--Yamhill County

Post Office Box 2946

Portland, Oregon 97208-2946

(Action Number NWP 2020-374)

Prepared by

TERRA SCIENCE, INC.

4710 S.W. Kelly Avenue, Suite 100

Portland, Oregon 97239

TSI 2020-0721

December 2020

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County
DSL Permit Application 62609-RF and USACE NWP 2020-374

1.0 Introduction and Background

On behalf of VJ-2 Development (Applicant), Terra Science, Inc. (TSI) has prepared the following rehabilitation plan for the Elysian In-Fill Subdivision project located in the City of McMinnville, Yamhill County, Oregon. Drainage rehabilitation efforts discussed herein would occur within Tax lot 204 on Yamhill County Assessor's map Township 04 South, Range 04 West, Section 18AC, Willamette Meridian. The centroid of the proposed rehabilitation action footprint is approximated at 45.223416° north and -1223.222937° west.

The project is currently being reviewed for Oregon Department of State Lands (DSL) Application 62609-RF and U.S. Army Corps of Engineers (USACE) Application NWP 2020-374. Materials herein supersede rehabilitation plans outlined in TSI's August 2020 plan.

2.0 Existing Site Conditions

The project site is situated on relatively flat terraces completely surrounded by residential development. Conditions of the project area are documented within the Pacific Habitat Services, Inc. (PHS) August 2018 *Wetland Delineation for the Meadows Drive property (Tax Lot 204) in McMinnville, Oregon* (DSL Determination WD WD#2019-0081) and March 2015 *Wetland Delineation for the NW Neighborhood Park Site* (DSL determination WD#2015-0122). As reviewed and concurred with by DSL, PHS defined Wetland A and a non-jurisdictional Excavated Ditch 1.

For the purposes of this report and Joint Permit Application (JPA) exercises, the PHS Wetland A feature has been dissected into three distinct features. Sub-delineation is based on the variable characteristics of Wetland A, including differences in vegetation, disturbances, Cowardin, and Oregon Hydrogeomorphic (OHGM) classifications. Specifically, the eastern edge of Wetland A (and upgradient upland) has been excavated to create a stormwater conveyance ditch while the southern edge of Wetland A has been excavated to form a subtle ditch (defined as the headwaters of the North Fork Cozine Creek). The remainder of Wetland A consists of a relatively flat alluvial terrace primarily supporting weedy, facultative (FAC) grass species. The following details sub-features of the PHS Wetland A polygon:

Excavated Stormwater Ditch: Originating in the northwest corner of the project area, this excavated feature originates from stormwater infrastructure beneath the existing NW Meadows Drive road stub. Constructed circa 2000, the feature conveys stormwater from the adjacent residential subdivisions south and into Wetland A. The feature flows through approximately twenty feet (20') of (remnant agricultural) culvert in the central portion. The north portion of the ditch (constructed in historic uplands) is typically three to four feet lower than surrounding terraces while the southern portion is one foot deeper than the surrounding landform. The north portion is contained in a thicket of *Populus balsamifera*, *Salix lasiandra*, and *Rubus armeniacus* established along the top-of-bank; the bottom of the feature primarily supports *Typha latifolia* and *Veronica spp.* Ultimately, this feature meets the excavated headwaters of North Fork Cozine Creek in the southeast corner of the project

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County
DSL Permit Application 62609-RF and USACE NWP 2020-374

site. This ditch best qualifies as Palustrine, Emergent, Saturated / Semipermanently / Seasonally Flooded, excavated (PEMYx) and Riverine Flow Through (RFT) OHGM classification.

The entirety of the Excavated Stormwater Ditch is proposed to be permanently impacted for this project. At the request of DSL Coordinator DeBlasi, a Stream Function Assessment Method for Oregon (SFAM) analysis was conducted for this feature in November 2020 (provided as report Appendix B).

North Fork of Cozine Creek: Originating at stormwater infrastructure immediately east of the (offsite) Westside Greenway Path, this feature consists of a shallow excavated ditch created circa 2010. The feature extends along the south portion of the project area until it joins the Excavated Stormwater Ditch then flows offsite. The ditch is typically one foot lower than the surrounding terraces and is primarily dominated by *Typha latifolia* and *Veronica spp.* Similar to the Stormwater Ditch, this feature is supported by stormwater runoff from adjacent subdivision developments. The feature best qualifies as Cowardin class PEMYx with a RFT OHGM classification. At the request of DSL Coordinator DeBlasi, a SFAM analysis was conducted for this feature in November 2020 (provided as report Appendix B).

Wetland A: Centrally located within the project area, this feature consists of a remnant agricultural terrace which now supports a non-native facultative community dominated by *Holcus lanatus*, *Epilobium ciliatum*, *Schedonorus arundinacea*, and *Cirsium arvense*. Relatively flat, this feature is primarily supported by precipitation and upslope seasonal groundwater seepage (PHS, 2018). The feature best qualifies as PEMY with a Slope / Flats OHGM classification. As wetland, an Oregon Rapid Wetland Assessment Protocol (ORWAP) functional analysis was conducted for this feature (included as JPA Appendix H).

3.0 Proposed Development

Applicant's project consists of a two phased, eighteen (18)-lot single-family residential subdivision. This in-fill development is divided into two phases: Phase I involves connecting NW Meadows Drive currently terminated within subdivisions to the north and south; six residential lots would be constructed adjacent the Meadows Drive extension. Phase II involves construction of the remaining twelve lots surrounding the proposed Fendle Way cul-de-sac construction. Stormwater generated by new impervious cover would be conveyed to Low Impact Development (LID) stormwater treatment facilities situated within the southeast corner of the development. Water, electric, gas, communication and sanitary sewer utility line infrastructure would be extended into each phase from adjacent subdivision developments.

Approximately 180 linear feet (LF) of North Fork Cozine Creek east of the proposed NW Meadows Drive connection would be enhanced and rehabilitated within dedicated community open spaces along the southern project boundary. Identified stormwater infrastructure facilities and the drainage rehabilitation portions of the project would be constructed during Phase I of subdivision construction (anticipated to occur in summer 2021).

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County
DSL Permit Application 62609-RF and USACE NWP 2020-374

4.0 Drainage Rehabilitation Goals and Objectives

Drainage rehabilitation goals include:

1. Excavation of a more naturalistic and slightly sinuous channel during Phase I site construction (in summer 2021);
2. Installation of native trees, shrubs and herbaceous species to facilitate adjacent wetland and riparian community development (in fall 2021);
3. Placement of the rehabilitated ditch feature (LID stormwater facility, and adjacent riparian areas) within a separate and dedicated open space tract to be owned and managed by the (pending) Home Owners Association (HOA), and;
4. Management of the dedicated open space in accordance with Westech Engineering, Inc.s' (WEI) June 2020 *Stormwater Management Report Prepared for VJ2 Development* (provided as JPA Appendix C).
5. Provide immediate and local replacement of impacted function and values potentially lost via development of the existing Excavated Stormwater Ditch and North Fork Cozine Creek ditches.

To aid in design considerations for the North Fork Cozine Creek rehabilitation project, existing and future site conditions are analyzed by applying Oregon's Stream Function Assessment Method for Oregon (SFAM). First, SFAM calculators assessed existing channel attributes of the Excavated Stormwater Ditch and ditched North Fork Cozine Creek; next, the future condition of the enhanced channel and riparian corridor is calculated based on anticipated topography, hydrology, plant communities and habitat characteristics.

As outlined in Table 1, the proposed rehabilitation is anticipated to result in immediate local gains of stream function and value. Specifically, function and value ratings increases are anticipated for Hydrology Function and Geomorphic Function. While calculating similar ratings, the proposed condition would also provide higher scores for Biologic Function.

SFAM reporting for the existing excavated features is provided in JPA Appendix H. SFAM reporting for the anticipated North Fork Cozine Creek enhancement zone are provided as Appendix B of this report.

TERRA SCIENCE, INC.

Soil, Water & Wetland Consultants

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County

DSL Permit Application 62609-RF and USACE NWP 2020-374

Table 1. SFAM summary for representative excavated drainage impacts and proposed rehabilitation channel.

Grouped Functions		Existing Conditions				Proposed Conditions	
		Excavated Stormwater Ditch		North Fork Cozine Creek Ditch		Enhanced North Fork Cozine Creek	
		Representative Function	Rating	Representative Function	Rating	Representative Function	Rating
Hydrologic Function	Function Rating	FV	Moderate	FV	Moderate	SWS	Moderate
	Value Rating		Moderate		Moderate		Higher
Geomorphic Function	Function Rating	SC	Moderate	SM	Moderate	SC	Higher
	Value Rating		Moderate		Higher		Moderate
Biologic Function	Function Rating	STS	Lower	STS	Moderate	STS	Moderate
	Value Rating		Moderate		Moderate		Moderate
Water Quality Function	Function Rating	CR	Lower	CR	Moderate	TR	Moderate
	Value Rating		Moderate		Moderate		Moderate

Function Modifiers:

FV: Flow Variation SWS: Surface Water Storage SC: Sediment Continuity
 STS: Sustain Trophic Structure CR: Chemical Regulation TR: Thermal Regulation

The rehabilitated channel and associated wetland / upland riparian corridor would provide immediate function and value benefits to the North Cozine Creek headwaters. When coupled with purchase of compensatory mitigation credits at the Mud Slough Wetland Mitigation Bank, the rehabilitation project is anticipated to offset and increase aquatic function and values lost by the proposed development.

5.0 Construction Methods and Specifications

Prior to construction, Applicant’s team of selected contractors and project engineers would meet to review construction plans and (pending) agency authorizations. Erosion and sediment control measures outlined within WEI’s Erosion and Sediment Control Plan (provided as JPA Appendix D) would then be installed prior to commencing earthwork. Target elevations and drainage configurations would then be surveyed and field marked. All drainage rehabilitation activities would occur during the Phase I construction period between June 01 and October 15, 2021.

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County
 DSL Permit Application 62609-RF and USACE NWP 2020-374

Construction would begin at the upgradient end of the drainage during NW Meadows Drive construction; actions would expand easterly towards the point where the feature leaves the subject parcel. Grading is anticipated to utilize excavators, haul trucks and similar equipment (as deemed necessary) to achieve target grades. The final channel would be slightly wider than the existing ditch and would have a low- and high flow profile bench (which would continue to qualify as wetland). Abandoned sections of the existing ditch (at the confluence of the Excavated Stormwater Ditch) would be permanently filled for construction of the LID stormwater facility; these abandoned areas have been calculated within the impact analysis (detailed within the JPA).

Areas adjacent the rehabilitated drainage would be managed as wetland / upland riparian corridor. Existing *Rubus armeniacus* brambles would be mechanically removed during rehabilitation actions. Existing trash, debris, and piles of fill material would be removed to create a relatively flat terrace adjacent the drainage.

Upon completion of construction actions, native seed mixtures and tackifiers would be hydroseed broadcast throughout the rehabilitation zone and LID stormwater facility. Next, contractors would identify target planting zones for installation of new woody materials throughout the relocated drainage, stormwater basin, and riparian areas. All materials would be installed in accordance with Clean Water Services standards¹. Materials would be grouped together in small clumps of five to seven individuals to create a naturalistic appearance. The following table outlines anticipated species and quantities to be installed throughout the dedicated riparian corridor.

Table 2. Material installation specifications.

Common Name / Scientific Name	Condition	Quantity
<u>Relocated / Enhanced Drainage</u>		
Tall mannagrass (<i>Glyceria elata</i>)	Seed	1.0 lbs.
Western mannagrass (<i>Glyceria occidentalis</i>)	Seed	2.5 lbs.
Slough sedge (<i>Carex obnupta</i>)	Emergent Plug	100
Spreading rush (<i>Juncus patens</i>)	Emergent Plug	100
Douglas spirea (<i>Spirea douglasii</i>)	Bareroot	50
<u>Riparian Corridor</u>		
Riverbank lupine (<i>Lupinus rivularis</i>)	Seed	7.0 lbs.
Tufted hairgrass (<i>Deschampsia cespitosa</i>)	Seed	1.0 lbs.
Western mannagrass (<i>Glyceria occidentalis</i>)	Seed	4.0 lbs.
Yarrow (<i>Achillea millefolium</i>)	Seed	0.5 lbs.
Soft rush (<i>Juncus effusus</i>)	Emergent Plug	250 lbs.
Oregon ash (<i>Fraxinus latifolia</i>)	Bareroot	25
Red alder (<i>Alnus rubra</i>)	Bareroot	25
Douglas spirea (<i>Spirea douglasii</i>)	Bareroot	100
Wild rose (<i>Rosa pisocarpa</i>)	Bareroot	75
Oregon oak (<i>Quercus garryana</i>)	Bareroot	25

¹ Clean Water Services standards are proposed as the City of McMinnville has not adopted LID standards for residential development at the time of report production.

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County
DSL Permit Application 62609-RF and USACE NWP 2020-374

6.0 Long Term Protection

As outlined on the pending development plan, the rehabilitated drainage and associated riparian corridor would be placed within a distinct and independent tract. Said tract would be placed under long-term ownership and management of the (pending) HOA. Ultimately the rehabilitation area would be managed and maintained in association with the LID stormwater basin.

Within ninety days of completion of construction Applicant or their designates would prepare a detailed report to document the as-built condition of the rehabilitation project; said report would be compiled to meet reporting requirements of Department of Environmental Quality (DEQ) post-construction reporting. The as-built report would include an as-built topographic survey and construction diagrams necessary to document the final contours of the rehabilitated drainage and dedicated riparian corridor. The report would also discuss realized variations, document quantities and installation techniques of the revegetation effort. Photographs would also be provided to document the construction, installation and as-built condition of the drainage.

The relocated drainage would be managed and maintained in accordance with operations and maintenance manuals for this subdivision project.

TERRA SCIENCE, INC.

Soil, Water & Wetland Consultants

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project




Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County

DSL Permit Application 62609-RF and USACE NWP 2020-374

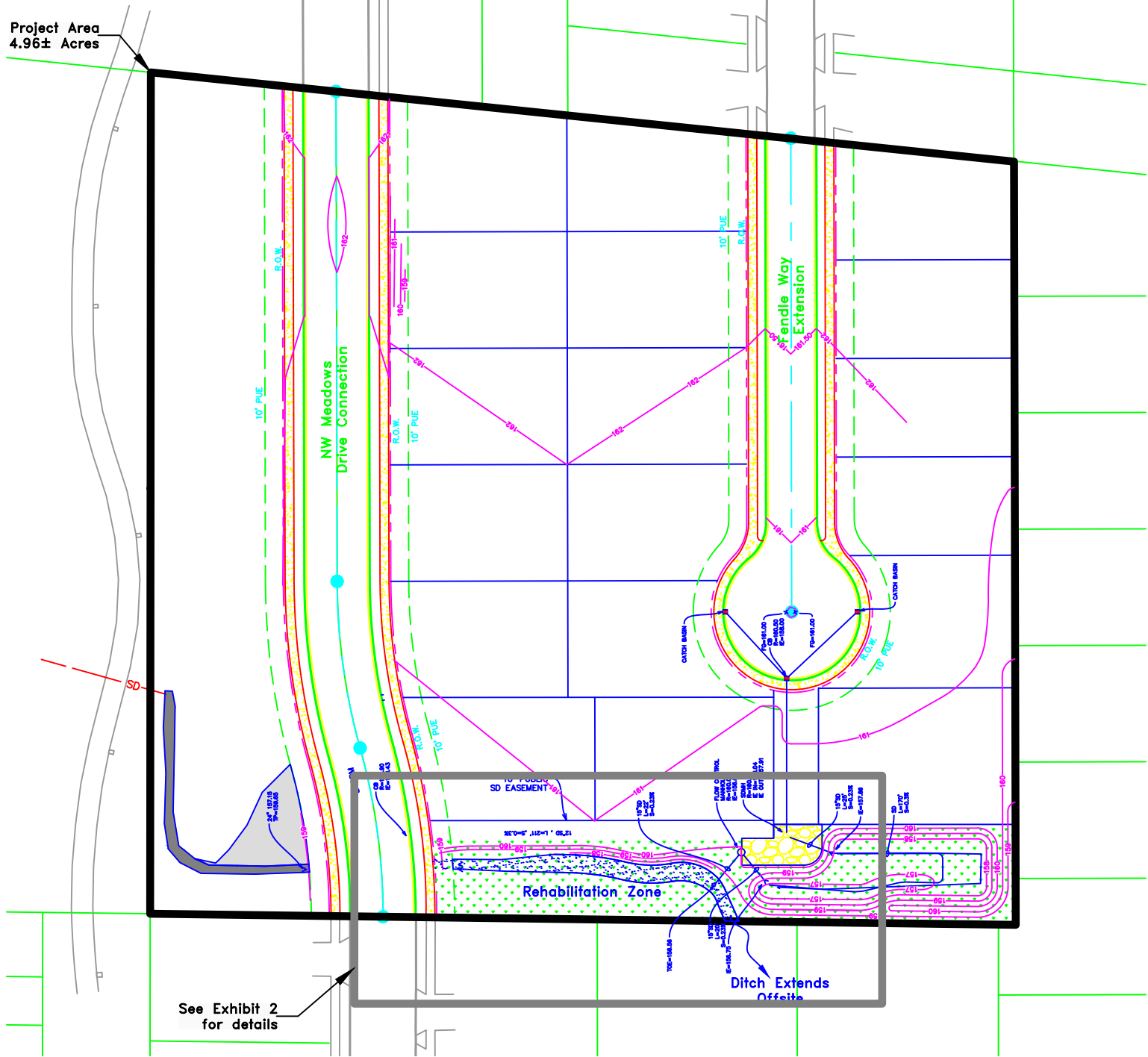
A P P E N D I X A

Drainage Rehabilitation Plan Figures

LEGEND

	Avoided Wetland A / Excavated Ditch		Existing Taxlot Boundary
	Proposed 1-Foot Contour		Proposed Taxlot Boundary
	Proposed Stormwater Infrastructure		Relocated / Enhanced Ditch 2

Project Area
4.96± Acres



See Exhibit 2
for details

NOTE: Approximately 180 linear feet (LF) of excavated North Fork Cozine Creek east of the proposed NW Meadows Drive connection would be rehabilitated and placed within dedicated community open spaces along the southern project boundary. Identified stormwater infrastructure facilities and the rehabilitation zone would be constructed during Phase I of subdivision construction (anticipated for summer 2021).

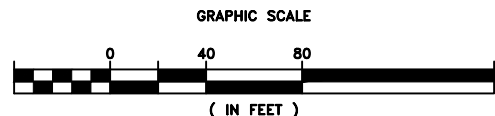
Source: Adapted from Westech Engineering, Inc. civil files.

Terra Science, Inc.
Soil, Water, & Wetland Consultants

REVISED DRAINAGE REHABILITATION PLAN
FOR THE ELYSIAN IN-FILL SUBDIVISION PROJECT
(DSL App. 62609-RF & USACE NWP 2020-374)
City of McMinnville, Yamhill County, Oregon

CONCEPTUAL
DEVELOPMENT


EXHIBIT 1









Revised on 06.23.2022
276 of 614

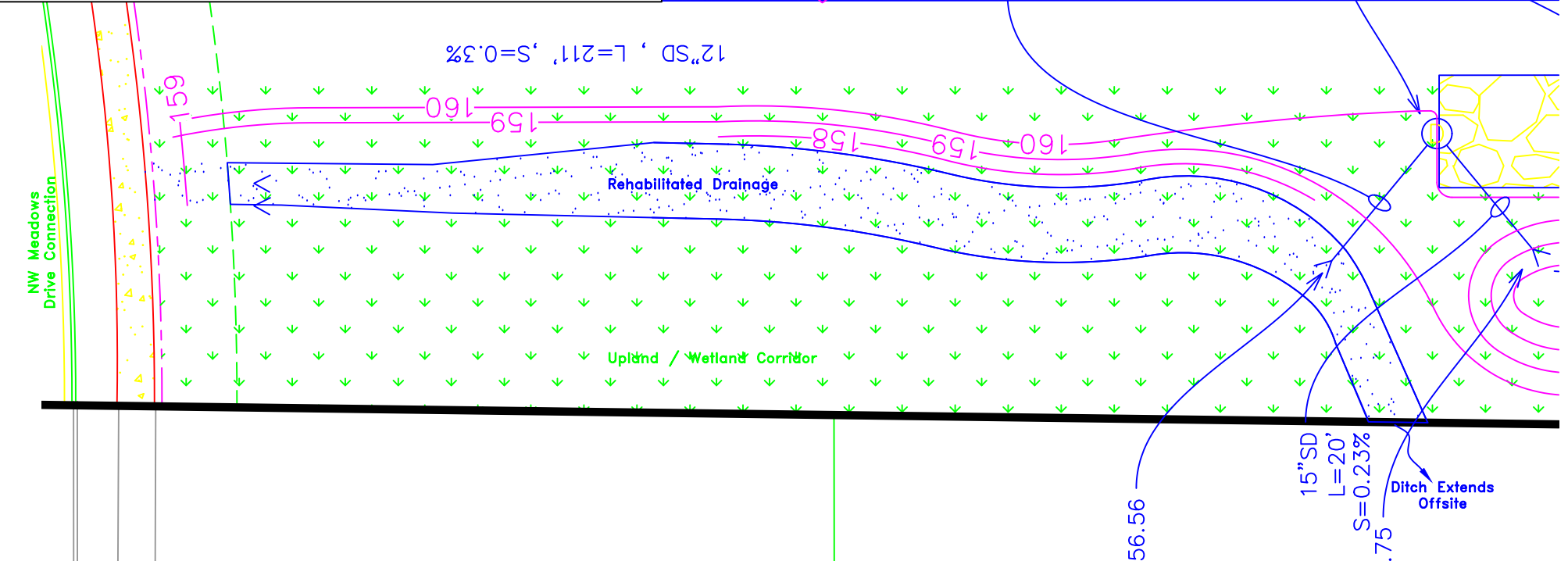
December 2020

PLANTING PLAN

	Relocated / Enhanced Drainage		
	Tall mannagrass (<i>Glyceria elata</i>)	Seed	1.0 lbs.
	Western mannagrass (<i>Glyceria occidentalis</i>)	Seed	2.5 lbs.
	Slough sedge (<i>Carex obnupta</i>)	Emergent Plug	100
	Spreading rush (<i>Juncus patens</i>)	Emergent Plug	100
	Douglas spirea (<i>Spirea douglasii</i>)	Bareroot	50
	Riparian Corridor		
	Riverbank lupine (<i>Lupinus rivularis</i>)	Seed	7.0 lbs.
	Tufted hairgrass (<i>Deschampsia cespitosa</i>)	Seed	1.0 lbs.
	Western mannagrass (<i>Glyceria occidentalis</i>)	Seed	4.0 lbs.
	Yarrow (<i>Achillea millefolium</i>)	Seed	0.5 lbs.
	Soft rush (<i>Juncus effusus</i>)	Emergent Plug	250
	Oregon ash (<i>Fraxinus latifolia</i>)	Bareroot	25
	Red alder (<i>Alnus rubra</i>)	Bareroot	25
	Douglas spirea (<i>Spirea douglasii</i>)	Bareroot	100
	Wild rose (<i>Rosa pisocarpa</i>)	Bareroot	75
	Oregon oak (<i>Quercus garryana</i>)	Bareroot	25

LEGEND

-  Proposed 1-Foot Contour
-  Proposed Stormwater Infrastructure
-  Construction Cross-Section
-  Existing Taxlot Boundary
-  Proposed Taxlot Boundary
-  Rehabilitated Drainage



NOTE: Construction would begin at the upgradient end of the existing ditch during NW Meadows Drive construction; rehabilitation efforts would then work easterly towards the point where the drainage leaves the subject parcel. Grading is anticipated to utilize excavators, haul trucks and similar equipment (as deemed necessary) to achieve target grades. Upon completion of construction actions, native seed mixtures and tackifiers would be hydroseed broadcast throughout the rehabilitated drainage and associated riparian corridor. Next, contractors would identify target planting zones for installation of new woody materials throughout the relocated ditch, stormwater basin, and immediately adjacent upland areas. All materials would be installed in accordance with Clean Water Services standards. Materials would be grouped together in small clumps of five to seven individuals to create a naturalistic appearance.

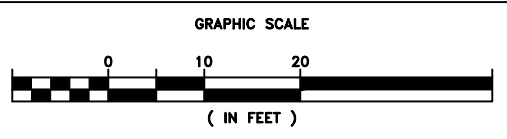
See report text for greater discussion of project goals and construction specifications.

Source: Adapted from Westech Engineering, Inc. civil files.

Terra Science, Inc.
Soil, Water, & Wetland Consultants

REVISED DRAINAGE REHABILITATION PLAN
FOR THE ELYSIAN IN-FILL SUBDIVISION PROJECT
(DSL App. 62609-RF & USACE NWP 2020-374)
City of McMinnville, Yamhill County, Oregon

CONCEPTUAL
DEVELOPMENT

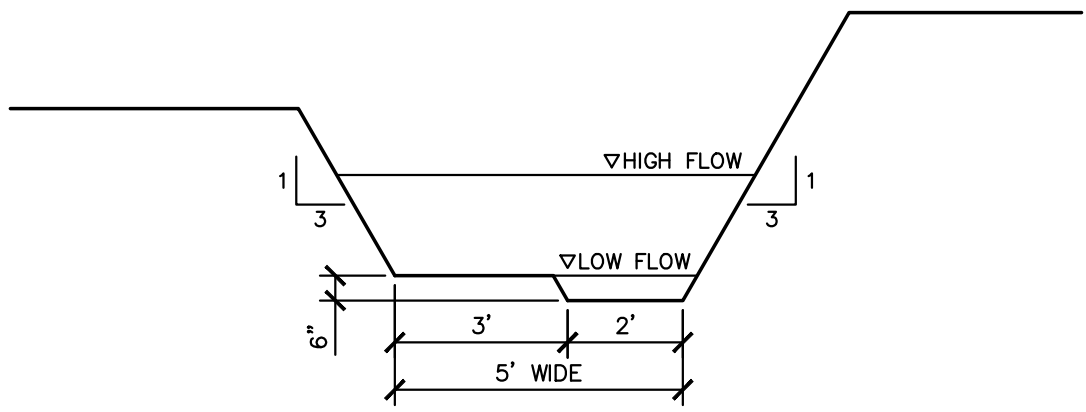
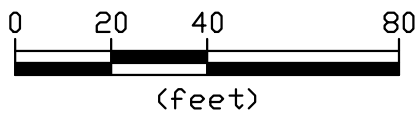
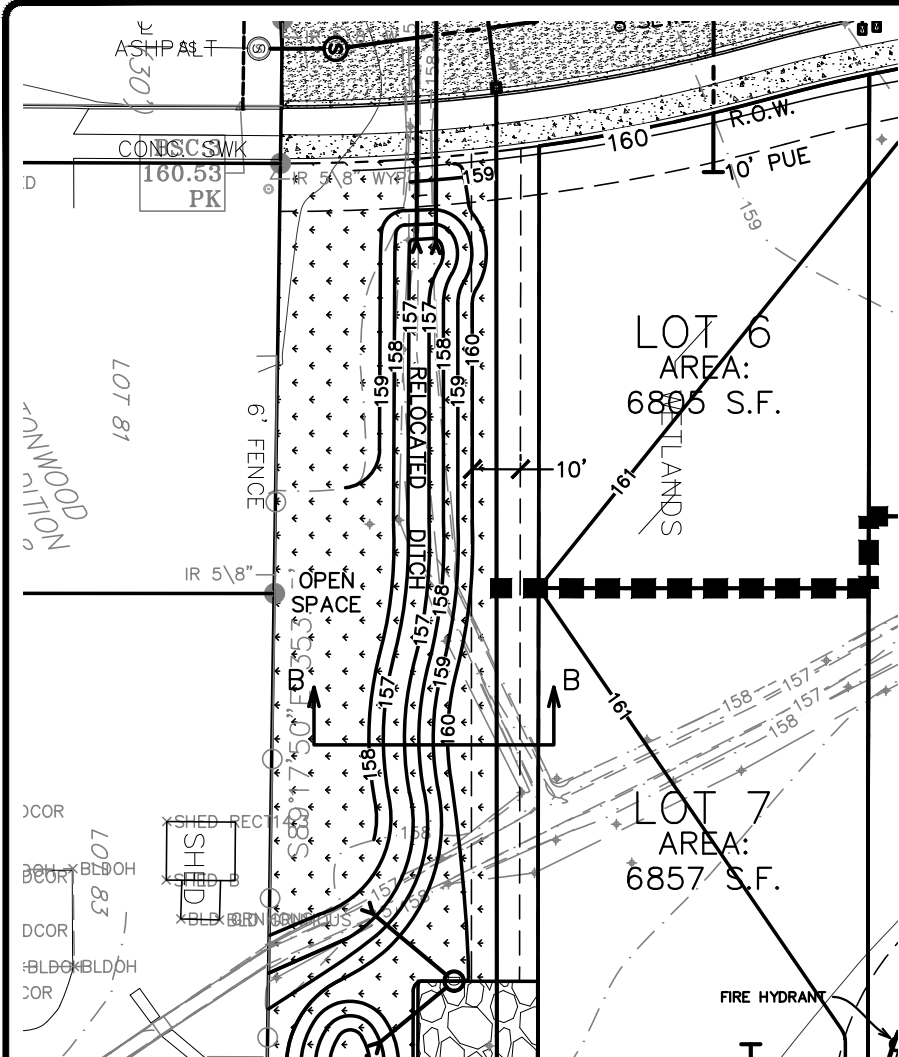


December 2020

Revised on 06.23.2022
277 of 614

EXHIBIT 2

2/24/2021 12:59:12 PM E:\WOS\Don Jones - Subdivision - 2931.1000\Civil\Plots\CROSS_SECTION_DETAIL.dwg, (WL)



SCALE: NTS

WE
WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3986
 E-mail: westech@westech-eng.com

DSN.	JW
DRN.	IH
CKD.	JW
DATE:	JUNE 2020

DON JONES ELYSIAN SUBDIVISION

**CROSS SECTION
 DETAIL B - B**

FIGURE
JOB NUMBER
2931.1000

TERRA SCIENCE, INC.

Soil, Water & Wetland Consultants

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County

DSL Permit Application 62609-RF and USACE NWP 2020-374

A P P E N D I X A

SFAM Report for Anticipated North Cozine Creek Rehabilitation Zones

STREAM FUNCTION ASSESSMENT METHOD for OREGON

Version 1.1 (April 2020)

Name of Project Area:	North Fork Cozine Creek (Proposed)	Date of Field Assessment:	N/A	Latitude*:	45.2234
Data Collector:	D. Monnin, PWS	Elevation: (SFAM Report)	158	Longitude*:	-123.2230
Project Number:	TSI Project 2020-0721, DSL Application 62909-RF, USACE NWP 2020-374	Project Area Length (feet):	198	Project Area (acres):	0.04-acre
Assessment timing:	Predicted conditions	Photo Numbers:			

* near center of the project site

What is the Oregon Stream Classification for the project area? Select from drop-down menu. Refer to the SFAM Report. If the project area spans more than one reach, describe the dominant stream classification.

Mountain Wet Rain High Permeability

What ratings does the Oregon Stream Classification identify for the following measures in the local hydrologic unit? Refer to the SFAM Report. If project area spans more than one reach, describe the dominant classification:

Aquifer Permeability (local)	High	Soil Permeability (local)	High	
Erodibility (local)	Easily Erodible	Gradient*	> 6%	<small>*If EPA Classification is different from the gradient you observe in the local reach, select the gradient in the local reach.</small>

Is the channel perennial, intermittent, or ephemeral? (Map Viewer-NHD Flowline)	Perennial	
Which Level III EPA Ecoregion is the site located in? (SFAM Report)	Willamette Valley	Western Mountains
Is the average width of the stream less than or greater than 50 feet? (User Input)	≤ 50 feet	Small
What is the 2 year peak flood (cfs)? (StreamStats Report)	1.14	
What is the size of the drainage area (mi ²)? (StreamStats Report)	0.1	

External Data: List below the persons and/or agencies that provided location information on rare wildlife species, and/or rare plants, and the date the information was gathered (if known).

Oregon Explorer SFAM and ORWAP reports identify the Project Area as having Intermediate (0.33) Maximum Score for potential habitat support for Amphibian & Reptile Species and Plant Species.

Project Area History: Based on conversation with landowner/manager and other information, describe below the years and extent (% of project area) of past and present management actions (e.g., vegetation control), natural disturbances (e.g., fire, insect infestations), and human-associated disturbances (e.g., grazing regimes).

SFAM utilized to assess anticipated conditions for the rehabilitated and enhanced headwaters of the North Fork of Cozine Creek to be constructed in conjunction with the Elysian subdivision and NW Meadows Drive extension project. Assessed condition includes (slightly) meandering channel with high and low flow benches. Enhanced drainage would be seeded, planted, and maintained in accordance with Clean Water Services standards for stormwater infrastructure. Anticipated condition includes riparian corridor with native herbaceous, shrub, and tree species contained within dedicated parcel to be managed as open space managed by (pending) Homeowners Association.

Assessment Notes: Note any special features of the reach or landscape, problems with scoring, or other information that may be relevant.

Due to thin width of enhanced drainage, default 50' Proximal Assessment Area (PAA) and Extended Assessment Area (EAA) widths are utilized. PAA and EAA south of feature consist of privately owned residential lands (houses, lawns, etc) behind cedar fencing. As no access is granted, PAA and EAA assessments south of ditch feature are abbreviated to accessible Applicant owned properties. .

STREAM ASSESSMENT SCORES SHEET **Version 1.1** **Assessment Timing:** **Predicted conditions**

Project Area Name:	North Fork Cozine Creek (Proposed)		
Investigator Name:	D. Monnin, PWS		
Date of Field Assessment:	N/A		
Latitude (decimal degrees):	45.2234	Longitude (decimal degrees):	-123.2230

SPECIFIC FUNCTIONS	Function Score	Function Rating	Value Score	Value Rating
Surface Water Storage (SWS)	3.06	Moderate	8.33	Higher
Sub/Surface Water Transfer (SST)	2.86	Lower	10.00	Higher
Flow Variation (FV)	3.81	Moderate	6.25	Moderate
Sediment Continuity (SC)	7.95	Higher	5.17	Moderate
Sediment Mobility (SM)	3.58	Moderate	7.50	Higher
Maintain Biodiversity (MB)	3.01	Moderate	3.00	Moderate
Create and Maintain Habitat (CMH)	1.03	Lower	5.00	Moderate
Sustain Trophic Structure (STS)	6.61	Moderate	4.50	Moderate
Nutrient Cycling (NC)	3.79	Moderate	5.70	Moderate
Chemical Regulation (CR)	3.10	Moderate	5.70	Moderate
Thermal Regulation (TR)	6.55	Moderate	7.00	Moderate

GROUPED FUNCTIONS	REPRESENTATIVE FUNCTION	Function Group Rating	Value Group Rating
Hydrologic Function (SWS, SST, FV)	Surface Water Storage (SWS)	Moderate	Higher
Geomorphic Function (SC, SM)	Sediment Continuity (SC)	Higher	Moderate
Biologic Function (MB, CMH, STS)	Sustain Trophic Structure (STS)	Moderate	Moderate
Water Quality Function (NC, CR, TR)	Thermal Regulation (TR)	Moderate	Moderate

Formulas for each specific function and value (shown on Subscores tab) produce a numerical score between 0.0 and 10.0. For ecological functions, a score of 0.0 indicates that negligible function is being provided by the stream whereas a score of 10.0 indicates that the stream is providing maximum function (as defined) given certain contextual factors. For values, a score of 0.0 indicates that there is low opportunity for the site to provide a specific ecological function and that, even if it did, the specific function would not be of particular significance given the context of the site. Conversely, a value score of 10.0 indicates that a site has the opportunity to provide a specific function and that it would be highly significant in that particular location. For all function and value formulas, both extents of the scoring range (0.0 and 10.0) are mathematically possible.

To facilitate conceptual understanding, numerical scores are translated into ratings of Lower, Moderate, or Higher. The numerical thresholds for each of these rating categories are consistent across all functions and values such that scores of <3.0 are rated "Lower," scores ≥3.0 but ≤7.0 are rated "Moderate," and scores that are >7.0 are rated "Higher." These thresholds are consistent with the standard scoring scheme applied to all individual measures.

Each specific function, and its associated value, is included in one of four thematic groups: hydrologic, geomorphic, biologic, and water quality functions. Group ratings provide an indication of the degree to which each group of processes is present at a site. Groups are represented by the highest-rated function with the highest-rated associated value among the 2-3 functions that comprise each group. This hierarchical selection system ensures that thematic functional groups are represented by the highest-performing and highest-valued ecological function.

Project Area Name: North Fork Cozine Creek (Proposed) Date: N/A Assessor: D. Monnin, PWS

Print this form to take to the field, along with the PAA and EAA field forms. Use the instructions, measurements, and diagrams on this form to establish the two assessment areas necessary for data collection.

Project Area Description:

Anticipated North Fork Cozine Creek consists of (slightly) meandering channel containing high and low flow benches. Channel and adjacent riparian zones to be planted and maintained with native vegetation.

Is there a Floodplain?

No; North Fork of Cozine Creek is not associated with a floodplain.

Establishing the boundaries of the Proximal Assessment Area (PAA):

- a) Identify the spatial extent of direct impact.
- b) Establish the longitudinal boundaries of the PAA at the upstream and downstream extent of the impact, or 50ft of stream length, whichever is greater.
- c) Locate the center of the PAA and measure the bankfull channel width (BFW).
- d) At two additional locations, equidistant between the PAA center and the PAA upper and lower boundaries, measure BFW. PAA transects will be located at the 3 locations where BFW was measured.
- e) Establish the lateral boundaries of the PAA at a distance of $2 \times$ the average BFW or 50' from the stream edge (bankfull edge), whichever is greater, on each side of the stream.

Total PAA stream length (ft) =	198
Distance between transects (PAA length \div 4) =	49.5
PAA lateral boundary ($2 \times$ avg bankfull width (calculated below) or 50 feet =	50

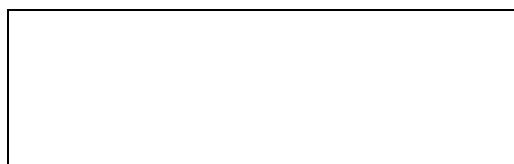
Bankfull Width:			
Transect	Location	Width (ft)	Average
T1	49.5	3.5	4
T2	109.5	4.9	
T3	149	4.3	

	Latitude	Longitude
Corner 1	45.22234	-123.2226
Corner 2	45.22361	-123.22273
Corner 3	45.22335	-123.22337
Corner 4	45.22355	-123.22337

Establishing the boundaries of the Extended Assessment Area (EAA):

- a) The EAA is an upstream and downstream extension of the PAA. Establish the longitudinal boundaries by multiplying the average BFW by 5 and measuring that distance upstream and downstream from the PAA upper and lower boundaries, respectively.
- b) The lateral boundaries of the EAA are the same distance from the stream edge (bankfull) as the lateral boundaries for the PAA (above). Note that the EAA contains the entire PAA.
- c) Locate the 11 EAA transect locations by dividing the total EAA length by 10. The distance between each transect is $0.1 \times$ the total EAA length. Transects include the upper and lower EAA boundaries.

Length EAA extends above/below PAA ($5 \times$ average BFW) =	21.16666667
Total EAA length ($10 \times$ BFW + PAA length, rounded to nearest 10') =	240.3333333
Distance between EAA transects (EAA length \div 10) =	24.03333333



	Latitude	Longitude
Corner 1	45.22334	-123.22252
Corner 2	45.22363	-123.22263
Corner 3	45.22335	-123.22344
Corner 4	45.22327	-123.22345

SFAM Proximal Area Assessment (PAA) Field Data Form

Version 1.1

Assessment Timing: Predicted conditions

Project Area Name: North Fork Cozine Creek (Proposed)

Date: N/A

Assessor: D. Monnin, PWS

Print this form to take to the field. Only the defined print area is needed (i.e. not the data calculation columns). After collecting data in the field, transfer data into the Excel worksheet below using drop-down menus where available. Cells in the "Calculations" section and on the "Functions" tab will populate automatically.

What is the longitudinal length of the PAA? 198	Natural Cover (F1): Record densiometer readings from both left and right banks at each transect.				See F2-F4 below	Riparian Corridor (F5): Record the width (ft) of the riparian corridor at each PAA transect. If > 330 ft, enter 330.				Barriers (F6): Does a man-made structure limit fish passage (barrier, partial, passable, unknown, none)? Blocked	Exclusion (F7): What % of the 100-yr floodplain is excluded due to features (<=20%, >20-40%, >40-80%, >80%)? <=20%			
		T1	T2	T3			T1	T2	T3					
	Left	15	15	15		Left	20	25	20					
	Right	15	15	15		Right	25	20	25					

Invasive Vegetation (F2), Native Woody Vegetation (F3), and Large Trees (F4) : For each of the three vegetation classes, record the start and end positions (distance from bankfull, to the nearest 0.1ft) of each occurrence along the length of the transect. Transects run perpendicular to the stream edge, from the bankfull edge to the lateral boundary of the PAA.

What is the length of the transect (ft)?	73	Vegetation transects are conducted on both banks. If it is physically or legally unfeasible to access one side, indicate which side was surveyed by selecting Left or Right from the dropdown menu.
--	----	---

Transect	Vegetation Class	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
1 (left)	InvVeg	0	0														
	Native WoodyVeg	0	20														
	LgTree	0	0														
1 (right)	InvVeg	0	0														
	Native WoodyVeg	0	25														
	LgTree	0	0														
2 (left)	InvVeg	0	0														
	Native WoodyVeg	0	25														
	LgTree	0	0														
2 (right)	InvVeg	0	0														
	Native WoodyVeg	0	20														
	LgTree	0	0														
3 (left)	InvVeg	0	0														
	Native WoodyVeg	0	20														
	LgTree	0	0														
3 (right)	InvVeg	0	0														
	Native WoodyVeg	0	25														
	LgTree	0	0														

Armor (F8) and Erosion (F9): Record start and end locations (ft) of bank armoring features and bank erosion evidence along the length of the PAA.

	Start	End	Start	End	Start	End	Start	End
Armoring (left)	0	0						
Armoring (right)	0	0						
Erosion (left)	0	0						
Erosion (right)	0	0						

Overbank Flow (F10): Is there evidence of overbank flow at least 0.5 × BFW from the bankfull edge? (yes or no) NO

Wetland Vegetation (F11): Are there FACW or OBL wetland plants on the banks or in the floodplain? (yes or no) YES
 If yes, answer the following questions: If no, enter N/A
 → Are any located > 0.5 × BFW from the bankfull edge? YES
 → ...for more than 70% of the PAA length? YES

SFAM Extended Area Assessment (EAA) Field Data Form

Version 1.1

Assessment Timing: Predicted conditions

Project Area Name: North Fork Cozine Creek (Proposed)

Date: N/A

Assessor: D. Monnin, PWS

Print this form to take to the field. Only the defined print area is needed (i.e. not the data calculation columns). After collecting data in the field, transfer data into the Excel worksheet below using drop-down menus where available. Cells in the "Calculations" section and on the "Functions" tab will populate automatically.

What is the total longitudinal length of the EAA (ft)?	236
--	-----

Wood (F14): Tally each piece of wood along the EAA that measures > 4" diameter and is at least 5' long. You can record the location of the wood to avoid double counting.
Total = 50

Side Channels (F12) and Lateral Migration (F13): Record start and end locations (ft) of adjacent side channels and evidence of constraints to lateral migration along the length of the EAA.

	Start	End	Start	End	Start	End	Start	End	Start	End
Side channels (either side)	0	0								
Constraints to lateral migration (left)	0	0								
Constraints to lateral migration (right)	0	0								

Unique Features (V16): Note the presence of any unique habitat features throughout the EAA including, but not limited to: log jams, braided channels, >30% wetlands in floodplain, springs, seeps, cold water inputs, etc.

None.

Wetted Width (F17)	Incision (F15)	Substrate Embeddedness (F16)	Thalweg Depth (F17)
Record width and height at each cross-channel transect (round to nearest 0.1 ft).		Record % embeddedness (to the nearest quartile: 0, 25, 50, 75, 100) at 5 equidistant points along each cross-channel transect.	Record the thalweg depth at 10 equidistant points <u>between</u> each cross-channel transect while moving upstream.

EAA Transect	Feet from EAA lower boundary	Wetted width	Bankfull height	Lowest floodplain height	Embed1	Embed2	Embed3	Embed4	Embed5	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10
A	0	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
B	23.6	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
C	47.2	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
D	70.8	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
E	94.4	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
F	118	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
G	141.6	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
H	165.2	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
I	188.8	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
J	212.4	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
K	236	5	0.25	0.5	100	100	100	100	100										



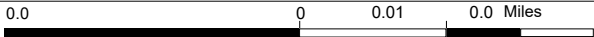
Legend

States & Provinces

- Other States and Provinces
- Oregon

Notes

Add your notes here



WGS_1984_Web_Mercator_Auxiliary_Sphere
 © Oregon Explorer (<https://oregonexplorer.info>)

This map is a user generated static output for reference only from: [ORWAP and SFAM Map Viewer](#)
 Data layers that appear on this map may or may not be accurate, current, or reliable.
 THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Report Generated: November 20, 2020 12:45 PM

Location Information

Latitude	45.2234 N	Longitude	-123.223 W
Elevation	158 ft	Level III Ecoregion	Willamette Valley
HUC8	17090008 Yamhill		
HUC10	1709000807 Yamhill River		
HUC12	170900080701 South Yamhill River		
Linear ft of stream in HUC8	39,370	Annual precipitation	46 in

Stream Type and Classifications

Stream Classification	Mountain Wet Rain / Valley Wet	Percent of project area	100.00%
Aquifer permeability	High	Soil permeability	High
Gradient	>6%	Erodibility	Easily_Erodible

Stream classifications and associated attributes are derived from a U.S. Environmental Protection Agency stream classification geospatial data layer developed for Oregon (2015). This layer provides a statewide stream/watershed classification system for streams and rivers of various sizes, based in part on a hydrologic landscape classification system.

Report Generated: November 20, 2020 12:45 PM

Rare Species Scores and Special Habitat Designations

Rare Species Type	Maximum score	Sum Score	Rating
Non-anadromous Fish Species	0	0	None
Amphibian & Reptile Species	0.33	0.33	Intermediate
Feeding Waterbirds	0	0	None
Songbirds, Raptors, and Mammals	0	0	None
Invertebrate Species	0	0	None
Plant Species	0.33	0.33	Intermediate

Scores have taken into account several factors for each rare species record contained in the official database of the Oregon Biodiversity Information Center (ORBIC): (a) the regional rarity of the species, (b) their proximity to the point of interest, and (c) the “certainty” that ORBIC assigns to each of those records.

Within 300 ft of a Special Protected Area?	No
Within a HUC12 that has designated Essential Salmonid Habitat?	Yes
Within 2 miles of an Important Bird Area?	No

Water Quality Impairments

Query returned no records.

Water quality information is derived from Oregon’s 2012 Integrated Report, including the list of water quality limited waters needing Total Maximum Daily Loads (303d List). Each record in the report is assigned an assessment category based on an evaluation of water quality information. Categories included in the SFAM Report are:

Category 5: Water is water quality limited and a TMDL is needed; Section 303(d) list.

Category 4: Water is impaired or threatened but a TMDL is not needed because: (A) the TMDL is approved, (B) other pollution requirements are in place, or (C) the impairment (such as flow or lack of flow)

Report Generated: November 20, 2020 12:45 PM

is not caused by a pollutant.

Category 3B: *Water quality is of potential concern; some data indicate non-attainment of a criterion, but data are insufficient to assign another category.*

Dominant soil type(s)			
Soil Type	Erosion Hazard Rating	Hydric Rating	Percent Area
Amity silt loam, 0 to 3 percent slopes	Slight	N/A	100.00%

This report contains both centroid-based and polygon-based data. The Location Information section of the report contains centroid-based data (determined by the center point of the polygon), while the remaining sections are polygon-based (determined from the entire polygon).

StreamStats Report for Elysian NF Cozine Creek

Region ID: OR

Workspace ID: OR20201120204719650000

Clicked Point (Latitude, Longitude): 45.22339, -123.22304

Time: 2020-11-20 12:47:38 -0800



Basin Characteristics

Parameter

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0827	square miles
I24H2Y	Maximum 24-hour precipitation that occurs on average once in 2 years - Equivalent to precipitation intensity index	1.98	inches
SOILPERM	Average Soil Permeability	0.8	inches per hour
JANMAXT2K	Mean Maximum January Temperature from 2K resolution PRISM 1961-1990 data	46	degrees F

Revised on 06.23.2022
289 of 614

Parameter Code	Parameter Description	Value	Unit
WATCAPORC	Available water capacity from STATSGO data using methods from SIR 2005-5116	0.19	inches
ORREG2	Oregon Region Number	10001	dimensionless
BSLOPD	Mean basin slope measured in degrees	0.41	degrees
JANMINT2K	Mean Minimum January Temperature from 2K resolution PRISM PRISM 1961-1990 data	33.1	degrees F
ELEV	Mean Basin Elevation	169	feet

Peak-Flow Statistics Parameters_[Reg 2B Western Interior LT 3000 ft Cooper]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0827	square miles	0.37	7270
BSLOPD	Mean Basin Slope degrees	0.41	degrees	5.62	28.3
I24H2Y	24 Hour 2 Year Precipitation	1.98	inches	1.53	4.48
ELEV	Mean Basin Elevation	169	feet		
ORREG2	Oregon Region Number	10001	dimensionless		

Peak-Flow Statistics Disclaimers_[Reg 2B Western Interior LT 3000 ft Cooper]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Peak-Flow Statistics Flow Report_[Reg 2B Western Interior LT 3000 ft Cooper]

Statistic	Value	Unit
2 Year Peak Flood	1.14	ft ³ /s
5 Year Peak Flood	1.65	ft ³ /s
10 Year Peak Flood	2.04	ft ³ /s
25 Year Peak Flood	2.56	ft ³ /s
50 Year Peak Flood	2.96	ft ³ /s
100 Year Peak Flood	3.37	ft ³ /s
500 Year Peak Flood	4.38	ft ³ /s

Peak-Flow Statistics Citations

Cooper, R.M.,2005, Estimation of Peak Discharges for Rural, Unregulated Streams in Western Oregon: U.S. Geological Survey Scientific Investigations Report 2005-5116, 76 p. (<http://pubs.usgs.gov/sir/2005/5116/pdf/sir2005-5116.pdf>)

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.4.0

STREAM FUNCTION ASSESSMENT METHOD for OREGON

Name of Project Area:	North Fork Cozine Creek (Proposed)	Assessment Timing:	Predicted conditions	Orange Boxes are linked to the PAA or EAA Field forms Scores Automatically Calculated in Green Boxes
-----------------------	------------------------------------	--------------------	----------------------	---

FUNCTIONS MEASURES TABLE

Check the orange boxes to confirm all field entries have transferred appropriately. If necessary the orange box entries can be hand entered. However, hand entry into the orange boxes will remove the link to the Field Form. A '#DIV/0!' or 'FALSE' entry means that the Cover Page, PAA Field Form or EAA Field Form is not complete.

Measure	Function Groups	Measure Abbreviation	Qualifiers	Data Entry (linked to field forms)	Error Messages	Measure Score
F1 Natural Cover	What is the percent natural cover above the stream within the PAA? Measure the percentage of cover above the stream, including both overstory and understory vegetation and overhanging banks, by averaging spherical densiometer measurements taken at each transect within the PAA. <i>Functions informed: Sustain Trophic Structure, Nutrient Cycling, Thermal Regulation</i>					
	Biology, Water Quality	Cover	WMTsmall	Enter a percentage: (round to nearest whole number)	88		0.65
F2 Invasive Vegetation	What is the percent cover of invasive vegetation within the PAA? Consider the Oregon Department of Agriculture Noxious Weed list in Appendix 3 of the SFAM User Guide, and other sources of information, such as Oregon IMAP Invasives and iNaturalist. <i>Functions informed: Maintain Biodiversity, Sustain Trophic Structure</i>					
	Biology	InvVeg		Enter a percentage: (round to nearest whole number)	0		1.00
F3 Native Woody Vegetation	What is the percent cover of native woody vegetation within the PAA? <i>Functions informed: Maintain Biodiversity, Create & Maintain Habitat</i>					
	Biology	WoodyVeg		Enter a percentage: (round to nearest whole number)	31		0.41
F4 Large Trees	What is the percent cover of large trees (dbh>20in) within the PAA? <i>Functions informed: Maintain Biodiversity, Create & Maintain Habitat</i>					
	Biology	LgTree	West	Enter a percentage: (round to nearest whole number)	0		0.00
F5 Vegetated Riparian Corridor Width	What is the average width of the vegetated riparian corridor within the PAA? An intact vegetated riparian corridor is defined as one typified by largely undisturbed ground cover and dominated by "natural" species. Natural does not necessarily mean pristine and can include both upland plants and species with wetland indicator status, and native and non-native species. Natural does not include pasture or cropland, recreational fields, recently harvested forest, pavement, bare soil, gravel pits, or dirt roads. Note that relatively small features, such as a narrow walking trail, that likely have negligible effects on water quality can be included within the vegetated riparian corridor width. <i>Functions informed: Nutrient Cycling, Chemical Regulation</i>					
	Water Quality	RipWidth		Enter the average width (feet):	11	Caution! Entry not linked to Field Form	0.10
F6 Fish Passage Barriers	Is there a man-made fish passage barrier in the PAA? Select an answer from the drop-down menu. Man-made barriers to fish passage can include structures such as dams, culverts, weirs/sills, tide gates, bridges and fords that can block physical passage or can create unsuitable conditions for passage (e.g. high velocity). The level of passage provided can be researched in the office using the Man-made Fish Passage Barriers data layer (Fish Passage Barriers in the Habitat Group) in the SFAM Map Viewer, then confirmed in the field. Do not include natural barriers. If more than one barrier is present, answer for the one with the most restricted level of passage (e.g. Blocked). Not all barriers have been mapped. See the User Manual for more information. <i>Functions informed: Maintain Biodiversity, Create & Maintain Habitat</i>					
	Biology	Barriers		Select Blocked, Partial, Passable, or Unknown in the PAA Field Form:	Blocked		0.00
F7 Floodplain Exclusion	What percent of the floodplain has been disconnected within the PAA? For alluvial rivers, the floodplain is defined by a distinct break in slope at valley margins, a change in geologic character from alluvium to other, indications of historical channel alignments within a valley, or as the 100-year flood limit. Disconnection refers to any portion of the flood area no longer inundated due to levees, channel entrenchment, roads or railroad grades, or other structures (including buildings and any associated fill) within the proximal assessment area. All barriers should be included when estimating disconnection, even if the barrier is not present during all flood stages; EXCEPT where the structure is expressly managed for floodplain function and inundation. <i>Functions informed: Surface Water Storage, Create & Maintain Habitat</i>					
	Hydrology, Biology	Exclusion		Enter <= 20%, >20 - 40%, >40 - 80%, or >80%.	>80	Caution! Entry not linked to Field Form	FALSE
F8 Bank Armoring	What percentage of the stream banks within the PAA are armored? What percentage of the streambank has been stabilized using rigid methods to permanently prevent meandering processes? Examples of armoring include gabion baskets, sheet piles, rip rap, large woody debris that covers the entire bank height, and concrete. Bank stabilization methods that return bank erosion to natural rates and support meandering processes are not counted as armoring. Examples include many bioengineering practices, large woody debris placed along the bank toe, and in-stream structures that still use native vegetation cover on the streambanks. Percent armoring is calculated as the sum of the armored lengths of the left and right banks, divided by sum total lengths of both banks within PAA (i.e. twice the total PAA length). <i>Functions informed: Substrate Mobility</i>					
	Geomorphology	Armor		Enter a percentage: (round to nearest whole number)	0	

F9 Bank Erosion	<p>What percentage of stream banks within the PAA are actively eroding or recently (within previous year or high flow) eroded? Indications of active/recent erosion include vertical or near vertical bank stream banks that show exposed soil and rock, evidence of tension cracks, active sloughing, or that are largely void of vegetation or roots capable of holding soil together. The percent is calculated as the sum of lengths of left and right banks that are eroding, divided by the sum of total lengths of both banks within PAA.</p> <p><i>Functions informed: Sediment Continuity</i></p>								
	Geomorphology		Erosion		Enter a percentage: (round to nearest whole number)	0			1.00
F10 Overbank Flow	<p>Does the stream interact with its floodplain within the PAA? Is there evidence of fine sediment deposition (sand or silt) on the floodplain, organic litter wracked on the floodplain or in floodplain vegetation, or scour of floodplain surfaces, extending greater than 0.5x BFW onto <u>either</u> the right or left bank floodplain within the PAA? Do not include evidence from inset floodplains developing within entrenched channel systems.</p> <p>If the abutting land use limits the opportunity to observe evidence of overbank flow, is there other credible information that would indicate regular (at least every two years) overbank flow in the PAA? Examples of "other credible information" include first-hand knowledge, discharge/stream gauge measures, etc. Cite the evidence on the Cover Page.</p> <p><i>Functions informed: Surface Water Storage, Sub/Surface Transfer, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation</i></p>								
	Hydrology, Biology, Water Quality		OBFlow		Select yes or no from dropdown menu: (If there is no floodplain, leave blank)	NO			0.00
F11 Wetland Vegetation	<p>Are there wetland indicator plants adjacent to the channel and/or in the floodplain within the PAA? Determine if vegetation in the riparian area of the PAA has a wetland indicator status of obligate or facultative wet.</p> <p><i>Functions informed: Sub/Surface Transfer, Maintain Biodiversity, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation</i></p>								
	Hydrology, Biology, Water Quality		WetVeg		Are there wetland indicator plant species within the PAA?	YES			1.00
					If yes, are any wetland indicator plants located greater than 0.5 x BFW from the bankfull edge on at least one side of the stream? (Select N/A if you answered No above)	YES			
					If yes, are the wetland indicator plants located beyond 0.5 x BFW distributed along >70% of the length of the PAA? (Select N/A if you answered No above)	YES			
F12 Side Channels	<p>What proportion of the EAA length has side channels? Side channels include all open conveyances of water, even if the channel is plugged on one end. If both ends are plugged, do not count as a side channel.</p> <p><i>Functions informed: Surface Water Storage, Sub/Surface Transfer, Maintain Biodiversity, Create & Maintain Habitat</i></p>								
	Hydrology, Biology		SideChan		Enter a percentage: (round to nearest whole number)	0			0.00
F13 Lateral Migration	<p>What percent of both sides of the channel within the EAA is constrained from lateral migration? Constraints on lateral migration of the channel within 2 BFW or 50 feet (whichever is greater) include bank stabilization and armoring, bridges and culverts, diversions, roads paralleling the stream and any other intentional structures or features that limit lateral channel movement whether intentionally or not. For cross-channel structures (diversions, bridges, culverts, etc.), record 4x the BFW as the length constrained on both sides of the channel. For linear features, record the length on each side of the channel. For segmented bank features, such as bendway weirs or log jams acting in concert, record the effective length of stabilization on each side of the channel affected. It is acceptable to include relevant armoring that is recorded in the Bank Armoring question, below.</p> <p><i>Functions informed: Sediment Continuity</i></p>								
	Geomorphology		LatMigr		Enter a percentage: (round to nearest whole number)	0			1.00
F14 Wood	<p>What is the frequency of large wood in the bankfull channel within the EAA? Report the frequency (pieces per 328 feet [100m] of channel) of independent pieces of wood, defined here as woody material with a diameter of at least 4 inches (10cm) and a length of 5 feet (1.5m) within the EAA. This means that at least 5 feet of the piece of wood must be larger than 4 inches in diameter (i.e. a circumference > 12.5 inches). Independent pieces include all those individual pieces that meet size criteria either separate from or within log jams. To be counted, wood must have some part of its length within the bankfull channel. Exclude any wood that has been intentionally anchored to or within the channel banks (using spikes, cables, ballast, etc.) for the purpose of preventing bank erosion (armoring).</p> <p><i>Functions informed: Surface Water Storage, Maintain Biodiversity, Create & Maintain Habitat</i></p>								
	Hydrology, Biology		Wood	WMTsmall	Enter the frequency (pieces per 328 ft) of wood in the channel: (round to nearest hundredth)	69.49			1.00

F15 Incision	What is the degree of channel incision within the EAA?							
	As part of the longitudinal survey, at 11 evenly spaced locations along the stream within the EAA, measure the Bank Height Ratio (BHR). The BHR is the height from the stream thalweg to the lowest floodplain/terrace divided by the bankfull height. Do not consider inset floodplains.							
<i>Functions informed: Surface Water Storage, Sediment Continuity, Create & Maintain Habitat</i>								
Hydrology, Geomorphology, Biology		Incision		Enter the average incision: <i>(round to nearest hundredth)</i>	2.00			0.38
F16 Embeddedness	What is the degree of substrate embeddedness in the stream channel?							
	To what extent are larger stream substrate particles surrounded by finer sediments on the surface of the streambed? Measurements are taken at 11 transects within the EAA.							
<i>Functions informed: Flow Variation, Substrate Mobility, Create & Maintain Habitat</i>								
Hydrology, Geomorphology, Biology		Embed		Enter a percentage: <i>(round to nearest whole number)</i>	100			0.00
F17 Channel Bed Variability	Is the channel variable?							
	Channel bed variability indicators include variation in wetted channel width and stream thalweg depth along the EAA.							
	<i>Functions informed: Surface Water Storage, Sub/Surface Transfer, Flow Variation, Sediment Continuity, Maintain Biodiversity, Create & Maintain Habitat, Nutrient Cycling, Chemical Regulation</i>							
	Hydrology, Geomorphology, Biology, Water Quality		BedVar		Enter the wetted width coefficient of variation:	0.00			0.00
				Enter the thalweg depth coefficient of variation:	0.31			0.29
							AVERAGE	0.14

STREAM FUNCTION ASSESSMENT METHOD for OREGON

Name of Project Area:	North Fork Cozine Creek (Proposed)	Assessment Timing:	Predicted conditions	Enter Data in These Boxes ONLY
				Scores Automatically Calculated in Green Boxes

VALUES MEASURES TABLE

FILL IN THE YELLOW BOXES. Most questions contain drop-down menus in their respective answer box. Select an answer from the drop-down menus, when possible, instead of typing an answer.

Measure	Function Groups	Submeasure	Measure Abbreviation	Qualifiers	Data Entry			Measure Score	
V1 Rare Species Occurrence & Special Habitat Designations	Are there rare species or special habitat designations in the vicinity of the PA? Answer each submeasure using information from the site's SFAM report (rare species scores & special habitat designations section), as well as any available survey data for the PA and its vicinity, or personal knowledge about the site. Note: The SFAM Report provides rankings of High, Intermediate, Low, or None for each category of rare species associated with aquatic and riparian habitat. Upgrade a ranking to High if there is a recent (within 5 years) onsite observation of any of these species by a qualified observer under conditions similar to what now occur. Provide references in the external notes section of the cover page. <i>Values informed: Surface Water Storage, Flow Variation, Substrate Mobility, Maintain Biodiversity, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation, Thermal Regulation</i>								
	Essential salmonid habitat or rare non-anadromous fish species:								
	Hydrology, Geomorphology, Biology, Water Quality	Fish	Fish		Is the PA within a HUC12 that has designated Essential Salmonid Habitat (ESH)? Select yes or no.	Yes			1.00
					According to the site's SFAM Report, what is the "non-anadromous fish" score? Select an answer from the dropdown menu:	None/Not Known			
	Rare amphibian and reptile species:								
	Hydrology, Geomorphology, Biology, Water Quality	Rare Amphibians and Reptiles	RarAmRep		According to the site's SFAM Report, what is the "amphibian and reptile" score? Select an answer from the dropdown menu:	Intermediate			0.50
	Important Bird Areas or rare waterbirds:								
	Biology, Water Quality	Waterbirds	Waterbird		Is there an Important Bird Area (IBA) within a 2-mile radius of the PA?	No			0.00
					According to the site's SFAM Report, what is the "feeding waterbird" score? Select an answer from the dropdown menu:	None/Not Known			
	Rare songbirds, raptors, and mammals:								
	Biology, Water Quality	Rare Bird and Mammals	RarBdMm		According to the site's SFAM Report, what is the "songbird, raptor and mammal" score? Select an answer from the dropdown menu:	None/Not Known			0.00
	Rare invertebrate species:								
Hydrology, Geomorphology, Biology, Water Quality	Rare Invertebrates	RarInvert		According to the site's SFAM Report, what is the "invertebrates" score? Select an answer from the dropdown menu:	None/Not Known			0.00	
Rare plant species:									
Geomorphology, Biology, Water Quality	Rare Plants	RarPlant		According to the site's SFAM Report, what is the "plant" score? Select an answer from the dropdown menu:	Intermediate			0.50	
V2 Water Quality Impairments	Is this reach on the 303(d) list or other TMDL (Categories 3B-5) for any of the following impairments: sediment, nutrient, metals & toxics, temperature, or flow modification? Answer each submeasure using information from the site's SFAM Report (water quality impairments section). <i>Values informed: Flow Variation, Sediment Continuity, Create & Maintain Habitat, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation, Thermal Regulation</i>								
	Sediment impairment: total suspended solids (TSS), sedimentation, or turbidity (note that some sedimentation can be naturally occurring and desirable therefore does not constitute a problem)								
	Geomorphology, Water Quality	Sedimentation	SedList		Select yes or no from the dropdown menu:	No			0.00
	Nutrient impairment: phosphorus, nitrate, ammonia, DO, aquatic weeds or algae, chlorophyll a, etc.; or untreated stormwater/wastewater discharge occurs within 500 feet of the reach								
	Biology, Water Quality	Nutrient Impairment	NutrImp		Select yes or no from the dropdown menu:	No			0.00
	Metals or other toxics impairment: toxics, dioxin, heavy metals (iron, manganese, lead, zinc, etc.); or untreated stormwater/wastewater discharge occurs within 500 feet of the reach								
	Water Quality	Metals & Toxics Impairment	ToxImp		Select yes or no from the dropdown menu:	No			0.00
	Temperature impairment:								
Biology, Water Quality	Temperature Impairment	TempImp		Select yes or no from the dropdown menu:	No			0.00	
Flow modification:									
Hydrology, Biology	Flow Modification	FlowMod		Select yes or no from the dropdown menu:	No			0.00	

V3 Protected Areas	Is the PA boundary within 300 feet of a special protected area? Answer using information from the site's SFAM Report (Within 300 feet of a Special Protected Area) as well as other available data for the PA and its vicinity. Note: The SFAM Report evaluates whether BLM Areas of Critical Environmental Concern (ACEC) or Outstanding Natural Areas (ONA), federal Research Natural Areas (RNA) or Special Interest Areas (SIA), Natural Heritage Conservation Areas (NHCA), and Land Trust and Nature Conservancy Preserves are within 300 feet of the PA. If there are other lands within 300 feet of the site that are protected specifically for their high ecological significance, select yes and provide references in the assessment notes section of the cover page. <i>Values informed: Maintain Biodiversity, Sustain Trophic Structure</i>							
	Biology		Protect		Select yes or no from the dropdown menu:	No			0.00
V4 Impervious Area	What is the percent impervious area in the drainage basin? Answer using information from the site's StreamStats Report (IMPERV). <i>Values informed: Surface Water Storage, Flow Variation, Sediment Continuity, Substrate Mobility, Create & Maintain Habitat, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation, Thermal Regulation</i>							
	Hydrology, Geomorphology, Biology, Water Quality		ImpArea		<10%, select A; 10-25%, select B; >25-60%, select C; >60%, select D.	D			1.00
V5 Riparian Area	What is the percentage of intact riparian area within 2 miles upstream of the PA? Intact refers to a riparian area with forest or otherwise unmanaged (i.e. natural) perennial cover appropriate for the basin that is at least 15 ft wide on both sides of the channel. Unmanaged perennial cover is vegetation that includes wooded areas, native prairies, sagebrush, vegetated wetlands, as well as relatively unmanaged commercial lands in which the ground and vegetation is disturbed less than annually, such as lightly grazed pastures, timber harvest areas, and rangeland. It does not include water, pasture, row crops (e.g., vegetable, orchards, Christmas tree farms), lawns, residential areas, golf courses, recreational fields, pavement, bare soil, rock, bare sand, or gravel or dirt roads. <i>Values informed: Create & Maintain Habitat, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation, Thermal Regulation</i>							
	Biology, Water Quality		RipArea		If >50% select A. If >35-50%, select B. If 15-35%, select C. If <15%, select D.	D			0.00
V6 Extent of Downstream Floodplain Infrastructure	What is the extent of infrastructure (buildings, bridges, utilities, row crops) in the floodplain? Consider the floodplain area between the PA and either the next largest water body (large tributary, mainstem junction, lake, etc.) or 2 miles downstream, whichever is less. <i>Values informed: Surface Water Storage, Sediment Continuity, Create & Maintain Habitat, Sustain Trophic Structure</i>							
	Hydrology, Geomorphology, Biology		DwnFP		If >50% of total area, select A. If 1-50% of total area, select B. If none, select C. If not known or the downstream floodplain is not mapped, select D.	D			0.00
V7 Zoning	What is the dominant zoned land use designation downstream of the PA? Consider the floodplain area between the PA and either the next largest water body (larger tributary, mainstem junction, lake, etc.) or 2 miles downstream, whichever is less. <i>Values informed: Surface Water Storage, Create & Maintain Habitat, Sustain Trophic Structure</i>							
	Hydrology, Biology		Zoning		If developed (commercial, industrial, residential, etc.), select A. If agriculture or rural residential, select B. If forest, open space, or public lands, select C. If not zoned or no information, select D.	A			1.00
V8 Frequency of Downstream Flooding	What is the frequency of downstream flooding? Consider the floodplain area between the PA and either the next largest water body or 2 miles, whichever is less. Determine the frequency of flooding downstream of the PA that affects infrastructure (i.e. affects use of the site or causes economic loss). <i>Values informed: Surface Water Storage</i>							
	Hydrology		DwnFld		If frequent (several times a year), select A. If moderate (up to once a year), select B. If infrequent (only large events), select C. If never or not known, select D.	D			0.00

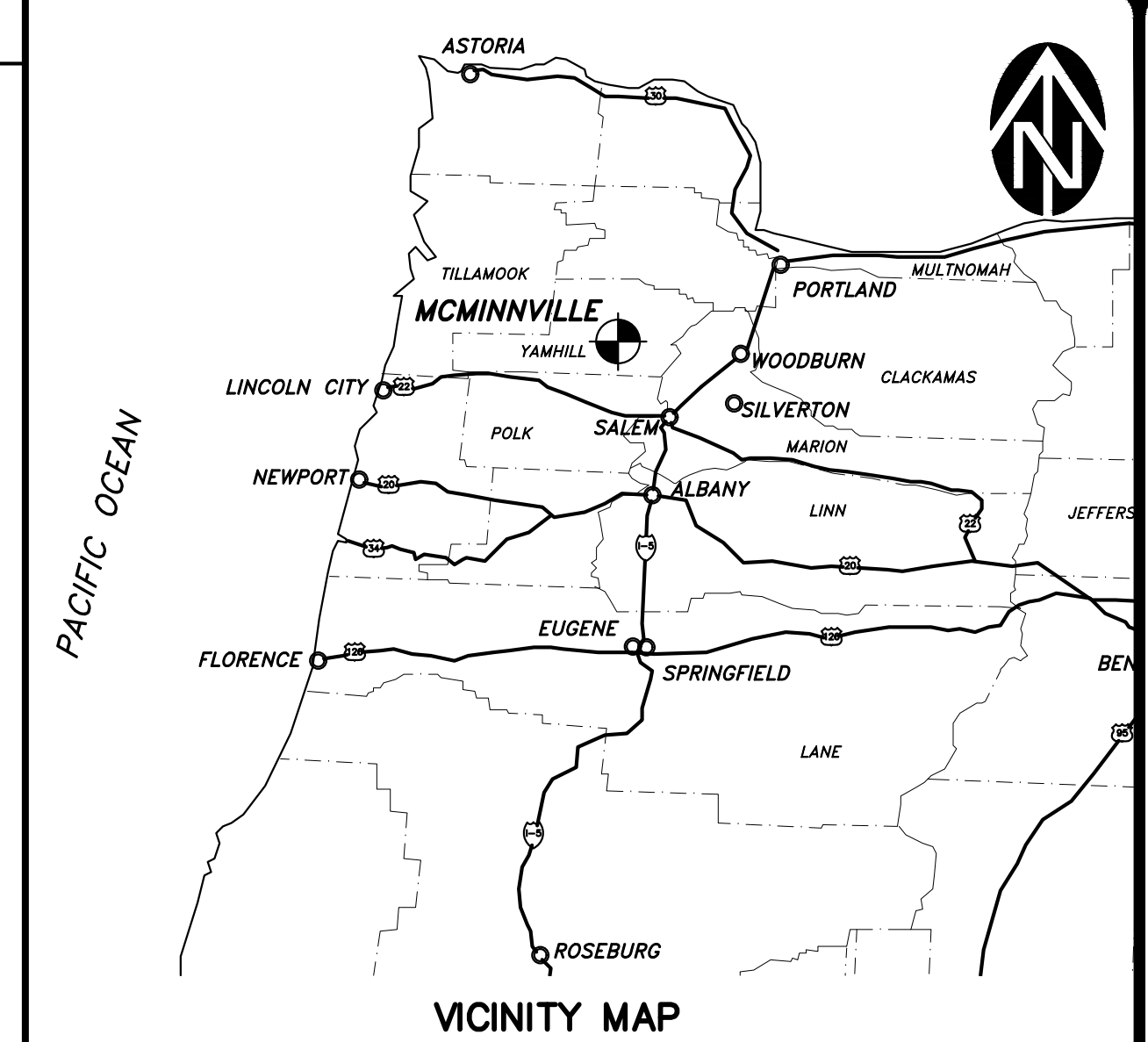
V9 Impoundments	What is the prevalence of impoundments within 2 miles upstream and downstream of the PA that are likely to cause shifts in timing or volume of water? The shift may be by hours, days, or weeks, becoming either more muted (smaller or less frequent peaks spread over longer times, more temporal homogeneity of flow or water levels) or more flashy (larger or more frequent spikes but over shorter times). For each category, select yes or no from the dropdown menu. <i>Values informed: Surface Water Storage, Flow Variation, Sediment Continuity, Substrate Mobility, Create & Maintain Habitat; Functions informed: Flow Variation</i>								
	Hydrology, Geomorphology, Biology		Impound		Are there 1-2 small dams or other impoundments <u>upstream</u> of the PA?	No	Upstream impoundments subscore:	1.00	
					Are there >2 small impoundments, 1 or more large dams or other impoundments <u>upstream</u> of the PA?	No			
					Are there 1-2 small dams or other impoundments <u>downstream</u> of the PA?	Yes	Downstream impoundments subscore:	0.50	
Are there >2 small impoundments, 1 or more large dams or other impoundments <u>downstream</u> of the PA?					No				
V10 Fish Passage Barriers	Are there man-made fish passage barriers within 2 miles upstream and/or downstream of the PA? Select an answer from the drop-down menu for each of the upstream and downstream directions. If more than one barrier is present, answer for the one with the most restricted level of passage (e.g. Blocked). Do not include natural barriers. <i>Values informed: Maintain Biodiversity, Sustain Trophic Structure</i>								
	Biology		Passage	Slope barrier	Upstream	Blocked	0.00	0.00	
				Downstream	Blocked	0.00			
V11 Water Source	Is there an area that is of special concern for drinking water sources or groundwater recharge within 2 miles downstream of the PA? This includes any of the following: the source area for a surface-water drinking water source; the source area for a groundwater drinking water source; a designated Groundwater Management Area; a designated Sole Source Aquifer. <i>Values informed: Sub/Surface Transfer, Nutrient Cycling, Chemical Regulation</i>								
	Hydrology, Water Quality		Source		Select yes or no from the dropdown menu:	Yes		1.00	
V12 Surrounding Land Cover	What are the land cover types surrounding the PA? Draw a 2 mile radius around the PA. Provide an estimate of the percentage of area within the resulting polygon that matches each land cover description. Enter 0% if none. Enter 1% if barely present. Must sum to 100%. <i>Values informed: Maintain Biodiversity, Sustain Trophic Structure</i>								
	Biology		SurrLand		Unmanaged vegetation (wetland, native grassland, forest) or water	5	× 1.00	5.00	0.30
					Managed vegetation (pasture, regularly watered lawn (i.e. park), row crops, orchards)	50	× 0.50	25.00	
					None of the above (including bare areas [dirt, rock], roads, energy facilities, residential, commercial, industrial)	45	× 0.00	0.00	
SUM	100								
V13 Riparian Continuity	What is the longitudinal extent of intact riparian area that is contiguous to the PA? Select the longest length of contiguous riparian corridor in either the upstream or downstream direction, but do not include the PA length itself. Intact refers to a riparian area with forest or otherwise managed (i.e. natural) perennial cover appropriate for the basin that is at least 15 ft wide on both sides of the channel. Contiguous means there are no > 100 ft gaps in forested cover or unmanaged perennial cover. Unmanaged perennial cover is vegetation that includes wooded areas, native prairies, sagebrush, vegetated wetlands, as well as relatively unmanaged commercial lands in which the ground and vegetation is disturbed less than annually, such as lightly grazed pastures, timber harvest areas, and rangeland. It does not include water, pasture, row crops (e.g., vegetable, orchards, Christmas tree farms), lawns, residential areas, golf courses, recreational fields, pavement, bare soil, rock, bare sand, or gravel or dirt roads. <i>Values informed: Maintain Biodiversity, Create & Maintain Habitat, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation, Thermal Regulation</i>								
	Biology, Water Quality		RipCon		If <100 feet, select A. If 100-500 feet, select B. If >500 feet, select C.	B		0.50	
V14 Watershed Position	What is the relative position of the PA in its HUC 8 watershed? Answer this question looking at position of the PA relative to the 8-digit HUC layer. • If the PA is (a) closer to the watershed's outlet than its upper end and (b) closer to the large stream/river exiting the watershed's outlet than it is to the boundary of the watershed, select "lower 1/3." • If the PA is (a) closer to the watershed's upper end than its outlet and (b) closer to the watershed's boundary than its large stream/river, select "upper 1/3." • If neither of the above conditions are met, select "middle 1/3." <i>Values informed: Sediment Continuity, Nutrient Cycling, Chemical Regulation</i>								
	Geomorphology, Water Quality		Position		Select an answer from the dropdown menu:	Lower 1/3		1.00	

V15 Flow Restoration Needs	What is the "streamflow restoration need" ranking of the watershed within which the PA is located?								
	Answer this question using the Flow Restoration Needs layer in the SFAM Map Viewer.								
<i>Values informed: Flow Variation, Create & Maintain Habitat</i>									
Hydrology, Biology		FlowRest		Select an answer from the dropdown menu:	Moderate			0.50	
V16 Unique Habitat Features	Are there rare aquatic habitat features within the FAA that are not common to the rest of the drainage basin?								
	For each feature type, select yes or no from the dropdown menu. This question must be answered in the field, but the user can check for any mapped wetlands or seeps, springs, or tributaries in the office using the Oregon Wetlands Cover, Springs, and the Flowline layers, respectively.								
	<i>Values informed: Substrate Mobility, Maintain Biodiversity, Create & Maintain Habitat, Sustain Trophic Structure, Thermal Regulation</i>								
	Geomorphology, Biology		HabFeat		Large log jams that span 25% or more of the active channel width?	No		Overall HabFeat score	0.00
					Braided channel or otherwise multiple channels resulting in islands?	No			
Large spatial extent (>30%) of wetlands in the floodplain?					No		Substrate subscore	0.00	
Seeps, springs, or tributaries contributing colder water?					No		Thermal subscore	0.00	
Already in Stream Classification on Cover Page - NO DATA INPUT REQUIRED.									
Surface Water Runoff	What is the level of surface water runoff (based on local water availability and local gradient)?								
	No data input necessary, information taken from EPA classification (stream type & gradient).								
Hydrology		Runoff						1.00	
Aquifer Permeability	What is the permeability of the aquifer (determined by percent permeable bedrock based on hydraulic conductivity m/day)?								
	No data input necessary, information taken from EPA classification.								
Hydrology		AqPerm			High			0.00	
Soil Permeability	What is the permeability of the soil (based on hydraulic conductivity in cm/hr)?								
	No data input necessary, information taken from EPA classification.								
Hydrology		SoilPerm			High			0.00	
Erodibility	What is the erodibility of this reach?								
	No data input necessary, information taken from EPA classification.								
Geomorphology		Erode			Easily Erodible			1.00	

DRAWINGS FOR:
ELYSIAN SUBDIVISION
PHASE I & II

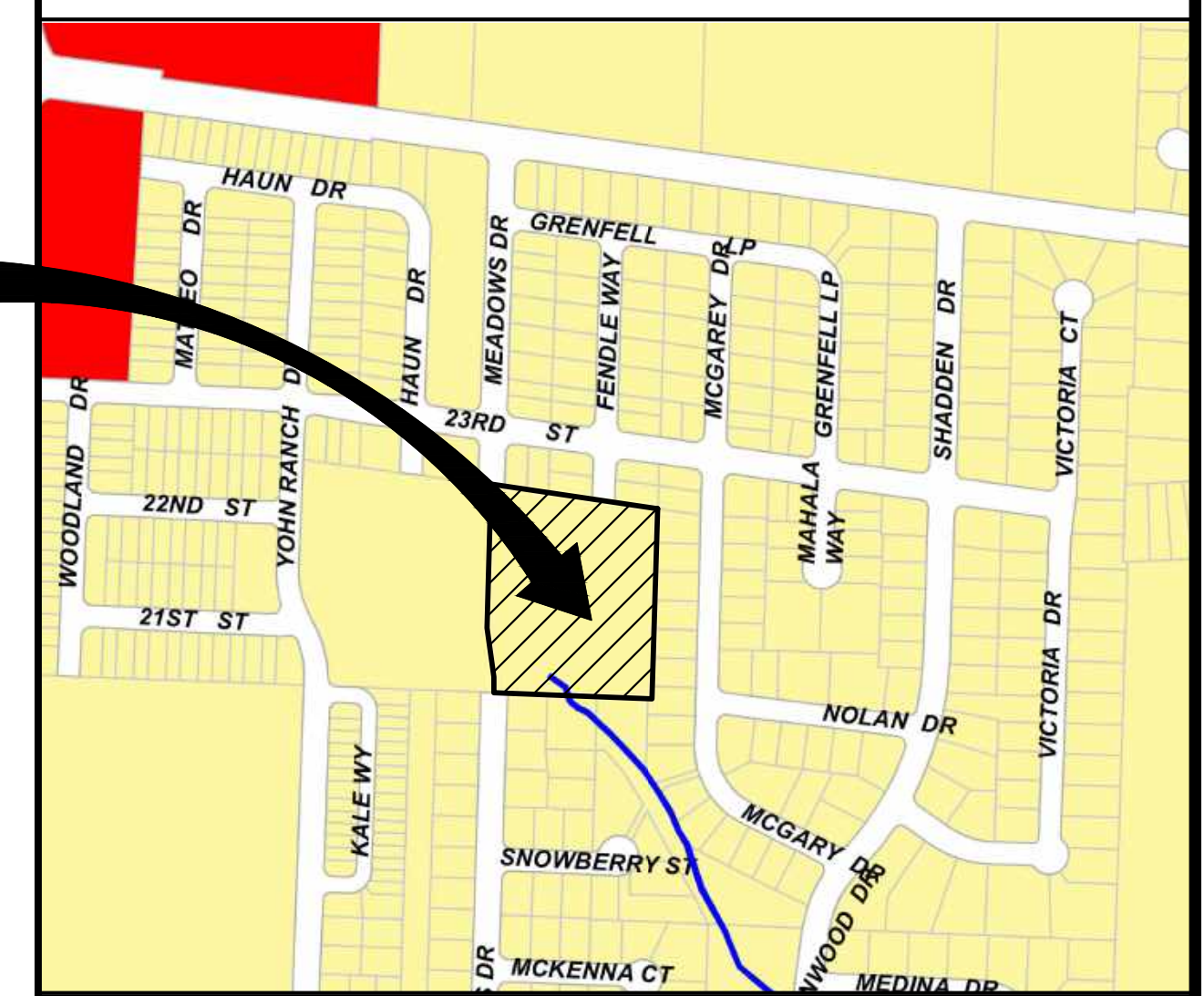
FOR:
DON JONES
VJ-2 DEVELOPMENT INC.
695 COMMERCIAL STREET SE STE 006
SALEM, OR 97301

PROJECT LOCATION



VICINITY MAP

PROJECT LOCATION



SHEET INDEX

SHT NO	DESCRIPTION
C0.0	COVER SHEET, INDEX, & VICINITY MAP
C0.1	EXISTING CONDITIONS PLAN
C0.2	PRE-DEVELOPED EROSION CONTROL PLAN
C0.3	POST-DEVELOPED EROSION CONTROL PLAN
C0.4	EROSION CONTROL NOTES
C0.5	EROSION CONTROL DETAILS
C2.0	OVERALL SUBDIVISION PLAN
C3.0	OVERALL GRADING AND DRAINAGE PLAN
C4.0	OVERALL UTILITY PLAN
ST-1	MEADOWS STREET PLAN AND PROFILE
ST-2	FENDLE WAY PLAN AND PROFILE
ST-3	FENDLE WAY CUL-DE-SAC PLAN AND PROFILE
ST-4	STORM DRAIN PLAN AND PROFILE
SS-1	MEADOWS SANITARY SEWER PLAN AND PROFILE
SS-2	FENDLE WAY SANITARY SEWER PLAN AND PROFILE
W-1	OVERALL WATER PLAN
W-2	WATER DETAILS
W-3	WATER DETAILS
UT-1	MEADOWS AND FENDLE POWER PLAN
UT-2	DETAILS
UT-3	DETAILS
CC-0	CONSTRUCTION NOTES
CC-1	DETAILS
CC-2	DETAILS



Know what's below.
Call before you dig.

NO.	DATE	DESCRIPTION	BY
1			

REGISTERED PROFESSIONAL ENGINEER
REVIEW REVIEW
 WILLIAM T. WELLS
 REG. NO. 12,208
 REVIEW: 6/29/2022

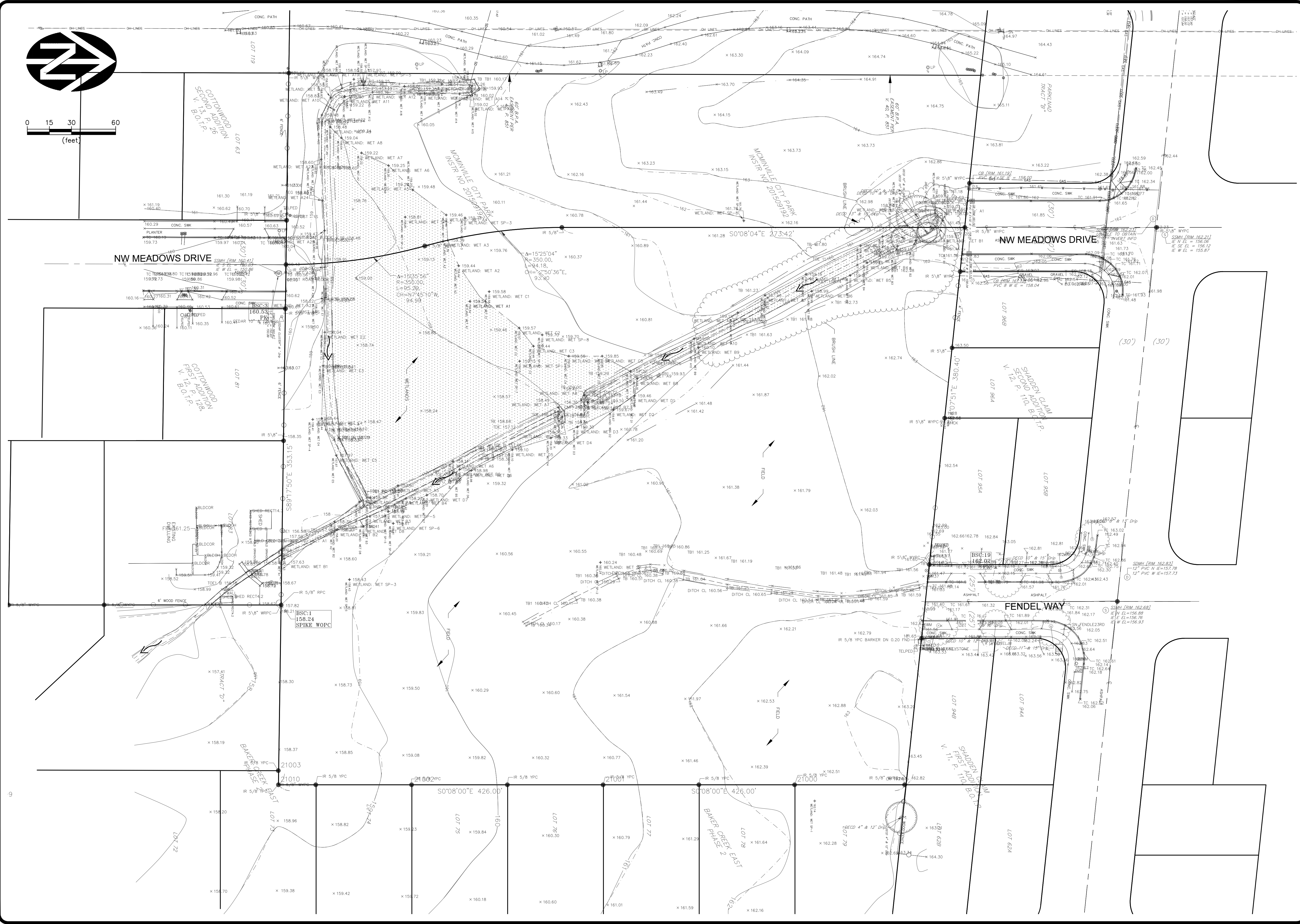
WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

 3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
**COVER SHEET, INDEX, AND
 VICINITY MAP**

DRAWING
CO.0
 JOB NUMBER
2931.0000.0

1/25/2022 4:40:38 PM
E:\DWGSD\Don Jones - Subdivision - 2931.0000\Civil\Plots\CO.1 - EXISTING CONDITIONS PLAN.dwg. (CO.1 EXISTING CONDITIONS PLAN.tbl)



NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON SCALE, ACCURACY IS NOT GUARANTEED

DSN. JW
DRN. JH
CKD. JW
DATE: 01/20/22

REVIEW REVIEW

REGISTERED PROFESSIONAL ENGINEER
WILLIAM T. WELLS
NO. 12,110
EXPIRES 12/31/2022

WE

WESTTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS

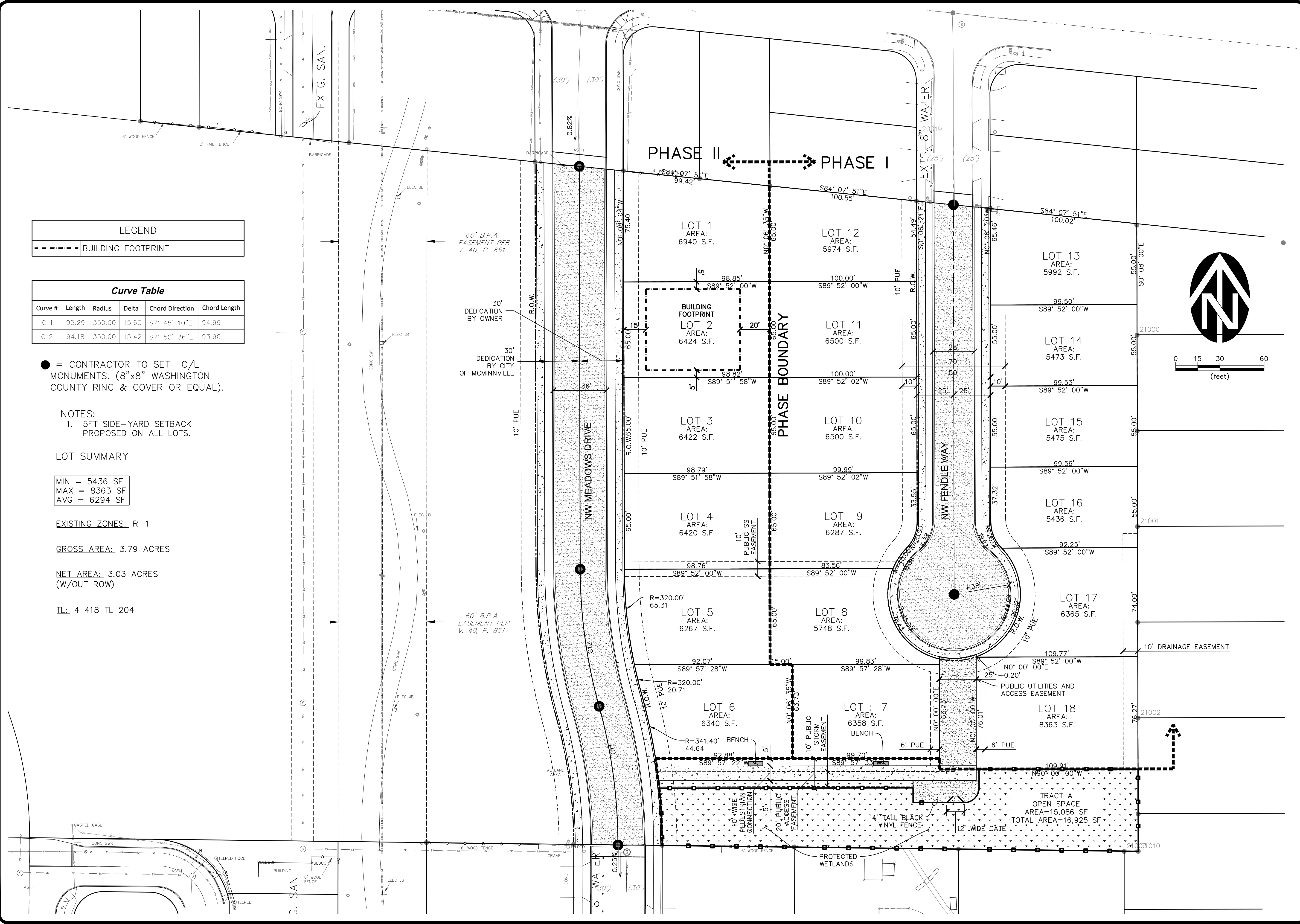
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION

EXISTING CONDITIONS PLAN

DRAWING
CO.1

JOB NUMBER
2931.0000.0



LEGEND

--- BUILDING FOOTPRINT

Curve Table

Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C11	95.29	350.00	15.60	S7° 45' 10"E	94.99
C12	94.18	350.00	15.42	S7° 50' 36"E	93.90

● = CONTRACTOR TO SET C/L MONUMENTS. (8"x8" WASHINGTON COUNTY RING & COVER OR EQUAL).

NOTES:
1. 5FT SIDE-YARD SETBACK PROPOSED ON ALL LOTS.

LOT SUMMARY

MIN = 5436 SF
MAX = 8363 SF
AVG = 6294 SF

EXISTING ZONES: R-1

GROSS AREA: 3.79 ACRES

NET AREA: 3.03 ACRES (W/OUT ROW)

TL: 4 418 TL 204

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON SCALES ACCURACLY

DSN. JW
DRN. AK
CKD. JW

DATE: 05/20/2022

REVIEW REVIEW

REGISTERED PROFESSIONAL ENGINEER
WILLIAM T. WELLS
No. 12,123
Oregon, U.S.A.

REVIEW: 6/20/2022

WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS

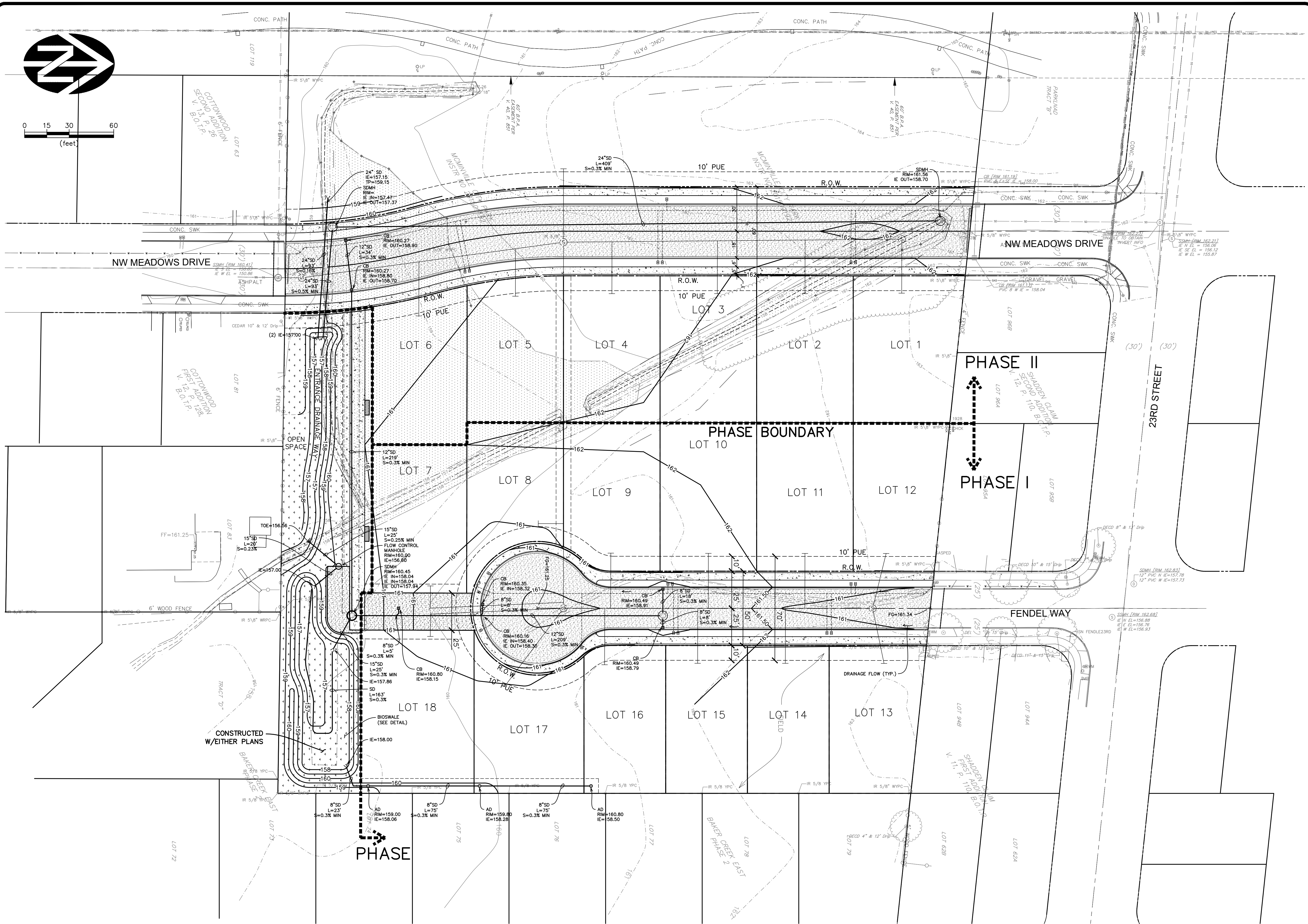
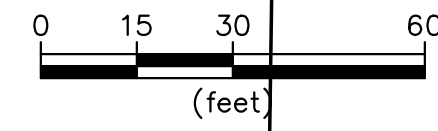
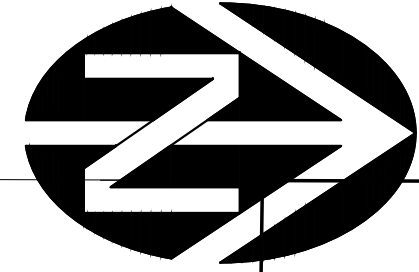
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION

OVERALL SUBDIVISION PLAN

DRAWING
C2.0

JOB NUMBER
2931.0000.0



NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACY NOT GUARANTEED

DATE: 05/20/2022



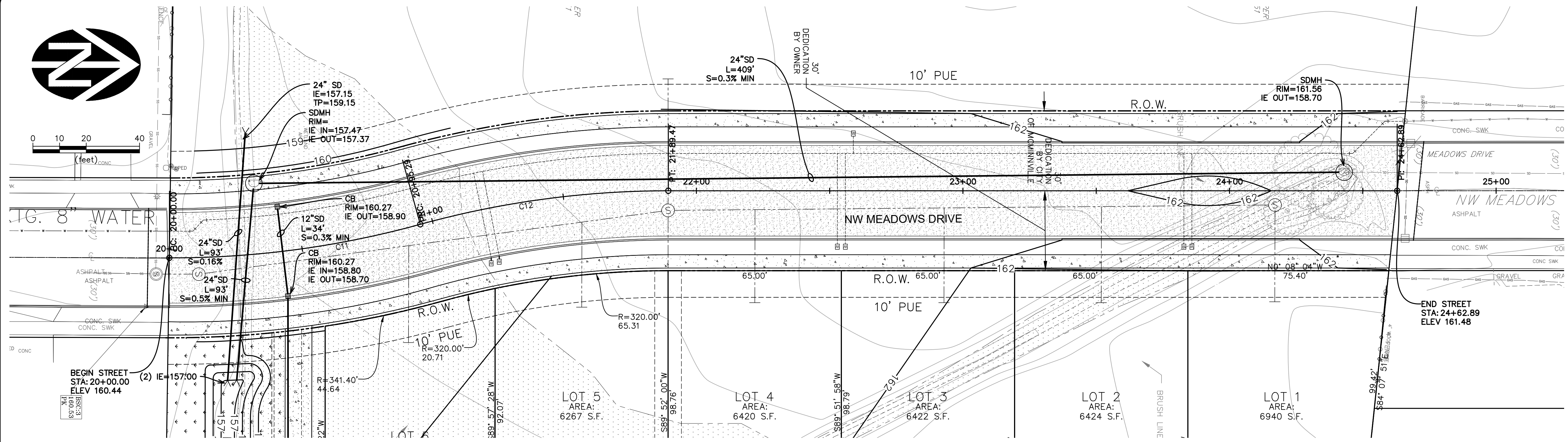
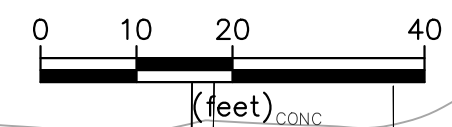
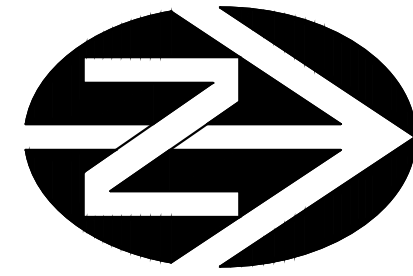
WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westtech@westtech-eng.com

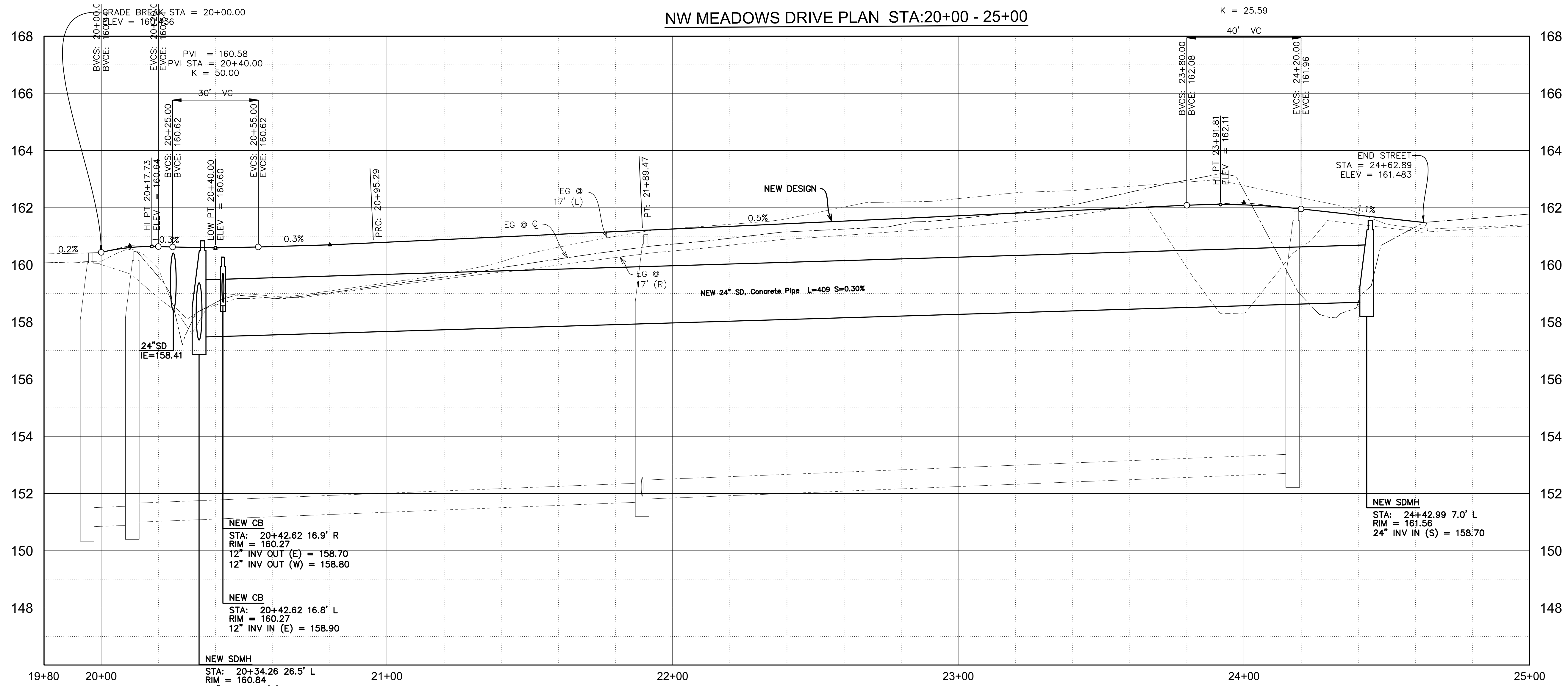
VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

OVERALL GRADING AND DRAINAGE PLAN

DRAWING
C3.0
 JOB NUMBER
2931.0000.0



NW MEADOWS DRIVE PLAN STA:20+00 - 25+00



NW MEADOWS DRIVE PROFILE STA:20+00-25+00

NO.	DATE	DESCRIPTION	BY
1			

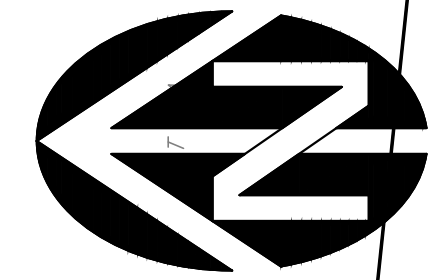
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON SCALES ACCURACLY

REGISTERED PROFESSIONAL ENGINEER
REVIEW REVIEW
WILLIAM T. WELLS
NOV. 12, 2004
REG. NO. 12000
EXPIRES 6/30/2022

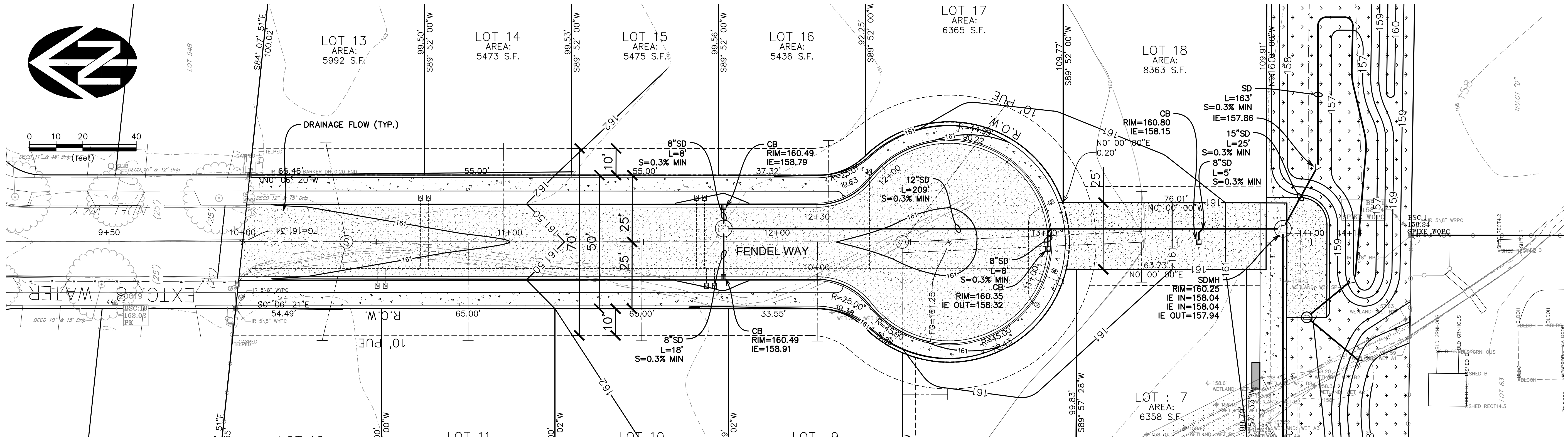
WE
WESTTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 565-2474 Fax: (503) 565-3966
E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION
MEADOWS STREET PLAN AND PROFILE

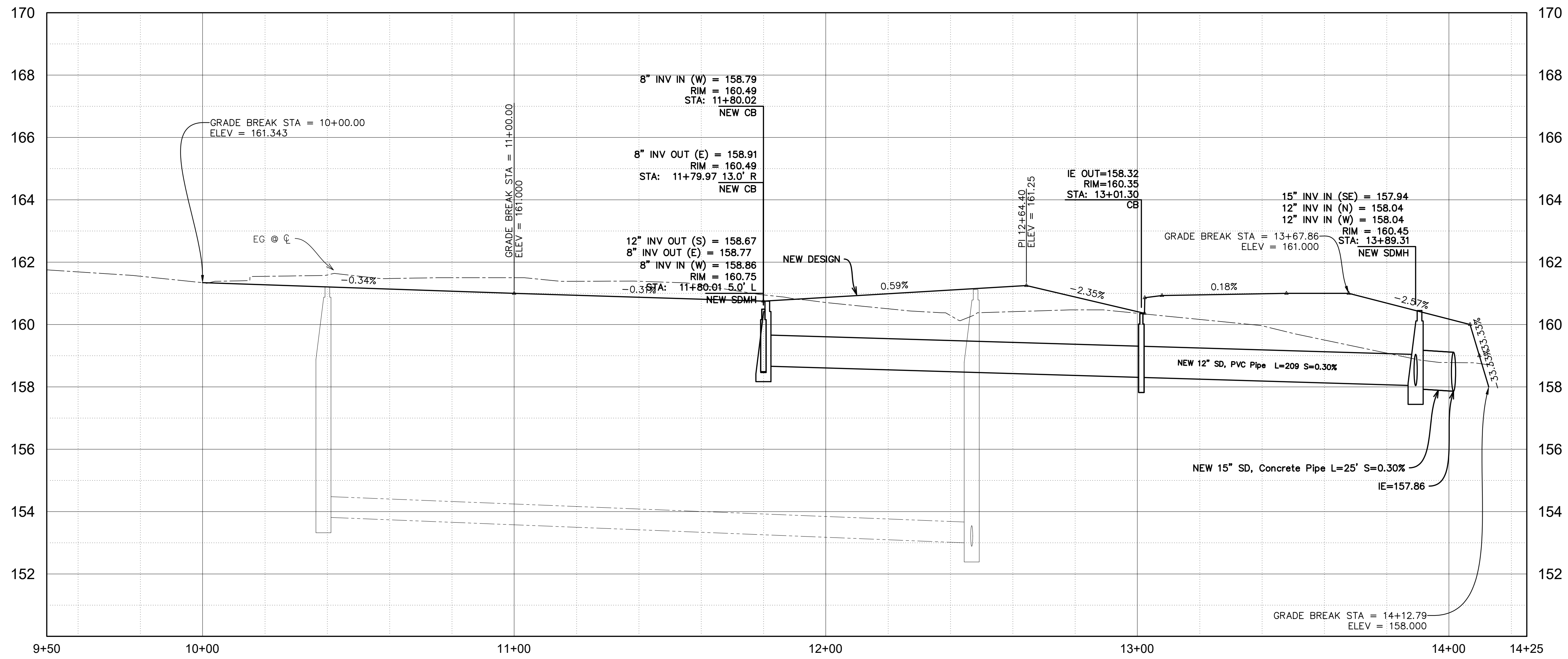
DRAWING
ST-1
JOB NUMBER
2931.0000.0



0 10 20 40
(feet)



NW MEADOWS DRIVE PLAN STA:10+00 - 14+14.40



NW MEADOWS DRIVE PROFILE STA:10+00-14+14.40

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DSN. JW
 DRN. JW
 CKD. JW
 DATE: 05/20/2022

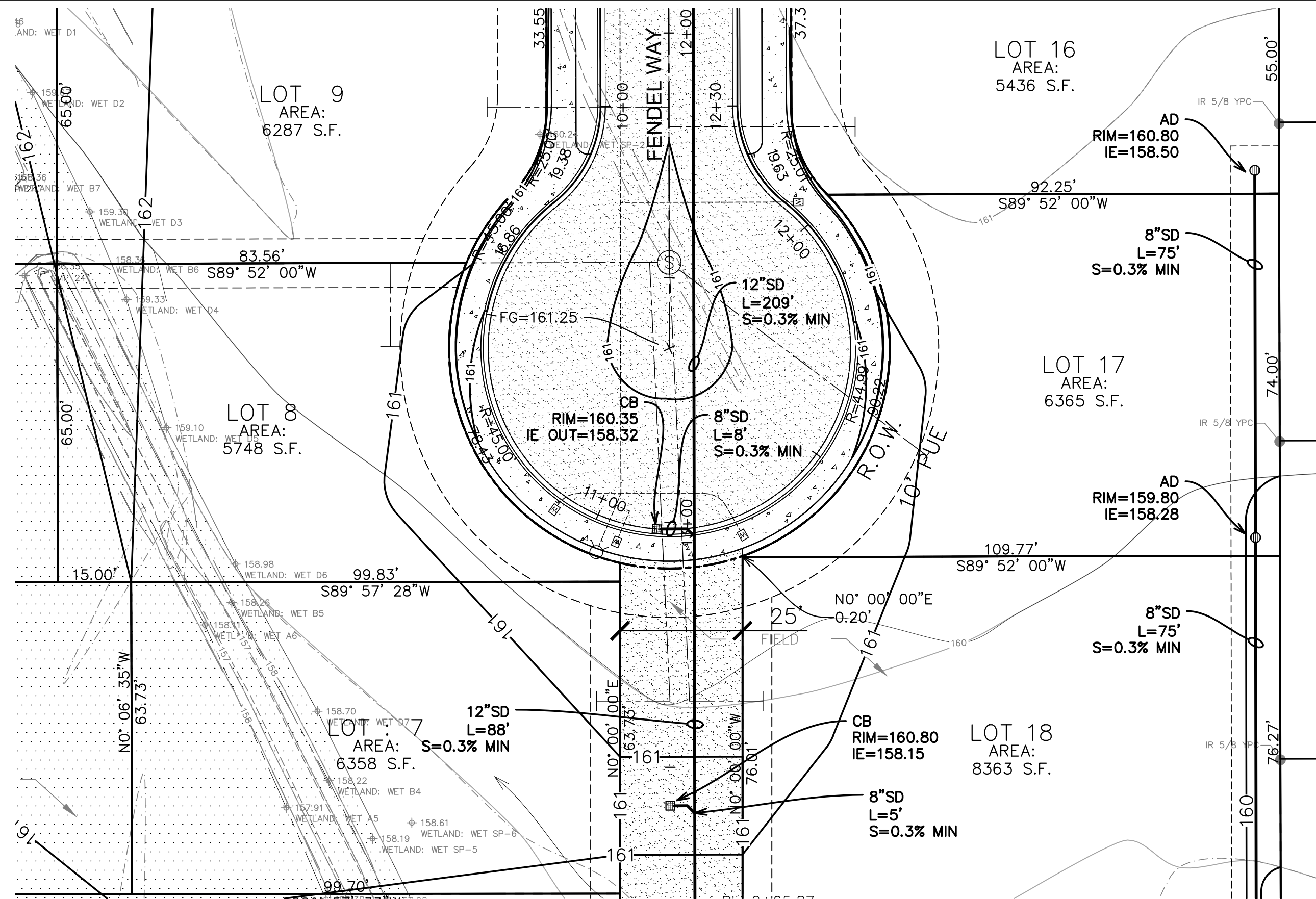
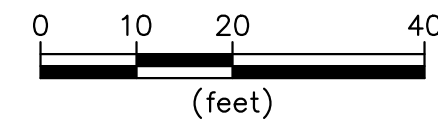
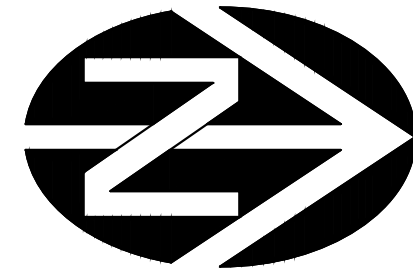


WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

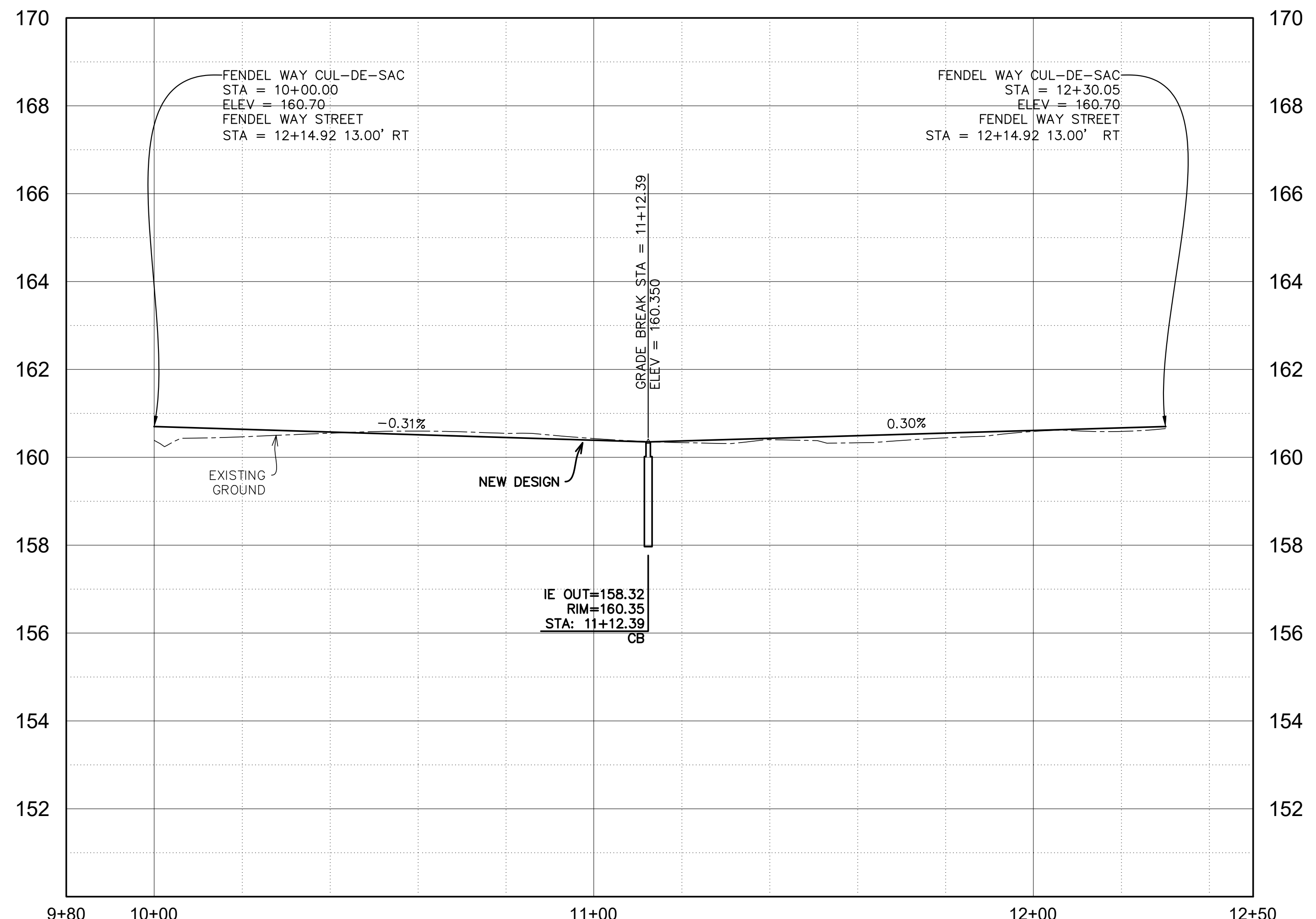
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
FENDEL WAY PLAN AND PROFILE

DRAWING
ST-2
 JOB NUMBER
2931.0000.0



FENDEL WAY PLAN STA:10+00 - 12+30.05



FENDEL WAY PROFILE STA:10+00 - 12+30.05

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCORDINGLY

DSN. JW
 DRN. JH
 CKD. JW
 DATE: 05/20/2008

REVIEW REVIEW

REGISTERED PROFESSIONAL ENGINEER
 WILLIAM T. WELLS
 REG. NO. 12,288
 OREGON

REVISED: 6/20/2022

WE

WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

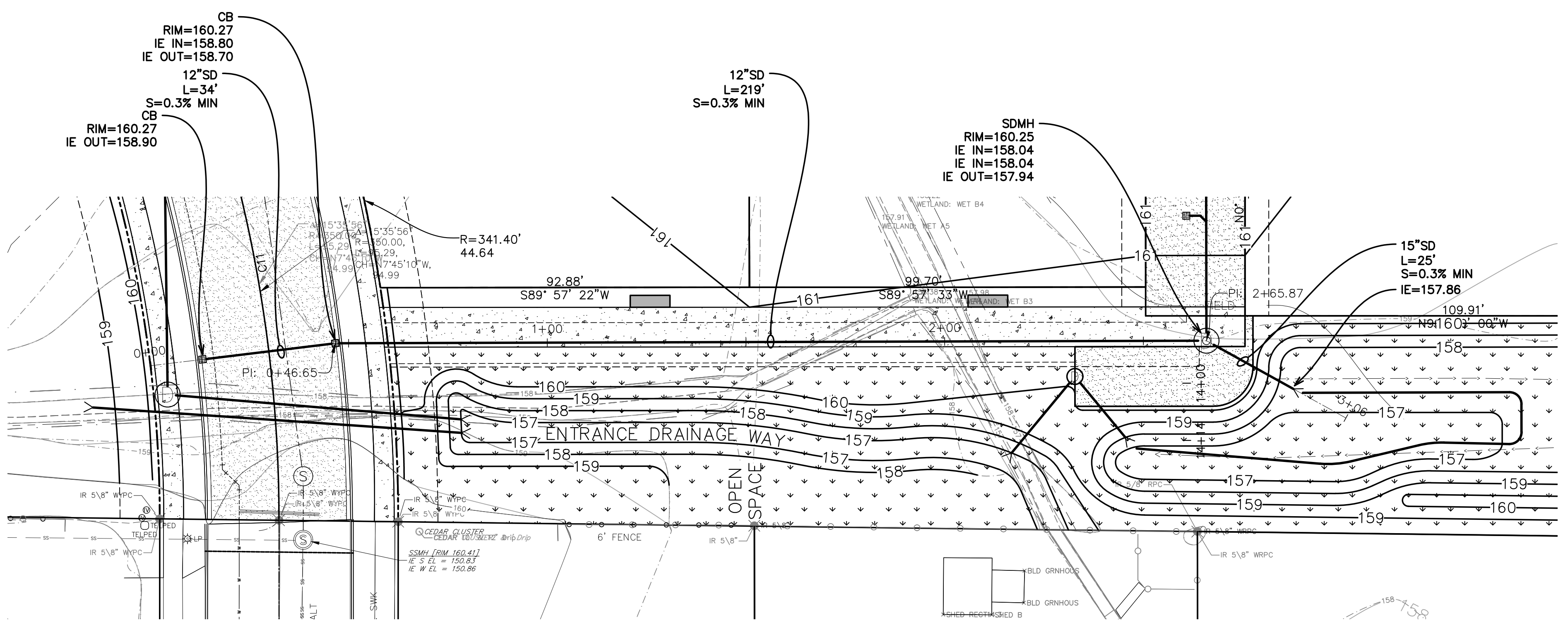
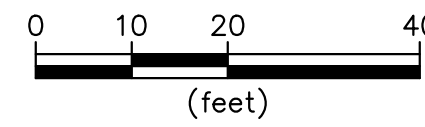
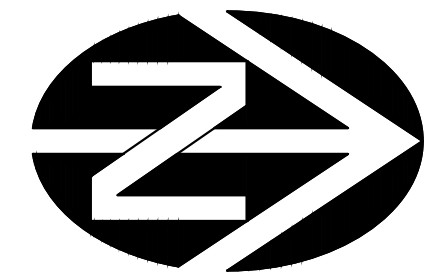
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 565-2474 Fax: (503) 565-3966
 E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

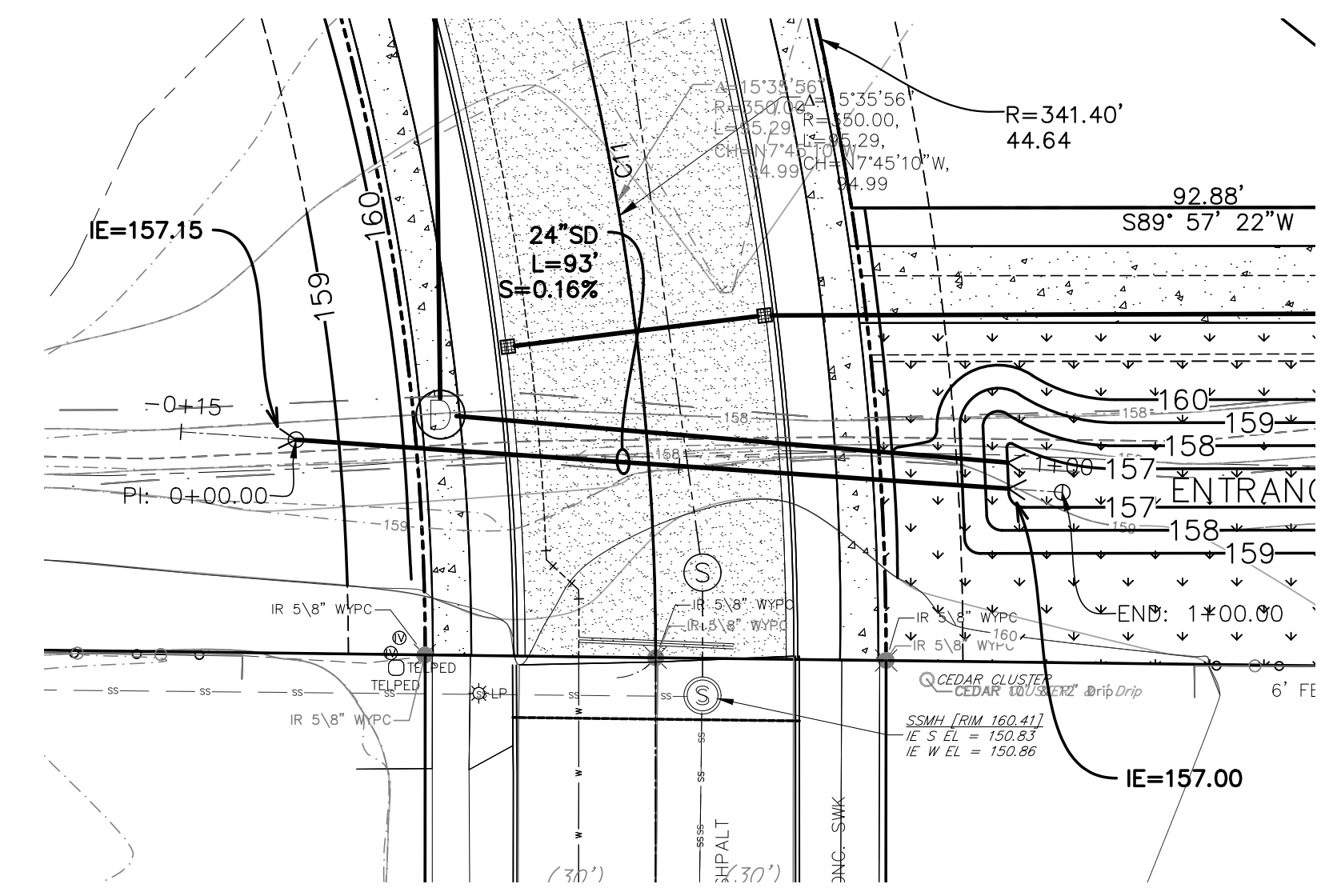
FENDEL WAY CUL-DE-SAC
 PLAN AND PROFILE

DRAWING
 ST-3

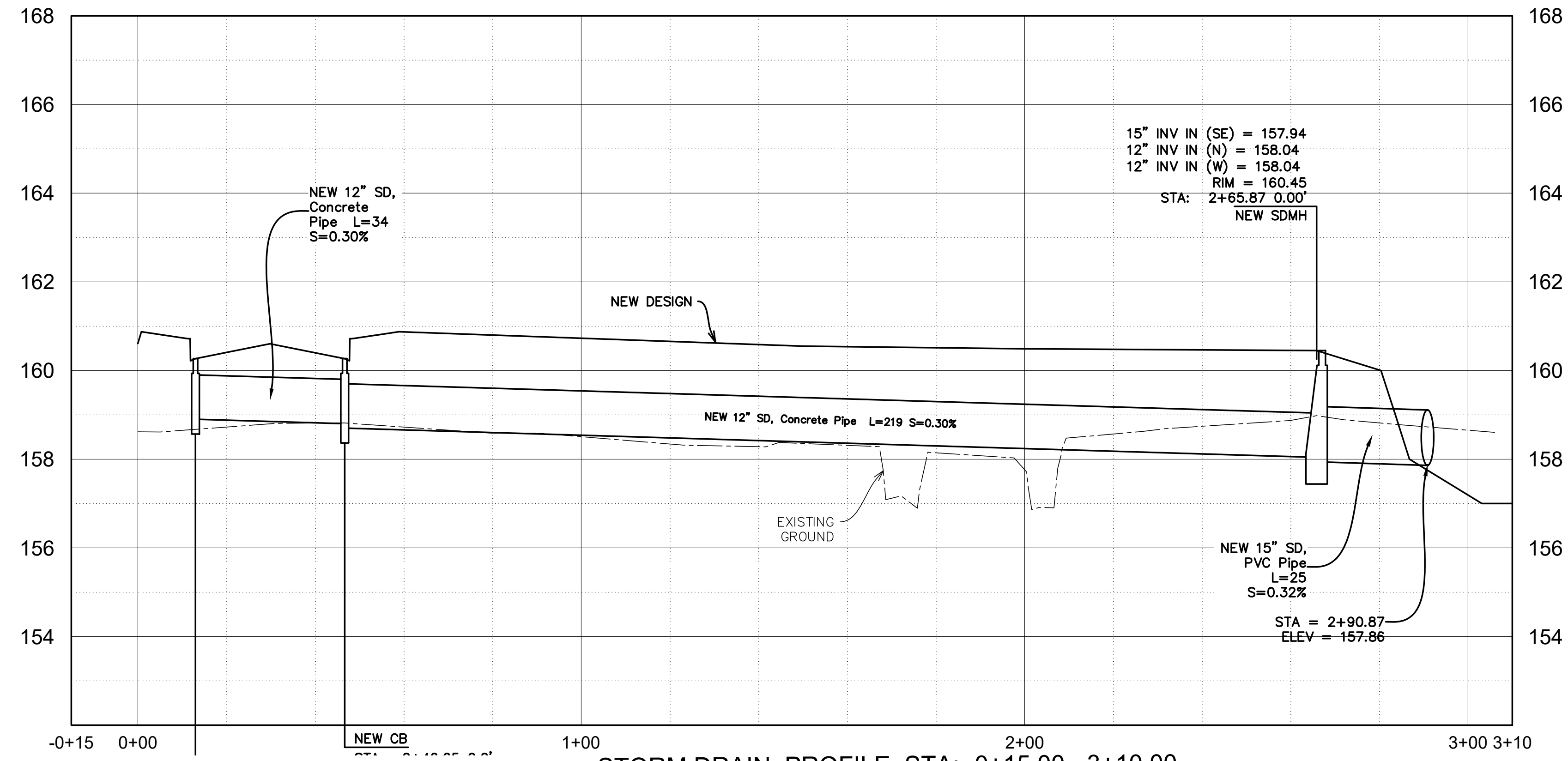
JOB NUMBER
 2931.0000.0



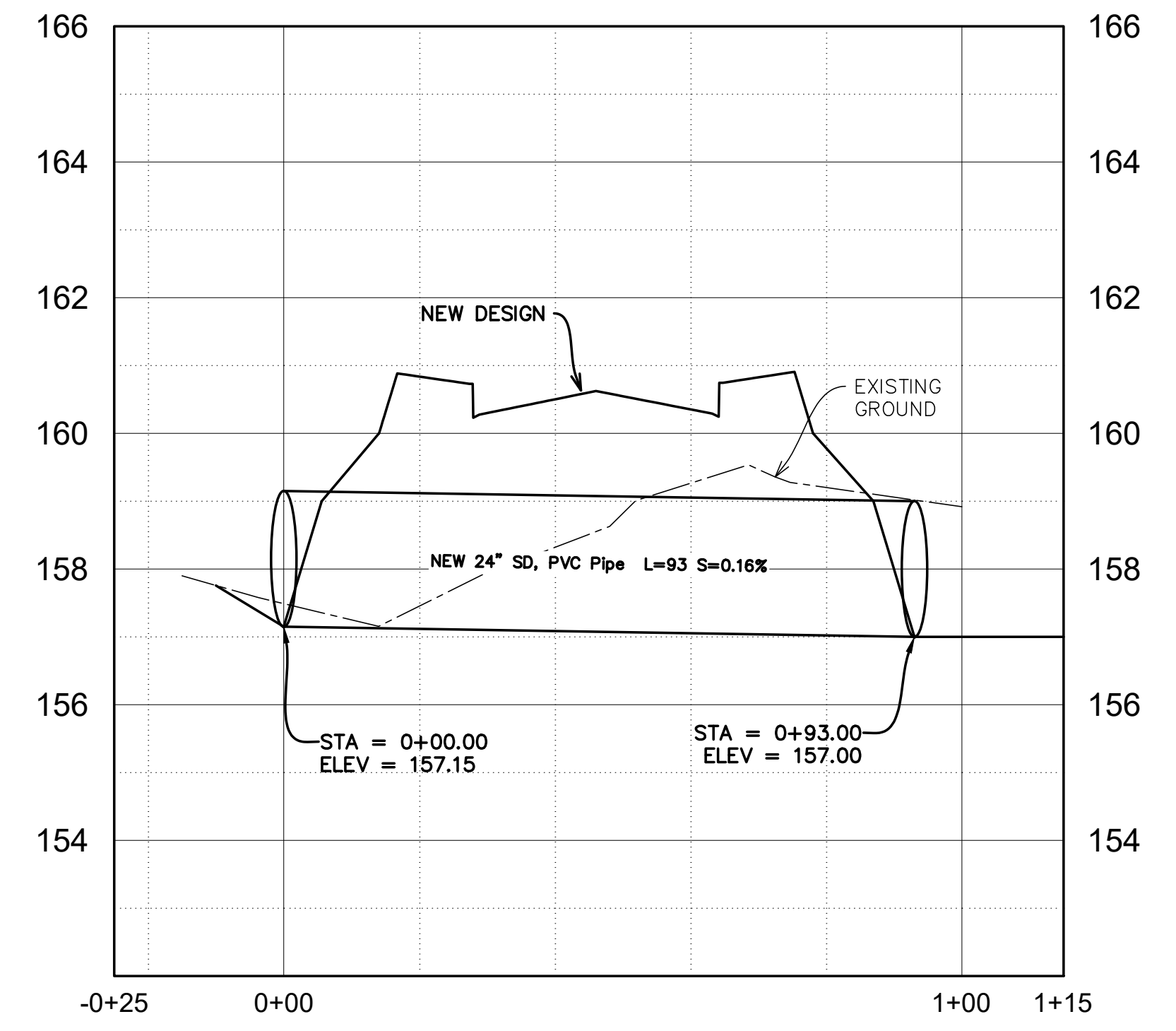
STORM DRAIN PROFILE STA: -0+15.00 - 3+10.00



STORM DRAIN PROFILE STA: -0+25.00 - 1+15.00



STORM DRAIN PROFILE STA: -0+15.00 - 3+10.00

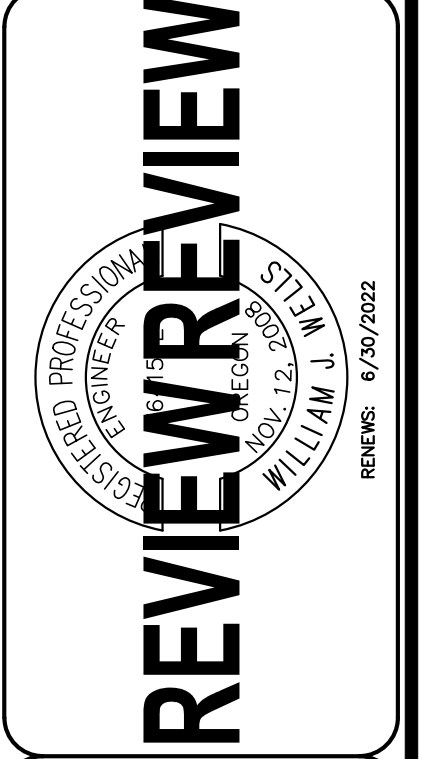


STORM DRAIN PROFILE STA: -0+25.00 - 1+15.00

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DSN. JW
 DRN. JH
 CKD. JW
 DATE: 06/20/2022



WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

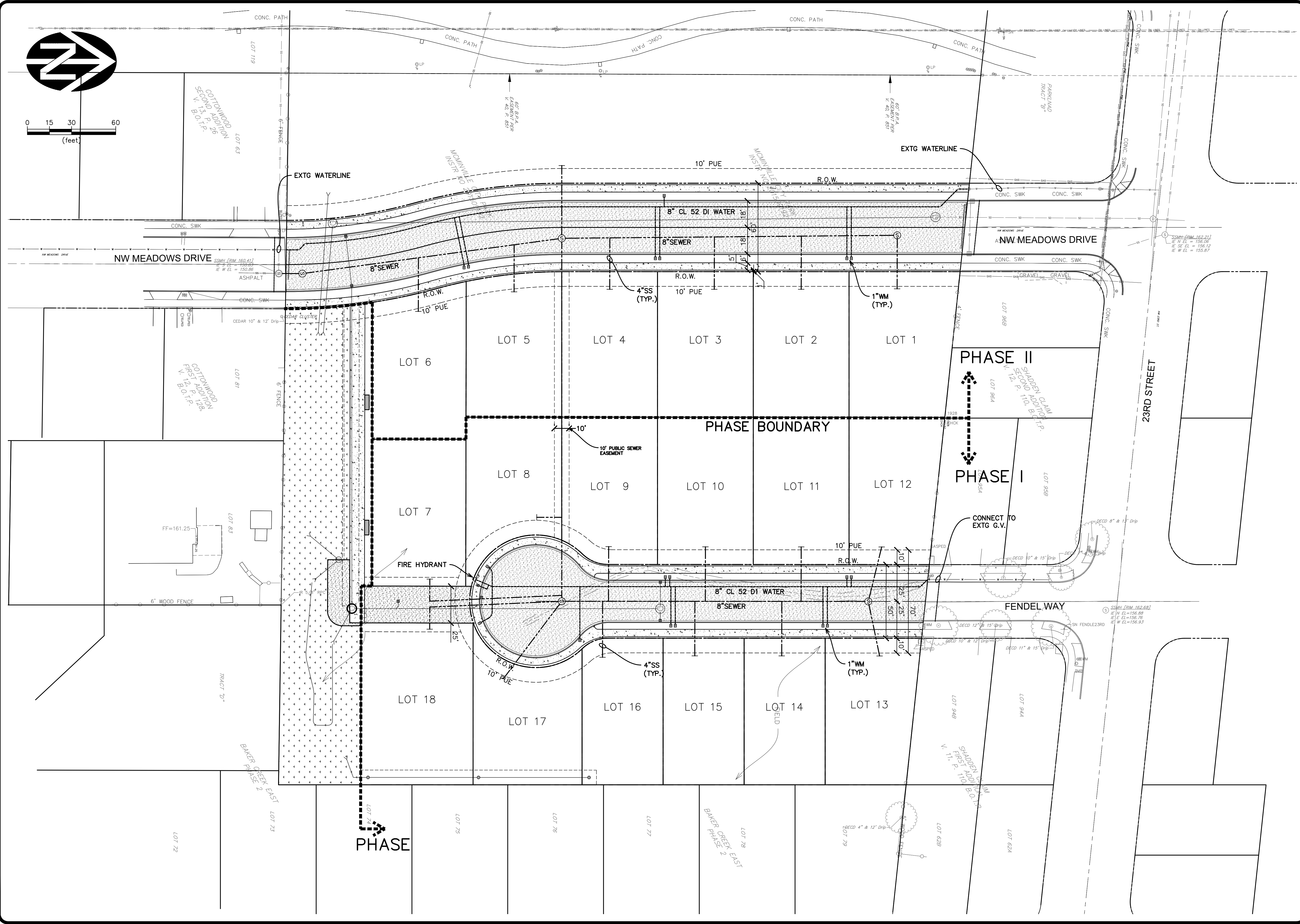
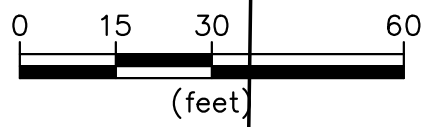
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

STORM DRAIN PLAN & PROFILE

DRAWING
ST-4

JOB NUMBER
2931.0000.0



NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DATE: 06/20/2022



WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

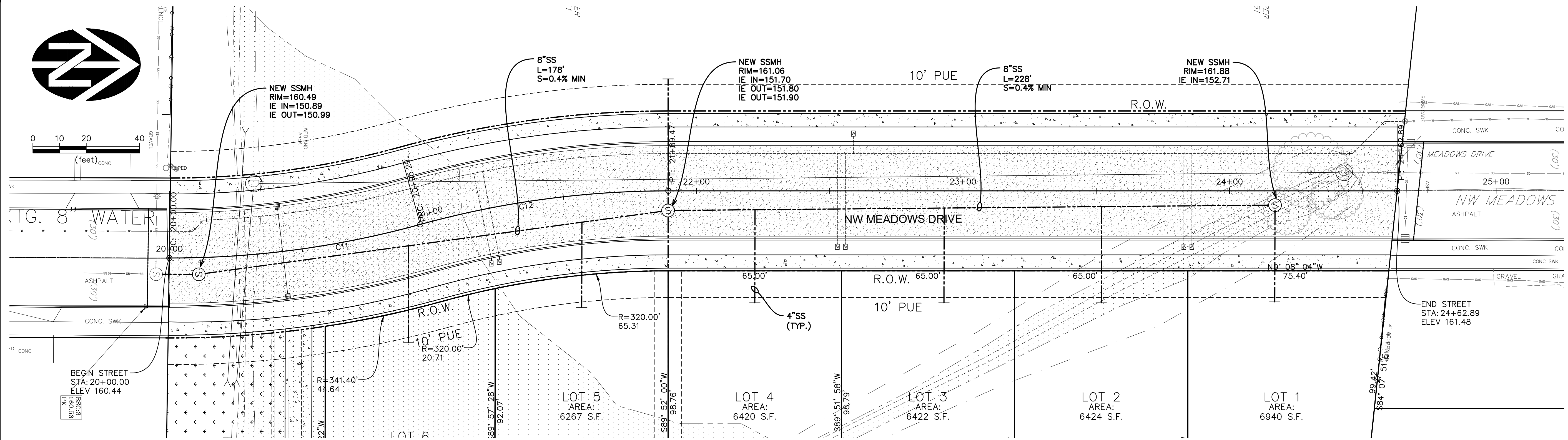
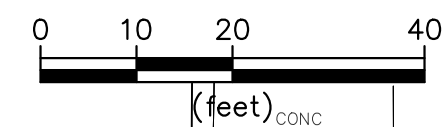
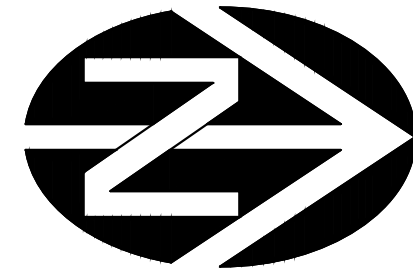
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

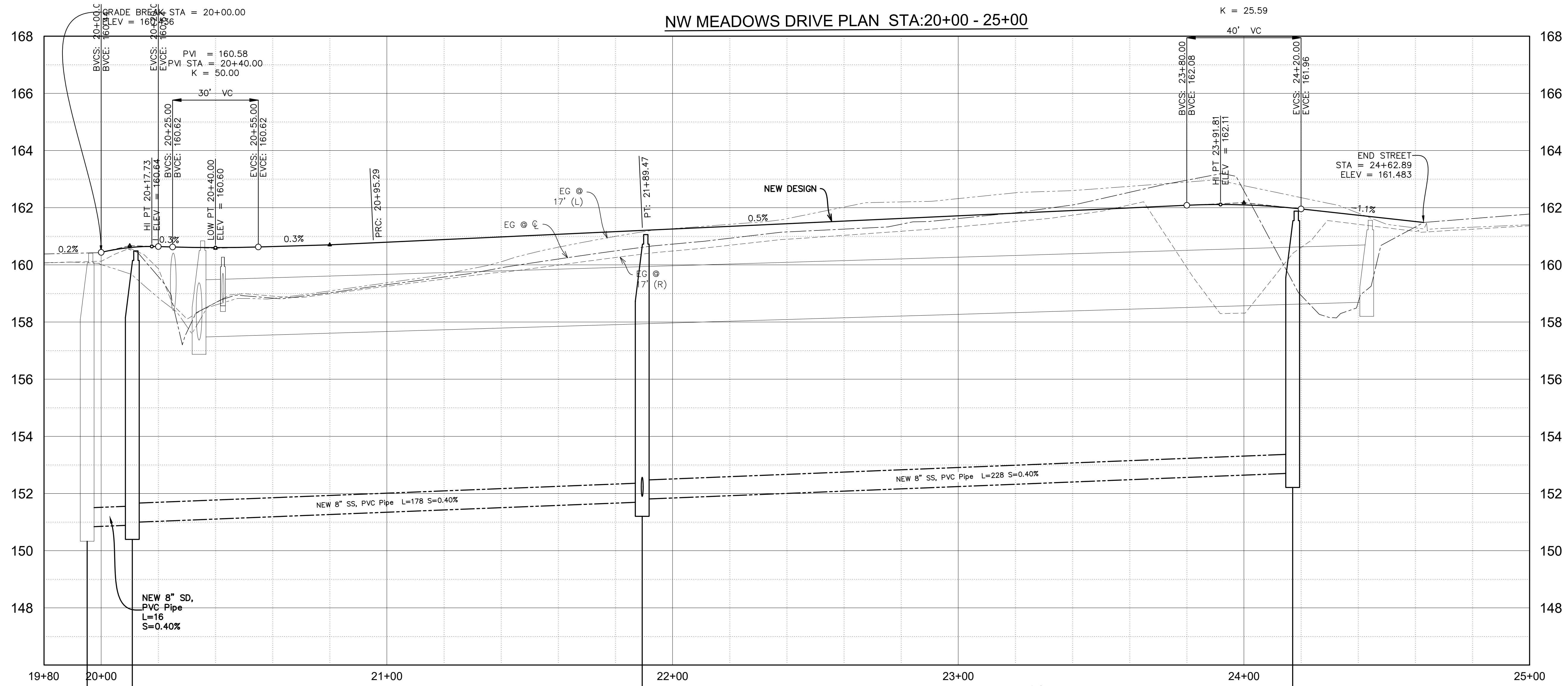
OVERALL UTILITY PLAN

DRAWING
C4.0

JOB NUMBER
2931.0000.0



NW MEADOWS DRIVE PLAN STA:20+00 - 25+00



NW MEADOWS DRIVE PROFILE STA:20+00-25+00

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 1" = 100'
 0" = 0'
 IF NOT ONE INCH ON SCALE, ACCURACY IS NOT GUARANTEED

DSN. JW
 DRN. JH
 CKD. JW
 DATE: 07/20/2008

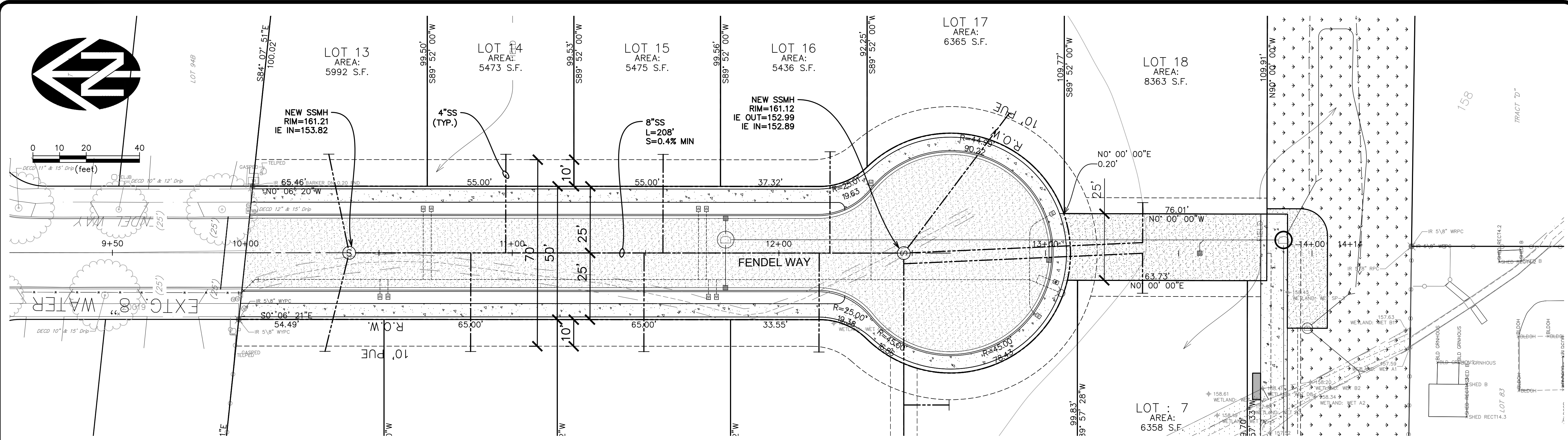
REVIEW REVIEW
 REGISTERED PROFESSIONAL ENGINEER
 WILLIAM T. WELLS
 No. 12,000,000
 REVIEWS: 6/20/2008

WE
WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS
 3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 565-2474 Fax: (503) 565-3966
 E-mail: westtech@westtech-eng.com

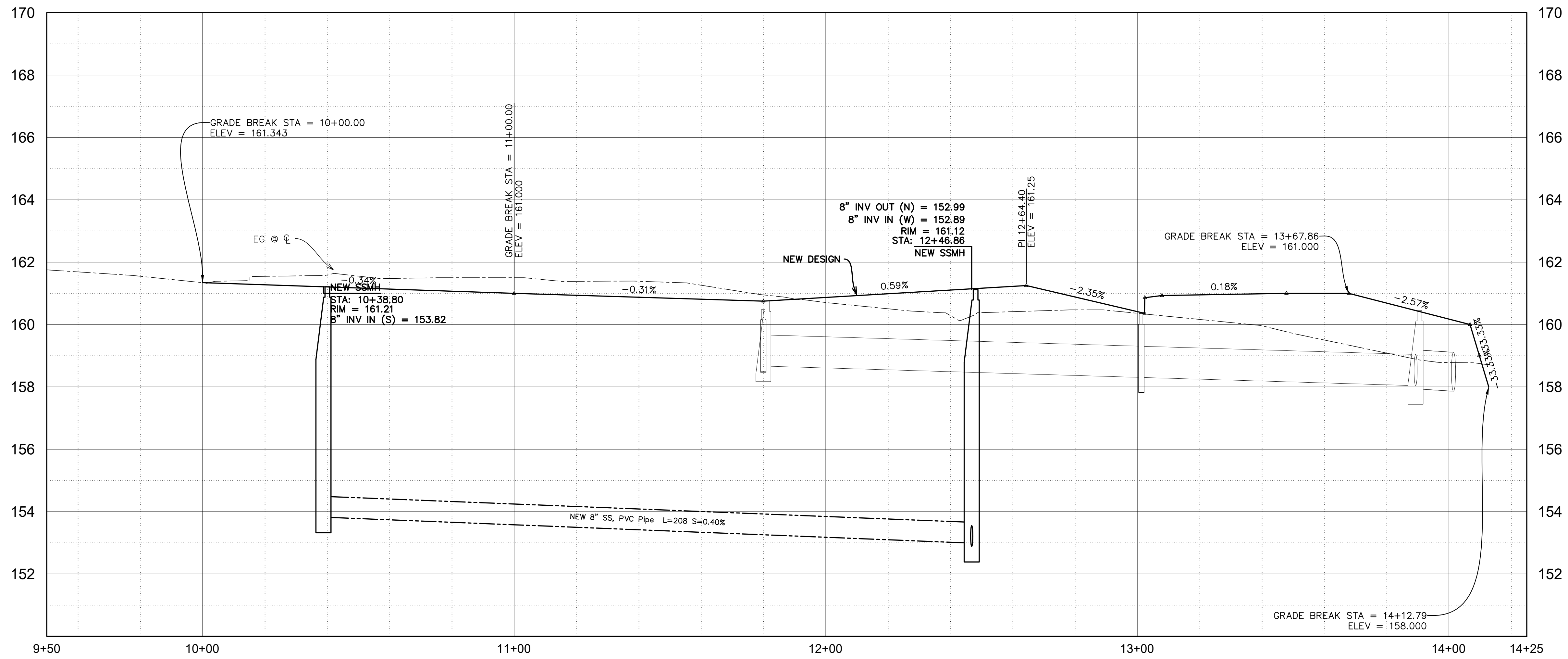
VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
**MEADOWS SANITARY SEWER
 PLAN AND PROFILE**

DRAWING
SS-1

JOB NUMBER
2931.0000.0



FENDEL WAY PLAN STA:10+00 - 12+64.40



FENDEL WAY PROFILE H:1"=10' V:1"=1'

DATE: 07/20/2018	NO. 1	DATE	DESCRIPTION	BY
CKD. JW	JW			
DRN. JH	JH			
DSN. JW	JW			

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

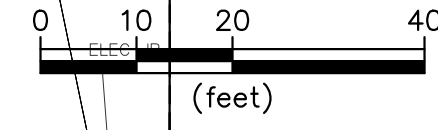
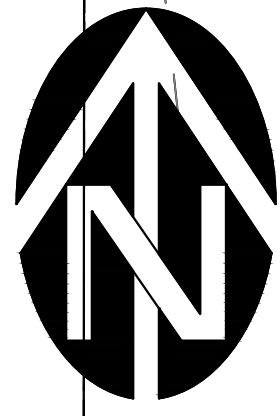
REGISTERED PROFESSIONAL ENGINEER
REVIEW REVIEW
 WILLIAM T. WEST
 1001.12.0001
 WES
 OREGON
 REVIEWS: 6/20/2022

WE
 WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS
 3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
**FENDEL WAY SANITARY SEWER
 PLAN AND PROFILE**

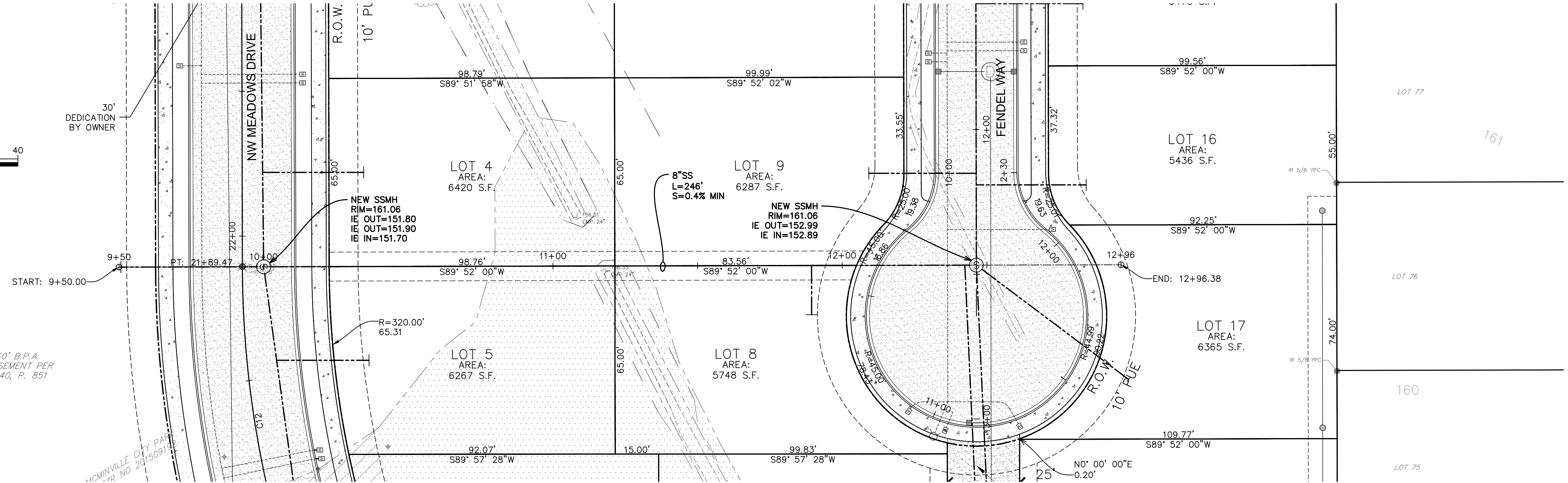
DRAWING
SS-2

JOB NUMBER
2931.0000.0

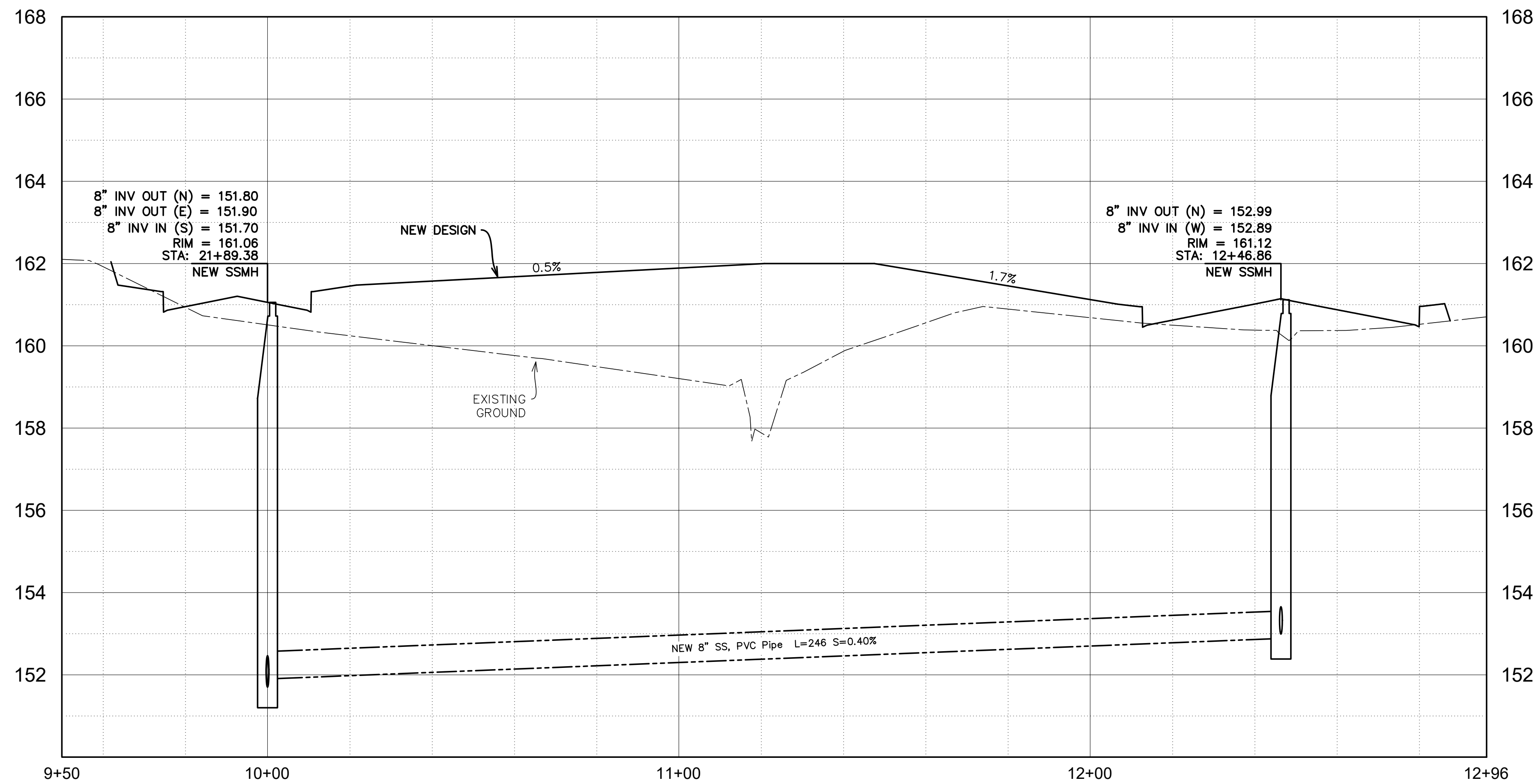


30'
DEDICATION
BY OWNER

60' B.P.A.
EASEMENT PER
V. 40, P. 851



SANITARY SEWER PLAN STA:10+00 - 12+46.38



SANITARY SEWER PROFILE H:1"=10' V:1"=1'

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
BASE IS ONE INCH ON
ORIGINAL DRAWING
IF NOT ONE INCH ON
SCALE, ACCURACLY

DSN. JW
DRN. JH
CKD. JW
DATE: 07/20/2022



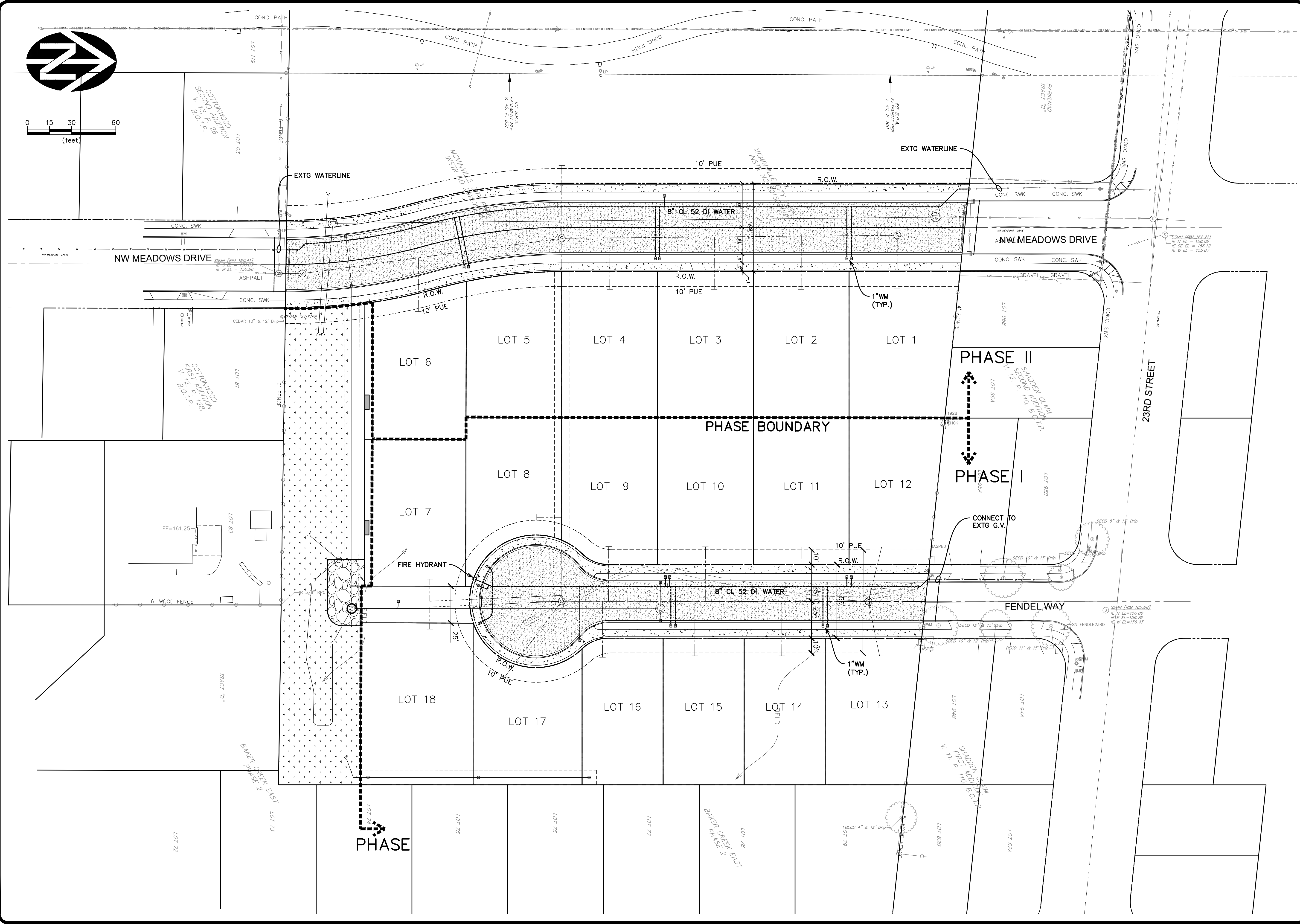
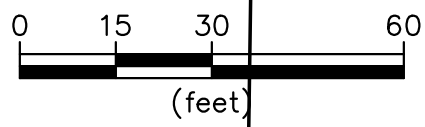
WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION
**SANITARY SEWER MEADOWS
DRIVE AND FENDEL WAY**

DRAWING
SS-3

JOB NUMBER
2931.0000.0



NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 BAR IS ONE INCH ON
 ORIGINAL DRAWING
 IF NOT ONE INCH ON
 THIS DRAWING, USE
 SCALES ACCORDINGLY

DSN. JW
 DRN. JH
 CKD. JW
 DATE: 06/20/2022



WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

OVERALL WATER PLAN

DRAWING
W-1

JOB NUMBER
2931.0000.0

STORMWATER MANAGEMENT REPORT

Prepared For:

VJ2 Development
695 Commercial Street
Salem, OR 97301

Project Location:

Elysian Subdivision
2280-2298 NW Fendle Way
McMinnville, OR 97128

Prepared By:



=====**WE**=====
Westech Engineering, Inc.=====
3841 Fairview Ind. Dr. SE, Suite 100
Salem, OR 97302
(503) 585-2474 FAX: (503) 585-3986

Comprehensive Plan Map Amendment & Zone Change Information & Submittal Requirements



Planning Department
231 NE Fifth Street ◦ McMinnville, OR 97128
(503) 434-7311 Office ◦ (503) 474-4955 Fax
www.mcminnvilleoregon.gov

Overview

The comprehensive plan map describes the long-term direction and vision for the growth and development of our community. The zoning map describes the various zoning classifications for each parcel in McMinnville, as it exists today. Requests to amend either of these maps can be initiated by a property owner and are subject to review and approval by the McMinnville Planning Commission and City Council. Prior to submitting a request to amend either map, you are strongly encouraged to meet with Planning Department staff to discuss application and submittal requirements, scheduling, and the details of your proposal and its consistency with the McMinnville comprehensive plan. Further information regarding these processes can be found in Sections 17.72.120 (Applications – Public Hearings) to 17.72.0130 (Public Hearing Process) and 17.74.020 (Comprehensive Plan Map Amendment and Zone Change - Review Criteria) of the McMinnville Zoning Ordinance.

Application Submittal

The following materials must be provided at the time of submittal, or the application will not be accepted for processing.

- A completed Comprehensive Plan Map Amendment and/or Zone Change application form. If additional explanation or materials would assist or support the request, include them with the application form.
- A site plan (drawn to scale, with a north arrow, legible, and of a reproducible size), indicating existing and proposed features within and adjacent to the subject site, such as: access; lot and street lines with dimensions; distances from property lines to structures; improvements; and significant features (slope, vegetation, adjacent development, drainage, etc.). If of a larger size, provide five (5) copies in addition to **an electronic copy** with the submittal.
- A legal description of the subject site, preferably taken from the deed.
- Compliance of Neighborhood Meeting Requirements
- Payment of the applicable review fee.

Review Process

A request to amend the zoning map or comprehensive plan map is subject to review by the Planning Commission at a public hearing, who then forwards a recommendation to the City Council for their approval. In advance of the Commission hearing, notice is mailed to neighboring property owners advising them of the requested action and inviting their participation in the upcoming hearing. The process for providing notification and reviewing a request to amend the zoning map or comprehensive

plan map is outlined in Sections 17.72.120 (Applications-Public Hearings) and 17.72.130 (Public Hearing Process) of the Zoning Ordinance. While a complete application for a request to amend the zoning map must be submitted 35 (thirty-five) days prior to the date of the first public hearing, a request to amend the comprehensive plan map must be submitted 45 (forty-five) days prior to the date of the public hearing to ensure that notice of the application is provided to the Department of Land Conservation and Development, as required by State law.

The Planning Commission will use the following criteria in reaching a decision to approve, approve with conditions, or deny an application to amend the zoning map or comprehensive plan map.

- A. The proposed amendment is consistent with the goals and policies of the Comprehensive Plan;
- B. The proposed amendment is orderly and timely, considering the pattern of development in the area, surrounding land uses, and any changes which may have occurred in the neighborhood or community to warrant the proposed amendment; and
- C. Utilities and services can be efficiently provided to serve the proposed uses or other potential uses in the proposed zoning district.

The Planning Commission will make a recommendation to the City Council to either approve or deny the request or approve the request in a different form. The City Council will either adopt an ordinance reflecting the proposed map amendment or zone change, or call for a public hearing.

The decision made by the Planning Commission may be appealed to the City Council as stated in Section 17.72.180 (Appeal from Ruling of Planning Commission) of the Zoning Ordinance. A decision of the City Council may be appealed to the Oregon Land Use Board of Appeals (LUBA), if filed in accordance with the requirements of State law.



Planning Department
 231 NE Fifth Street ◦ McMinnville, OR 97128
 (503) 434-7311 Office ◦ (503) 474-4955 Fax
www.mcminnvilleoregon.gov

Office Use Only:	
File No.	_____
Date Received	_____
Fee	_____
Receipt No.	_____
Received by	_____

Comprehensive Plan Map Amendment/ Zone Change Application

Applicant Information

Applicant is: Property Owner Contract Buyer Option Holder Agent Other _____

Applicant Name VJ2 Developers Phone 503.362.8232

Contact Name Don Jones Phone _____
(If different than above)

Address 695 Commercial Street

City, State, Zip Salem, OR 97301

Contact Email _____

Property Owner Information

Property Owner Name _____ Phone _____
(If different than above)

Contact Name _____ Phone _____

Address _____

City, State, Zip _____

Contact Email _____

Site Location and Description

(If metes and bounds description, indicate on separate sheet)

Note: See Attached for Site Location

Property Address 2280-2298 NW Fendle Way

Assessor Map No. R4 418 00204 - Total Site Area 4.977 AC

Subdivision Elysian Subdivision Block _____ Lot _____

Comprehensive Plan Designation Residential Zoning Designation R-1

This request is for a:

Comprehensive Plan Amendment

Zone Change

1. What, in detail, are you asking for? State the reason(s) for the request and the intended use(s) of the property. _____

The applicant is asking for a zone change from R-1 to R-3 in combination with a subdivision and planned development application. We are requesting the zone change from a R-1 to R-3 so that the proposed subdivision average lot size can be reduced from 9000 SF (R-1) to 6000SF.

2. Show in detail, by citing specific goals and policies, how your request is consistent with applicable goals and policies of the McMinnville Comprehensive Plan (Vol. 2). _____

SEE ATTACHED Written Narrative

3. If your request is subject to the provisions of a planned development overlay, show, in detail, how the request conforms to the requirements of the overlay. _____

SEE ATTACHED Written Narrative

4. If you are requesting a Planned Development, state how the proposal deviates from the requirements of the Zoning Ordinance and give justification for such deviation. _____

SEE ATTACHED Written Narrative

5. Considering the pattern of development in the area and surrounding land uses, show, in detail, how the proposed amendment is orderly and timely. _____

SEE ATTACHED Written Narrative

6. Describe any changes in the neighborhood or surrounding area which might support or warrant the request. _____

SEE ATTACHED Written Narrative

7. Document how the site can be efficiently provided with public utilities, including water, sewer, electricity, and natural gas, if needed, and that there is sufficient capacity to serve the proposed use.

SEE ATTACHED Written Narrative

8. Describe, in detail, how the proposed use will affect traffic in the area. What is the expected trip generation?

SEE ATTACHED Written Narrative

In addition to this completed application, the applicant must provide the following:

- A site plan (drawn to scale, with a north arrow, legible, and of a reproducible size), indicating existing and proposed features within and adjacent to the subject site, such as: access; lot and street lines with dimensions; distances from property lines to structures; improvements; and significant features (slope, vegetation, adjacent development, drainage, etc.). If of a larger size, provide five (5) copies in addition to **an electronic copy** with the submittal.
- A legal description of the parcel(s), preferably taken from the deed.
- Compliance of Neighborhood Meeting Requirements.
- Payment of the applicable review fee, which can be found on the Planning Department web page.

I certify the statements contained herein, along with the evidence submitted, are in all respects true and are correct to the best of my knowledge and belief.

157 Development, Inc
Walter G. Jones
Applicant's Signature

1/25/22
Date

Property Owner's Signature

Date

Planned Development Information & Submittal Requirements



Planning Department
231 NE Fifth Street ◊ McMinnville, OR 97128
(503) 434-7311 Office ◊ (503) 474-4955 Fax
www.mcminnvilleoregon.gov

Overview

A Planned Development is applied to property as a vehicle to encourage variety in the development pattern of the community; encourage mixed uses in a planned area; encourage developers to use a creative approach and apply new technology in land development; preserve significant man-made and natural features; facilitate a desirable aesthetic and efficient use of open space; and create public and private open spaces. A Planned Development is not intended as a guise to circumvent the intent of the Zoning Ordinance. Once adopted and applied to a property, the Planned Development -- in concert with the Zoning Ordinance -- guides development within the subject property.

Application Submittal

The following materials must be provided at the time of submittal, or the application will not be accepted for processing.

- A completed Planned Development application form. If additional explanation or materials would assist or support the request, please include them with the application form.
- A site plan (drawn to scale, with a north direction arrow, legible, and of a reproducible size), indicating existing and proposed features such as: access; lot and street lines with dimensions in feet; distances from property lines; improvements; and significant features (slope, vegetation, adjacent development, drainage, etc.).
- A legal description of the subject site, preferably taken from the deed.
- Compliance of Neighborhood Meeting Requirements.
- Payment of the applicable review fee.

Review Process

Upon receipt of a complete application for a Planned Development, the Planning Department will schedule a date and time for the Planning Commission's public hearing on the request, and provide notification of the proposed Planned Development to property owners within 300 feet of the subject site. The Planning Commission's public hearing will follow the procedures as stated in Sections 17.72.120 (Applications – Public Hearings) and 17.72.130 (Public Hearing Process) of the Zoning Ordinance.

Approval of a Planned Development requires that the applicant demonstrate that the following criteria, as stated in Section 17.74.070 (Planned Development Amendment – Review Criteria) of the Zoning Ordinance have been met:

- A. There are special physical conditions or objectives of a development which the proposal will satisfy to warrant a departure from the standard regulation requirements;
- B. Resulting development will not be inconsistent with the Comprehensive Plan objectives of the area;
- C. The development shall be designed so as to provide for adequate access to, and efficient provision of, services to adjoining parcels;
- D. The plan can be completed within a reasonable period of time;
- E. The streets are adequate to support the anticipated traffic, and the development will not overload the streets outside the planned area;
- F. Proposed utility and drainage facilities are adequate for the population densities and type of development proposed;
- G. The noise, air, and water pollutants caused by the development do not have an adverse effect upon surrounding areas, public utilities, or the city as a whole.

Following the close of the hearing, the Commission will vote to forward a recommendation to the City Council to approve the requested Planned Development, or approve it with a different form. If the Commission recommends the request be denied, no further proceedings shall be held, unless an appeal of the Commission's decision is filed, as stated in Section 17.72.180 (Appeal from Ruling of Planning Commission) of the Zoning Ordinance.

Upon receipt of the decision of the Planning Commission to recommend approval the Council shall:

- A. Based on the material in the record and the findings adopted by the Commission and transmitted to the City Council, adopt an ordinance effecting the proposed change, or;
- B. Call for a public hearing on the proposal subject to the notice requirements stated in Section 17.72.120(D-F) (Applications – Public Hearings) of the Zoning Ordinance.



Planning Department
231 NE Fifth Street ◦ McMinnville, OR 97128
(503) 434-7311 Office ◦ (503) 474-4955 Fax
www.mcminnvilleoregon.gov

Office Use Only:
File No. _____
Date Received _____
Fee _____
Receipt No. _____
Received by _____

Planned Development Application

Applicant Information

Applicant is: Property Owner Contract Buyer Option Holder Agent Other _____

Applicant Name VJ2 Developers Phone 503-362-8232

Contact Name Don Jones Phone _____
(If different than above)

Address 695 Commercial Street

City, State, Zip Salem, OR 97301

Contact Email _____

Property Owner Information

Property Owner Name _____ Phone _____
(If different than above)

Contact Name _____ Phone _____

Address _____

City, State, Zip _____

Contact Email _____

Site Location and Description

(If metes and bounds description, indicate on separate sheet)

Property Address 2280-2298 NW Fendle Way

Assessor Map No. R4 418 00204 Total Site Area 3.79 AC

Subdivision Elysian Subdivision Block _____ Lot _____

Comprehensive Plan Designation Residential Zoning Designation R-1

1. Show in detail your request for a Planned Development. State the reason(s) for the request and the intended use(s) of the property: _____

The reason that a 5 FT setback for sideyards is proposed is to conform to similar planned developments in the area and to maximize building footprint area. The proposed use of the property is to be Low-Density Residential (R-1).

2. Describe the specific regulations this proposal wishes to modify (e.g., setbacks, density) and how the physical site conditions or objectives of the proposed development warrant a departure from those regulations: _____

The proposed planned development is requesting to modify the 10 FT setback per Chapter 17.12 Section 040 of the McMinnville Municipal Code for side yards to a 5FT setback from the property line to the edge of the building.

The proposed planned development is requesting to modify the minimum lot size standards of the R-1 zone from 9,000 square feet to 5,436 square feet.

3. Show in detail, by citing specific goals and policies, how your request is consistent with applicable goals and policies of the McMinnville Comprehensive Plan (Volume II): _____

See attached writeup.

4. Considering the pattern of development in the area and surrounding land uses, show, in detail, how the proposal is orderly and timely: _____

The proposed planned development is bordered on all sides by areas zoned as Residential (R-1). The property located to the west of the project site is zoned as Residential (R-1) and currently serves as a community park. See attached writeup for how the proposed planned development is consistent with the goals and policies of the City of McMinnville Comprehensive Plan (Volume II).

5. Describe any changes in the neighborhood or surrounding area which might support or warrant the request: _____

The surrounding planned developments ranges from 3-5 FT side yard setbacks. The proposed planned development will be consistent with the surrounding developments.

6. Document how the site can be efficiently provided with public utilities, including water, sewer, electricity, and natural gas, if needed, and that there is sufficient capacity to serve the proposed use: _____

See attached for the utilities plan.

7. Describe, in detail, how the proposed use will affect traffic in the area. What is the expected trip generation?

The proposed use is in accordance with the current zoning. The planned development proposes to connect the north and south dead ends of NW Meadows Drive. Therefore, this project will benefit traffic flow in the area and not have a negative impact.

The expected trip generation for this site is 7 trips per household, totaling to 126 trips for the 18-lot subdivision.

In addition to this completed application, the applicant must provide the following:

- A site plan (drawn to scale, legible, and of a reproducible size) indicating existing and proposed features such as: access; lot and street lines with dimensions in feet; distances from property lines; improvements; north direction arrow, and significant features (slope, vegetation, adjacent development, drainage, etc.).
- A legal description of the subject site, preferably taken from the deed.
- Compliance of Neighborhood Meeting Requirements.
- Payment of the applicable review fee, which can be found on the Planning Department web page.

I certify the statements contained herein, along with the evidence submitted, are in all respects true and are correct to the best of my knowledge and belief.


Applicant's Signature

8/21/20
Date

Property Owner's Signature

Date

Amended – Applicants Written Findings

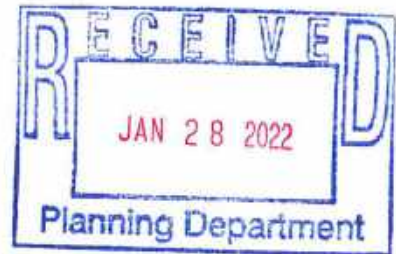
Great Neighborhood Principles, Planned Development, Comp Plan Volume II Goals and Policy, and Zone Change Findings

Request:

The applicant is requesting for a phased 18 lot Subdivision, with a Planned Development Overlay adjusting the zone side yard setbacks from 7 to 5 feet, and Zone Change Application (R-1 to R-3), which will allow an average lot size to be reduced from 9000 SF to 6000 SF. The applicant and City of McMinnville are currently in the DSL/ACOE wetland fill process and are now to the point that land use approval is required prior to wetland fill approval. The reason this is a joint (City and applicant) fill application is because a portion of the wetlands are located on the City parks property that will be dedicated to allow the construction of NW Meadows Drive.

List of Exhibits:

- Civil Drawings
 - Existing Conditions Plan
 - Subdivision Plan
 - Overall Utility Plan
 - Grading & Drainage Plan
 - Street & Storm Drain Plan and Profiles
 - Sanitary Sewer Plan & Profiles
 - Water Plans
- Revised Drainage Rehabilitation Plan (Terra Science)



Below are the required sections that must be addressed in order to obtain an approved Development Application. The relevant code sections are followed by the applicant's response in *italics*.

McMinnville Comprehensive Plan Vol. 2 – Great Neighborhood Principles: Policies:

187.10

The City of McMinnville shall establish Great Neighborhood Principles to guide the land use patterns, design, and development of the places that McMinnville VOLUME II Goals and Policies Page 70 citizens live, work, and play. The Great Neighborhood Principles will ensure that all developed places include characteristics and elements that create a livable, egalitarian,

healthy, social, inclusive, safe, and vibrant neighborhood with enduring value, whether that place is a completely new development or a redevelopment or infill project within an existing built area.

Applicant's response: The proposed subdivision is in accordance with the purpose of Policy 187.10 by creating a livable subdivision next to a city park. The project is an infill development with all infrastructure to be built per city standards with characteristics that create an egalitarian and vibrant neighborhood with enduring value. The project provides pedestrian access next to a city park to create a social, inclusive and safe neighborhood.

187.20

The Great Neighborhood Principles shall encompass a wide range of characteristics and elements, but those characteristics and elements will not function independently. The Great Neighborhood Principles shall be applied together as an integrated and assembled approach to neighborhood design and development to create a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood, and to create a neighborhood that supports today's technology and infrastructure, and can accommodate future technology and infrastructure.

Applicant's response: The proposed subdivision has applied the Great Neighborhood Principle together in the neighborhood design and development to create a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood, and to create a neighborhood that supports today's technology and infrastructure, and can accommodate future technology and infrastructure. In addition, the infill development is located next to a city park with pedestrian access to apply the Great Neighborhood Principles.

187.30

The Great Neighborhood Principles shall be applied in all areas of the city to ensure equitable access to a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood for all McMinnville citizens.

Applicant's response: The proposed infill development ensures equitable access to a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood for all McMinnville citizens by providing pedestrian access to the nearby city park and sidewalks throughout the development.

187.40

The Great Neighborhood Principles shall guide long range planning efforts including, but not limited to, master plans, small area plans, and annexation requests. The Great Neighborhood Principles shall also guide applicable current land use and development applications.

Applicant's response: The proposed subdivision is in accordance with the City of McMinnville Master Plan by using the Great Neighborhood Principles to guide the design and construction of the infill development.

187.50

The McMinnville Great Neighborhood Principles are provided below. Each Great Neighborhood Principle is identified by number below (numbers 1 – 13), and is followed by more specific direction on how to achieve each individual principle.

1. Natural Feature Preservation. Great Neighborhoods are sensitive to the natural conditions and features of the land.
 - a. Neighborhoods shall be designed to preserve significant natural features including, but not limited to, watercourses, sensitive lands, steep slopes, wetlands, wooded areas, and landmark trees.
2. Scenic Views. Great Neighborhoods preserve scenic views in areas that everyone can access.
 - a. Public and private open spaces and streets shall be located and oriented to capture and preserve scenic views, including, but not limited to, views of significant natural features, landscapes, vistas, skylines, and other important features.
3. Parks and Open Spaces. Great Neighborhoods have open and recreational spaces to walk, play, gather, and commune as a neighborhood.
 - a. Parks, trails, and open spaces shall be provided at a size and scale that is variable based on the size of the proposed development and the number of VOLUME II Goals and Policies Page 71 dwelling units.
 - b. Central parks and plazas shall be used to create public gathering spaces where appropriate.
 - c. Neighborhood and community parks shall be developed in appropriate locations consistent with the policies in the Parks Master Plan.
4. Pedestrian Friendly. Great Neighborhoods are pedestrian friendly for people of all ages and abilities.
 - a. Neighborhoods shall include a pedestrian network that provides for a safe and enjoyable pedestrian experience, and that encourages walking for a variety of reasons including, but not limited to, health, transportation, recreation, and social interaction.
 - b. Pedestrian connections shall be provided to commercial areas, schools, community facilities, parks, trails, and open spaces, and shall also be provided between streets that are disconnected (such as cul-de-sacs or blocks with lengths greater than 400 feet).
5. Bike Friendly. Great Neighborhoods are bike friendly for people of all ages and abilities.
 - a. Neighborhoods shall include a bike network that provides for a safe and enjoyable biking experience, and that encourages an increased use of bikes by people of all abilities for a variety of reasons, including, but not limited to, health, transportation, and recreation.
 - b. Bike connections shall be provided to commercial areas, schools, community facilities, parks, trails, and open spaces.
6. Connected Streets. Great Neighborhoods have interconnected streets that provide safe travel route options, increased connectivity between places and destinations, and easy pedestrian and bike use.
 - a. Streets shall be designed to function and connect with the surrounding built environment and the existing and future street network, and shall incorporate human scale elements including, but not limited to, Complete Streets features as defined in the Comprehensive Plan, grid street networks, neighborhood traffic management techniques, traffic calming, and safety enhancements.

- b. Streets shall be designed to encourage more bicycle, pedestrian and transit mobility with a goal of less reliance on vehicular mobility. VOLUME II Goals and Policies Page 72
- 7. Accessibility. Great Neighborhoods are designed to be accessible and allow for ease of use for people of all ages and abilities.
 - a. To the best extent possible all features within a neighborhood shall be designed to be accessible and feature elements and principles of Universal Design.
 - b. Design practices should strive for best practices and not minimum practices.
- 8. Human Scale Design. Great Neighborhoods have buildings and spaces that are designed to be comfortable at a human scale and that foster human interaction within the built environment.
 - a. The size, form, and proportionality of development is designed to function and be balanced with the existing built environment.
 - b. Buildings include design elements that promote inclusion and interaction with the right-of-way and public spaces, including, but not limited to, building orientation towards the street or a public space and placement of vehicle oriented uses in less prominent locations.
 - c. Public spaces include design elements that promote comfortability and ease of use at a human scale, including, but not limited to, street trees, landscaping, lighted public areas, and principles of Crime Prevention through Environmental Design (CPTED).
- 9. Mix of Activities. Great Neighborhoods provide easy and convenient access to many of the destinations, activities, and local services that residents use on a daily basis.
 - a. Neighborhood destinations including, but not limited to, neighborhood serving commercial uses, schools, parks, and other community services, shall be provided in locations that are easily accessible to surrounding residential uses.
 - b. Neighborhood-serving commercial uses are integrated into the built environment at a scale that is appropriate with the surrounding area.
 - c. Neighborhoods are designed such that owning a vehicle can be optional.
- 10. Urban-Rural Interface. Great Neighborhoods complement adjacent rural areas and transition between urban and rural uses.
 - a. Buffers or transitions in the scale of uses, buildings, or lots shall be provided on urban lands adjacent to rural lands to ensure compatibility.
- 11. Housing for Diverse Incomes and Generations. Great Neighborhoods provide housing opportunities for people and families with a wide range of incomes, and VOLUME II Goals and Policies Page 73 for people and families in all stages of life.
 - a. A range of housing forms and types shall be provided and integrated into neighborhoods to provide for housing choice at different income levels and for different generations.
- 12. Housing Variety. Great Neighborhoods have a variety of building forms and architectural variety to avoid monoculture design.
 - a. Neighborhoods shall have several different housing types.
 - b. Similar housing types, when immediately adjacent to one another, shall provide variety in building form and design.
- 13. Unique and Integrated Design Elements. Great Neighborhoods have unique features, designs, and focal points to create neighborhood character and identity. Neighborhoods shall be encouraged to have:

- a. Environmentally friendly construction techniques, green infrastructure systems, and energy efficiency incorporated into the built environment.
- b. Opportunities for public art provided in private and public spaces.
- c. Neighborhood elements and features including, but not limited to, signs, benches, park shelters, street lights, bike racks, banners, landscaping, paved surfaces, and fences, with a consistent and integrated design that are unique to and define the neighborhood. (Ord 5066 §2, April 9, 2019)

Applicant's response:

- (1.) *The proposed subdivision is proposing to relocate the man made ditches and wetlands associated with the construction of the Shadden Claim development. A portion of the existing man made wetlands will be preserved and enhanced along the southern section of the development (refer to the Drainage Rehabilitation Plan). The existing man made ditch and associated wetlands are proposed to be filled in order to connect Meadows Drive and provide lots along the street to border the neighborhood park, while the wetlands along the southern boundary of the subject property are proposed to be enhanced. The enhanced drainage ditch allows drainage from the parks property to the west to match the existing flow path to the east, connecting to the existing ditch. The existing ditch/wetlands will be enhanced with landscaping as shown the wetland-fill landscape restoration plan (refer to the Drainage Rehabilitation Plan). Therefore, the intent of the principle has been met.*
- (2.) *The proposed subdivision is located near a park and provides approximately 15,086 square feet of open space to preserve the scenic views that currently exist.*
- (3.) *The proposed subdivision is located across the street from the Jay Pearson Neighborhood Park. In addition, a public access is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park.*
- (4.) *Sidewalks are proposed along the Meadows Drive connection as well as the proposed cul-de-sac extension of NW Fendle Way. In addition, a 10ft wide multiuse public access sidewalk is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park.*
- (5.) *The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. Per the TSP a local street and minor collectors have shared street access with bikes and vehicle's. In addition, a 10ft wide concrete multiuse path is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. Therefore, the development is bike friendly and provides bike connections to the surrounding neighborhood.*
- (6.) *The proposed subdivision will connect the north and south dead-end street of Meadows Drive and extend Fendle Way to terminate in a cul-de-sac. The proposed development will also be constructed with sidewalks and a multiuse path to connect NW Fendle Way and Meadows Drive. This connection will provide multiuse access from the neighborhood to the city park located west of the subdivision.*

- (7.) *The proposed subdivision street, sidewalk and pedestrian access grades are relatively flat and will be designed to meet all public works design standards and ADA Standards. Therefore, the development will allow ease of use people with all ages. Except for the proposed wetlands that are being preserved, all of the proposed development is proposed to be designed.*
- (8.) *The proposed development is an infill development. The proposed lots will face either the extension of Fendle Way or the connection of Meadows Drive or a public use area. The building will have garages so the vehicles could be stored out of view. The allowable building sizes based on the setbacks will balance with the proposed street extensions and be compatible with the surrounding neighborhood. Meadows Drive and Fendle Way will all have landscaping, street lights, street trees to promote a comfortable and ease of use throughout the built environment. In addition, the 10ft wide multiuse path to connect the public built environment of Fendle Way and NW Meadows Drive that provide a greater ease of use of the built environment. These design elements promote comfort, ease of use and the principles of Crime Prevention through Environmental Design.*
- (9.) *The proposed subdivision provides public access along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. This connection will provide efficient pedestrian access that allows for owning a vehicle to be optional.*
- (10.) *The proposed subdivision is designed in accordance to blend with the surrounding neighborhood with lot sizes and building design that is consistent with the existing surrounding neighborhood.*
- (11.) *The proposed development provides housing for diverse incomes and different generations by the combination of varying lots sizes, rezoning from R-1 to R-3 and HB 2001. As shown on the subdivision plan the lot sizes vary from 5436 SF to 8363 SF, which would not be allowed under current zoning. In addition, the R-3 zone allows dual family living in addition to single family dwelling. This coupled with HB 2001, which allows multifamily development on single family residential zoned property creates the option for numerous housing types for diverse incomes spanning different generations.*
- (12.) *The applicant is proposing to sell the lots to multiple buyers, therefore, building types will be varied by each buyer. This can be ensured with a condition of approval.*
- (13.) *The proposed infill development will have unique features, designs, and focal points to create neighborhood character and identity. As shown on the Grading Plan, the development utilizes green infrastructure system known as a bioswale to treat stormwater prior to entering the existing drainage way. Another unique feature will be the relocated and enhanced wetland (Refer to the Drainage Rehabilitation Plan) that will be adjacent to the multiuse path connecting Fendle Way and Meadows. The proposed homes will all be required to be constructed per the new building and energy codes, this will ensure energy efficiency into the built environment. The development does not preclude opportunities for public art provided in private and public spaces. This can be ensured by a condition of approval that the City has to review and approve the HOA governing documents to ensure public art is not excluded. As shown on the subdivision plan there are two benches located along the concrete multiuse path, with enhanced landscaping in the relocated wetland and the green stormwater system, a fence along the wetland and green stormwater system. All*

these components provide a consistent and integrated design that are unique to define the neighborhood.

Planned Development – Chapter 17.51:

17.51.010 – Purpose

The purpose of a planned development is to provide greater flexibility and greater freedom of design in the development of land than may be possible under strict interpretation of the provisions of the zoning ordinance. Further, the purpose of a planned development is to encourage a variety in the development pattern of the community; encourage mixed uses in a planned area; encourage developers to use a creative approach and apply new technology in land development; preserve significant man-made and natural features; facilitate a desirable aesthetic and efficient use of open space; and create public and private common open spaces. A planned development is not intended to be simply a guise to circumvent the intent of the zoning ordinance. Such plan should accomplish substantially the same general objectives as proposed by the comprehensive plan and zoning ordinance for the area;

Applicant's response: There are many special objectives of the development of the subject properties the Applicant is attempting to achieve with the application for the proposed planned development overlay.

(1) Provide a diversity of lot sizes that will contribute to variety in the development pattern of the community housing, and varied housing sizes and styles, which will correlate to various price points to meet today's market need of home consumers in McMinnville. The applicant is proposing meet this special objective with a concurrent zone change from R-1 to R-3 to provide lot sizes ranging from rezoning from 5436 SF to 8363 SF and reduced side yard setbacks from 7ft to 5ft, which would not be allowed under current zoning. In addition, the R-3 zone allows dual family living in addition to single family dwelling. This coupled with HB 2001, which allows multifamily development on single family residential zoned property creates the option for numerous housing types for diverse incomes spanning different generations. The applicant is proposing to sell the lots to several different builders to further provide variety in the development pattern.

(2) Meet a desire to preserve and enhance the manmade features to create desirable aesthetic and efficient use of public open spaces. The applicant proposes to meet this important objective by enhancing the manmade drainage way along the southern property boundary by expanding it and landscaping the existing drainage ditch to provide aesthetically pleasing open area (Refer to the Drainage Rehabilitation Plan). Adjacent to this open area will be a 10ft wide multipurpose access way with benches that can be utilized by the public. This open area will enhance the existing manmade features providing and aesthetically pleasing open area that is also an efficient use of public open spaces.

17.51.020 Standards and requirements.

The following standards and requirements shall govern the application of a planned development in a zone in which it is permitted:

A. The principal use of land in a planned development shall reflect the type of use indicated on the comprehensive plan or zoning map for the area. Accessory uses within the development may include uses permitted in any zone, except uses permitted only in the M-2 zone are excluded from all other zones. Accessory uses shall not occupy more than twenty-five percent of the lot area of the principal use;

Applicant's response: The subject property has a residential designation on the comprehensive plan. The proposed development is a residential development, therefore this objective has been met.

B. Density for residential planned development shall be determined by the underlying zone designations. (Ord. 4128 (part), 1981; Ord. 3380 (part), 1968).

The proposed development with concurrent zone change to R-3, subdivision and PD, the proposed lot size ranges in size from 5,436 SF to 8,363 SF, and lot density of 4.8 dwelling units/acre. The proposed density can be met with the approval of the concurrent application. This Policy can be met and can be ensured by conditions of approval for the concurrent zone change, PD and subdivision applications.

17.51.030 (C.) – Procedure

C. The Commission shall consider the preliminary development plan at a meeting at which time the findings of persons reviewing the proposal shall also be considered. In reviewing the plan, the Commission shall need to determine that:

1. There are special physical conditions or objectives of a development which the proposal will satisfy to warrant a departure from the standard regulation requirements;

Applicant's response: There are special physical conditions and objectives of the development of the subject property the Applicant is attempting to achieve with the application for the proposed planned development overlay.

Special Physical Conditions (1) The special physical conditions of the site include the infill nature of the development (surrounded by residential development with a neighborhood park to the west) and the manmade drainages onsite limit the configurations of development. In addition, the manmade wetlands under the Meadows Drive connection and along the phase line are proposed to be filled. However, the applicant is proposing to enhance the manmade wetland ditch along the south property line to ensure proper drainage, and provide enhanced physical conditions of the site. The special conditions warrant deviation of the standard requirements.

Objective (1) Provide a diversity of lot sizes and setback flexibility that will contribute to variety in the development pattern of the community housing, and varied housing sizes and styles. The applicant is also proposing a concurrent zone change from R-1 to R-3 to provide lot sizes ranging from rezoning from 5436 SF to 8363 SF and reduced side yard setbacks from 7ft to 5ft, which would not be allowed with a Planned Development Overlay and/or Zone Change. The applicant is proposing to sell the lots to several different builders to further provide variety in housing types and styles to home consumers in McMinnville. The reduced side yard setback provides the builders more flexibility in housing types and styles.

2. Resulting development will not be inconsistent with the Comprehensive Plan objectives of the area;

Applicant's response: Please refer to the applicant's response to the Comprehensive Plan objectives below. The application is consistent with the Comprehensive Plan.

3. The development shall be designed so as to provide for adequate access to and efficient provision of services to adjoining parcels;

Applicant's response: The proposed development is an infill development. The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. In addition, a 10ft wide concrete multiuse path is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. Therefore, access to the existing surrounding streets will provide efficient access to services to adjoining parcels.

4. The plan can be completed within a reasonable period of time;

Applicant's response: The applicant is proposing to construct the improvements in the summer of 2022 for lots to be sold in the fall and winter of 2022. This development is typical in the industry. Therefore, this objective has been met.

5. The streets are adequate to support the anticipated traffic, and the development will not overload the streets outside the planned area;

Applicant's response: The proposed development is an infill development. The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. In addition, a 10ft wide concrete multiuse path. The density of units is consistent with the City's TSP and therefore will not overload the streets outside the planned area.

6. Proposed utility and drainage facilities are adequate for the population densities and type of development proposed;

Applicant's response: Refer to the civil plans. As shown the civil plans, the applicant is proposing to extend existing sewer and water systems to service the development. The proposed density (4.8 units/acre) is less than the 6 units/acre utilized in the City Sanitary Sewer Conveyance System Master Plan to size the sewer mains. The applicant is proposing to provide stormwater detention in accordance with the City's Storm Drainage Master Plan, which accounts for lot density. All utility design will be in accordance with City standards. Therefore this standard is met.

7. The noise, air, and water pollutants caused by the development do not have an adverse effect upon surrounding areas, public utilities, or the city as a whole;

Applicant's response: The proposed development will not create a land use that will cause noise incompatibility with surrounding uses. The proposed development will not facilitate any use generating major air emissions beyond what is expected for residential development. The proposed development plans to capture, detain and treat stormwater runoff in a combination swale and detention facility, therefore typical stormwater pollutants and will not have an adverse affect on surrounding areas. The public utilities are all sized to be consistent with the City's Sewer Conveyance and Storm Drainage Master Plans, and therefore will not have an adverse effect on public utilities or the City as a whole.

Comprehensive Plan Volume II Goals & Policies

GOAL V 2: TO PROMOTE A RESIDENTIAL DEVELOPMENT PATTERN THAT IS LAND INTENSIVE AND ENERGY-EFFICIENT, THAT PROVIDES FOR AN URBAN LEVEL OF PUBLIC AND PRIVATE SERVICES, AND THAT ALLOWS UNIQUE AND INNOVATIVE DEVELOPMENT TECHNIQUES TO BE EMPLOYED IN RESIDENTIAL DESIGNS.

Policies:

68.00 The City of McMinnville shall encourage a compact form of urban development by directing residential growth close to the city center, to designated neighborhood activity centers, and to those areas where urban services are already available before committing alternate areas to residential use. (Ord. 5098, December 8, 2020)

Applicant's response: The proposed development is an infill development located within and existing neighborhood, where urban services such as parks (across the street), connecting streets (Meadows Lane and Fendle Way), sewer, water and drainage are all available to service the proposed development.

69.00 The City of McMinnville shall explore the utilization of innovative land use regulatory ordinances which seek to integrate the functions of housing, commercial, and industrial developments into a compatible framework within the city.

Applicant's response: The existing property is zoned residential and is within and compliant with the existing land use regulatory ordinances.

70.00 The City of McMinnville shall continue to update zoning and subdivision ordinances to include innovative land development techniques and incentives that provide for a variety of housing types, densities, and price ranges that will adequately meet the present and future needs of the community.

Applicant's response: The City has updated zoning and subdivision ordinances including the Great Neighborhood Principles, allows PD's which vary lot size and provide different housing types, densities and corresponding price ranges, such as the proposed development.

71.00 The City of McMinnville shall designate specific lands inside the urban growth boundary as residential to meet future projected housing needs. Lands so designated may be developed for a variety of housing types. All residential zoning classifications shall be allowed in areas designated as residential on the Comprehensive Plan Map.

Applicant's response: The proposal is allowed within the residential designation of on the Comprehensive Plan and will provide land intensive, energy efficient housing types.

71.05 The City of McMinnville shall encourage annexations and rezoning which are consistent with the policies of the Comprehensive Plan so as to achieve a continuous five-year supply of

buildable land planned and zoned for all needed housing types. (Ord.4840, January 11, 2006; Ord. 4243, April 5, 1983; Ord. 4218, November 23, 1982)

Applicant's response: The proposed development is consistent with the policies of the Comprehensive Plan. The proposed development proposes to increase the density to provide a supply of several different types of needed housing.

71.09 Medium and High-Density Residential (R-3 and R-4) - The majority of residential lands in McMinnville are planned to develop at medium density range (4 – 8 dwelling units per net acre). Medium density residential development uses include small lot single-family detached uses, single family attached units, duplexes and triplexes, and townhouses. High density residential development (8 – 30 dwelling units per net acre) uses typically include townhouses, condominiums, and apartments:

Applicant's response: The proposal proposes to develop the residential land at 4.8 dwelling units/acre with the proposed R-1 to R-3 zone change, therefore we are proposing to develop on the low end of the medium density range which is consistent with the standard.

1. Areas that are not committed to low density development;

Applicant's response: The proposed development is not located on residential ground committed to low density development.

2. Areas that have direct access from collector or arterial streets; or a local collector street within 600' of a collector or arterial street;

Applicant's response: The proposed development is located adjacent a collector (NW Meadows Drive).

3. Areas that are not subject to development limitations such as topography, flooding, or poor drainage;

Applicant's response: The site is relatively flat (refer to the Existing Conditions Plan and Grading and Drainage Plans) and is not located within a mapped flood plain. The applicant is proposing to enhance the wetlands onsite and provide drainage improvements. Therefore this policy is met.

4. Areas where the existing facilities have the capacity for additional development;

Applicant's response: The proposed development is an infill development consistent with surrounding landuse density, adjacent a public park, a minor collector, and a local street, and will meet the City Facilities Plan, TSP and Drainage Master Plan for development.

5. Areas within one-quarter mile of existing or planned public transportation.

Applicant's response: There is public transportation located along Baker Creek Road. The proposed project is 755 ft from Baker Creek Road with is within ¼ mile of the existing public transportation.

Planned Development Policies:

72.00 Planned developments shall be encouraged as a favored form of residential development as long as social, economic, and environmental savings will accrue to the residents of the development and the city.

Applicant's response: The proposal is for the purpose of providing for cost effective and efficient single family detached units. The residents of the proposed Planned Development have ready access to a designated neighborhood park, within a ¼ mile of an existing private golf course, and adjacent to Rehabilitated Drainage. The proposal will allow the construction of a Planned Development that will provide for a variety of homes with a variety of housing costs to the citizens of McMinnville. This Policy has been met.

73.00 Planned residential developments which offer a variety and mix of housing types and prices shall be encouraged.

Applicant's response: The proposal will provide for single family residential homes on individual lots of various sizes, ranging from 5,436 SF to 8,363 SF. It will provide for homes that will be affordable to the residents of the City with moderate incomes. This Policy has been met.

74.00 Distinctive natural, topographic, and aesthetic features within planned developments shall be retained in all development designs.

Applicant's response: As shown on the survey there are a couple of man made drainage ditches that were intended to be temporary with the Shadden Claim development to the north. There are two ditches, one that drains the park and the other that drains Meadows Drive. These ditches are considered wetlands by the most recent standards. We are proposing to fill the drainage ditch under Meadows Drive and widen and enhance the existing drainage ditch/wetlands that drains the park and flows along the southern property boundary. This ditch is proposed to be retained and enhanced, therefore this policy has been met.

75.00 Common open space in residential planned developments shall be designed to directly benefit the future residents of the developments. When the open space is not dedicated to or accepted by the City, a mechanism such as a homeowners association, assessment district, or escrow fund will be required to maintain the common area. VOLUME II Goals and Policies Page 26.

Applicant's response: The dedicated open space is proposed to be owned by a homeowners association and will thereby benefit the future residents of the development. This can be ensured by a condition of approval.

76.00 Parks, recreation facilities, and community centers within planned developments shall be located in areas readily accessible to all occupants.

Applicant's response: The open space and associated multiuse path with benches is connected to all lots of the proposed development by a sidewalk in accordance with ADA standards and therefore is readily accessible to all applicants.

77.00 The internal traffic system in planned developments shall be designed to promote safe and efficient traffic flow and give full consideration to providing pedestrian and bicycle pathways.

Applicant's response: The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. Per the TSP a local street and minor collectors have shared street access with bikes and vehicle's. In addition, a 10ft wide concrete multiuse path is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. Therefore, the development has given full consideration to providing pedestrian and bicycle pathways.

78.00 Traffic systems within planned developments shall be designed

Applicant's response: The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. These streets are proposed to be designed to meet the City design standards, TSP and prepared by a licensed civil engineer. Therefore this policy is met.

Residential Design Policies:

79.00 The density allowed for residential developments shall be contingent on the zoning classification, the topographical features of the property, and the capacities and availability of public services including but not limited to sewer and water. Where densities are determined to be less than that allowed under the zoning classification, the allowed density shall be set through adopted clear and objective code standards enumerating the reason for the limitations, or shall be applied to the specific area through a planned development overlay. Densities greater than those allowed by the zoning classification may be allowed through the planned development process or where specifically provided in the zoning ordinance or by plan policy. (Ord. 4796, October 14, 2003)

Applicant's response: The proposed development with concurrent zone change to R-3, subdivision and PD, the lot size ranges in size from 5,436 SF to 8,363 SF, and lot density of 4.8 dwelling units/acre. The proposed density can be met with the approval of the concurrent application. This Policy can be met and can be ensured by conditions of approval for the concurrent zone change, PD and subdivision applications.

80.00 In proposed residential developments, distinctive or unique natural features such as wooded areas, isolated preservable trees, and drainage swales shall be preserved wherever feasible.

Applicant's response: As shown on the survey there are a couple of man made drainage ditches that were intended to be temporary with the Shadden Claim development to the north. There are two ditches, one that drains the park and the other that drains Meadows Drive. These ditches are considered wetlands by the most recent standards. We are proposing to fill the drainage ditch under Meadows Drive and widen and enhance the existing drainage ditch/wetlands that drains the park and flows along the southern property boundary. This ditch is proposed to be retained and enhanced (Refer to the Drainage Rehabilitation Plan), therefore this policy has been met.

81.00 Residential designs which incorporate pedestrian and bikeway paths to connect with activity areas such as schools, commercial facilities, parks, and other residential areas, shall be encouraged.

Applicant's response: The concurrent proposed Zone Change/PD/Subdivision will provide necessary street improvements including the provision of curbs, gutter, sidewalks and planter strips on all of the streets within the proposed development. The necessary linkage for pedestrians in this area to the school property, park, commercial area and the private open spaces has been met.

82.00 The layout of streets in residential areas shall be designed in a manner that preserves the development potential of adjacent properties if such properties are recognized for development on the McMinnville Comprehensive Plan Map.

Applicant's response: The proposed development is an infill development and the adjacent properties are already developed, therefore this policy is met.

83.00 The City of McMinnville shall review the design of residential developments to insure site orientation that preserves the potential for future utilization of solar energy.

Applicant's response: The lots have been as detached dwelling units, therefore they can have windows on all four sides of each building allowing for solar passive gains. Upon development of the lots the contractor could install solar panel on structures, but is not included in this proposal. This policy has been met.

Zone Change Criteria:

- A. The proposed amendment is consistent with the goals and policies of the Comprehensive Plan

Applicant's response: Please refer to the Comprehensive plan goals and policies written findings above.

- B. The proposed amendment is orderly and timely, considering the pattern of development in the area, surrounding land uses, and any changes with may have occurred in the neighborhood of community to warrant the proposed amendment.

Applicant's response: The proposed development is an infill development that proposes to connect existing streets and extend existing streets and provide pedestrian and bike access between both new public streets. The applicant is proposing to construct the improvements in the summer of 2022 for lots to be sold in the fall and winter of 2022. Therefore, the amendment is orderly and timely. In the last couple years the surrounding area has developed as a medium density neighborhood (Baker Creek West Subdivision). The proposed lot density is similar to the surrounding area. The applicant is proposing to provide a medium density neighborhood with a variety of lot sizes, therefore this criteria has been meet.

- C. Utilities and services can be efficiently provided to serve the proposed uses or other potential uses in the proposed zoning district.

Applicant's response: Refer to the civil plans. The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. In addition, a 10ft wide concrete multiuse path. The density of units is consistent with the City's TSP and therefore will not overload the streets outside the planned area.

As shown the civil plans, the applicant is proposing to extend existing sewer and water systems to service the development. The proposed density (4.8 units/acre) is less than the 6 units/acre utilized in the City Sanitary Sewer Conveyance System Master Plan to size the sewer mains. The applicant is proposing to provide stormwater detention in accordance with the City's Storm Drainage Master Plan, which accounts for lot density. All utility design will be in accordance with City standards. Therefore this criteria is met.

TERRA SCIENCE, INC.

Soil, Water & Wetland Consultants

**REVISED DRAINAGE REHABILITATION PLAN FOR THE
ELYSIAN IN-FILL SUBDIVISION PROJECCT
CITY OF MCMINNVILLE, YAMHILL COUNTY, OREGON**

Prepared for

OREGON DEPARTMENT OF STATE LANDS

775 Summer Street Northeast, Suite 100

Salem, Oregon 97301-1279

(Application 62609-RF)

and

U.S. ARMY CORPS OF ENGINEERS

Permit Compliance--Yamhill County

Post Office Box 2946

Portland, Oregon 97208-2946

(Action Number NWP 2020-374)

Prepared by

TERRA SCIENCE, INC.

4710 S.W. Kelly Avenue, Suite 100

Portland, Oregon 97239

TSI 2020-0721

December 2020

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County
DSL Permit Application 62609-RF and USACE NWP 2020-374

1.0 Introduction and Background

On behalf of VJ-2 Development (Applicant), Terra Science, Inc. (TSI) has prepared the following rehabilitation plan for the Elysian In-Fill Subdivision project located in the City of McMinnville, Yamhill County, Oregon. Drainage rehabilitation efforts discussed herein would occur within Tax lot 204 on Yamhill County Assessor's map Township 04 South, Range 04 West, Section 18AC, Willamette Meridian. The centroid of the proposed rehabilitation action footprint is approximated at 45.223416° north and -1223.222937° west.

The project is currently being reviewed for Oregon Department of State Lands (DSL) Application 62609-RF and U.S. Army Corps of Engineers (USACE) Application NWP 2020-374. Materials herein supersede rehabilitation plans outlined in TSI's August 2020 plan.

2.0 Existing Site Conditions

The project site is situated on relatively flat terraces completely surrounded by residential development. Conditions of the project area are documented within the Pacific Habitat Services, Inc. (PHS) August 2018 *Wetland Delineation for the Meadows Drive property (Tax Lot 204) in McMinnville, Oregon* (DSL Determination WD WD#2019-0081) and March 2015 *Wetland Delineation for the NW Neighborhood Park Site* (DSL determination WD#2015-0122). As reviewed and concurred with by DSL, PHS defined Wetland A and a non-jurisdictional Excavated Ditch 1.

For the purposes of this report and Joint Permit Application (JPA) exercises, the PHS Wetland A feature has been dissected into three distinct features. Sub-delineation is based on the variable characteristics of Wetland A, including differences in vegetation, disturbances, Cowardin, and Oregon Hydrogeomorphic (OHGM) classifications. Specifically, the eastern edge of Wetland A (and upgradient upland) has been excavated to create a stormwater conveyance ditch while the southern edge of Wetland A has been excavated to form a subtle ditch (defined as the headwaters of the North Fork Cozine Creek). The remainder of Wetland A consists of a relatively flat alluvial terrace primarily supporting weedy, facultative (FAC) grass species. The following details sub-features of the PHS Wetland A polygon:

Excavated Stormwater Ditch: Originating in the northwest corner of the project area, this excavated feature originates from stormwater infrastructure beneath the existing NW Meadows Drive road stub. Constructed circa 2000, the feature conveys stormwater from the adjacent residential subdivisions south and into Wetland A. The feature flows through approximately twenty feet (20') of (remnant agricultural) culvert in the central portion. The north portion of the ditch (constructed in historic uplands) is typically three to four feet lower than surrounding terraces while the southern portion is one foot deeper than the surrounding landform. The north portion is contained in a thicket of *Populus balsamifera*, *Salix lasiandra*, and *Rubus armeniacus* established along the top-of-bank; the bottom of the feature primarily supports *Typha latifolia* and *Veronica spp.* Ultimately, this feature meets the excavated headwaters of North Fork Cozine Creek in the southeast corner of the project

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County
DSL Permit Application 62609-RF and USACE NWP 2020-374

site. This ditch best qualifies as Palustrine, Emergent, Saturated / Semipermanently / Seasonally Flooded, excavated (PEMYx) and Riverine Flow Through (RFT) OHGM classification.

The entirety of the Excavated Stormwater Ditch is proposed to be permanently impacted for this project. At the request of DSL Coordinator DeBlasi, a Stream Function Assessment Method for Oregon (SFAM) analysis was conducted for this feature in November 2020 (provided as report Appendix B).

North Fork of Cozine Creek: Originating at stormwater infrastructure immediately east of the (offsite) Westside Greenway Path, this feature consists of a shallow excavated ditch created circa 2010. The feature extends along the south portion of the project area until it joins the Excavated Stormwater Ditch then flows offsite. The ditch is typically one foot lower than the surrounding terraces and is primarily dominated by *Typha latifolia* and *Veronica spp.* Similar to the Stormwater Ditch, this feature is supported by stormwater runoff from adjacent subdivision developments. The feature best qualifies as Cowardin class PEMYx with a RFT OHGM classification. At the request of DSL Coordinator DeBlasi, a SFAM analysis was conducted for this feature in November 2020 (provided as report Appendix B).

Wetland A: Centrally located within the project area, this feature consists of a remnant agricultural terrace which now supports a non-native facultative community dominated by *Holcus lanatus*, *Epilobium ciliatum*, *Schedonorus arundinacea*, and *Cirsium arvense*. Relatively flat, this feature is primarily supported by precipitation and upslope seasonal groundwater seepage (PHS, 2018). The feature best qualifies as PEMY with a Slope / Flats OHGM classification. As wetland, an Oregon Rapid Wetland Assessment Protocol (ORWAP) functional analysis was conducted for this feature (included as JPA Appendix H).

3.0 Proposed Development

Applicant's project consists of a two phased, eighteen (18)-lot single-family residential subdivision. This in-fill development is divided into two phases: Phase I involves connecting NW Meadows Drive currently terminated within subdivisions to the north and south; six residential lots would be constructed adjacent the Meadows Drive extension. Phase II involves construction of the remaining twelve lots surrounding the proposed Fendle Way cul-de-sac construction. Stormwater generated by new impervious cover would be conveyed to Low Impact Development (LID) stormwater treatment facilities situated within the southeast corner of the development. Water, electric, gas, communication and sanitary sewer utility line infrastructure would be extended into each phase from adjacent subdivision developments.

Approximately 180 linear feet (LF) of North Fork Cozine Creek east of the proposed NW Meadows Drive connection would be enhanced and rehabilitated within dedicated community open spaces along the southern project boundary. Identified stormwater infrastructure facilities and the drainage rehabilitation portions of the project would be constructed during Phase I of subdivision construction (anticipated to occur in summer 2021).

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County
DSL Permit Application 62609-RF and USACE NWP 2020-374

4.0 Drainage Rehabilitation Goals and Objectives

Drainage rehabilitation goals include:

1. Excavation of a more naturalistic and slightly sinuous channel during Phase I site construction (in summer 2021);
2. Installation of native trees, shrubs and herbaceous species to facilitate adjacent wetland and riparian community development (in fall 2021);
3. Placement of the rehabilitated ditch feature (LID stormwater facility, and adjacent riparian areas) within a separate and dedicated open space tract to be owned and managed by the (pending) Home Owners Association (HOA), and;
4. Management of the dedicated open space in accordance with Westech Engineering, Inc.s' (WEI) June 2020 *Stormwater Management Report Prepared for VJ2 Development* (provided as JPA Appendix C).
5. Provide immediate and local replacement of impacted function and values potentially lost via development of the existing Excavated Stormwater Ditch and North Fork Cozine Creek ditches.

To aid in design considerations for the North Fork Cozine Creek rehabilitation project, existing and future site conditions are analyzed by applying Oregon's Stream Function Assessment Method for Oregon (SFAM). First, SFAM calculators assessed existing channel attributes of the Excavated Stormwater Ditch and ditched North Fork Cozine Creek; next, the future condition of the enhanced channel and riparian corridor is calculated based on anticipated topography, hydrology, plant communities and habitat characteristics.

As outlined in Table 1, the proposed rehabilitation is anticipated to result in immediate local gains of stream function and value. Specifically, function and value ratings increases are anticipated for Hydrology Function and Geomorphic Function. While calculating similar ratings, the proposed condition would also provide higher scores for Biologic Function.

SFAM reporting for the existing excavated features is provided in JPA Appendix H. SFAM reporting for the anticipated North Fork Cozine Creek enhancement zone are provided as Appendix B of this report.

TERRA SCIENCE, INC.

Soil, Water & Wetland Consultants

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County

DSL Permit Application 62609-RF and USACE NWP 2020-374

Table 1. SFAM summary for representative excavated drainage impacts and proposed rehabilitation channel.

Grouped Functions		Existing Conditions				Proposed Conditions	
		Excavated Stormwater Ditch		North Fork Cozine Creek Ditch		Enhanced North Fork Cozine Creek	
		Representative Function	Rating	Representative Function	Rating	Representative Function	Rating
Hydrologic Function	Function Rating	FV	Moderate	FV	Moderate	SWS	Moderate
	Value Rating		Moderate		Moderate		Higher
Geomorphic Function	Function Rating	SC	Moderate	SM	Moderate	SC	Higher
	Value Rating		Moderate		Higher		Moderate
Biologic Function	Function Rating	STS	Lower	STS	Moderate	STS	Moderate
	Value Rating		Moderate		Moderate		Moderate
Water Quality Function	Function Rating	CR	Lower	CR	Moderate	TR	Moderate
	Value Rating		Moderate		Moderate		Moderate

Function Modifiers:

FV: Flow Variation SWS: Surface Water Storage SC: Sediment Continuity
 STS: Sustain Trophic Structure CR: Chemical Regulation TR: Thermal Regulation

The rehabilitated channel and associated wetland / upland riparian corridor would provide immediate function and value benefits to the North Cozine Creek headwaters. When coupled with purchase of compensatory mitigation credits at the Mud Slough Wetland Mitigation Bank, the rehabilitation project is anticipated to offset and increase aquatic function and values lost by the proposed development.

5.0 Construction Methods and Specifications

Prior to construction, Applicant’s team of selected contractors and project engineers would meet to review construction plans and (pending) agency authorizations. Erosion and sediment control measures outlined within WEI’s Erosion and Sediment Control Plan (provided as JPA Appendix D) would then be installed prior to commencing earthwork. Target elevations and drainage configurations would then be surveyed and field marked. All drainage rehabilitation activities would occur during the Phase I construction period between June 01 and October 15, 2021.

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County
 DSL Permit Application 62609-RF and USACE NWP 2020-374

Construction would begin at the upgradient end of the drainage during NW Meadows Drive construction; actions would expand easterly towards the point where the feature leaves the subject parcel. Grading is anticipated to utilize excavators, haul trucks and similar equipment (as deemed necessary) to achieve target grades. The final channel would be slightly wider than the existing ditch and would have a low- and high flow profile bench (which would continue to qualify as wetland). Abandoned sections of the existing ditch (at the confluence of the Excavated Stormwater Ditch) would be permanently filled for construction of the LID stormwater facility; these abandoned areas have been calculated within the impact analysis (detailed within the JPA).

Areas adjacent the rehabilitated drainage would be managed as wetland / upland riparian corridor. Existing *Rubus armeniacus* brambles would be mechanically removed during rehabilitation actions. Existing trash, debris, and piles of fill material would be removed to create a relatively flat terrace adjacent the drainage.

Upon completion of construction actions, native seed mixtures and tackifiers would be hydroseed broadcast throughout the rehabilitation zone and LID stormwater facility. Next, contractors would identify target planting zones for installation of new woody materials throughout the relocated drainage, stormwater basin, and riparian areas. All materials would be installed in accordance with Clean Water Services standards¹. Materials would be grouped together in small clumps of five to seven individuals to create a naturalistic appearance. The following table outlines anticipated species and quantities to be installed throughout the dedicated riparian corridor.

Table 2. Material installation specifications.

Common Name / Scientific Name	Condition	Quantity
<u>Relocated / Enhanced Drainage</u>		
Tall mannagrass (<i>Glyceria elata</i>)	Seed	1.0 lbs.
Western mannagrass (<i>Glyceria occidentalis</i>)	Seed	2.5 lbs.
Slough sedge (<i>Carex obnupta</i>)	Emergent Plug	100
Spreading rush (<i>Juncus patens</i>)	Emergent Plug	100
Douglas spirea (<i>Spirea douglasii</i>)	Bareroot	50
<u>Riparian Corridor</u>		
Riverbank lupine (<i>Lupinus rivularis</i>)	Seed	7.0 lbs.
Tufted hairgrass (<i>Deschampsia cespitosa</i>)	Seed	1.0 lbs.
Western mannagrass (<i>Glyceria occidentalis</i>)	Seed	4.0 lbs.
Yarrow (<i>Achillea millefolium</i>)	Seed	0.5 lbs.
Soft rush (<i>Juncus effusus</i>)	Emergent Plug	250 lbs.
Oregon ash (<i>Fraxinus latifolia</i>)	Bareroot	25
Red alder (<i>Alnus rubra</i>)	Bareroot	25
Douglas spirea (<i>Spirea douglasii</i>)	Bareroot	100
Wild rose (<i>Rosa pisocarpa</i>)	Bareroot	75
Oregon oak (<i>Quercus garryana</i>)	Bareroot	25

¹ Clean Water Services standards are proposed as the City of McMinnville has not adopted LID standards for residential development at the time of report production.

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County
DSL Permit Application 62609-RF and USACE NWP 2020-374

6.0 Long Term Protection

As outlined on the pending development plan, the rehabilitated drainage and associated riparian corridor would be placed within a distinct and independent tract. Said tract would be placed under long-term ownership and management of the (pending) HOA. Ultimately the rehabilitation area would be managed and maintained in association with the LID stormwater basin.

Within ninety days of completion of construction Applicant or their designates would prepare a detailed report to document the as-built condition of the rehabilitation project; said report would be compiled to meet reporting requirements of Department of Environmental Quality (DEQ) post-construction reporting. The as-built report would include an as-built topographic survey and construction diagrams necessary to document the final contours of the rehabilitated drainage and dedicated riparian corridor. The report would also discuss realized variations, document quantities and installation techniques of the revegetation effort. Photographs would also be provided to document the construction, installation and as-built condition of the drainage.

The relocated drainage would be managed and maintained in accordance with operations and maintenance manuals for this subdivision project.

TERRA SCIENCE, INC.

Soil, Water & Wetland Consultants

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project


Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County

DSL Permit Application 62609-RF and USACE NWP 2020-374

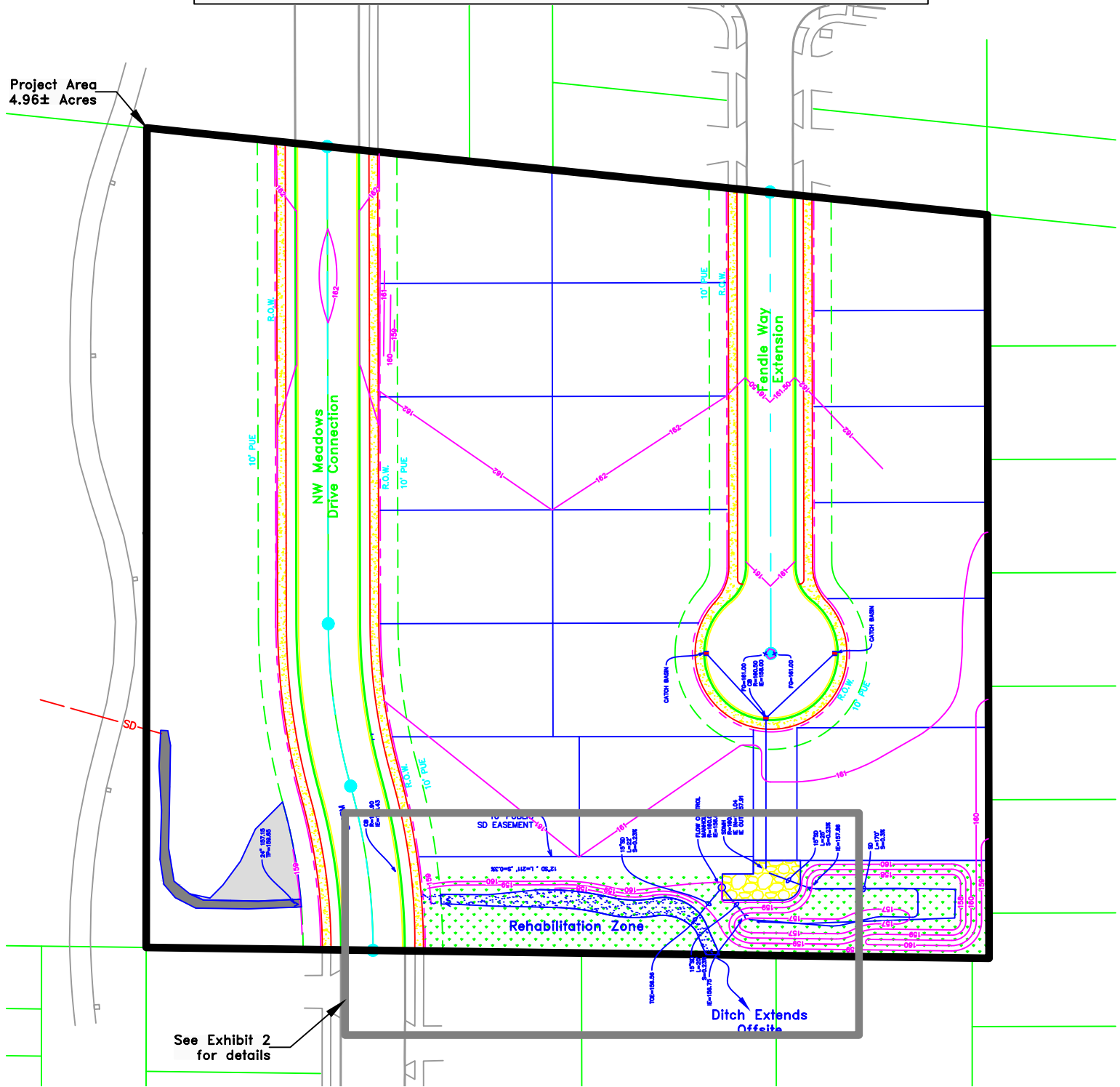
A P P E N D I X A

Drainage Rehabilitation Plan Figures

LEGEND

	Avoided Wetland A / Excavated Ditch		Existing Taxlot Boundary
	Proposed 1-Foot Contour		Proposed Taxlot Boundary
	Proposed Stormwater Infrastructure		Relocated / Enhanced Ditch 2

Project Area
4.96± Acres



See Exhibit 2
for details

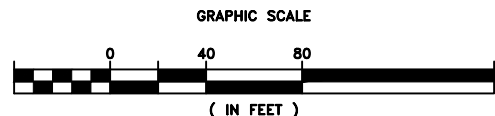
NOTE: Approximately 180 linear feet (LF) of excavated North Fork Cozine Creek east of the proposed NW Meadows Drive connection would be rehabilitated and placed within dedicated community open spaces along the southern project boundary. Identified stormwater infrastructure facilities and the rehabilitation zone would be constructed during Phase I of subdivision construction (anticipated for summer 2021).

Source: Adapted from Westech Engineering, Inc. civil files.

Terra Science, Inc.
Soil, Water, & Wetland Consultants

REVISED DRAINAGE REHABILITATION PLAN
FOR THE ELYSIAN IN-FILL SUBDIVISION PROJECT
(DSL App. 62609-RF & USACE NWP 2020-374)
City of McMinnville, Yamhill County, Oregon

CONCEPTUAL DEVELOPMENT



December 2020

Revised on 06.23.2022
349 of 614

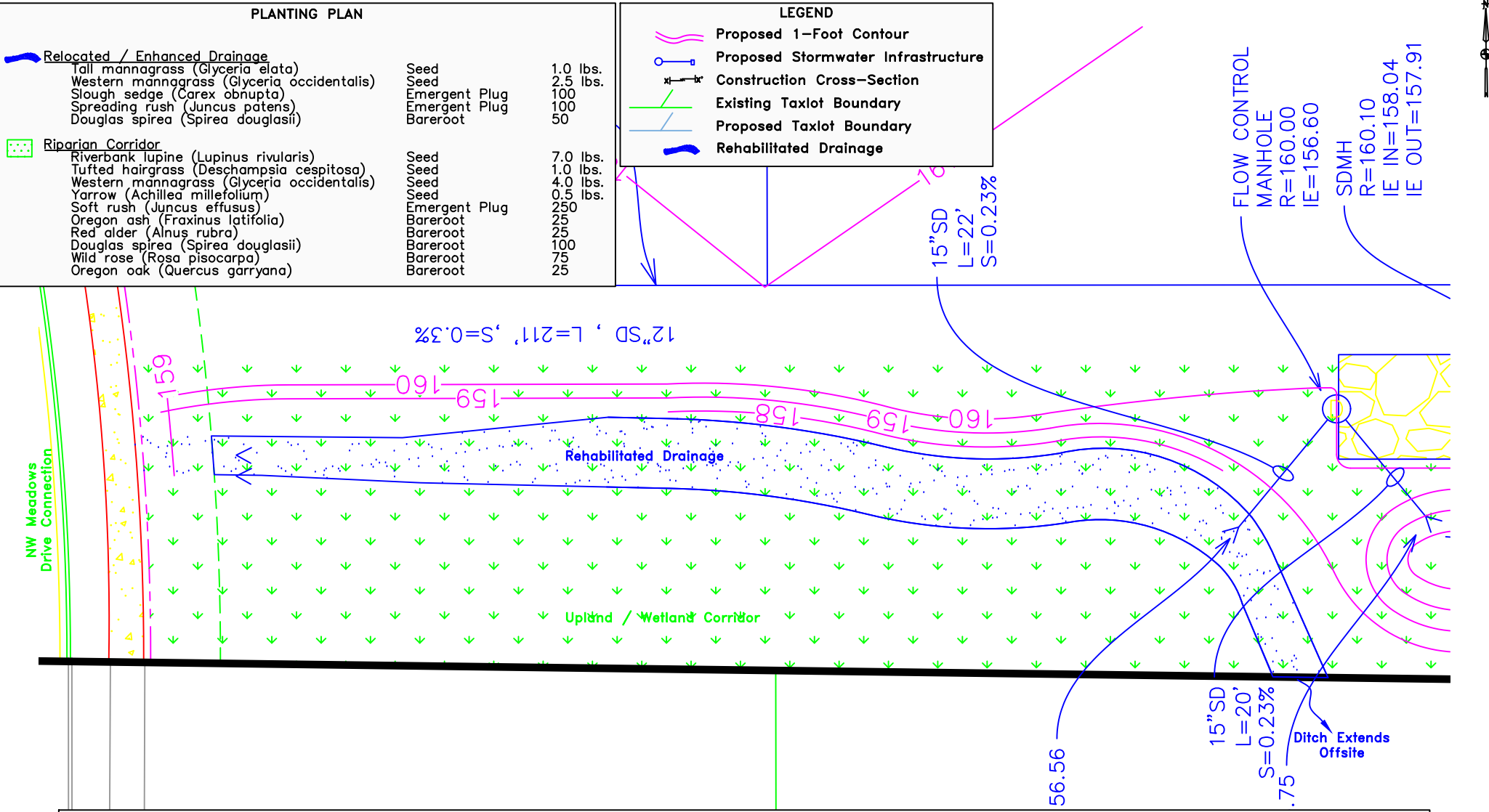
EXHIBIT 1

PLANTING PLAN

	Relocated / Enhanced Drainage		
	Tall mannagrass (<i>Glyceria elata</i>)	Seed	1.0 lbs.
	Western mannagrass (<i>Glyceria occidentalis</i>)	Seed	2.5 lbs.
	Slough sedge (<i>Carex obnupta</i>)	Emergent Plug	100
	Spreading rush (<i>Juncus patens</i>)	Emergent Plug	100
	Douglas spirea (<i>Spirea douglasii</i>)	Bareroot	50
	Riparian Corridor		
	Riverbank lupine (<i>Lupinus rivularis</i>)	Seed	7.0 lbs.
	Tufted hairgrass (<i>Deschampsia cespitosa</i>)	Seed	1.0 lbs.
	Western mannagrass (<i>Glyceria occidentalis</i>)	Seed	4.0 lbs.
	Yarrow (<i>Achillea millefolium</i>)	Seed	0.5 lbs.
	Soft rush (<i>Juncus effusus</i>)	Emergent Plug	250
	Oregon ash (<i>Fraxinus latifolia</i>)	Bareroot	25
	Red alder (<i>Alnus rubra</i>)	Bareroot	25
	Douglas spirea (<i>Spirea douglasii</i>)	Bareroot	100
	Wild rose (<i>Rosa pisocarpa</i>)	Bareroot	75
	Oregon oak (<i>Quercus garryana</i>)	Bareroot	25

LEGEND

- Proposed 1-Foot Contour
- Proposed Stormwater Infrastructure
- Construction Cross-Section
- Existing Taxlot Boundary
- Proposed Taxlot Boundary
- Rehabilitated Drainage



NOTE: Construction would begin at the upgradient end of the existing ditch during NW Meadows Drive construction; rehabilitation efforts would then work easterly towards the point where the drainage leaves the subject parcel. Grading is anticipated to utilize excavators, haul trucks and similar equipment (as deemed necessary) to achieve target grades. Upon completion of construction actions, native seed mixtures and tackifiers would be hydroseed broadcast throughout the rehabilitated drainage and associated riparian corridor. Next, contractors would identify target planting zones for installation of new woody materials throughout the relocated ditch, stormwater basin, and immediately adjacent upland areas. All materials would be installed in accordance with Clean Water Services standards. Materials would be grouped together in small clumps of five to seven individuals to create a naturalistic appearance.

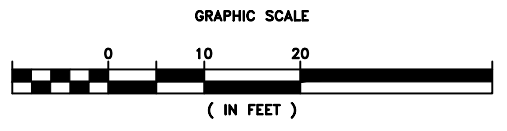
See report text for greater discussion of project goals and construction specifications.

Source: Adapted from Westech Engineering, Inc. civil files.

Terra Science, Inc.
Soil, Water, & Wetland Consultants

REVISED DRAINAGE REHABILITATION PLAN
FOR THE ELYSIAN IN-FILL SUBDIVISION PROJECT
(DSL App. 62609-RF & USACE NWP 2020-374)
City of McMinnville, Yamhill County, Oregon

CONCEPTUAL
DEVELOPMENT

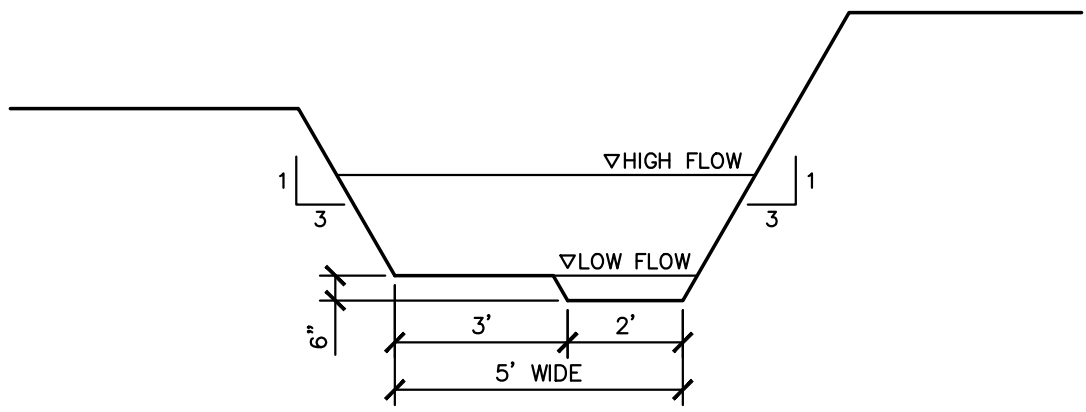
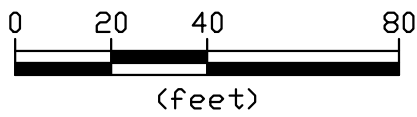
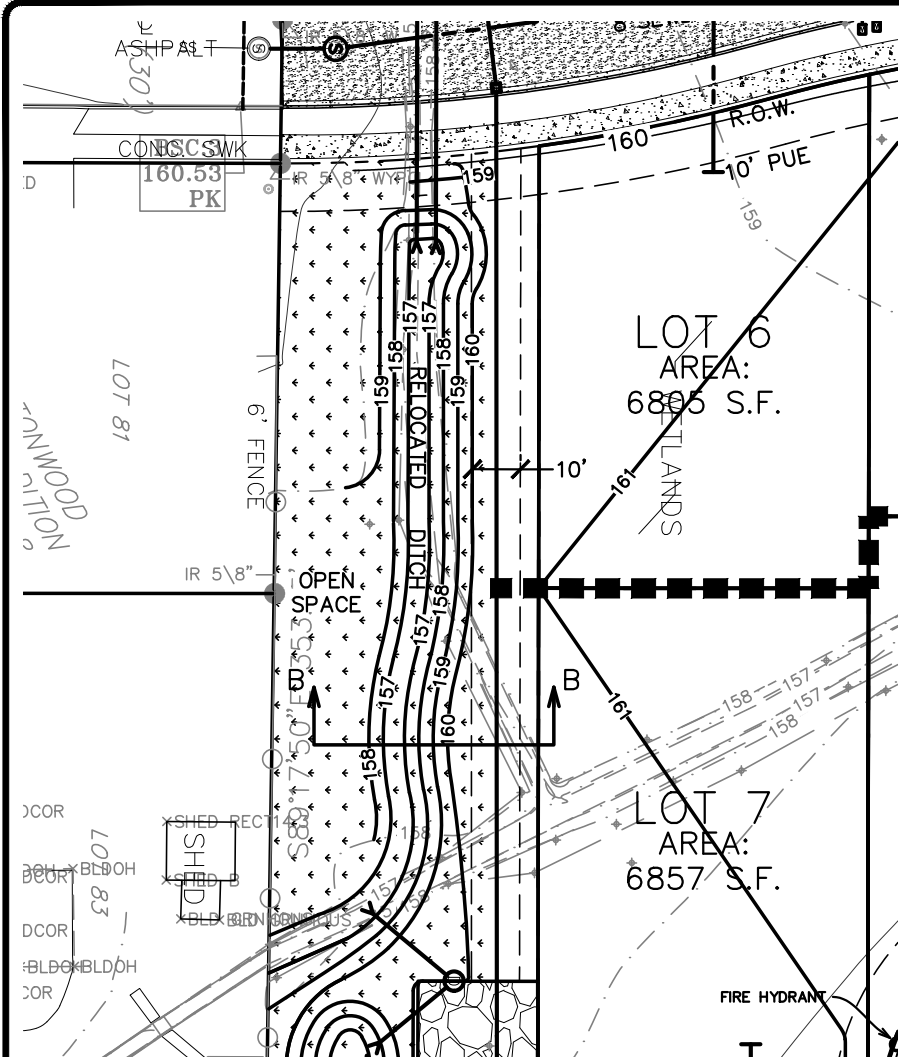


December 2020

Revised on 06.23.2022
350 of 614

EXHIBIT 2

2/24/2021 12:59:12 PM E:\NWCS\Don Jones - Subdivision - 2931.1000\Civil\Plots\CROSS_SECTION_DETAIL.dwg, (WL)



SCALE: NTS

WE
WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3986
 E-mail: westech@westech-eng.com

DSN.	JW
DRN.	IH
CKD.	JW
DATE:	JUNE 2020

DON JONES ELYSIAN SUBDIVISION

**CROSS SECTION
DETAIL B - B**

FIGURE
JOB NUMBER
2931.1000

TERRA SCIENCE, INC.

Soil, Water & Wetland Consultants

Revised Rehabilitation Plan for Elysian In-Fill Subdivision Ditch Relocation Project

Identified Portion of Tax Lot 202 and Tax lot 204, T. 04S, R. 04W, Sec. 18AD, City of McMinnville, Yamhill County

DSL Permit Application 62609-RF and USACE NWP 2020-374

A P P E N D I X A

SFAM Report for Anticipated North Cozine Creek Rehabilitation Zones

STREAM FUNCTION ASSESSMENT METHOD for OREGON

Version 1.1 (April 2020)

Name of Project Area:	North Fork Cozine Creek (Proposed)	Date of Field Assessment:	N/A	Latitude*:	45.2234
Data Collector:	D. Monnin, PWS	Elevation: (SFAM Report)	158	Longitude*:	-123.2230
Project Number:	TSI Project 2020-0721, DSL Application 62909-RF, USACE NWP 2020-374	Project Area Length (feet):	198	Project Area (acres):	0.04-acre
Assessment timing:	Predicted conditions				
Photo Numbers:					

* near center of the project site

What is the Oregon Stream Classification for the project area? Select from drop-down menu. Refer to the SFAM Report. If the project area spans more than one reach, describe the dominant stream classification.

Mountain Wet Rain High Permeability

What ratings does the Oregon Stream Classification identify for the following measures in the local hydrologic unit? Refer to the SFAM Report. If project area spans more than one reach, describe the dominant classification:

Aquifer Permeability (local)	High	Soil Permeability (local)	High	
Erodibility (local)	Easily Erodible	Gradient*	> 6%	<small>*If EPA Classification is different from the gradient you observe in the local reach, select the gradient in the local reach.</small>

Is the channel perennial, intermittent, or ephemeral? (Map Viewer-NHD Flowline)	Perennial	
Which Level III EPA Ecoregion is the site located in? (SFAM Report)	Willamette Valley	Western Mountains
Is the average width of the stream less than or greater than 50 feet? (User Input)	≤ 50 feet	Small
What is the 2 year peak flood (cfs)? (StreamStats Report)	1.14	
What is the size of the drainage area (mi²)? (StreamStats Report)	0.1	

External Data: List below the persons and/or agencies that provided location information on rare wildlife species, and/or rare plants, and the date the information was gathered (if known).

Oregon Explorer SFAM and ORWAP reports identify the Project Area as having Intermediate (0.33) Maximum Score for potential habitat support for Amphibian & Reptile Species and Plant Species.

Project Area History: Based on conversation with landowner/manager and other information, describe below the years and extent (% of project area) of past and present management actions (e.g., vegetation control), natural disturbances (e.g., fire, insect infestations), and human-associated disturbances (e.g., grazing regimes).

SFAM utilized to assess anticipated conditions for the rehabilitated and enhanced headwaters of the North Fork of Cozine Creek to be constructed in conjunction with the Elysian subdivision and NW Meadows Drive extension project. Assessed condition includes (slightly) meandering channel with high and low flow benches. Enhanced drainage would be seeded, planted, and maintained in accordance with Clean Water Services standards for stormwater infrastructure. Anticipated condition includes riparian corridor with native herbaceous, shrub, and tree species contained within dedicated parcel to be managed as open space managed by (pending) Homeowners Association.

Assessment Notes: Note any special features of the reach or landscape, problems with scoring, or other information that may be relevant.

Due to thin width of enhanced drainage, default 50' Proximal Assessment Area (PAA) and Extended Assessment Area (EAA) widths are utilized. PAA and EAA south of feature consist of privately owned residential lands (houses, lawns, etc) behind cedar fencing. As no access is granted, PAA and EAA assessments south of ditch feature are abbreviated to accessible Applicant owned properties.

STREAM ASSESSMENT SCORES SHEET **Version 1.1** **Assessment Timing:** **Predicted conditions**

Project Area Name:	North Fork Cozine Creek (Proposed)		
Investigator Name:	D. Monnin, PWS		
Date of Field Assessment:	N/A		
Latitude (decimal degrees):	45.2234	Longitude (decimal degrees):	-123.2230

SPECIFIC FUNCTIONS	Function Score	Function Rating	Value Score	Value Rating
Surface Water Storage (SWS)	3.06	Moderate	8.33	Higher
Sub/Surface Water Transfer (SST)	2.86	Lower	10.00	Higher
Flow Variation (FV)	3.81	Moderate	6.25	Moderate
Sediment Continuity (SC)	7.95	Higher	5.17	Moderate
Sediment Mobility (SM)	3.58	Moderate	7.50	Higher
Maintain Biodiversity (MB)	3.01	Moderate	3.00	Moderate
Create and Maintain Habitat (CMH)	1.03	Lower	5.00	Moderate
Sustain Trophic Structure (STS)	6.61	Moderate	4.50	Moderate
Nutrient Cycling (NC)	3.79	Moderate	5.70	Moderate
Chemical Regulation (CR)	3.10	Moderate	5.70	Moderate
Thermal Regulation (TR)	6.55	Moderate	7.00	Moderate

GROUPED FUNCTIONS	REPRESENTATIVE FUNCTION	Function Group Rating	Value Group Rating
Hydrologic Function (SWS, SST, FV)	Surface Water Storage (SWS)	Moderate	Higher
Geomorphic Function (SC, SM)	Sediment Continuity (SC)	Higher	Moderate
Biologic Function (MB, CMH, STS)	Sustain Trophic Structure (STS)	Moderate	Moderate
Water Quality Function (NC, CR, TR)	Thermal Regulation (TR)	Moderate	Moderate

Formulas for each specific function and value (shown on Subscores tab) produce a numerical score between 0.0 and 10.0. For ecological functions, a score of 0.0 indicates that negligible function is being provided by the stream whereas a score of 10.0 indicates that the stream is providing maximum function (as defined) given certain contextual factors. For values, a score of 0.0 indicates that there is low opportunity for the site to provide a specific ecological function and that, even if it did, the specific function would not be of particular significance given the context of the site. Conversely, a value score of 10.0 indicates that a site has the opportunity to provide a specific function and that it would be highly significant in that particular location. For all function and value formulas, both extents of the scoring range (0.0 and 10.0) are mathematically possible.

To facilitate conceptual understanding, numerical scores are translated into ratings of Lower, Moderate, or Higher. The numerical thresholds for each of these rating categories are consistent across all functions and values such that scores of <3.0 are rated "Lower," scores ≥3.0 but ≤7.0 are rated "Moderate," and scores that are >7.0 are rated "Higher." These thresholds are consistent with the standard scoring scheme applied to all individual measures.

Each specific function, and its associated value, is included in one of four thematic groups: hydrologic, geomorphic, biologic, and water quality functions. Group ratings provide an indication of the degree to which each group of processes is present at a site. Groups are represented by the highest-rated function with the highest-rated associated value among the 2-3 functions that comprise each group. This hierarchical selection system ensures that thematic functional groups are represented by the highest-performing and highest-valued ecological function.

Project Area Name: North Fork Cozine Creek (Proposed) Date: N/A Assessor: D. Monnin, PWS

Print this form to take to the field, along with the PAA and EAA field forms. Use the instructions, measurements, and diagrams on this form to establish the two assessment areas necessary for data collection.

Project Area Description:

Anticipated North Fork Cozine Creek consists of (slightly) meandering channel containing high and low flow benches. Channel and adjacent riparian zones to be planted and maintained with native vegetation.

Is there a Floodplain?

No; North Fork of Cozine Creek is not associated with a floodplain.

Establishing the boundaries of the Proximal Assessment Area (PAA):

- a) Identify the spatial extent of direct impact.
- b) Establish the longitudinal boundaries of the PAA at the upstream and downstream extent of the impact, or 50ft of stream length, whichever is greater.
- c) Locate the center of the PAA and measure the bankfull channel width (BFW).
- d) At two additional locations, equidistant between the PAA center and the PAA upper and lower boundaries, measure BFW. PAA transects will be located at the 3 locations where BFW was measured.
- e) Establish the lateral boundaries of the PAA at a distance of $2 \times$ the average BFW or 50' from the stream edge (bankfull edge), whichever is greater, on each side of the stream.

Total PAA stream length (ft) =	198
Distance between transects (PAA length \div 4) =	49.5
PAA lateral boundary ($2 \times$ avg bankfull width (calculated below) or 50 feet =	50

Bankfull Width:			
Transect	Location	Width (ft)	Average
T1	49.5	3.5	4
T2	109.5	4.9	
T3	149	4.3	

	Latitude	Longitude
Corner 1	45.22234	-123.2226
Corner 2	45.22361	-123.22273
Corner 3	45.22335	-123.22337
Corner 4	45.22355	-123.22337

Establishing the boundaries of the Extended Assessment Area (EAA):

- a) The EAA is an upstream and downstream extension of the PAA. Establish the longitudinal boundaries by multiplying the average BFW by 5 and measuring that distance upstream and downstream from the PAA upper and lower boundaries, respectively.
- b) The lateral boundaries of the EAA are the same distance from the stream edge (bankfull) as the lateral boundaries for the PAA (above). Note that the EAA contains the entire PAA.
- c) Locate the 11 EAA transect locations by dividing the total EAA length by 10. The distance between each transect is $0.1 \times$ the total EAA length. Transects include the upper and lower EAA boundaries.

Length EAA extends above/below PAA ($5 \times$ average BFW) =	21.16666667
Total EAA length ($10 \times$ BFW + PAA length, rounded to nearest 10') =	240.3333333
Distance between EAA transects (EAA length \div 10) =	24.03333333



	Latitude	Longitude
Corner 1	45.22334	-123.22252
Corner 2	45.22363	-123.22263
Corner 3	45.22335	-123.22344
Corner 4	45.22327	-123.22345

SFAM Proximal Area Assessment (PAA) Field Data Form

Version 1.1

Assessment Timing: Predicted conditions

Project Area Name: North Fork Cozine Creek (Proposed)

Date: N/A

Assessor: D. Monnin, PWS

Print this form to take to the field. Only the defined print area is needed (i.e. not the data calculation columns). After collecting data in the field, transfer data into the Excel worksheet below using drop-down menus where available. Cells in the "Calculations" section and on the "Functions" tab will populate automatically.

What is the longitudinal length of the PAA? 198	Natural Cover (F1): Record densiometer readings from both left and right banks at each transect.				See F2-F4 below	Riparian Corridor (F5): Record the width (ft) of the riparian corridor at each PAA transect. If > 330 ft, enter 330.				Barriers (F6): Does a man-made structure limit fish passage (barrier, partial, passable, unknown, none)?				Exclusion (F7): What % of the 100-yr floodplain is excluded due to features (<=20%, >20-40%, >40-80%, >80%)?			
		T1	T2	T3			T1	T2	T3	Blocked				<=20%			
	Left	15	15	15		Left	20	25	20								
	Right	15	15	15		Right	25	20	25								

Invasive Vegetation (F2), Native Woody Vegetation (F3), and Large Trees (F4) : For each of the three vegetation classes, record the start and end positions (distance from bankfull, to the nearest 0.1ft) of each occurrence along the length of the transect. Transects run perpendicular to the stream edge, from the bankfull edge to the lateral boundary of the PAA.

What is the length of the transect (ft)?	73	Vegetation transects are conducted on both banks. If it is physically or legally unfeasible to access one side, indicate which side was surveyed by selecting Left or Right from the dropdown menu.
--	----	---

Transect	Vegetation Class	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
1 (left)	InvVeg	0	0														
	Native WoodyVeg	0	20														
	LgTree	0	0														
1 (right)	InvVeg	0	0														
	Native WoodyVeg	0	25														
	LgTree	0	0														
2 (left)	InvVeg	0	0														
	Native WoodyVeg	0	25														
	LgTree	0	0														
2 (right)	InvVeg	0	0														
	Native WoodyVeg	0	20														
	LgTree	0	0														
3 (left)	InvVeg	0	0														
	Native WoodyVeg	0	20														
	LgTree	0	0														
3 (right)	InvVeg	0	0														
	Native WoodyVeg	0	25														
	LgTree	0	0														

Armor (F8) and Erosion (F9): Record start and end locations (ft) of bank armoring features and bank erosion evidence along the length of the PAA.

	Start	End	Start	End	Start	End	Start	End
Armoring (left)	0	0						
Armoring (right)	0	0						
Erosion (left)	0	0						
Erosion (right)	0	0						

Overbank Flow (F10): Is there evidence of overbank flow at least 0.5 × BFW from the bankfull edge? (yes or no)

NO

Wetland Vegetation (F11): Are there FACW or OBL wetland plants on the banks or in the floodplain? (yes or no)

YES

If yes, answer the following questions: If no, enter N/A

→ Are any located > 0.5 × BFW from the bankfull edge?

YES

→ ...for more than 70% of the PAA length?

YES

SFAM Extended Area Assessment (EAA) Field Data Form

Version 1.1

Assessment Timing: Predicted conditions

Project Area Name: North Fork Cozine Creek (Proposed)

Date: N/A

Assessor: D. Monnin, PWS

Print this form to take to the field. Only the defined print area is needed (i.e. not the data calculation columns). After collecting data in the field, transfer data into the Excel worksheet below using drop-down menus where available. Cells in the "Calculations" section and on the "Functions" tab will populate automatically.

What is the total longitudinal length of the EAA (ft)?	236
--	-----

Wood (F14): Tally each piece of wood along the EAA that measures > 4" diameter and is at least 5' long. You can record the location of the wood to avoid double counting.	
Total =	50

Side Channels (F12) and Lateral Migration (F13): Record start and end locations (ft) of adjacent side channels and evidence of constraints to lateral migration along the length of the EAA.

	Start	End	Start	End	Start	End	Start	End	Start	End
Side channels (either side)	0	0								
Constraints to lateral migration (left)	0	0								
Constraints to lateral migration (right)	0	0								

Unique Features (V16): Note the presence of any unique habitat features throughout the EAA including, but not limited to: log jams, braided channels, >30% wetlands in floodplain, springs, seeps, cold water inputs, etc.

None.

Wetted Width (F17)	Incision (F15)	Substrate Embeddedness (F16)	Thalweg Depth (F17)
Record width and height at each cross-channel transect (round to nearest 0.1 ft).		Record % embeddedness (to the nearest quartile: 0, 25, 50, 75, 100) at 5 equidistant points along each cross-channel transect.	Record the thalweg depth at 10 equidistant points <u>between</u> each cross-channel transect while moving upstream.

EAA Transect	Feet from EAA lower boundary	Wetted width	Bankfull height	Lowest floodplain height	Embed1	Embed2	Embed3	Embed4	Embed5	Depth1	Depth2	Depth3	Depth4	Depth5	Depth6	Depth7	Depth8	Depth9	Depth10
A	0	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
B	23.6	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
C	47.2	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
D	70.8	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
E	94.4	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
F	118	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
G	141.6	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
H	165.2	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
I	188.8	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
J	212.4	5	0.25	0.5	100	100	100	100	100	0.25	0.25	0.25	0.4	0.5	0.5	0.4	0.25	0.25	0.25
K	236	5	0.25	0.5	100	100	100	100	100										



Legend

States & Provinces

- Other States and Provinces
- Oregon

1: 813



Notes

Add your notes here

WGS_1984_Web_Mercator_Auxiliary_Sphere
 © Oregon Explorer (<https://oregonexplorer.info>)

This map is a user generated static output for reference only from:
[ORWAP and SFAM Map Viewer](#)
 Data layers that appear on this map may or may not be accurate, current, or reliable.
 THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Report Generated: November 20, 2020 12:45 PM

Location Information

Latitude	45.2234 N	Longitude	-123.223 W
Elevation	158 ft	Level III Ecoregion	Willamette Valley
HUC8	17090008 Yamhill		
HUC10	1709000807 Yamhill River		
HUC12	170900080701 South Yamhill River		
Linear ft of stream in HUC8	39,370	Annual precipitation	46 in

Stream Type and Classifications

Stream Classification	Mountain Wet Rain / Valley Wet	Percent of project area	100.00%
Aquifer permeability	High	Soil permeability	High
Gradient	>6%	Erodibility	Easily_Erodible

Stream classifications and associated attributes are derived from a U.S. Environmental Protection Agency stream classification geospatial data layer developed for Oregon (2015). This layer provides a statewide stream/watershed classification system for streams and rivers of various sizes, based in part on a hydrologic landscape classification system.

Report Generated: November 20, 2020 12:45 PM

Rare Species Scores and Special Habitat Designations

Rare Species Type	Maximum score	Sum Score	Rating
Non-anadromous Fish Species	0	0	None
Amphibian & Reptile Species	0.33	0.33	Intermediate
Feeding Waterbirds	0	0	None
Songbirds, Raptors, and Mammals	0	0	None
Invertebrate Species	0	0	None
Plant Species	0.33	0.33	Intermediate

Scores have taken into account several factors for each rare species record contained in the official database of the Oregon Biodiversity Information Center (ORBIC): (a) the regional rarity of the species, (b) their proximity to the point of interest, and (c) the “certainty” that ORBIC assigns to each of those records.

Within 300 ft of a Special Protected Area?	No
Within a HUC12 that has designated Essential Salmonid Habitat?	Yes
Within 2 miles of an Important Bird Area?	No

Water Quality Impairments

Query returned no records.

Water quality information is derived from Oregon’s 2012 Integrated Report, including the list of water quality limited waters needing Total Maximum Daily Loads (303d List). Each record in the report is assigned an assessment category based on an evaluation of water quality information. Categories included in the SFAM Report are:

Category 5: Water is water quality limited and a TMDL is needed; Section 303(d) list.

Category 4: Water is impaired or threatened but a TMDL is not needed because: (A) the TMDL is approved, (B) other pollution requirements are in place, or (C) the impairment (such as flow or lack of flow)

Report Generated: November 20, 2020 12:45 PM

is not caused by a pollutant.

Category 3B: Water quality is of potential concern; some data indicate non-attainment of a criterion, but data are insufficient to assign another category.

Dominant soil type(s)			
Soil Type	Erosion Hazard Rating	Hydric Rating	Percent Area
Amity silt loam, 0 to 3 percent slopes	Slight	N/A	100.00%

This report contains both centroid-based and polygon-based data. The Location Information section of the report contains centroid-based data (determined by the center point of the polygon), while the remaining sections are polygon-based (determined from the entire polygon).

StreamStats Report for Elysian NF Cozine Creek

Region ID: OR

Workspace ID: OR20201120204719650000

Clicked Point (Latitude, Longitude): 45.22339, -123.22304

Time: 2020-11-20 12:47:38 -0800



Basin Characteristics

Parameter

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0827	square miles
I24H2Y	Maximum 24-hour precipitation that occurs on average once in 2 years - Equivalent to precipitation intensity index	1.98	inches
SOILPERM	Average Soil Permeability	0.8	inches per hour
JANMAXT2K	Mean Maximum January Temperature from 2K resolution PRISM 1961-1990 data	46	degrees F

Revised on 06.23.2022
362 of 614

Parameter Code	Parameter Description	Value	Unit
WATCAPORC	Available water capacity from STATSGO data using methods from SIR 2005-5116	0.19	inches
ORREG2	Oregon Region Number	10001	dimensionless
BSLOPD	Mean basin slope measured in degrees	0.41	degrees
JANMINT2K	Mean Minimum January Temperature from 2K resolution PRISM PRISM 1961-1990 data	33.1	degrees F
ELEV	Mean Basin Elevation	169	feet

Peak-Flow Statistics Parameters_[Reg 2B Western Interior LT 3000 ft Cooper]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0827	square miles	0.37	7270
BSLOPD	Mean Basin Slope degrees	0.41	degrees	5.62	28.3
I24H2Y	24 Hour 2 Year Precipitation	1.98	inches	1.53	4.48
ELEV	Mean Basin Elevation	169	feet		
ORREG2	Oregon Region Number	10001	dimensionless		

Peak-Flow Statistics Disclaimers_[Reg 2B Western Interior LT 3000 ft Cooper]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Peak-Flow Statistics Flow Report_[Reg 2B Western Interior LT 3000 ft Cooper]

Statistic	Value	Unit
2 Year Peak Flood	1.14	ft ³ /s
5 Year Peak Flood	1.65	ft ³ /s
10 Year Peak Flood	2.04	ft ³ /s
25 Year Peak Flood	2.56	ft ³ /s
50 Year Peak Flood	2.96	ft ³ /s
100 Year Peak Flood	3.37	ft ³ /s
500 Year Peak Flood	4.38	ft ³ /s

Peak-Flow Statistics Citations

Cooper, R.M.,2005, Estimation of Peak Discharges for Rural, Unregulated Streams in Western Oregon: U.S. Geological Survey Scientific Investigations Report 2005-5116, 76 p. (<http://pubs.usgs.gov/sir/2005/5116/pdf/sir2005-5116.pdf>)

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.4.0

STREAM FUNCTION ASSESSMENT METHOD for OREGON

Name of Project Area:	North Fork Cozine Creek (Proposed)	Assessment Timing:	Predicted conditions	Orange Boxes are linked to the PAA or EAA Field forms Scores Automatically Calculated in Green Boxes
-----------------------	------------------------------------	--------------------	----------------------	---

FUNCTIONS MEASURES TABLE

Check the orange boxes to confirm all field entries have transferred appropriately. If necessary the orange box entries can be hand entered. However, hand entry into the orange boxes will remove the link to the Field Form. A #DIV/0! or 'FALSE' entry means that the Cover Page, PAA Field Form or EAA Field Form is not complete.

Measure	Function Groups	Measure Abbreviation	Qualifiers	Data Entry (linked to field forms)	Error Messages	Measure Score
F1 Natural Cover	What is the percent natural cover above the stream within the PAA? Measure the percentage of cover above the stream, including both overstory and understory vegetation and overhanging banks, by averaging spherical densiometer measurements taken at each transect within the PAA. <i>Functions informed: Sustain Trophic Structure, Nutrient Cycling, Thermal Regulation</i>					
	Biological, Water Quality	Cover	WMTsmall	Enter a percentage: (round to nearest whole number)	88		0.65
F2 Invasive Vegetation	What is the percent cover of invasive vegetation within the PAA? Consider the Oregon Department of Agriculture Noxious Weed list in Appendix 3 of the SFAM User Guide, and other sources of information, such as Oregon IMAP Invasives and iNaturalist. <i>Functions informed: Maintain Biodiversity, Sustain Trophic Structure</i>					
	Biological	InvVeg		Enter a percentage: (round to nearest whole number)	0		1.00
F3 Native Woody Vegetation	What is the percent cover of native woody vegetation within the PAA? <i>Functions informed: Maintain Biodiversity, Create & Maintain Habitat</i>					
	Biological	WoodyVeg		Enter a percentage: (round to nearest whole number)	31		0.41
F4 Large Trees	What is the percent cover of large trees (dbh>20in) within the PAA? <i>Functions informed: Maintain Biodiversity, Create & Maintain Habitat</i>					
	Biological	LgTree	West	Enter a percentage: (round to nearest whole number)	0		0.00
F5 Vegetated Riparian Corridor Width	What is the average width of the vegetated riparian corridor within the PAA? An intact vegetated riparian corridor is defined as one typified by largely undisturbed ground cover and dominated by "natural" species. Natural does not necessarily mean pristine and can include both upland plants and species with wetland indicator status, and native and non-native species. Natural does not include pasture or cropland, recreational fields, recently harvested forest, pavement, bare soil, gravel pits, or dirt roads. Note that relatively small features, such as a narrow walking trail, that likely have negligible effects on water quality can be included within the vegetated riparian corridor width. <i>Functions informed: Nutrient Cycling, Chemical Regulation</i>					
	Water Quality	RipWidth		Enter the average width (feet):	11	Caution! Entry not linked to Field Form	0.10
F6 Fish Passage Barriers	Is there a man-made fish passage barrier in the PAA? Select an answer from the drop-down menu. Man-made barriers to fish passage can include structures such as dams, culverts, weirs/sills, tide gates, bridges and fords that can block physical passage or can create unsuitable conditions for passage (e.g. high velocity). The level of passage provided can be researched in the office using the Man-made Fish Passage Barriers data layer (Fish Passage Barriers in the Habitat Group) in the SFAM Map Viewer, then confirmed in the field. Do not include natural barriers. If more than one barrier is present, answer for the one with the most restricted level of passage (e.g. Blocked). Not all barriers have been mapped. See the User Manual for more information. <i>Functions informed: Maintain Biodiversity, Create & Maintain Habitat</i>					
	Biological	Barriers		Select Blocked, Partial, Passable, or Unknown in the PAA Field Form:	Blocked		0.00
F7 Floodplain Exclusion	What percent of the floodplain has been disconnected within the PAA? For alluvial rivers, the floodplain is defined by a distinct break in slope at valley margins, a change in geologic character from alluvium to other, indications of historical channel alignments within a valley, or as the 100-year flood limit. Disconnection refers to any portion of the flood area no longer inundated due to levees, channel entrenchment, roads or railroad grades, or other structures (including buildings and any associated fill) within the proximal assessment area. All barriers should be included when estimating disconnection, even if the barrier is not present during all flood stages; EXCEPT where the structure is expressly managed for floodplain function and inundation. <i>Functions informed: Surface Water Storage, Create & Maintain Habitat</i>					
	Hydrology, Biological	Exclusion		Enter <= 20%, >20 - 40%, >40 - 80%, or >80%.	>80	Caution! Entry not linked to Field Form	FALSE
F8 Bank Armoring	What percentage of the stream banks within the PAA are armored? What percentage of the streambank has been stabilized using rigid methods to permanently prevent meandering processes? Examples of armoring include gabion baskets, sheet piles, rip rap, large woody debris that covers the entire bank height, and concrete. Bank stabilization methods that return bank erosion to natural rates and support meandering processes are not counted as armoring. Examples include many bioengineering practices, large woody debris placed along the bank toe, and in-stream structures that still use native vegetation cover on the streambanks. Percent armoring is calculated as the sum of the armored lengths of the left and right banks, divided by sum total lengths of both banks within PAA (i.e. twice the total PAA length). <i>Functions informed: Substrate Mobility</i>					
	Geomorphology	Armor		Enter a percentage: (round to nearest whole number)	0	

<p>F9</p> <p>Bank Erosion</p>	<p>What percentage of stream banks within the PAA are actively eroding or recently (within previous year or high flow) eroded?</p> <p>Indications of active/recent erosion include vertical or near vertical bank stream banks that show exposed soil and rock, evidence of tension cracks, active sloughing, or that are largely void of vegetation or roots capable of holding soil together. The percent is calculated as the sum of lengths of left and right banks that are eroding, divided by the sum of total lengths of both banks within PAA.</p> <p><i>Functions informed: Sediment Continuity</i></p>				<p>Enter a percentage: (round to nearest whole number)</p> <p>0</p>			<p>1.00</p>
<p>F10</p> <p>Overbank Flow</p>	<p>Does the stream interact with its floodplain within the PAA?</p> <p>Is there evidence of fine sediment deposition (sand or silt) on the floodplain, organic litter wracked on the floodplain or in floodplain vegetation, or scour of floodplain surfaces, extending greater than 0.5x BFW onto <u>either</u> the right or left bank floodplain within the PAA? Do not include evidence from inset floodplains developing within entrenched channel systems.</p> <p>If the abutting land use limits the opportunity to observe evidence of overbank flow, is there other credible information that would indicate regular (at least every two years) overbank flow in the PAA? Examples of "other credible information" include first-hand knowledge, discharge/stream gauge measures, etc. Cite the evidence on the Cover Page.</p> <p><i>Functions informed: Surface Water Storage, Sub/Surface Transfer, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation</i></p>				<p>Select yes or no from dropdown menu: (If there is no floodplain, leave blank)</p> <p>NO</p>			<p>0.00</p>
<p>F11</p> <p>Wetland Vegetation</p>	<p>Are there wetland indicator plants adjacent to the channel and/or in the floodplain within the PAA?</p> <p>Determine if vegetation in the riparian area of the PAA has a wetland indicator status of obligate or facultative wet.</p> <p><i>Functions informed: Sub/Surface Transfer, Maintain Biodiversity, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation</i></p>				<p>Are there wetland indicator plant species within the PAA?</p> <p>YES</p>			<p>1.00</p>
<p>Hydrology, Biology, Water Quality</p>		<p>WetVeg</p>	<p>If yes, are any wetland indicator plants located greater than 0.5 x BFW from the bankfull edge on at least one side of the stream? (Select N/A if you answered No above)</p> <p>YES</p>					
			<p>If yes, are the wetland indicator plants located beyond 0.5 x BFW distributed along >70% of the length of the PAA? (Select N/A if you answered No above)</p> <p>YES</p>					
<p>F12</p> <p>Side Channels</p>	<p>What proportion of the EAA length has side channels?</p> <p>Side channels include all open conveyances of water, even if the channel is plugged on one end. If both ends are plugged, do not count as a side channel.</p> <p><i>Functions informed: Surface Water Storage, Sub/Surface Transfer, Maintain Biodiversity, Create & Maintain Habitat</i></p>				<p>Enter a percentage: (round to nearest whole number)</p> <p>0</p>			<p>0.00</p>
<p>F13</p> <p>Lateral Migration</p>	<p>What percent of both sides of the channel within the EAA is constrained from lateral migration?</p> <p>Constraints on lateral migration of the channel within 2 BFW or 50 feet (whichever is greater) include bank stabilization and armoring, bridges and culverts, diversions, roads paralleling the stream and any other intentional structures or features that limit lateral channel movement whether intentionally or not. For cross-channel structures (diversions, bridges, culverts, etc.), record 4x the BFW as the length constrained on both sides of the channel. For linear features, record the length on each side of the channel. For segmented bank features, such as bendway weirs or log jams acting in concert, record the effective length of stabilization on each side of the channel affected. It is acceptable to include relevant armoring that is recorded in the Bank Armoring question, below.</p> <p><i>Functions informed: Sediment Continuity</i></p>				<p>Enter a percentage: (round to nearest whole number)</p> <p>0</p>			<p>1.00</p>
<p>F14</p> <p>Wood</p>	<p>What is the frequency of large wood in the bankfull channel within the EAA?</p> <p>Report the frequency (pieces per 328 feet [100m] of channel) of independent pieces of wood, defined here as woody material with a diameter of at least 4 inches (10cm) and a length of 5 feet (1.5m) within the EAA. This means that at least 5 feet of the piece of wood must be larger than 4 inches in diameter (i.e. a circumference > 12.5 inches). Independent pieces include all those individual pieces that meet size criteria either separate from or within log jams. To be counted, wood must have some part of its length within the bankfull channel. Exclude any wood that has been intentionally anchored to or within the channel banks (using spikes, cables, ballast, etc.) for the purpose of preventing bank erosion (armoring).</p> <p><i>Functions informed: Surface Water Storage, Maintain Biodiversity, Create & Maintain Habitat</i></p>				<p>Enter the frequency (pieces per 328 ft) of wood in the channel: (round to nearest hundredth)</p> <p>69.49</p>			<p>1.00</p>

F15 Incision	What is the degree of channel incision within the EAA?							
	As part of the longitudinal survey, at 11 evenly spaced locations along the stream within the EAA, measure the Bank Height Ratio (BHR). The BHR is the height from the stream thalweg to the lowest floodplain/terrace divided by the bankfull height. Do not consider inset floodplains.							
<i>Functions informed: Surface Water Storage, Sediment Continuity, Create & Maintain Habitat</i>								
Hydrology, Geomorphology, Biology		Incision		Enter the average incision: <i>(round to nearest hundredth)</i>	2.00			0.38
F16 Embeddedness	What is the degree of substrate embeddedness in the stream channel?							
	To what extent are larger stream substrate particles surrounded by finer sediments on the surface of the streambed? Measurements are taken at 11 transects within the EAA.							
<i>Functions informed: Flow Variation, Substrate Mobility, Create & Maintain Habitat</i>								
Hydrology, Geomorphology, Biology		Embed		Enter a percentage: <i>(round to nearest whole number)</i>	100			0.00
F17 Channel Bed Variability	Is the channel variable?							
	Channel bed variability indicators include variation in wetted channel width and stream thalweg depth along the EAA.							
	<i>Functions informed: Surface Water Storage, Sub/Surface Transfer, Flow Variation, Sediment Continuity, Maintain Biodiversity, Create & Maintain Habitat, Nutrient Cycling, Chemical Regulation</i>							
	Hydrology, Geomorphology, Biology, Water Quality		BedVar		Enter the wetted width coefficient of variation:	0.00			0.00
				Enter the thalweg depth coefficient of variation:	0.31			0.29
						AVERAGE		0.14

STREAM FUNCTION ASSESSMENT METHOD for OREGON

Name of Project Area:	North Fork Cozine Creek (Proposed)	Assessment Timing:	Predicted conditions	Enter Data in These Boxes ONLY
				Scores Automatically Calculated in Green Boxes

VALUES MEASURES TABLE

FILL IN THE YELLOW BOXES. Most questions contain drop-down menus in their respective answer box. Select an answer from the drop-down menus, when possible, instead of typing an answer.

Measure	Function Groups	Submeasure	Measure Abbreviation	Qualifiers	Data Entry			Measure Score	
V1 Rare Species Occurrence & Special Habitat Designations	Are there rare species or special habitat designations in the vicinity of the PA? Answer each submeasure using information from the site's SFAM report (rare species scores & special habitat designations section), as well as any available survey data for the PA and its vicinity, or personal knowledge about the site. Note: The SFAM Report provides rankings of High, Intermediate, Low, or None for each category of rare species associated with aquatic and riparian habitat. Upgrade a ranking to High if there is a recent (within 5 years) onsite observation of any of these species by a qualified observer under conditions similar to what now occur. Provide references in the external notes section of the cover page. <i>Values informed: Surface Water Storage, Flow Variation, Substrate Mobility, Maintain Biodiversity, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation, Thermal Regulation</i>								
	Essential salmonid habitat or rare non-anadromous fish species:								
	Hydrology, Geomorphology, Biology, Water Quality	Fish	Fish		Is the PA within a HUC12 that has designated Essential Salmonid Habitat (ESH)? Select yes or no.	Yes			1.00
					According to the site's SFAM Report, what is the "non-anadromous fish" score? Select an answer from the dropdown menu:	None/Not Known			
	Rare amphibian and reptile species:								
	Hydrology, Geomorphology, Biology, Water Quality	Rare Amphibians and Reptiles	RarAmRep		According to the site's SFAM Report, what is the "amphibian and reptile" score? Select an answer from the dropdown menu:	Intermediate			0.50
	Important Bird Areas or rare waterbirds:								
	Biology, Water Quality	Waterbirds	Waterbird		Is there an Important Bird Area (IBA) within a 2-mile radius of the PA?	No			0.00
					According to the site's SFAM Report, what is the "feeding waterbird" score? Select an answer from the dropdown menu:	None/Not Known			
	Rare songbirds, raptors, and mammals:								
	Biology, Water Quality	Rare Bird and Mammals	RarBdMm		According to the site's SFAM Report, what is the "songbird, raptor and mammal" score? Select an answer from the dropdown menu:	None/Not Known			0.00
	Rare invertebrate species:								
Hydrology, Geomorphology, Biology, Water Quality	Rare Invertebrates	RarInvert		According to the site's SFAM Report, what is the "invertebrates" score? Select an answer from the dropdown menu:	None/Not Known			0.00	
Rare plant species:									
Geomorphology, Biology, Water Quality	Rare Plants	RarPlant		According to the site's SFAM Report, what is the "plant" score? Select an answer from the dropdown menu:	Intermediate			0.50	
V2 Water Quality Impairments	Is this reach on the 303(d) list or other TMDL (Categories 3B-5) for any of the following impairments: sediment, nutrient, metals & toxics, temperature, or flow modification? Answer each submeasure using information from the site's SFAM Report (water quality impairments section). <i>Values informed: Flow Variation, Sediment Continuity, Create & Maintain Habitat, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation, Thermal Regulation</i>								
	Sediment impairment: total suspended solids (TSS), sedimentation, or turbidity (note that some sedimentation can be naturally occurring and desirable therefore does not constitute a problem)								
	Geomorphology, Water Quality	Sedimentation	SedList		Select yes or no from the dropdown menu:	No			0.00
	Nutrient impairment: phosphorus, nitrate, ammonia, DO, aquatic weeds or algae, chlorophyll a, etc.; or untreated stormwater/wastewater discharge occurs within 500 feet of the reach								
	Biology, Water Quality	Nutrient Impairment	NutrImp		Select yes or no from the dropdown menu:	No			0.00
	Metals or other toxics impairment: toxics, dioxin, heavy metals (iron, manganese, lead, zinc, etc.); or untreated stormwater/wastewater discharge occurs within 500 feet of the reach								
	Water Quality	Metals & Toxics Impairment	ToxImp		Select yes or no from the dropdown menu:	No			0.00
	Temperature impairment:								
Biology, Water Quality	Temperature Impairment	TempImp		Select yes or no from the dropdown menu:	No			0.00	
Flow modification:									
Hydrology, Biology	Flow Modification	FlowMod		Select yes or no from the dropdown menu:	No			0.00	

V3 Protected Areas	Is the PA boundary within 300 feet of a special protected area?							
	Answer using information from the site's SFAM Report (Within 300 feet of a Special Protected Area) as well as other available data for the PA and its vicinity. Note: The SFAM Report evaluates whether BLM Areas of Critical Environmental Concern (ACEC) or Outstanding Natural Areas (ONA), federal Research Natural Areas (RNA) or Special Interest Areas (SIA), Natural Heritage Conservation Areas (NHCA), and Land Trust and Nature Conservancy Preserves are within 300 feet of the PA. If there are other lands within 300 feet of the site that are protected specifically for their high ecological significance, select yes and provide references in the assessment notes section of the cover page. <i>Values informed: Maintain Biodiversity, Sustain Trophic Structure</i>							
	Biology		Protect		Select yes or no from the dropdown menu:	No		0.00
V4 Impervious Area	What is the percent impervious area in the drainage basin?							
	Answer using information from the site's StreamStats Report (IMPERV). <i>Values informed: Surface Water Storage, Flow Variation, Sediment Continuity, Substrate Mobility, Create & Maintain Habitat, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation, Thermal Regulation</i>							
	Hydrology, Geomorphology, Biology, Water Quality		ImpArea		<10%, select A; 10-25%, select B; >25-60%, select C; >60%, select D.	D		1.00
V5 Riparian Area	What is the percentage of intact riparian area within 2 miles upstream of the PA?							
	Intact refers to a riparian area with forest or otherwise unmanaged (i.e. natural) perennial cover appropriate for the basin that is at least 15 ft wide on both sides of the channel. Unmanaged perennial cover is vegetation that includes wooded areas, native prairies, sagebrush, vegetated wetlands, as well as relatively unmanaged commercial lands in which the ground and vegetation is disturbed less than annually, such as lightly grazed pastures, timber harvest areas, and rangeland. It does not include water, pasture, row crops (e.g., vegetable, orchards, Christmas tree farms), lawns, residential areas, golf courses, recreational fields, pavement, bare soil, rock, bare sand, or gravel or dirt roads. <i>Values informed: Create & Maintain Habitat, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation, Thermal Regulation</i>							
	Biology, Water Quality		RipArea		If >50% select A. If >35-50%, select B. If 15-35%, select C. If <15%, select D.	D		0.00
V6 Extent of Downstream Floodplain Infrastructure	What is the extent of infrastructure (buildings, bridges, utilities, row crops) in the floodplain?							
	Consider the floodplain area between the PA and either the next largest water body (large tributary, mainstem junction, lake, etc.) or 2 miles downstream, whichever is less. <i>Values informed: Surface Water Storage, Sediment Continuity, Create & Maintain Habitat, Sustain Trophic Structure</i>							
	Hydrology, Geomorphology, Biology		DwnFP		If >50% of total area, select A. If 1-50% of total area, select B. If none, select C. If not known or the downstream floodplain is not mapped, select D.	D		0.00
V7 Zoning	What is the dominant zoned land use designation downstream of the PA?							
	Consider the floodplain area between the PA and either the next largest water body (larger tributary, mainstem junction, lake, etc.) or 2 miles downstream, whichever is less. <i>Values informed: Surface Water Storage, Create & Maintain Habitat, Sustain Trophic Structure</i>							
	Hydrology, Biology		Zoning		If developed (commercial, industrial, residential, etc.), select A. If agriculture or rural residential, select B. If forest, open space, or public lands, select C. If not zoned or no information, select D.	A		1.00
V8 Frequency of Downstream Flooding	What is the frequency of downstream flooding?							
	Consider the floodplain area between the PA and either the next largest water body or 2 miles, whichever is less. Determine the frequency of flooding downstream of the PA that affects infrastructure (i.e. affects use of the site or causes economic loss). <i>Values informed: Surface Water Storage</i>							
	Hydrology		DwnFld		If frequent (several times a year), select A. If moderate (up to once a year), select B. If infrequent (only large events), select C. If never or not known, select D.	D		0.00

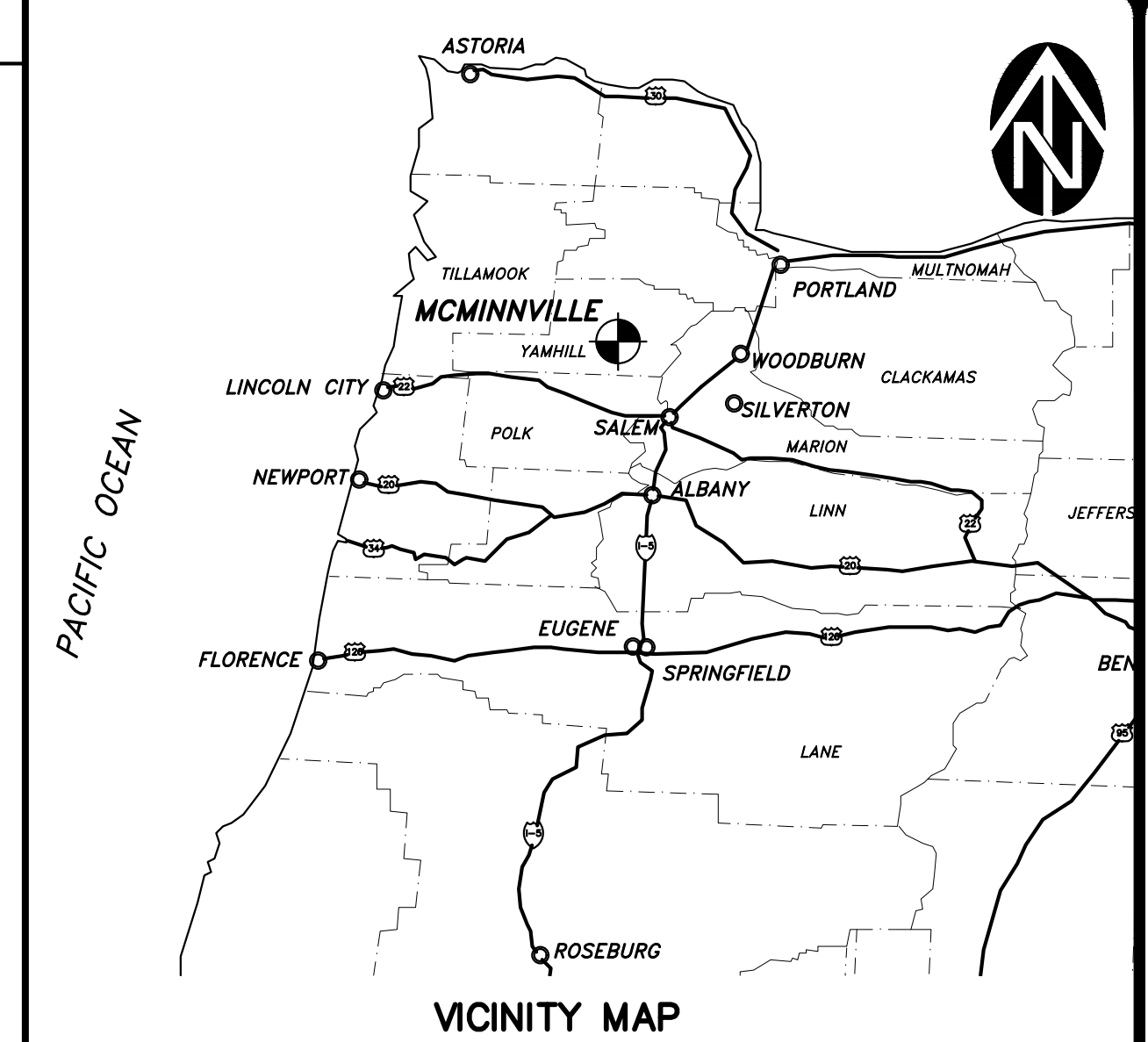
V9 Impoundments	What is the prevalence of impoundments within 2 miles upstream and downstream of the PA that are likely to cause shifts in timing or volume of water? The shift may be by hours, days, or weeks, becoming either more muted (smaller or less frequent peaks spread over longer times, more temporal homogeneity of flow or water levels) or more flashy (larger or more frequent spikes but over shorter times). For each category, select yes or no from the dropdown menu. <i>Values informed: Surface Water Storage, Flow Variation, Sediment Continuity, Substrate Mobility, Create & Maintain Habitat; Functions informed: Flow Variation</i>								
	Hydrology, Geomorphology, Biology		Impound		Are there 1-2 small dams or other impoundments <u>upstream</u> of the PA?	No	Upstream impoundments subscore:	1.00	
					Are there >2 small impoundments, 1 or more large dams or other impoundments <u>upstream</u> of the PA?	No			
					Are there 1-2 small dams or other impoundments <u>downstream</u> of the PA?	Yes	Downstream impoundments subscore:	0.50	
Are there >2 small impoundments, 1 or more large dams or other impoundments <u>downstream</u> of the PA?					No				
V10 Fish Passage Barriers	Are there man-made fish passage barriers within 2 miles upstream and/or downstream of the PA? Select an answer from the drop-down menu for each of the upstream and downstream directions. If more than one barrier is present, answer for the one with the most restricted level of passage (e.g. Blocked). Do not include natural barriers. <i>Values informed: Maintain Biodiversity, Sustain Trophic Structure</i>								
	Biology		Passage	Slope barrier	Upstream	Blocked	0.00	0.00	
				Downstream	Blocked	0.00			
V11 Water Source	Is there an area that is of special concern for drinking water sources or groundwater recharge within 2 miles downstream of the PA? This includes any of the following: the source area for a surface-water drinking water source; the source area for a groundwater drinking water source; a designated Groundwater Management Area; a designated Sole Source Aquifer. <i>Values informed: Sub/Surface Transfer, Nutrient Cycling, Chemical Regulation</i>								
	Hydrology, Water Quality		Source		Select yes or no from the dropdown menu:	Yes		1.00	
V12 Surrounding Land Cover	What are the land cover types surrounding the PA? Draw a 2 mile radius around the PA. Provide an estimate of the percentage of area within the resulting polygon that matches each land cover description. Enter 0% if none. Enter 1% if barely present. Must sum to 100%. <i>Values informed: Maintain Biodiversity, Sustain Trophic Structure</i>								
	Biology		SurrLand		Unmanaged vegetation (wetland, native grassland, forest) or water	5	× 1.00	5.00	0.30
					Managed vegetation (pasture, regularly watered lawn (i.e. park), row crops, orchards)	50	× 0.50	25.00	
					None of the above (including bare areas [dirt, rock], roads, energy facilities, residential, commercial, industrial)	45	× 0.00	0.00	
SUM	100								
V13 Riparian Continuity	What is the longitudinal extent of intact riparian area that is contiguous to the PA? Select the longest length of contiguous riparian corridor in either the upstream or downstream direction, but do not include the PA length itself. Intact refers to a riparian area with forest or otherwise managed (i.e. natural) perennial cover appropriate for the basin that is at least 15 ft wide on both sides of the channel. Contiguous means there are no > 100 ft gaps in forested cover or unmanaged perennial cover. Unmanaged perennial cover is vegetation that includes wooded areas, native prairies, sagebrush, vegetated wetlands, as well as relatively unmanaged commercial lands in which the ground and vegetation is disturbed less than annually, such as lightly grazed pastures, timber harvest areas, and rangeland. It does not include water, pasture, row crops (e.g., vegetable, orchards, Christmas tree farms), lawns, residential areas, golf courses, recreational fields, pavement, bare soil, rock, bare sand, or gravel or dirt roads. <i>Values informed: Maintain Biodiversity, Create & Maintain Habitat, Sustain Trophic Structure, Nutrient Cycling, Chemical Regulation, Thermal Regulation</i>								
	Biology, Water Quality		RipCon		If <100 feet, select A. If 100-500 feet, select B. If >500 feet, select C.	B		0.50	
V14 Watershed Position	What is the relative position of the PA in its HUC 8 watershed? Answer this question looking at position of the PA relative to the 8-digit HUC layer. • If the PA is (a) closer to the watershed's outlet than its upper end and (b) closer to the large stream/river exiting the watershed's outlet than it is to the boundary of the watershed, select "lower 1/3." • If the PA is (a) closer to the watershed's upper end than its outlet and (b) closer to the watershed's boundary than its large stream/river, select "upper 1/3." • If neither of the above conditions are met, select "middle 1/3." <i>Values informed: Sediment Continuity, Nutrient Cycling, Chemical Regulation</i>								
	Geomorphology, Water Quality		Position		Select an answer from the dropdown menu:	Lower 1/3		1.00	

V15 Flow Restoration Needs	What is the "streamflow restoration need" ranking of the watershed within which the PA is located?									
	Answer this question using the Flow Restoration Needs layer in the SFAM Map Viewer. <i>Values informed: Flow Variation, Create & Maintain Habitat</i>									
	Hydrology, Biology		FlowRest		Select an answer from the dropdown menu:	Moderate		0.50		
V16 Unique Habitat Features	Are there rare aquatic habitat features within the FAA that are not common to the rest of the drainage basin?									
	For each feature type, select yes or no from the dropdown menu. This question must be answered in the field, but the user can check for any mapped wetlands or seeps, springs, or tributaries in the office using the Oregon Wetlands Cover, Springs, and the Flowline layers, respectively. <i>Values informed: Substrate Mobility, Maintain Biodiversity, Create & Maintain Habitat, Sustain Trophic Structure, Thermal Regulation</i>									
	Geomorphology, Biology			HabFeat		Large log jams that span 25% or more of the active channel width?	No	Overall HabFeat score	0.00	
						Braided channel or otherwise multiple channels resulting in islands?	No			
						Large spatial extent (>30%) of wetlands in the floodplain?	No			Substrate subscore	0.00
Seeps, springs, or tributaries contributing colder water?						No	Thermal subscore			0.00
Already in Stream Classification on Cover Page - NO DATA INPUT REQUIRED.										
Surface Water Runoff	What is the level of surface water runoff (based on local water availability and local gradient)?									
	No data input necessary, information taken from EPA classification (stream type & gradient).									
	Hydrology		Runoff					1.00		
Aquifer Permeability	What is the permeability of the aquifer (determined by percent permeable bedrock based on hydraulic conductivity m/day)?									
	No data input necessary, information taken from EPA classification.									
	Hydrology		AqPerm			High		0.00		
Soil Permeability	What is the permeability of the soil (based on hydraulic conductivity in cm/hr)?									
	No data input necessary, information taken from EPA classification.									
	Hydrology		SoilPerm			High		0.00		
Erodibility	What is the erodibility of this reach?									
	No data input necessary, information taken from EPA classification.									
	Geomorphology		Erode			Easily Erodible		1.00		

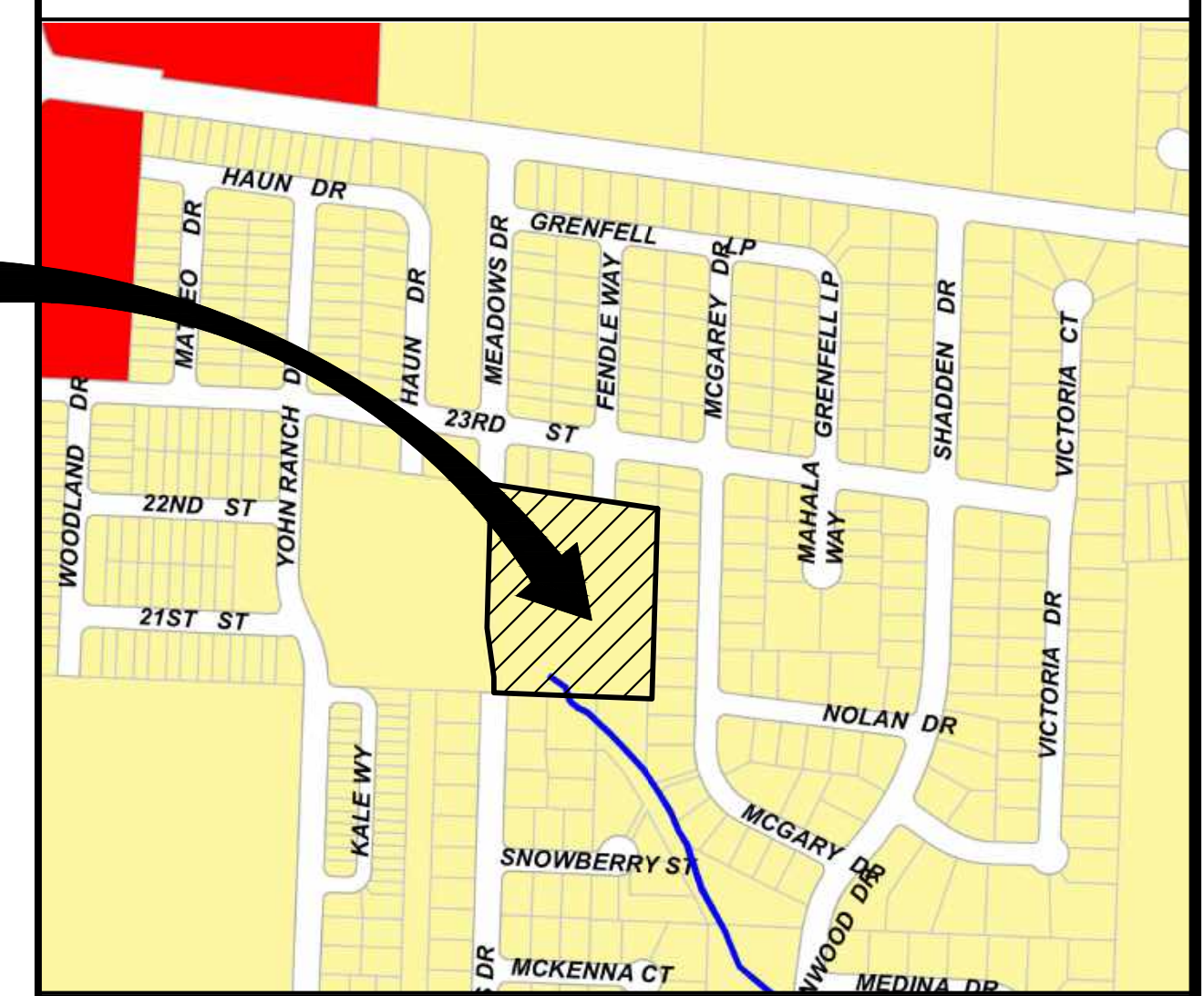
DRAWINGS FOR: ELYSIAN SUBDIVISION PHASE I & II

FOR:
DON JONES
VJ-2 DEVELOPMENT INC.
695 COMMERCIAL STREET SE STE 006
SALEM, OR 97301

PROJECT LOCATION



PROJECT LOCATION



SHT NO	DESCRIPTION
C0.0	COVER SHEET, INDEX, & VICINITY MAP
C0.1	EXISTING CONDITIONS PLAN
C1.0	PRE-DEVELOPED EROSION CONTROL PLAN
C1.1	POST-DEVELOPED EROSION CONTROL PLAN
C1.2	EROSION CONTROL NOTES
C1.7	EROSION CONTROL DETAILS
C2.0	OVERALL SUBDIVISION PLAN
C3.0	OVERALL GRADING AND DRAINAGE PLAN
C4.0	OVERALL UTILITY PLAN
ST-1	MEADOWS STREET PLAN AND PROFILE
ST-2	FENDLE WAY PLAN AND PROFILE
ST-3	FENDLE WAY CUL-DE-SAC PLAN AND PROFILE
ST-4	STORM DRAIN PLAN AND PROFILE
SS-1	MEADOWS SANITARY SEWER PLAN AND PROFILE
SS-2	FENDLE WAY SANITARY SEWER PLAN AND PROFILE
W-1	OVERALL WATER PLAN
W-2	WATER DETAILS
W-3	WATER DETAILS
UT-1	MEADOWS AND FENDLE POWER PLAN
UT-2	DETAILS
UT-3	DETAILS
CC-0	CONSTRUCTION NOTES
CC-1	DETAILS
CC-2	DETAILS



Know what's below.
Call before you dig.

NO.	DATE	DESCRIPTION	BY
1	08/20/2008		

REVIEW REVIEW

REGISTERED PROFESSIONAL ENGINEER
WILLIAM J. WELLS
NOV. 12, 2008
OREGON

WESTTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westtech@westtech-eng.com

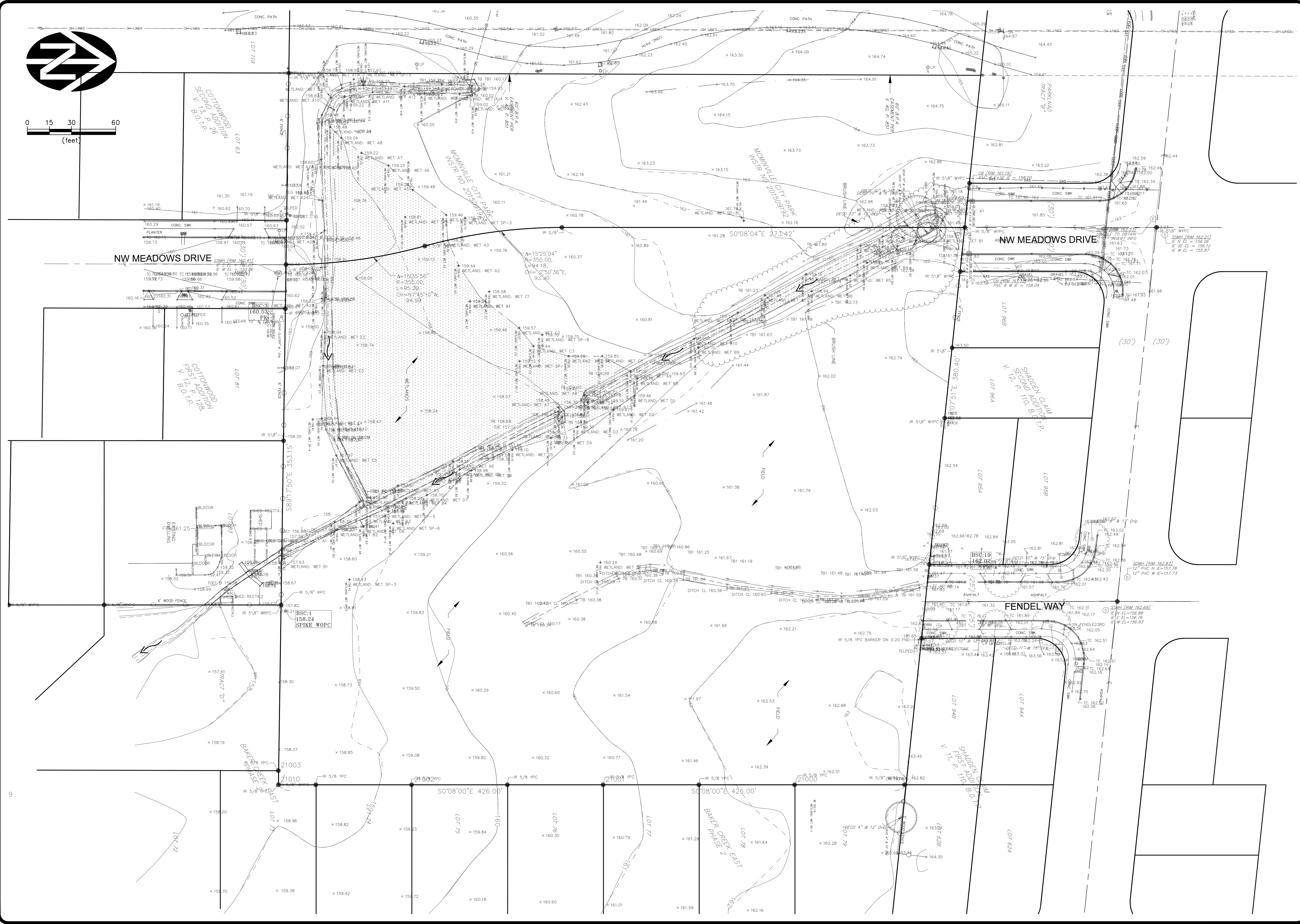
VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION

COVER SHEET, INDEX, AND
VICINITY MAP

DRAWING
C0.0

JOB NUMBER
2931.0000.0

1/25/2022 4:40:38 PM
E:\DWGSD\Don Jones - Subdivision - 2931.0000\Civil\Plots\CO.1 - EXISTING CONDITIONS PLAN.dwg. (CO.1 EXISTING CONDITIONS PLAN.tbl)



NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
THIS IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON SCALE, ACCURACY IS NOT GUARANTEED

DSN. JW
DRN. JH
CKD. JW
DATE: 01/20/22

REVIEW REVIEW

REGISTERED PROFESSIONAL ENGINEER
WILLIAM T. WELLS
NO. 12,110
EXPIRES 12/31/2022

WE

WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION

EXISTING CONDITIONS PLAN

DRAWING
CO.1

JOB NUMBER
2931.0000.0

LEGEND	
	BUILDING FOOTPRINT

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C11	95.29	350.00	15.60	S7° 45' 10"E	94.99
C12	94.18	350.00	15.42	S7° 50' 36"E	93.90

● = CONTRACTOR TO SET C/L MONUMENTS. (8"x8" WASHINGTON COUNTY RING & COVER OR EQUAL).

NOTES:
1. 5FT SIDE-YARD SETBACK PROPOSED ON ALL LOTS.

LOT SUMMARY

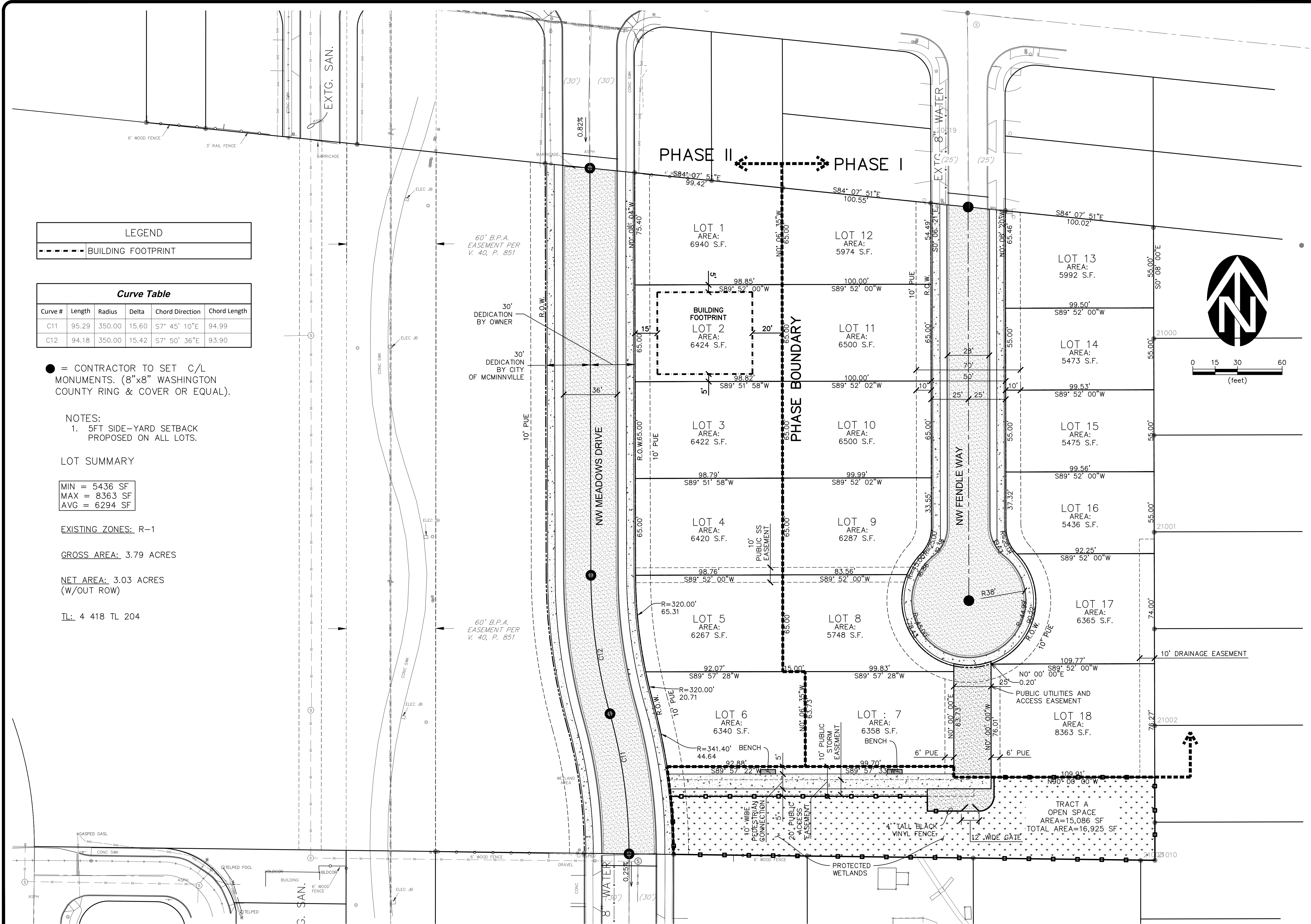
MIN = 5436 SF
MAX = 8363 SF
AVG = 6294 SF

EXISTING ZONES: R-1

GROSS AREA: 3.79 ACRES

NET AREA: 3.03 ACRES (W/OUT ROW)

TL: 4 418 TL 204



NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON SCALES ACCURACLY

DSN. JW
DRN. AK
CKD. JW

DATE: 05/20/2022

REVIEW REVIEW

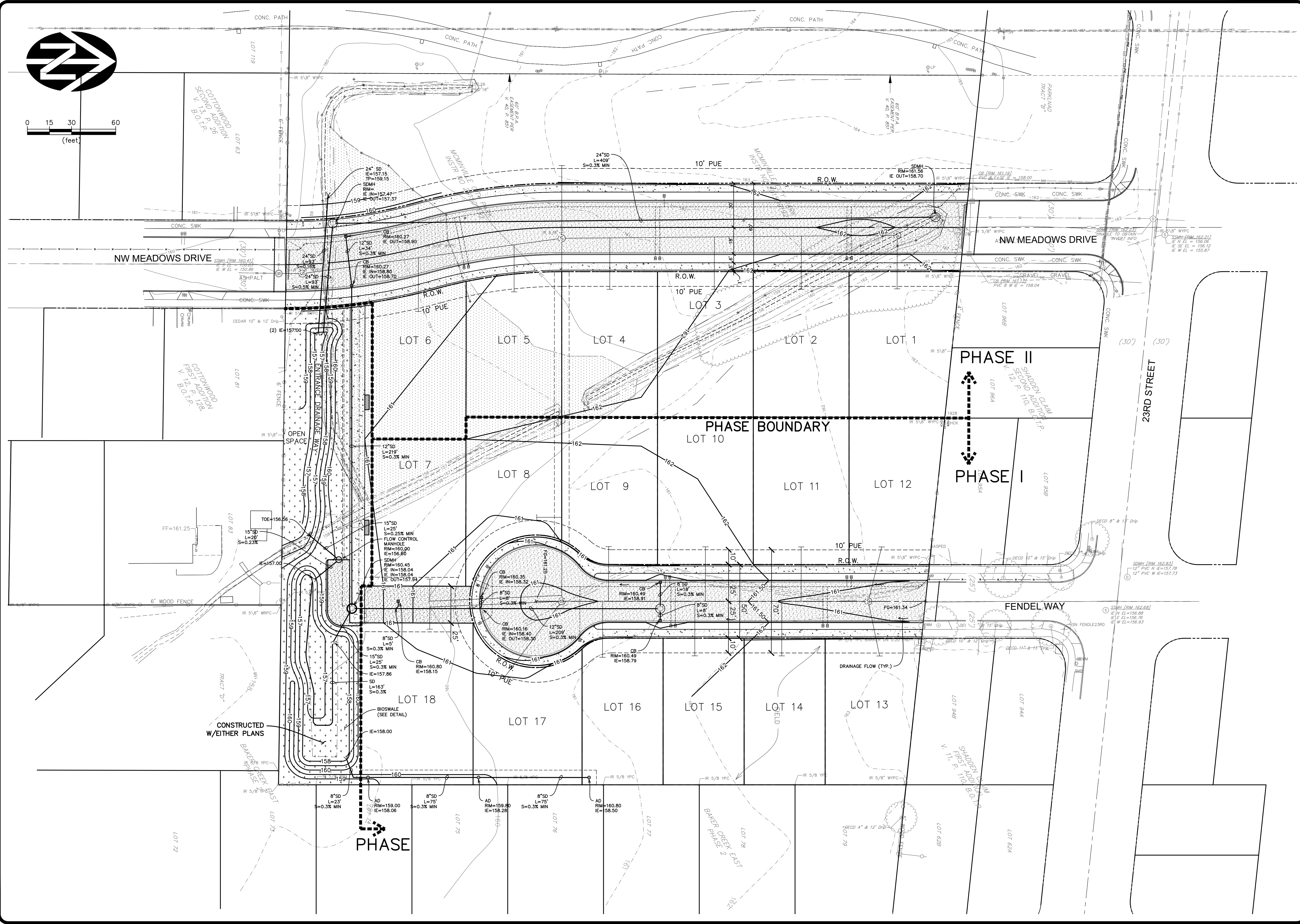
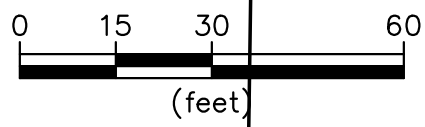
REGISTERED PROFESSIONAL ENGINEER
WILLIAM T. WELLS
No. 12,000,000

WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION
OVERALL SUBDIVISION PLAN

DRAWING
C2.0
JOB NUMBER
2931.0000.0



NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DATE: 05/20/08

DRN. JH/AK
 CKD. JW



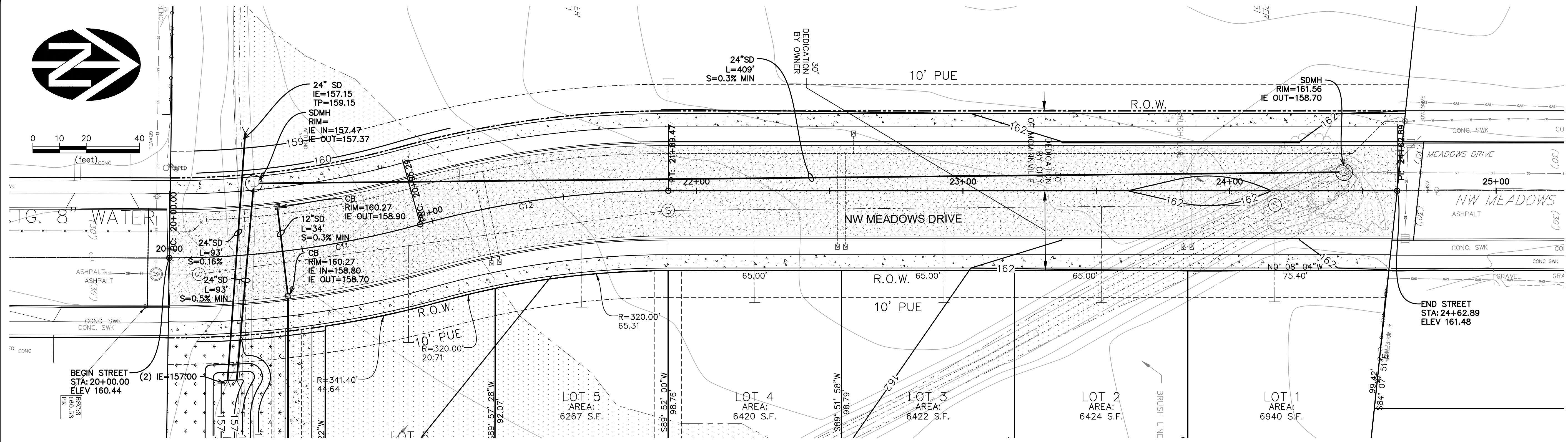
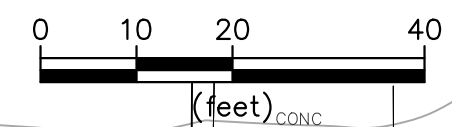
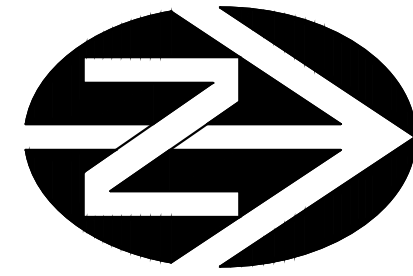
WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

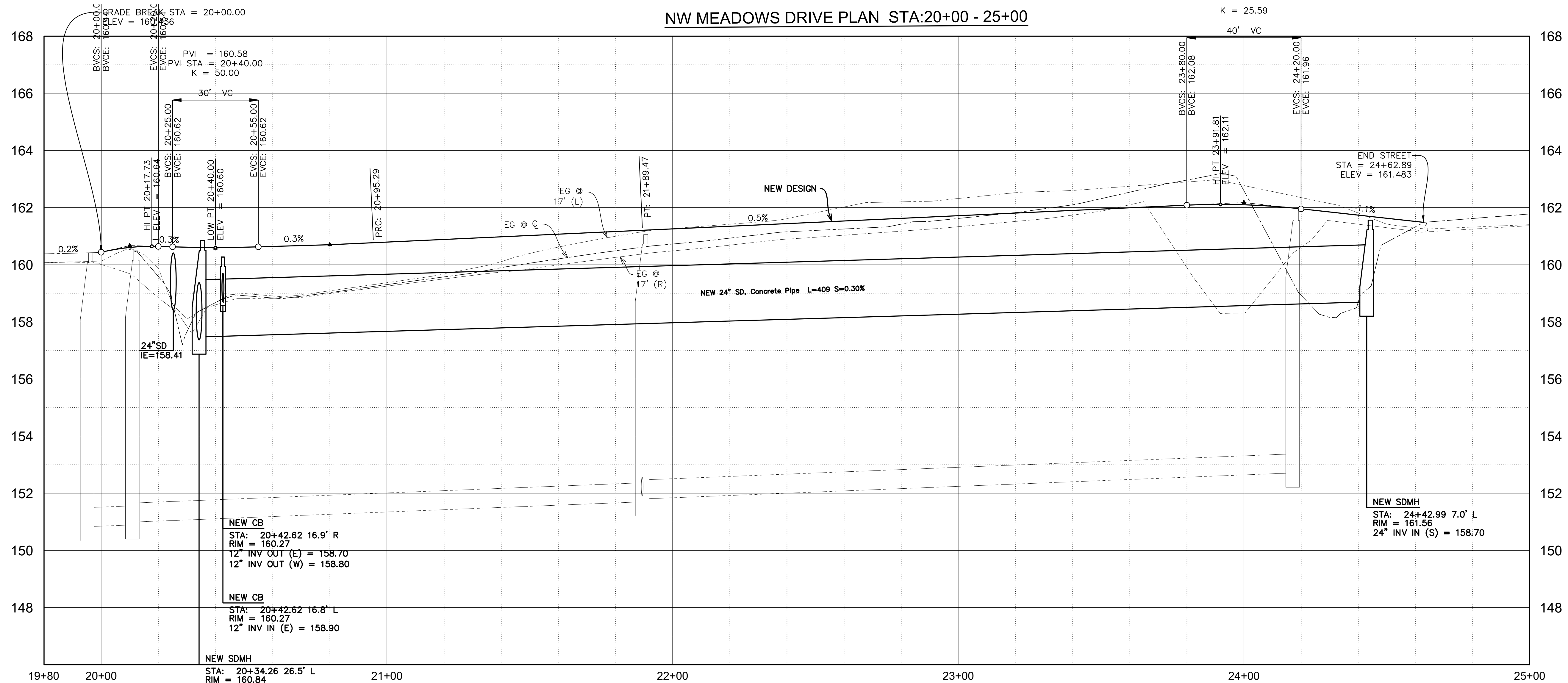
VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

OVERALL GRADING AND DRAINAGE PLAN

DRAWING
C3.0
 JOB NUMBER
2931.0000.0



NW MEADOWS DRIVE PLAN STA:20+00 - 25+00



NW MEADOWS DRIVE PROFILE STA:20+00-25+00

NO.	DATE	DESCRIPTION	BY
1			

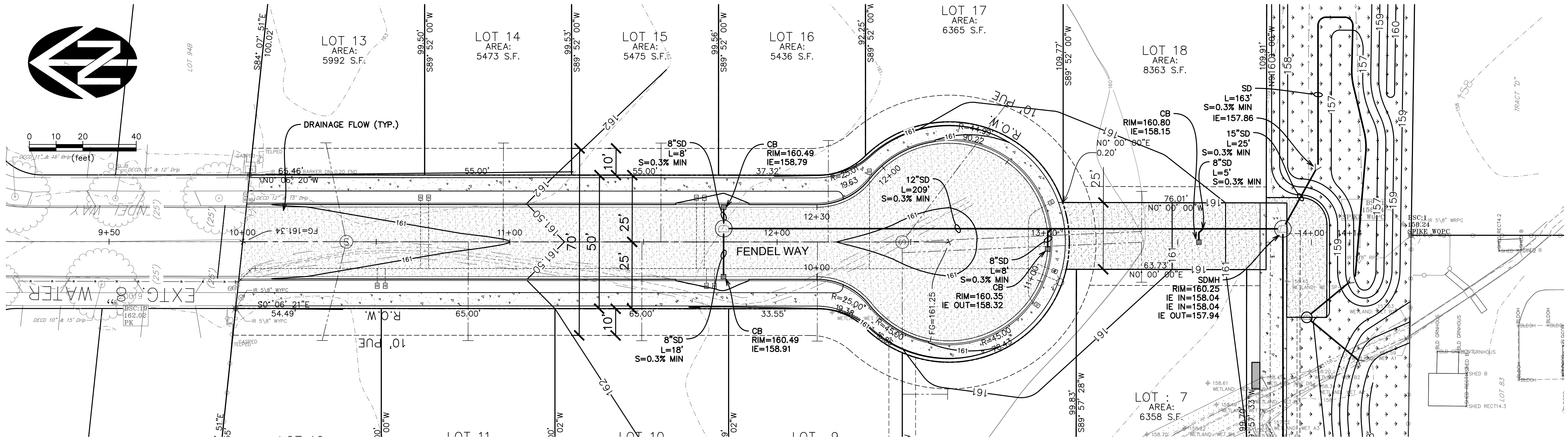
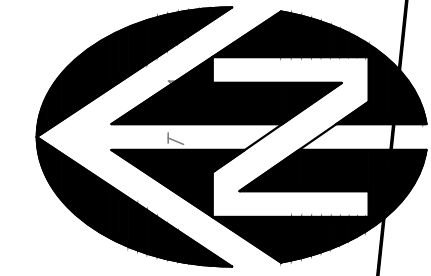
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON SCALES ACCURACLY

REGISTERED PROFESSIONAL ENGINEER
REVIEW REVIEW
WILLIAM T. WELLS
NOV. 12, 2004
6/30/2022

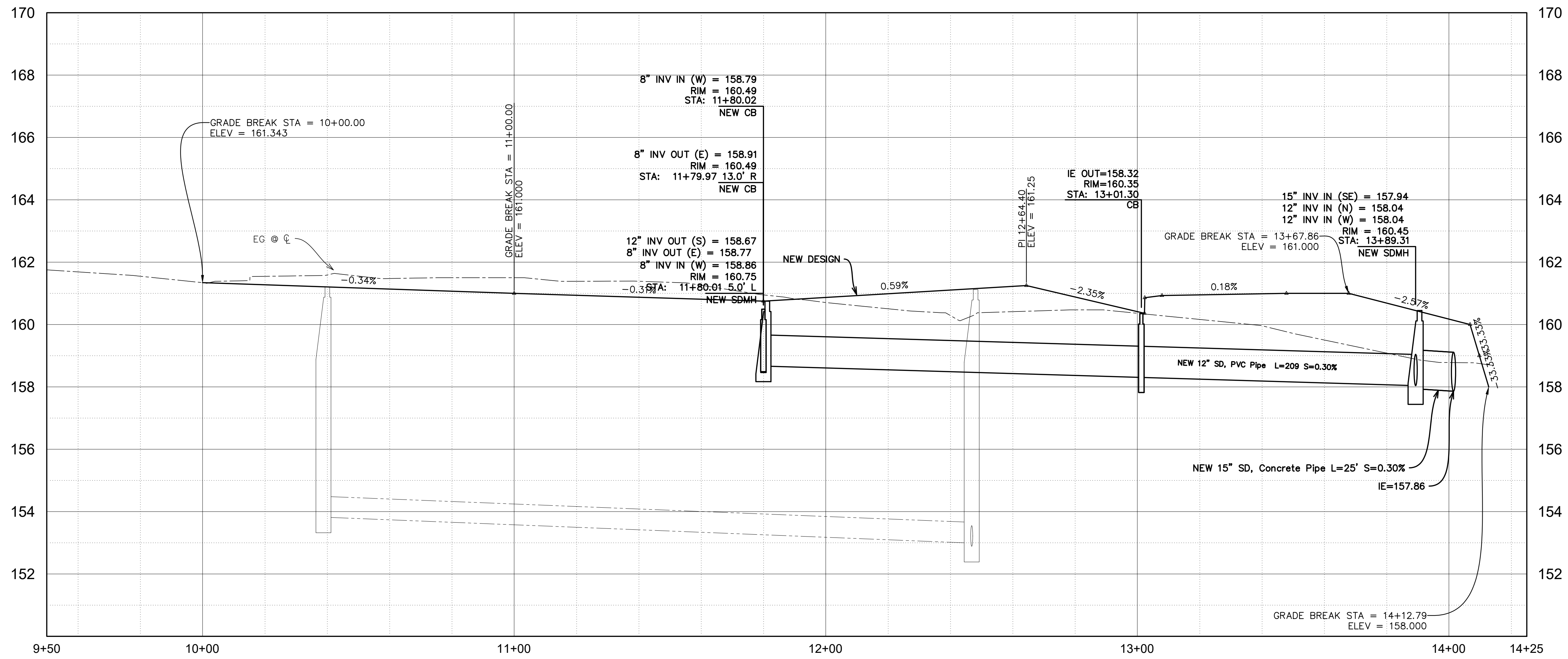
WE
WESTTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION
MEADOWS STREET PLAN AND PROFILE

DRAWING
ST-1
JOB NUMBER
2931.0000.0



NW MEADOWS DRIVE PLAN STA:10+00 - 14+14.40



NW MEADOWS DRIVE PROFILE STA:10+00-14+14.40

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DATE: 06/20/2022

DSN: JH
 DRN: JH
 CKD: JH



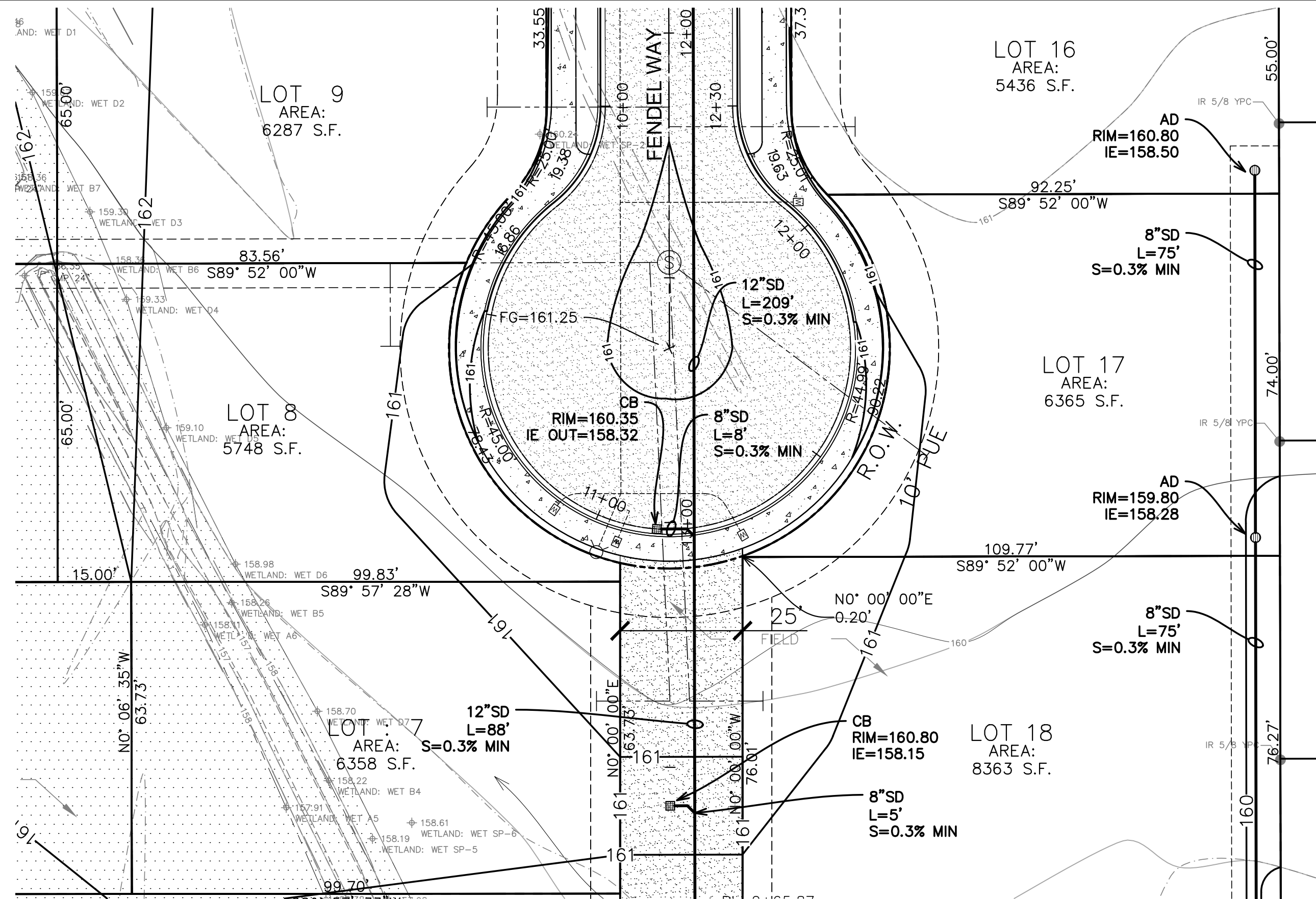
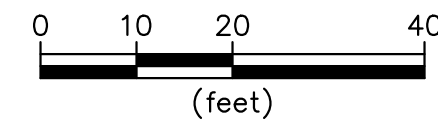
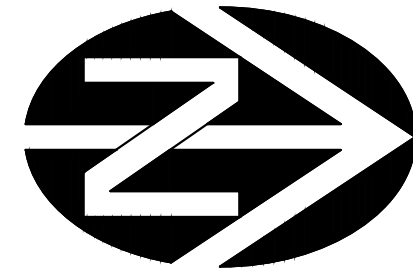
WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

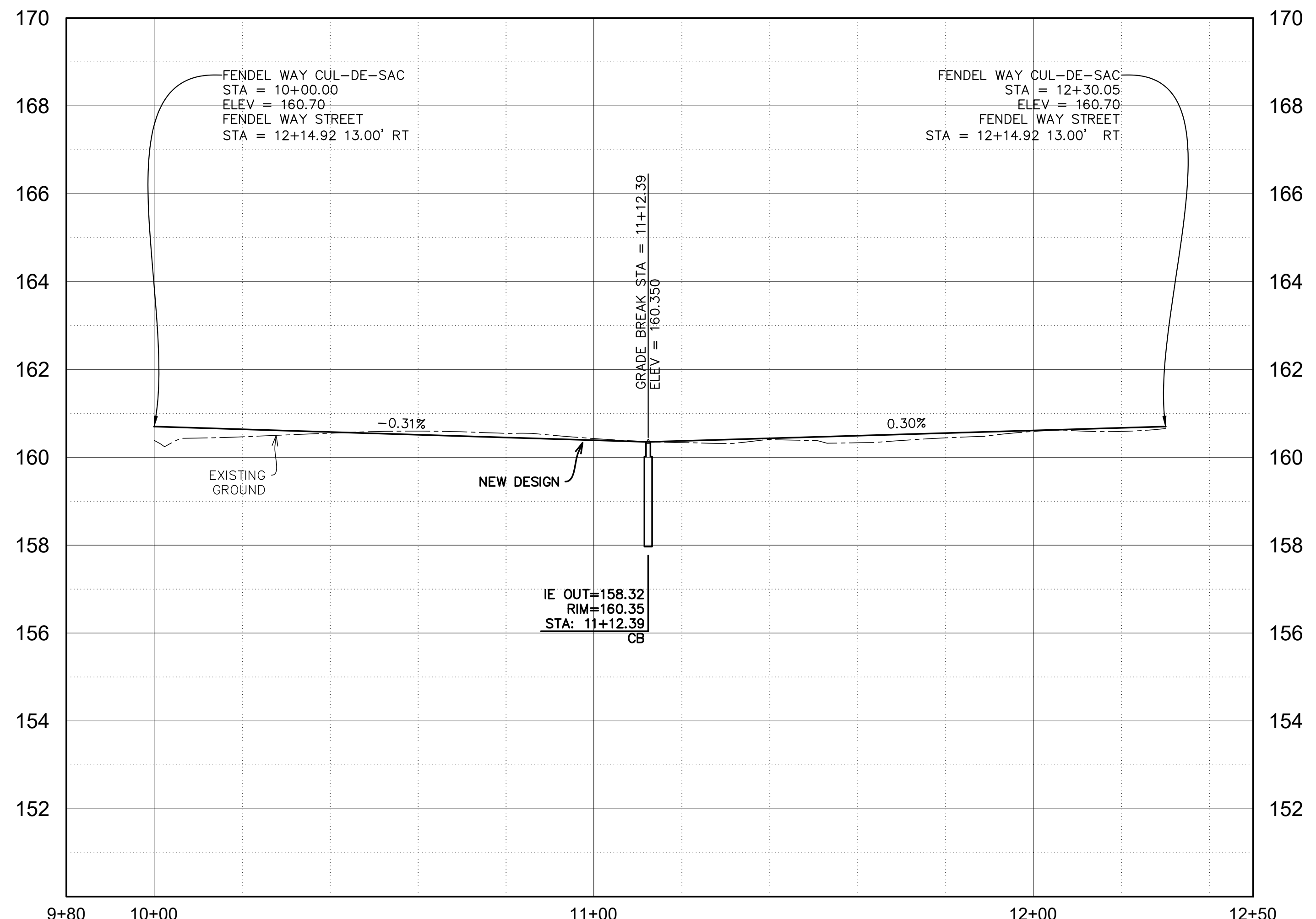
VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

FENDEL WAY PLAN AND PROFILE

DRAWING
ST-2
 JOB NUMBER
2931.0000.0



FENDEL WAY PLAN STA:10+00 - 12+30.05



FENDEL WAY PROFILE STA:10+00 - 12+30.05

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCORDINGLY

DSN. JW
 DRN. JH
 CKD. JW
 DATE: 05/20/2008

REVIEW REVIEW

REGISTERED PROFESSIONAL ENGINEER
 WILLIAM T. WELLS
 REG. NO. 12,288
 OREGON

REVISED: 6/20/2022

WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

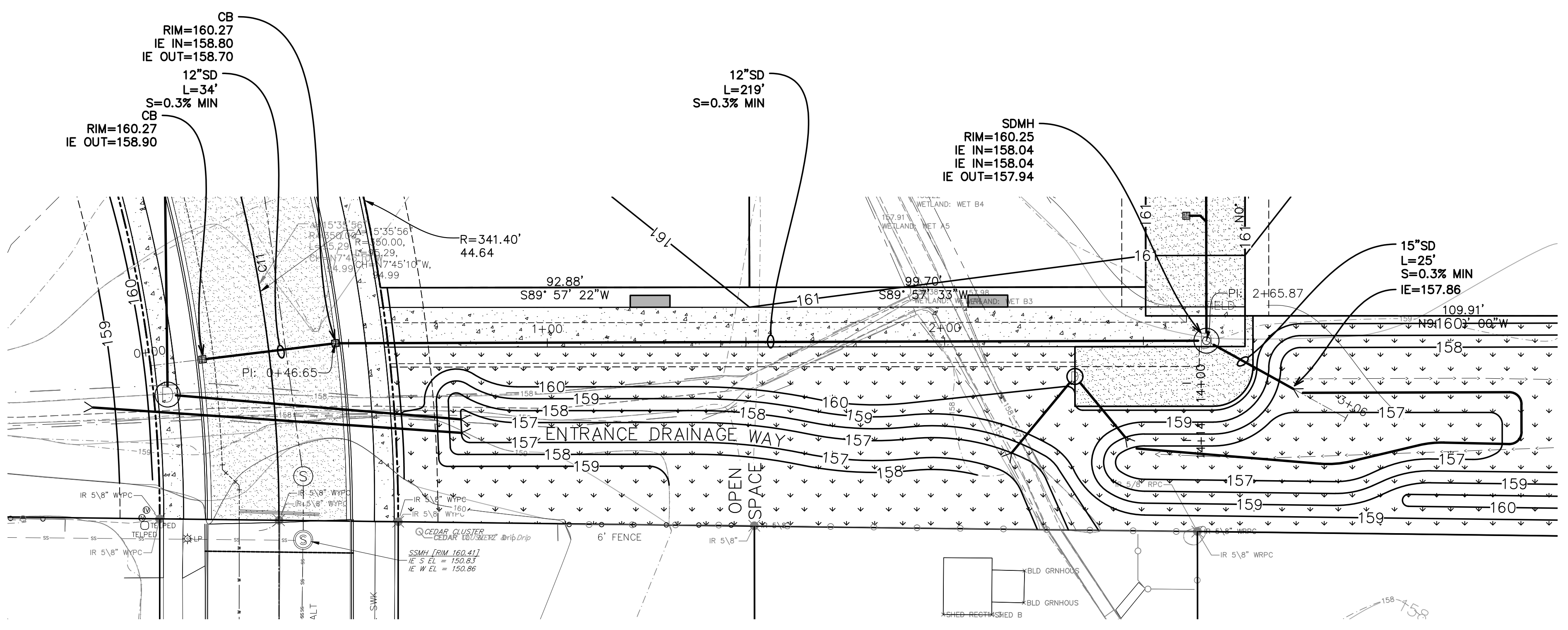
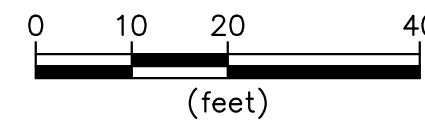
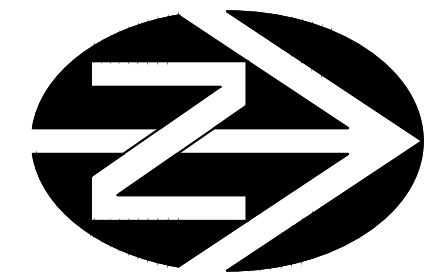
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 565-2474 Fax: (503) 565-3966
 E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

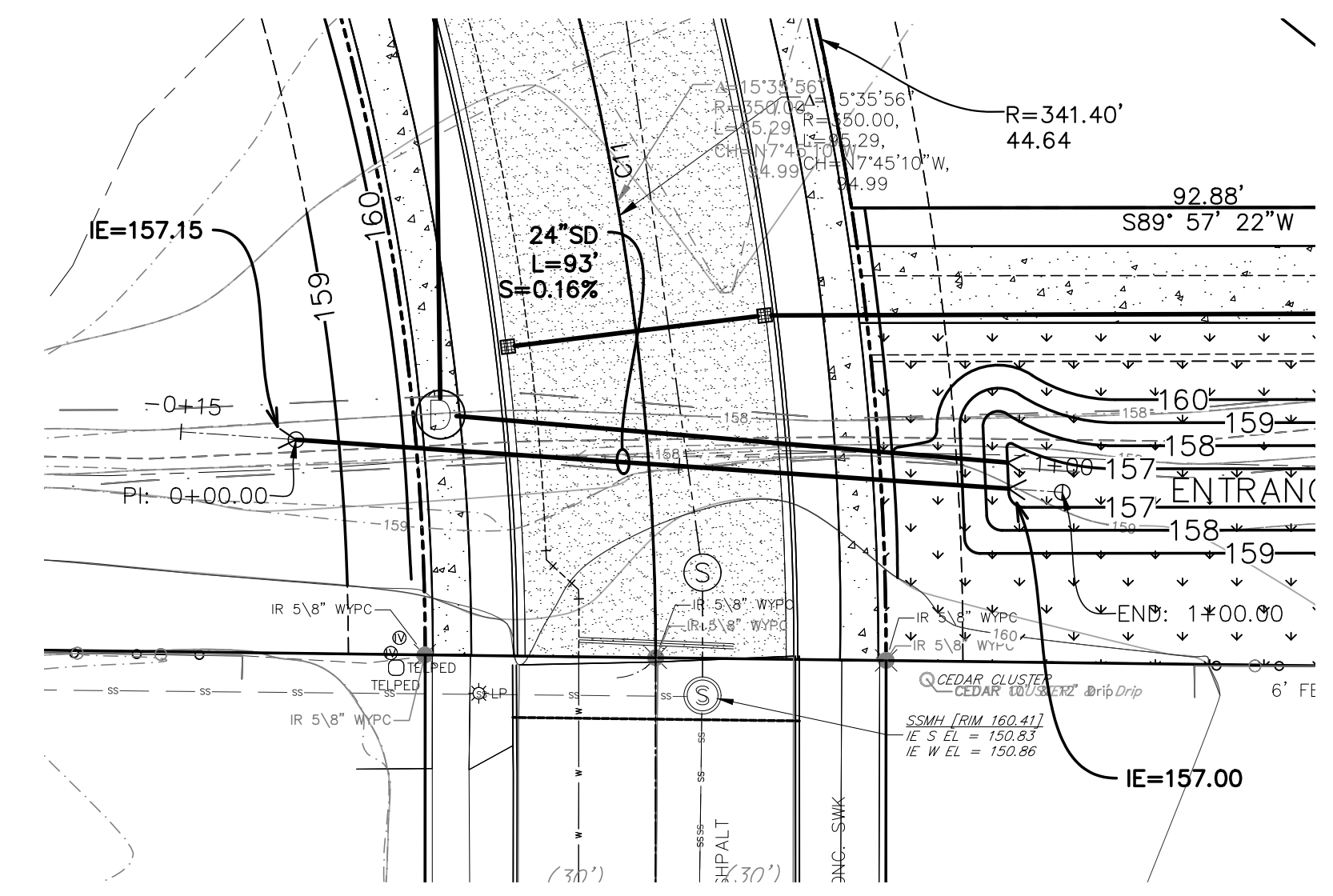
FENDEL WAY CUL-DE-SAC
 PLAN AND PROFILE

DRAWING
 ST-3

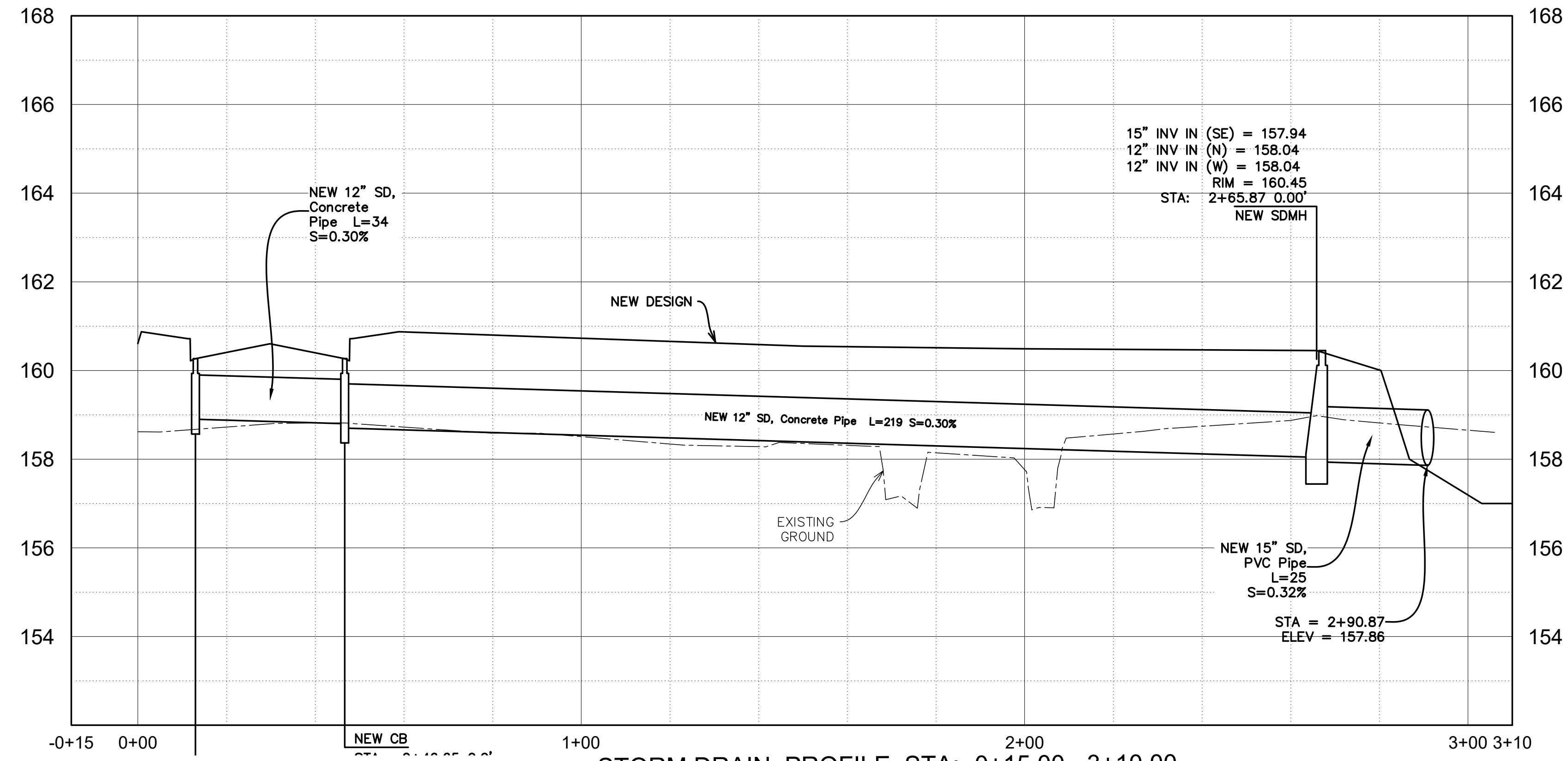
JOB NUMBER
 2931.0000.0



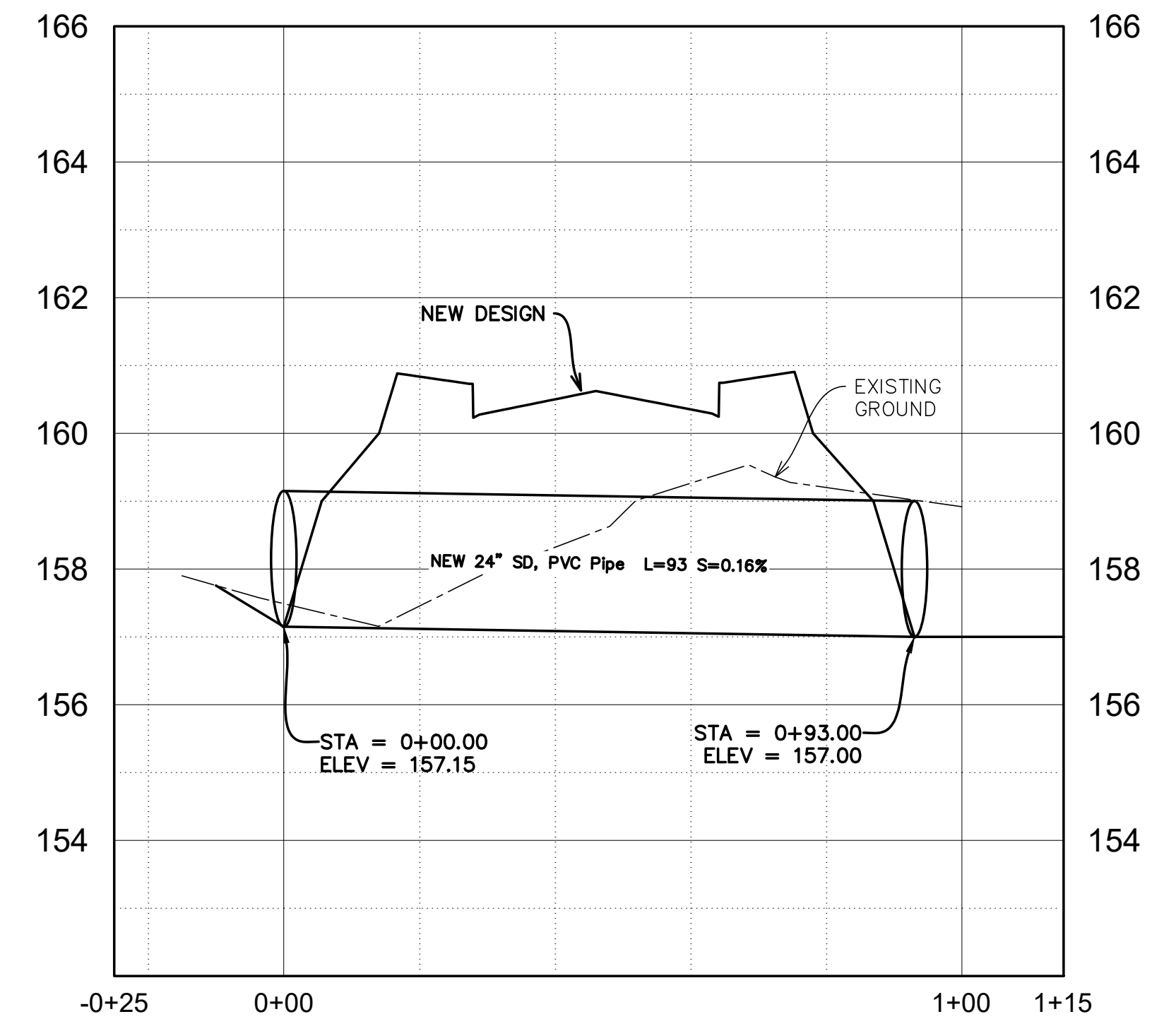
STORM DRAIN PROFILE STA: -0+15.00 - 3+10.00



STORM DRAIN PROFILE STA: -0+25.00 - 1+15.00



STORM DRAIN PROFILE STA: -0+15.00 - 3+10.00



STORM DRAIN PROFILE STA: -0+25.00 - 1+15.00

VERIFY SCALE BASE IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON SCALES ACCURACLY	NO. 1	DATE	DESCRIPTION	BY
DSN. JW	JW			
DRN. JW	JW			
CKD. JW	JW			
DATE: 06/20/2022				

REVIEW REVIEW

REGISTERED PROFESSIONAL ENGINEER
WILLIAM J. WESTTECH
NOV 12, 2003
REG. NO. 120000000
E-MAIL: westtech@westtech-eng.com

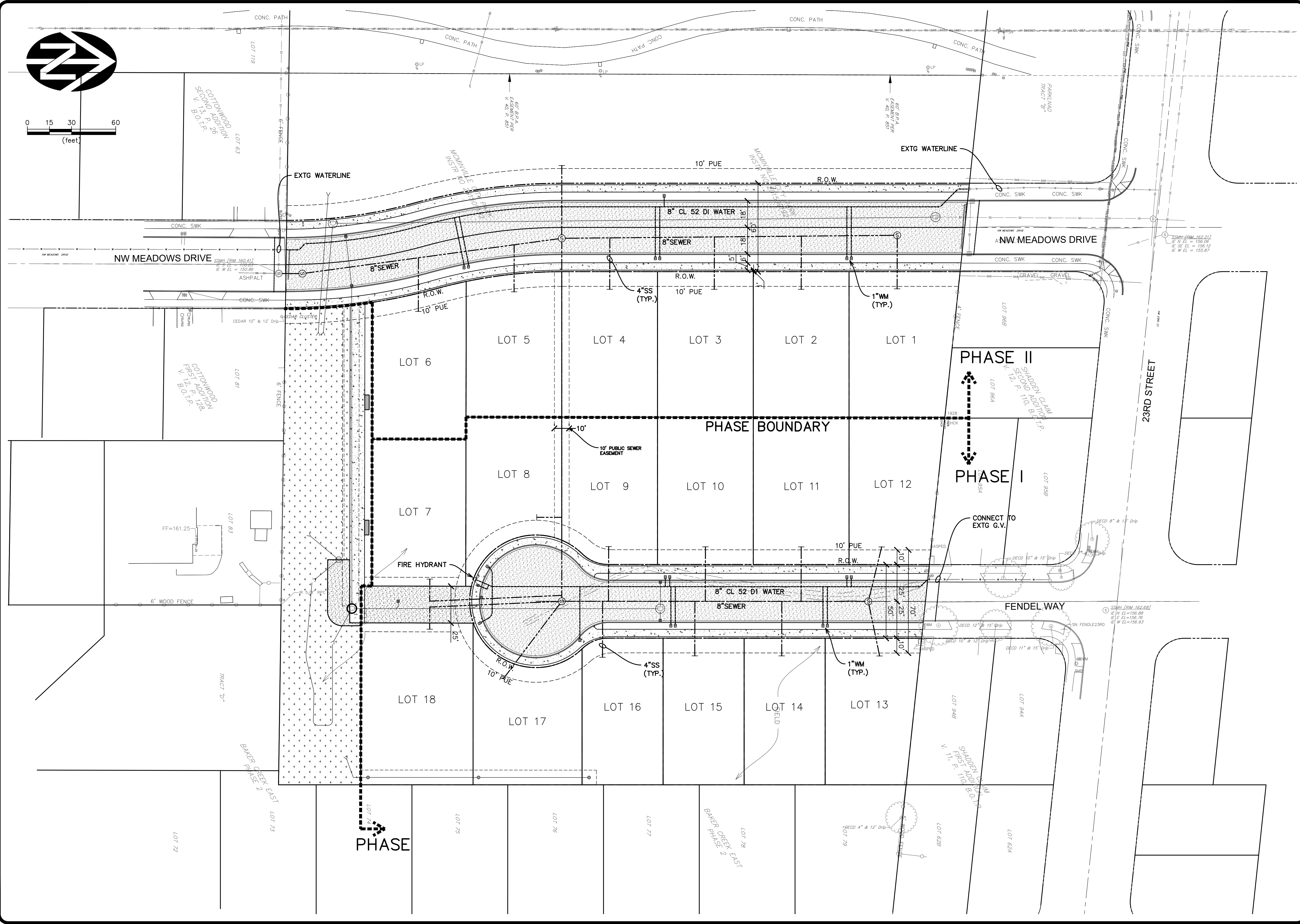
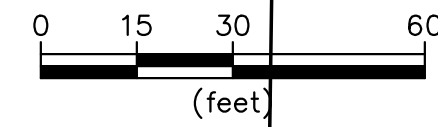
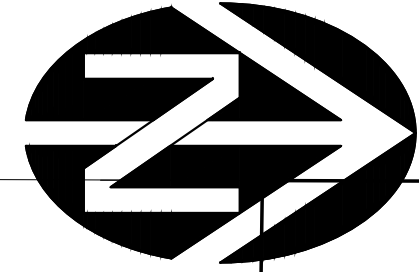
WESTTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION

STORM DRAIN PLAN & PROFILE

DRAWING
ST-4

JOB NUMBER
2931.0000.0



NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DATE: 06/20/2022

REVIEW REVIEW

REGISTERED PROFESSIONAL ENGINEER
 WILLIAM T. WELLS
 WESLAW, INC.
 1100 N. 11th St., Suite 100
 Portland, Oregon 97228
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

WE

WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

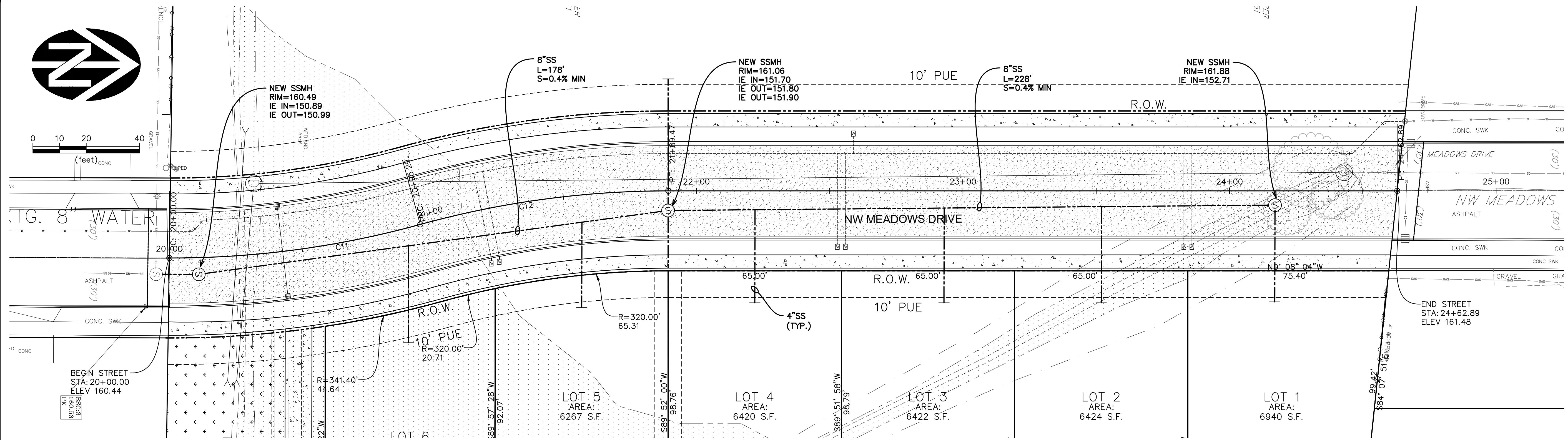
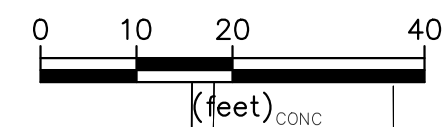
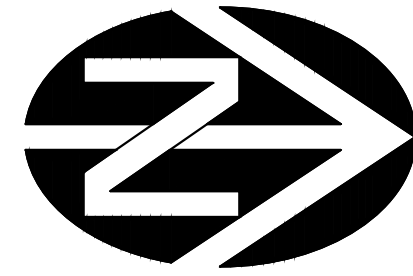
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

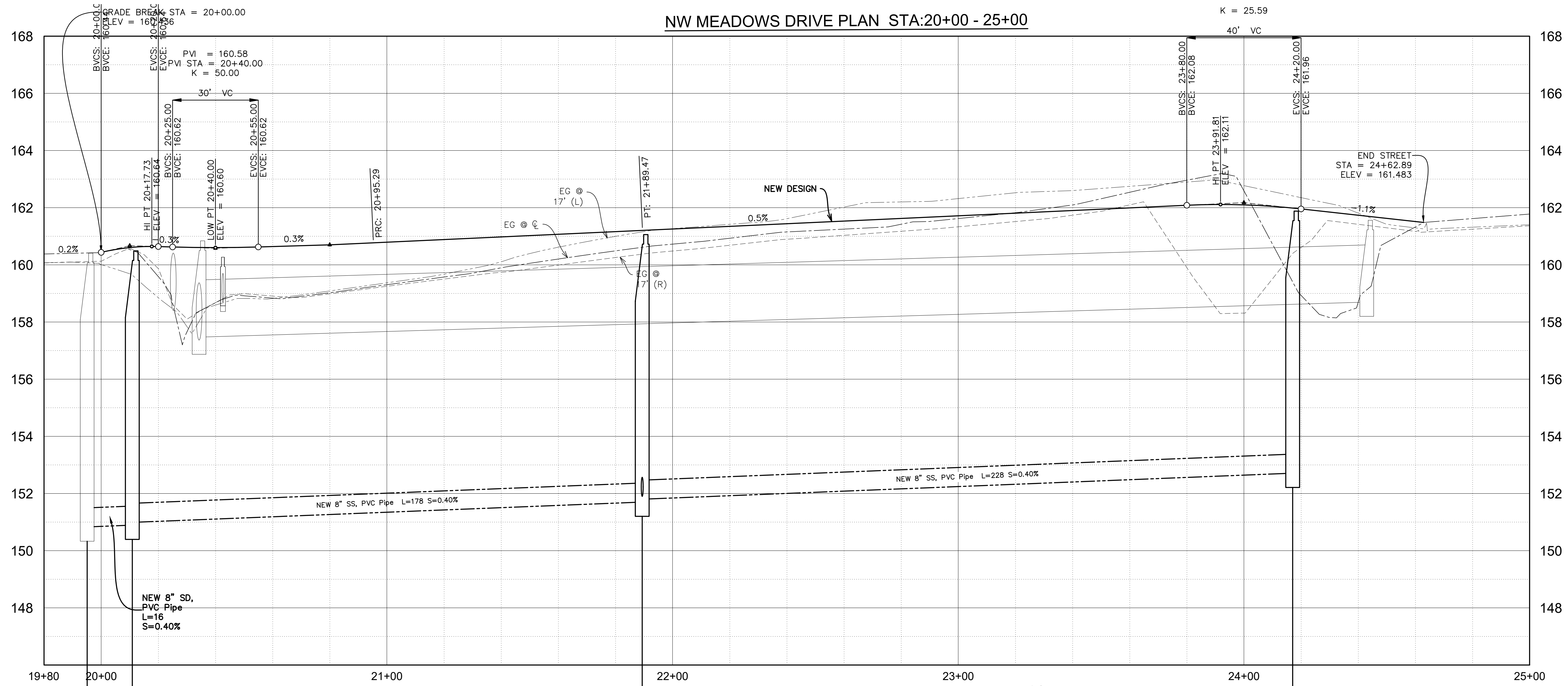
OVERALL UTILITY PLAN

DRAWING
C4.0

JOB NUMBER
2931.0000.0



NW MEADOWS DRIVE PLAN STA:20+00 - 25+00



NW MEADOWS DRIVE PROFILE STA:20+00-25+00

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 1" = 40'
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DSN. JW
 DRN. JH
 CKD. JW
 DATE: 07/20/08

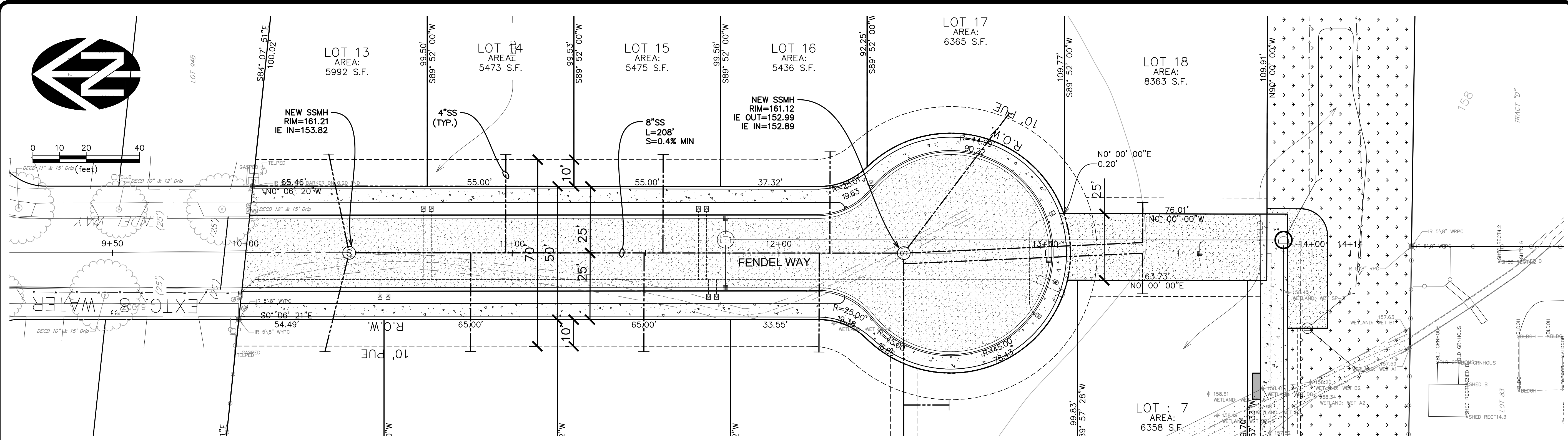
REVIEW REVIEW
 REGISTERED PROFESSIONAL ENGINEER
 WILLIAM T. WELLS
 NO. 12,000,000
 REVIEWS: 6/20/2008

WE
WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS
 3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 565-2474 Fax: (503) 565-3966
 E-mail: westtech@westtech-eng.com

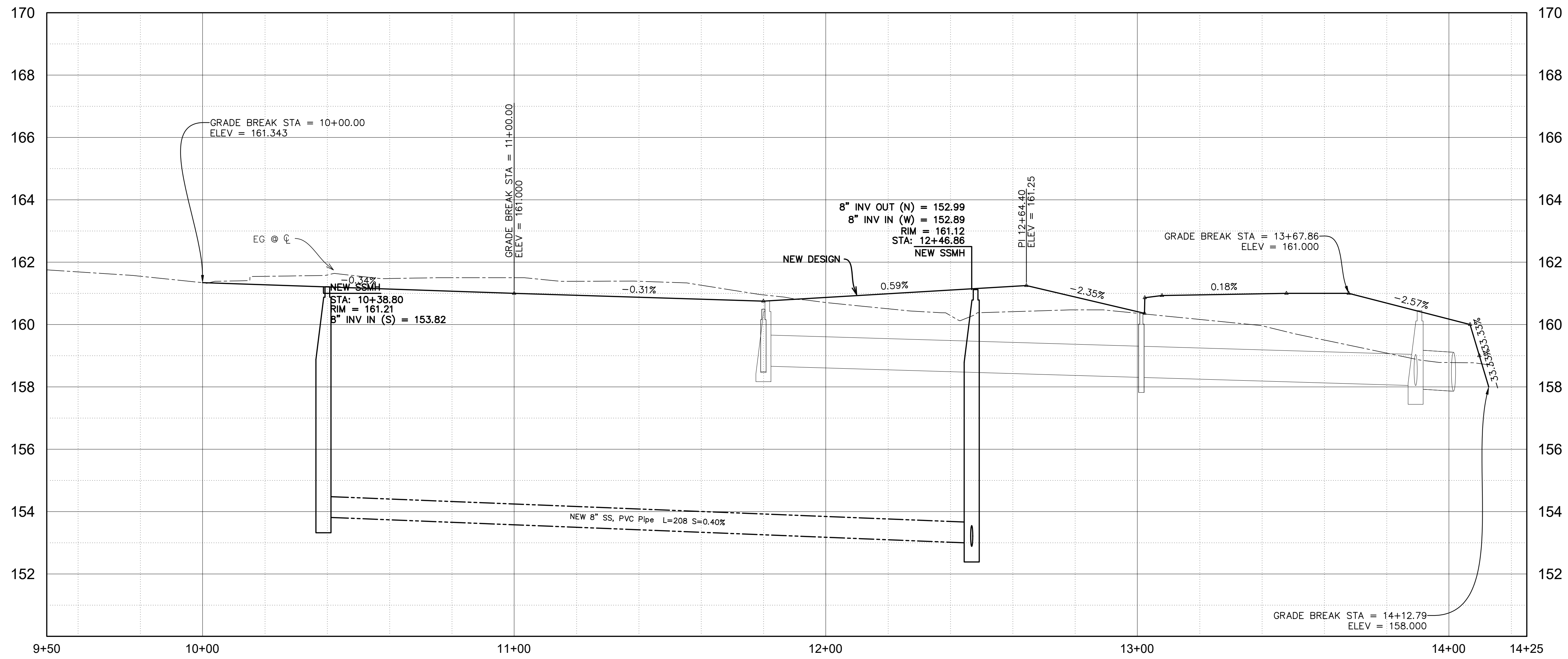
VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
**MEADOWS SANITARY SEWER
 PLAN AND PROFILE**

DRAWING
SS-1

JOB NUMBER
2931.0000.0



FENDEL WAY PLAN STA:10+00 - 12+64.40



FENDEL WAY PROFILE H:1"=10' V:1"=1'

DATE: 07/20/2008	NO. 1	DATE	DESCRIPTION	BY
CKD. JW				
DRN. JH				
DSN. JW				

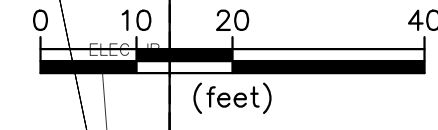
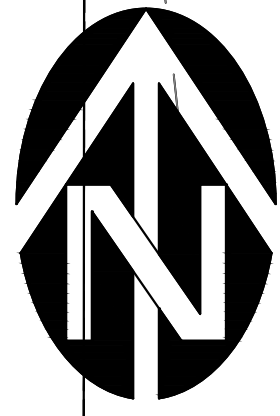
VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

REGISTERED PROFESSIONAL ENGINEER
REVIEW REVIEW
 WILLIAM T. WEST
 1004.12.0000
 WES
 REG. NO. 12,000
 REVIEWS: 6/20/2022

WE
 WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS
 3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
**FENDEL WAY SANITARY SEWER
 PLAN AND PROFILE**

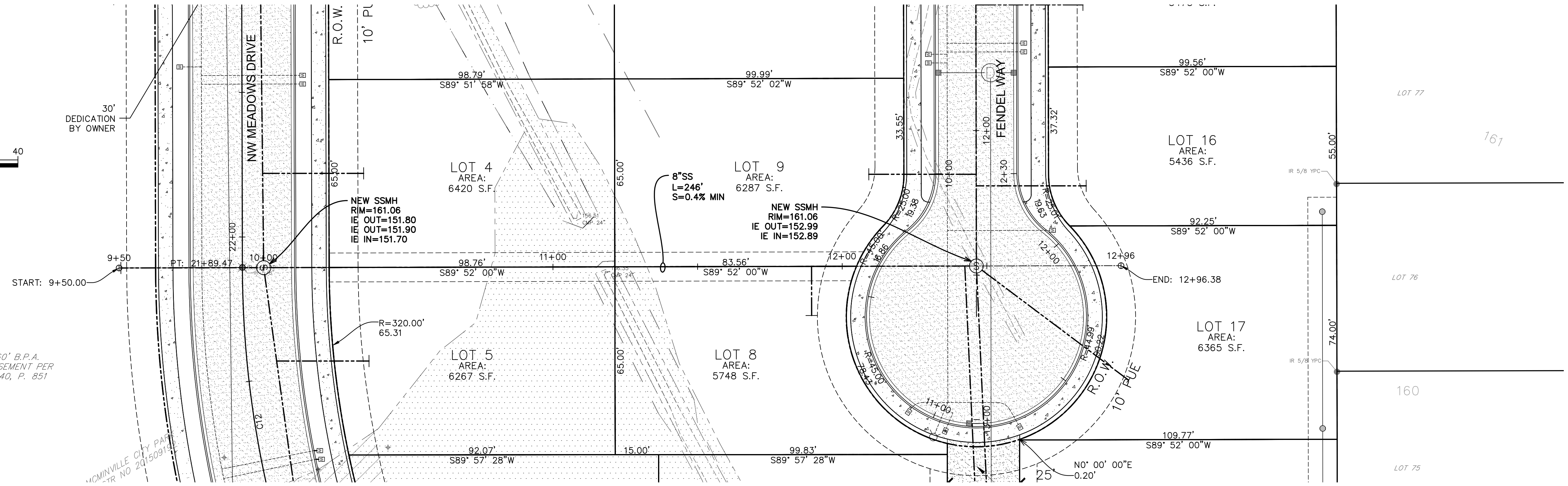
DRAWING
SS-2
 JOB NUMBER
 2931.0000.0



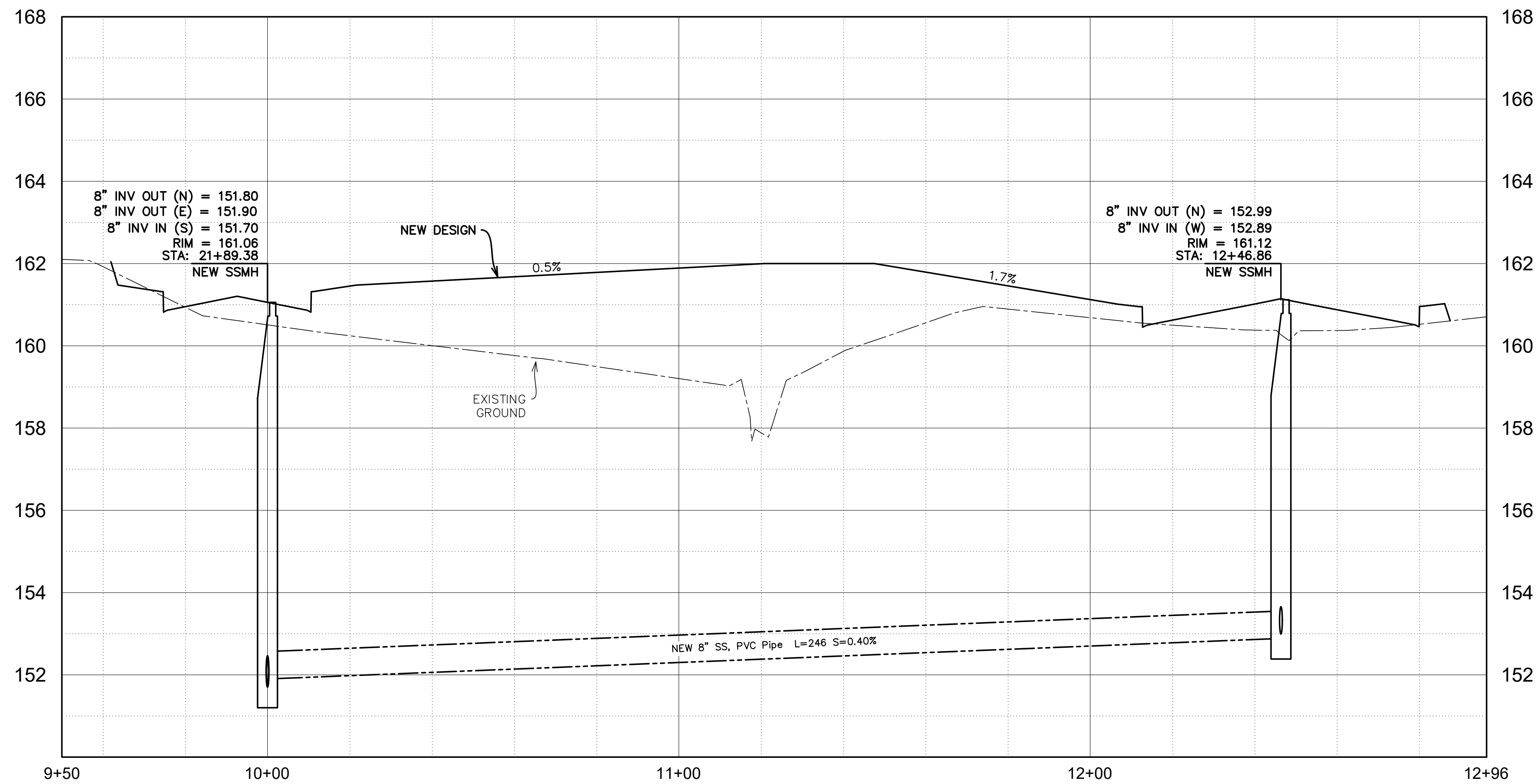
30'
DEDICATION
BY OWNER

60' B.P.A.
EASEMENT PER
V. 40, P. 851

MCMINVILLE CITY PLAN
TR NO 20150912



SANITARY SEWER PLAN STA:10+00 - 12+46.38



SANITARY SEWER PROFILE H:1"=10' V:1"=1'

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DSN. JW
 DRN. JH
 CKD. JW
 DATE: 07/20/2022



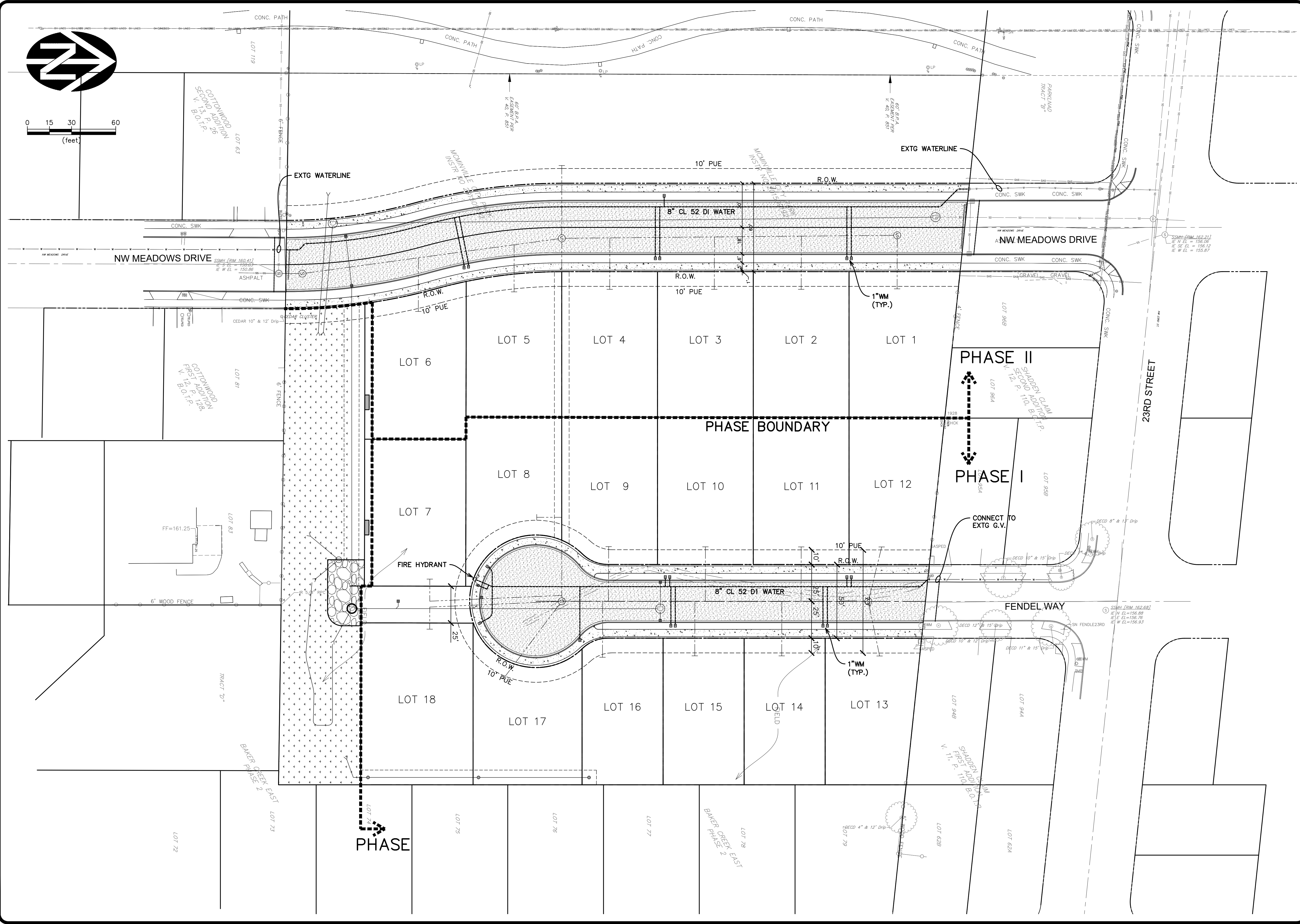
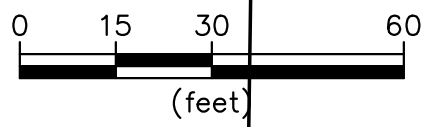
WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
**SANITARY SEWER MEADOWS
 DRIVE AND FENDEL WAY**

DRAWING
SS-3

JOB NUMBER
2931.0000.0



NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DSN. JW
 DRN. JH
 CKD. JW

DATE: 06/20/2022



WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

OVERALL WATER PLAN

DRAWING
W-1

JOB NUMBER
2931.0000.0

TABLE OF CONTENTS

Section A. Project Introduction A-1
SUMMARY OF IMPROVEMENTS A-1
PURPOSE OF STORMWATER QUALITY & DETENTION A-1
REGULATORY AGENCY APPROVALS A-1
SUMMARY OF AGENCY STORMWATER QUALITY AND DETENTION REQUIREMENTS A-2
SUMMARY OF STORMWATER FACILITIES A-2
 1. Developed Basin.....A-2
Section B. Stormwater Plan NarrativeB-1
POLLUTANTS OF CONCERN.....B-1
NAME AND STATUS OF RECEIVING WATERSB-1
GROUNDWATER MANAGEMENT AREAB-2
NPDES PERMIT SITES.....B-2
CONTRIBUTING IMPERVIOUS AREAB-2
LID AND MEF PER SLOPES V STANDARDSB-2
NARRATIVE DESCRIPTION OF STORMWATER MANAGEMENT PLAN.....B-2
 1. ConstraintsB-2
POLLUTANT REMOVAL SUMMARYB-3
Section C. Basin Characteristic and Flow Control Summary..... C-1
HYDROLOGICAL SUMMARYC-1
HYDROLOGIC PARAMETERS, EXISTING AND DEVELOPED CONDITIONSC-1
HYDROLOGIC ANALYSISC-3
FLOW CONTROL SYSTEM DESIGNC-3
Section D. Water Quality Design..... D-1
VEGETATED SWALESD-1
Section E. Storm Drain System Operation & Maintenance.....E-1

LIST OF TABLES

Table C-1| 24-Hour Design Storm Rainfall Depths.....	C-1
Table C-2| Basin Time of Concentration Characteristics	C-2
Table C-3| Hydrologic Parameters.....	C-2
Table C-4| Calculated Allowable Peak Flows	C-3
Table C-5| Summary of Flow Control	C-3

APPENDICES

- I. ENVIRONMENTAL WATERSHED DATA**
 - 1. RECEIVING WATERS TMDL STATUS
 - 2. KNOWN NEARBY NPDES PERMITS

- II. DRAINAGE BASIN MAPS**
 - 1. PREDEVELOPED BASIN MAP
 - 2. DEVELOPED BASIN MAP

- III. BASIN HYDROLOGIC CHARACTERISTICS**
 - 1. SOILS MAPS WITH HYDROLOGIC SOIL GROUP
 - 2. HYDROCAD ANALYSIS
 - 3. PRECIPITATION FREQUENCY ATLAS – ATLAS 2

- IV. OPERATION & MAINTENANCE PLANS**
 - 1. VEGETATED SWALES
 - 2. DETENTION PONDS

- V. DETAIL DRAWINGS/ SPECIFICATIONS**
 - 1. VEGETATED SWALE
 - 2. PLANTING REQUIREMENTS

- VI. SUPPLEMENTAL CIVIL DRAWINGS**
 - 1. GRADING & DRAINAGE PLAN
 - 2. EROSION CONTROL PLANS, NOTES, & DETAILS

Section A. Project Introduction

Summary of Improvements

The proposed project is located on an approximate 4.11-acre parcel south of West Baker Creek Road and between the north and south termini of Meadows Drive in McMinnville, Oregon in Yamhill County. Refer to the Supplemental Civil Drawings in Appendix VI for a site map of the project area.

The existing site contains undeveloped agricultural land and mitigated wetlands. The project scope is to develop the site for 18 single-family residential lots with associated improvements, connecting Meadows Drive from the north-south, and designated open grassed areas. The project includes site preparation and construction of the facilities which will include new roads, sidewalks, and associated public improvements.

Stormwater improvements associated with the project include the construction of a stormwater quality treatment and detention facility.

Purpose of Stormwater Quality & Detention

The purpose of the stormwater quality and detention facilities are to remove pollutants from developed stormwater runoff and control the stormwater release rates to mimic rates that occurred in predeveloped site conditions. Management of stormwater for quality and quantity is required within the project drainage area to mitigate stormwater impacts in order to comply with project DEQ 401 Certification, Section 404 permit, City of McMinnville stormwater design standards, and National Marine Fisheries Service (NMFS) SLOPES V standards.

Regulatory Agency Approvals

Impacts to jurisdictional wetlands and drainage ways are proposed with the Elysian Subdivision project. Construction of proposed site improvements will impact jurisdictional wetlands. It is anticipated that conformance to the SLOPES V regulations will be required due to the wetland impacts.

In order to expedite projects, the Army Corps of Engineers (COE) in cooperation with NMFS has created the SLOPES V guidelines, dated March 14, 2014. In this document NMFS has issued a programmatic biological opinion with a conclusion by NMFS that compliance with SLOPES V guidelines is not likely to jeopardize the continued existence of a variety of endangered native salmon and steelhead fish species.

The SLOPES V document specifies a number of criteria that must be met for design and construction and/or refurbishment of a facility that impacts the regulated body of water as well as criteria for management of stormwater discharged from improved roadway surfaces within the project's contributing drainage basin area.

This Stormwater Management Report will address the stormwater requirements of the SLOPES V guidelines and the City of McMinnville stormwater design standards when City standards are more restrictive.

Summary of Agency Stormwater Quality and Detention Requirements

Below is a summary of the SLOPES V guidelines and the City of McMinnville standards.

SLOPES V Guidelines:

- Water quality facilities must be designed to treat for post-construction stormwater runoff from all contributing impervious area for 50% of the 2-year event (i.e., 1.3 inches in a 24-hour period).
- 50% of the developed 2-year peak flow rate and duration matches 50% of the predeveloped 2-year peak flow and duration.
- The developed 10-year peak flow rate and duration matches the predeveloped 10-year peak flow rate and duration.
- Use low impact development (LID) to infiltrate or evaporate runoff to the maximum extent feasible (MEF).
- Stormwater treatment is required for all contributing impervious area.

City of McMinnville Stormwater Standards:

- The developed 10-year peak flow rate must be equal to or less than the peak runoff rate of the predeveloped 10-year, 24-hour storm event.

For this project all contributing impervious area per SLOPES V is treated to the SLOPES V standards. Stormwater runoff will also be controlled to the SLOPES V standards except where the City of McMinnville Standards are more conservative. The City of McMinnville Standards are the same or less conservative than the SLOPES V standards and therefore stormwater runoff will also be controlled to the SLOPES V standards as summarized above.

Summary of Stormwater Facilities

The proposed stormwater facility will be designed to treat runoff from the proposed developments and provide detention per SLOPES V standards. The following sections describe the facilities used for stormwater treatment and detention. The entire site drains to a ditch running through the southern portion of the property which will eventually flow into Cozine Creek. The drainage basin runoff will be controlled by a flow control structure at the outlet from the LID facility.

1. Developed Basin

The stormwater from the Developed Basin (the entire site) is treated and detained via a vegetated swale LID at the bottom of a dry detention pond. The LID facility is located in the southeastern corner of the site and is irregular in shape.

Section B. Stormwater Plan Narrative

Pollutants of Concern

The Elysian Subdivision project consists of new roads, sidewalks, designated open grassed areas, and associated improvements. The impervious area within the project scope that contributes pollutants to the stormwater runoff primarily consists of roads, driveways, and roof runoff. These sources all create project pollutants of concern most commonly associated with residential development runoff. The Oregon Department of Environmental Quality (DEQ) lists the following as common pollutants associated with residential development runoff:

- Solids and Sediment
- Metals (zinc, copper, lead, etc.)
- Petroleum Hydrocarbons (oil, grease, etc.)
- Nutrients (nitrogen, phosphorous, etc.)
- Pesticides, Herbicides & Fungicides

Name and Status of Receiving Waters

Stormwater from the project site discharges into the North Branch Cozine Creek which then flows to Cozine Creek, the South Yamhill River, Yamhill River, and joins the Willamette River at approximate river mile 55.

Cozine Creek is 303(d) listed for biological criteria and dissolved oxygen year-round and listed for E. coli and temperature in summer.

The Yamhill River is 303(d) listed for biological criteria, copper, iron, lead, mercury, and temperature year-round. The Yamhill is also listed for dissolved oxygen January - May, and listed for E. coli and fecal coliform in fall/winter/spring. The Yamhill is TMDL approved for chlorophyll year-round and pH and phosphorus May – October.

The Willamette River is 303(d) listed for mercury year-round and listed for chlorophyll in summer. The Willamette is also TMDL approved for temperature year-round and E. coli in fall/winter/spring.

Refer to Appendix I for a copy of DEQ's water quality assessment, identification of pollutants sampled and water body status for the streams mentioned above.

The SLOPES V standards are designed to protect streams from stormwater runoff from developed sites. By designing stormwater facilities to SLOPES V standards TMDLs will not be infringed upon. Furthermore, dissolved oxygen (DO) will not be impacted because DO-reducing pollutants will be removed through contact with the vegetation and amended topsoil in the designed vegetated swale. Fecal coliform and E. Coli will not be increased because storm drains are not susceptible to fecal sources. Phosphorus will be sufficiently removed through the vegetated swale. For chlorophyll and pH, the primary pollutant is phosphorus, which the swale is designed to remove. Temperature is primarily impacted by removal of shade trees along stream banks and stream widening. No trees

are proposed for removal along the stream bank nor is the stream proposed to be modified. Biological criteria TMDLs will not be infringed on because the vegetated swale is designed to treat urban stormwater runoff to safe levels for aquatic species.

Groundwater Management Area

Upon review of available groundwater management information on the Oregon DEQ website it does not appear the project is within a groundwater management area or EPA-designated sole source aquifer.

NPDES Permit Sites

Refer to Appendix I for a list of Oregon DEQ water quality permitted facilities in the McMinnville area.

Contributing Impervious Area

The proposed project will generate approximately 2.73 acres of impervious area on the 4.11-acre site. This area was calculated by measuring the road coverage (assumed 100% impervious) and residential lot coverage (assumed 65% impervious) of the proposed development. The contributing area was analyzed as one basin for predeveloped and developed conditions as shown on the drawings in Appendix II. Refer to Section C of this report and the HydroCAD Analysis in Appendix III for more details.

LID and MEF per SLOPES V Standards

The SLOPES V standards require stormwater facilities to utilize low impact development (LID) practices to infiltrate and evaporate runoff to the maximum extent feasible (MEF).

To meet the SLOPES V requirement, the proposed stormwater design treats 100% of the impervious surface with LID. The design utilizes a vegetated swale at the bottom of a dry detention pond (see Appendix II and V for more details).

Narrative Description of Stormwater Management Plan

The proposed stormwater LID for the treatment of stormwater were designed per Clean Water Services design standards for vegetated swales. Clean Water Services standards were used because the City of McMinnville has not adopted LID standards for residential development at this time. Detention and water quality for the site are provided by a vegetated swale at the bottom of a dry detention pond. Refer to Appendix II for a map of the site.

For design of the LID please refer to Sections C and D.

1. Constraints

There are several project constraints that were addressed to accommodate stormwater quality treatment and detention. These constraints included wetland impacts, low infiltration rates of the existing soils, and limited grade.

The following sections describe how project constraints were accommodated.

1) **Developed Basin**

Due to the lack of infiltration on site the detention facilities required a larger footprint. Additionally, the stormwater facility has limited grade drop available from the existing inlet to the discharge point in the ditch on the south side of the property. Rain gardens or similar LID facilities were ruled out as design possibilities for the site due to the grade drop required by their large sections of media and drain rock.

The site plan was modified to accommodate the required detention and water quality facilities.

Pollutant Removal Summary

An integrated approach has been taken to address the pollutants of concern (sediment, metals, pest-herb-fungicides, and hydrocarbons) that can be expected to be produced in this project. The proposed water quality LIDs in this document remove sediment, metals, organics, and petroleum hydrocarbons.

As illustrated in Appendix VI, site runoff discharges to a ditch running through the south portion of the property which eventually flows into Cozine Creek. The LID is sized to meet the requirements of Clean Water Services design standards. Please refer to Section C for the facility sizing.

Section C. Basin Characteristic and Flow Control Summary

The following sections describe the hydrology of the predeveloped site and flow control provided to conform to City of McMinnville and SLOPES V standards.

Hydrological Summary

The project site plan will utilize LID to the MEF per SLOPES V standards. The stormwater system will consist of a vegetated swale at the bottom of a dry detention pond to treat and detain the stormwater generated from the project area (contributing impervious area per SLOPES V).

Hydrologic Parameters, Existing and Developed Conditions

The hydrologic parameters that were used to complete the water quality and detention calculations are discussed below. The hydrologic parameters include basin areas, curve numbers (CN), predeveloped and developed time of concentrations (Tc), 24-hour rainfall depths for each recurrence interval, and the hydrological analysis method used to generate hydrographs. These basin characteristics are summarized in Table C-1, Table C-2, and Table C-3.

1) Hydrologic Analysis Methodology

HydroCAD modeling software was used to size the stormwater facilities. The Santa Barbara Unit Hydrograph Type 1A storm was used to model the required design storms. Design storms used were the, half the 2-year, 24-hour (also used as the water quality storm) and the 10-year, 24-hour storm events.

2) 24-Hour Rainfall Depths

In accordance with SLOPES V and City of McMinnville standards the storm events used in this report include the half the 2-year (also used as the water quality storm) and the 10-year, 24-hour rainfall events as listed in Table C-1. These stormwater depths were determined from the Precipitation Frequency Atlas (Atlas 2) maps developed by the National Oceanic and Atmospheric Administration (NOAA) for the State of Oregon. Refer to Appendix III for the Atlas 2 maps.

Table C-1| 24-Hour Design Storm Rainfall Depths

	24-Hour Rainfall Depths for McMinnville, OR				
Recurrence Interval, Years	2	10	25	50	100
24-Hour Depths, Inches	2.6	3.8	4.2	4.7	5.2

Source: NOAA Atlas 2 maps

3) Curve Number Determination

The developed and predeveloped basins consist of an area of 3.78 acres on the 4.11-acre site. Curve numbers were assigned per the USDA Soil Conservation

Service’s Technical Release 55 (TR-55) recommendations. See Appendix III for the NRSC soil survey maps of the project area, that correspond to basin CN’s.

The predeveloped site is predominately grass-covered and was assigned an area-weighted average curve number of 77. The native soils onsite are a mixture of C and C/D-rated soils. Per the NRCS Soil Report, a C/D classification indicates a D rating for natural soil conditions. Soils with a C/D classification are therefore assumed D-rated for predeveloped conditions. The CN is weighted by the area of C and D-rated soils on the site with good coverage of pasture/grassland.

The Developed Basin was assigned an area-weighted average curve number of 92. This corresponds to 1.05 acres of pervious area, CN of 77, and 2.73 acres of impervious area, CN of 98.

4) Time of Concentration Determination

Predeveloped and developed Tc’s were calculated for each basin using the TR-55 design guidelines utilizing sheet and shallow concentrated flow equations.

Table C-2 summarizes the Tc equation inputs for the predeveloped and developed Tc’s. The developed Tc used was 5 minutes, which is the minimum Tc that can be used by the modeling software. The developed Tc may be a little longer than 5 minutes, but 5 minutes was used to add a factor of safety into the model, as a lower developed Tc increases the developed flows slightly.

Table C-2| Basin Time of Concentration Characteristics

Basin ID	Overland Flow Length (ft)	Manning's n	Slope of Overland Flow (ft/ft)	Tc (Min.)
Pre Developed	525	0.15	0.01	42.9
Developed	-	-	-	5

5) Basin Characteristics

Table C-3 provides a summary of the developed onsite drainage basins’ impervious and pervious area (used for the developed calculations), and the predeveloped and developed curve numbers (CN) as previously discussed.

Table C-3| Hydrologic Parameters

Basin ID	Source (Roof/Road/Other)	Impervious Area (AC)	Pervious Area (AC)	Design Storm		Weighted CN
				½ 2 Year (cfs)	10 Year (cfs)	
Predeveloped	Native	-	3.78	0.14	0.76	77
Developed	Road/Roof/Landscape	2.73	1.05	0.78	2.86	92

Hydrologic Analysis

The hydrological analysis, as previously mentioned, was completed using HydroCAD Modeling Software utilizing the SBUH method and a Type IA 24-hour rainfall distribution. A listing of the predeveloped peak flows for half the 2-year and 10-year storm events are found in Table C-4. Refer to Appendix III for hydrographs for each predeveloped and developed storm events.

Table C-4| Calculated Allowable Peak Flows

Basin Area/Facility	Design Storm (cfs)	
	½ 2 Year	10 Year
Predeveloped Site	0.14	0.76

Flow Control System Design

Based on the flow control requirements described in Section A, the flow control structure was sized to detain the developed storm events and release the stored runoff at allowable peak flow rates as described above. Refer to the drawings in Appendix II for more details on detention and flow-control design. A summary of the stormwater detention requirements are listed below:

- Capture half the 2-yr developed runoff to be released at a rate equal to or less than half the 2-yr peak predeveloped rate.
- Capture the 10-yr developed runoff to be released at a rate equal to or less than the 10-yr peak predeveloped rate.

The flow control structure is designed to meet the stormwater release and detention requirements above. See Table C-5 for a summary of outlet sizing and developed release rates. The flow control structure consists of two (2) outlets at differing elevations within a flow control manhole to control the design storms. Refer to Civil Drawings in Appendix VI for details.

Table C-5| Summary of Flow Control

Storm Event	Outlet Size (in)	Outlet Elevation (ft)	Peak WSE ¹ (ft)	Release Rate (cfs)	Allowable Release Rate (cfs)
½ 2 year	2.4	156.60	157.56	0.14	0.14
10 year	3.9	157.70	159.38	0.76	0.76
100 year Emergency O/F ²	12	159.40	159.82	3.30	-

¹ WSE = Water Surface Elevation

² Emergency O/F provided by weir cut in top of pond.

Evaluation of the allowable (Table C-4) and post developed (Table C-5) release rates confirms the stormwater design is in conformance with the SLOPES V design standards. Refer to Appendix III for the HydroCAD Analysis.

Conveyance Capacity Calculations

The stormwater facilities were designed to convey the developed 10-year, 24-hour storm. The 10-year storm produces 0.76 cfs of runoff after detention. Within the subdivision 8-inch pipes flow into a 12-inch pipe and then into a 15-inch pipe which then outfalls into the detention pond/swale. The 8-inch pipes have a conveyance capacity of 0.77 cfs, the 12-inch pipes have a conveyance capacity of 2.25 cfs, and the 15-inch pipes have a conveyance capacity of 4.09 cfs, therefore the pipe sizing is adequate to convey the 10-year storm.

The new 15-inch pipe connects to a relocated drainage ditch and then flows into a new 24-inch pipe at a slope of 0.16%. The new 24-inch pipe has a capacity of 10.45 cfs. The amount of runoff produced for the site will occupy 7.2% of the 24-inch pipe capacity. By inspection, the downstream 24-inch pipe has adequate capacity to convey the 10-year storm.

The existing 21" pipe in Meadows drive connects to an upsized 24" pipe. The existing 21" pipe has a conveyance capacity of approximately 10.02 cfs. The new 24" pipe connecting to the upstream, existing 21" pipe has a capacity of 14.31 cfs. We have increased the downstream pipe capacity in meadows drive by approximately 43%.

Section D. Water Quality Design

The stormwater management plan for the project utilizes a vegetated swale to provide water quality treatment. The developed site conditions produce 0.78 cfs of detained runoff during the water quality storm event. Refer to Appendix III for a hydrograph of the developed water quality storm event (i.e. the half 2-year event). The section below describes the water quality design provided by LID of the proposed stormwater management design. The HydroCAD modeling results show that all runoff flows through the vegetated swale with a satisfactory residence time and depth during the water quality event.

Vegetated Swales

The wetlands on site deem stormwater infiltration facilities infeasible. Due to the lack of infiltration, a flow-through vegetated swale is proposed to treat the water quality storm with an LID facility. Infiltration was assumed to be zero in the design. The site plan was modified to incorporate a vegetated swale which is used to provide water quality treatment for the entire proposed development and existing offsite drainage.

The vegetated swale contains dense vegetation along the bottom and will be landscaped in accordance with Clean Water Services standards (see Appendix V). Clean Water Services standards were used because the City of McMinnville has not adopted LID standards for residential development at this time.

See Table D-1 below for a summary of the vegetated swale design. Refer to the drawings in Appendix II for swale sizing summaries and Appendix III for HydroCAD Analysis of the designed vegetated swale.

Table D-1 | Summary of Vegetated Swale Design

Clean Water Services Design Standards		
Criteria	Allowable	Designed
Manning's n	0.24	0.24
Max. Water Quality Flow Depth (ft)	0.5	0.37
Min. hydraulic Residence Time (min)	9	18.9
Max. Conveyance Flow Velocity (fps)	2.0	0.19
Min. Length (ft)	100	215
Min. Bottom Width (ft)	2	9

After treatment, the swale discharges to a ditch running through the south portion of the property after passing through a flow control structure. Refer to the drawings in Appendix II and the Supplemental Civil Drawings in Appendix VI for more details.

Section E. Storm Drain System Operation & Maintenance

All facilities constructed as a part of this project will be owned, operated, and maintained by Don Jones for the Elysian Subdivision. Don Jones proposes to maintain the LID structure in accordance with the Operation and Maintenance Manuals included in Appendix IV.

**Elysian Subdivision
McMinnville, Oregon
Stormwater Management Report**

APPENDIX I

Environmental Watershed Data

RECEIVING WATERS TMDL STATUS

Department of Environmental Quality

DEQ Home (<http://www.oregon.gov/deq/Pages/index.aspx>) / Water Quality Assessment (<http://www.oregon.gov/deq/wq/Pages/WQ-Assessment.aspx>) / Oregon's 2012 Integrated Report (<http://www.oregon.gov/deq/wq/Pages/2012-Integrated-Report.aspx>) / Database Search Results

3/5/2020 2:06:41 PM (Page 1 of 1)

Oregon's 2012 Integrated Report Cozine Creek

To select new search criteria [click here \(search.asp#db\)](#) - DO NOT USE THE BACK ARROW

Records per page:

Basin Name	Water Body	Pollutant	Season	Criteria	Beneficial Uses	Status	2012 Assessment Action	[Data Source] Supporting Data
Subbasin 4th Field HUC Record ID	LLID River Miles Segment Miles Beach Name Beach ID							
Willamette Yamhill 17090008 24588	Cozine Creek 1231877452053 0 to 6.8 6.8	Dissolved Oxygen	January 1 - May 15	Spawning: Not less than 11.0 mg/L or 95% of saturation		Cat 5: Water quality limited, 303(d) list, TMDL needed	No status change	2012 Data: [DEQ] STATION 34234 at RM 0.4 from 03/16/2007 to 04/20/2010, 16 of 21 (76%) samples < 11.0 mg/l and < 95% saturation 2010 Data: EPA addition to 303(d) list 12/14/2012: Sixteen exceedences of the spawning criteria out of 22 days of sampling between 3/16/07 and 4/27/10 at LASAR station 34234, Lower Cozine Creek at Davis Street Bridge. Fourteen exceedences of the spawning criteria out of 22 days of sampling between 3/16/07 and 4/27/10 at LASAR station 34235, Middle Cozine at Old Sheridan Road. Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: EPA addition to 303(d) list Previous Assessment Year: 2010

Willamette Yamhill 17090008 24587	Cozine Creek 1231877452053 0 to 5 5	Dissolved Oxygen	Year Round Programs and Projects (Non-spawning)	Cool water: Not less than 6.5 mg/l	Regulations	Data and Reports quality limited, 303(d) list, TMDL needed	Cat 5: Water quality limited, 303(d) list, TMDL needed	No status Permits change	Get Involved About Us 2012 Data: [DEQ] STATION 30677 at RM 0.1 from 07/05/2008 to 07/05/2008, 0 of 1 (0%) samples < 6.5 mg/L. [DEQ] STATION 34234 at RM 0.4 from 05/19/2007 to 10/12/2010, 7 of 15 (47%) samples < 6.5 mg/L. [DEQ] STATION 35065 at RM 2.5 from 07/05/2008 to 07/05/2008, 0 of 1 (0%) samples < 6.5 mg/L 2010 Data: EPA addition to 303(d) list 12/14/2012: Seven exceedences of the cool water aquatic life criterion out of 16 days of sampling between 5/19/07 and 10/12/10 at LASAR station 34234, Lower Cozine Creek at Davis Street Bridge. Two exceedences of the cool water aquatic life criterion out of 16 days of sampling between 5/19/07 and 10/12/10 at LASAR station 34235, Middle Cozine at Old Sheridan Road. Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: EPA addition to 303(d) list Previous Assessment Year: 2010
Willamette Yamhill 17090008 24589	Cozine Creek 1231877452053 0 to 6.8 6.8	E. Coli	Summer	30-day log mean of 126 E. coli organisms per 100 ml; no single sample > 406 organisms per 100 ml	Water contact recreation	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	2010 Data: EPA addition to 303(d) list 12/14/2012: Seven exceedences of the 406 maximum criteria out of 9 days of sampling at LASAR station 30877, Cozine Creek at mouth (South Yamhill), between 8/26/03 and 9/15/04. Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: EPA addition to 303(d) list Previous Assessment Year: 2010	
Willamette Yamhill 17090008 7052	Cozine Creek 1231877452053 0 to 6.8 6.8	Fecal Coliform	Undefined		Water contact recreation	Cat 3: Insufficient data	No action	Previous Status: Insufficient data Previous Action: Added to database Previous Assessment Year: 1998	

Willamette Yamhill 17090008 24590	Cozine Creek 1231877452053 0 to 6.8 6.8	Temperature Programs and Projects	Year Round (Non-spawning)	Rearing: 17.8 Regulations C	Data and Reports	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action Permits	Get Involved About Us 2010 Data: EPA addition to 303(d) list 12/14/2012: Exceedences of the salmonid rearing criterion (18C) as high as 22.1 C in July 2003 and 23.1 C in July 2004 at LASAR station 30677, Cozine Creek at mouth (South Yamhill). Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: EPA addition to 303(d) list Previous Assessment Year: 2010
Willamette Yamhill 17090008 25910	North Branch Cozine Creek 1232010452090 0 to 1.7 1.7	Dissolved Oxygen	Year Round (Non-spawning)	Cool water: Not less than 6.5 mg/l		Cat 3: Insufficient data	Added to database	2012 Data: [DEQ] STATION 35067 at RM 0.1 from 07/05/2008 to 07/05/2008, 0 of 1 (0%) samples < 6.5 mg/L. [DEQ] STATION 35066 at RM 0.2 from 07/05/2008 to 07/05/2008, 0 of 1 (0%) samples < 6.5 mg/L

To select new search criteria [click here \(search.asp#db\)](#) - **DO NOT USE THE BACK ARROW.**

Contact

For more information about DEQ's Integrated Report and 303(d) list contact [Joshua Emerson \(mailto:emerson.joshua@deq.state.or.us\)](mailto:emerson.joshua@deq.state.or.us) at 503-229-5740.

Department of Environmental Quality (<http://www.oregon.gov/DEQ/>)

700 NE Multnomah Street, Suite 600 Portland, OR 97232

Hours: Mon-Fri, 8 a.m.-5 p.m

Email: [DEQInfo@deq.state.or.us \(mailto:DEQInfo@deq.state.or.us\)](mailto:DEQInfo@deq.state.or.us) | Phone: 503-229-5696 | Fax: 503-229-6124

[Website Feedback \(mailto:deqwebmaster@deq.state.or.us\)](mailto:deqwebmaster@deq.state.or.us) [Accessibility \(http://www.oregon.gov/pages/accessibility.aspx\)](http://www.oregon.gov/pages/accessibility.aspx)

[Privacy Policy \(http://www.oregon.gov/DAS/ETS/EGOV/pages/termsconditions.aspx\)](http://www.oregon.gov/DAS/ETS/EGOV/pages/termsconditions.aspx)

Department of Environmental Quality

DEQ Home (<http://www.oregon.gov/deq/Pages/index.aspx>) / Water Quality Assessment (<http://www.oregon.gov/deq/wq/Pages/WQ-Assessment.aspx>) / Oregon's 2012 Integrated Report (<http://www.oregon.gov/deq/wq/Pages/2012-Integrated-Report.aspx>) / Database Search Results

3/9/2020 9:25:17 AM

(Page 1 of 1)

Oregon's 2012 Integrated Report South Yamhill River

To select new search criteria [click here \(search.asp#db\)](#) - **DO NOT USE THE BACK ARROW**

Refresh Report	Show All Records	Records per page: <input style="width: 50px;" type="text" value="100"/>	<input style="width: 95%; height: 20px;" type="text"/>
--------------------------------	----------------------------------	---	--

Basin Name	Water Body LLID Subbasin 4th Field HUC Record ID	Pollutant	Season	Criteria	Beneficial Uses	Status	2012 Assessment Action	[Data Source] Supporting Data
Willamette Yamhill 17090008 17292	South Yamhill River 1231445452258 0 to 61.8 61.8	Alkalinity	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 3B: Insufficient data, potential concern	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/24/1994 to 12/22/2003, 11 out of 88 samples < 20 mg/L (Table 20 criterion). Previous Status: Cat 3B: Potential concern Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 17293	South Yamhill River 1231445452258 0 to 61.8 61.8	Ammonia	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/24/1994 to 12/22/2003, 0 out of 136 samples > applicable Table 20 criterion. Previous Status: Cat 2: Attaining some criteria/uses Previous Action: Added to database Previous Assessment Year: 2004

Willamette Yamhill 17090008 25897	South Yamhill River 1231445452258 0 to 61.7 61.7	Arsenic	Year Round Programs and Projects	Table 40 Human Health Criteria for Toxic Pollutants	Human health; Aquatic life	Cat 2: Attaining some criteria/uses	Added to database	Involved About Us 2012 Data: [ODEQ] STATION 33885 at RM 14.9 for 1 samples from 09/20/2006 to 09/20/2006, 0 of 1 valid samples exceed the 2.1 ug/L criteria. [ODEQ] STATION 10948 at RM 16.7 for 11 samples from 04/15/2008 to 02/17/2010, 0 of 11 valid samples exceed the 2.1 ug/L criteria. [ODEQ] STATION 36317 at RM 37.4 for 1 samples from 09/22/2010 to 09/22/2010, 0 of 1 valid samples exceed the 2.1 ug/L criteria
Willamette Yamhill 17090008 7304	South Yamhill River 1231445452258 0 to 18.1 18.1	Atrazine	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 25901	South Yamhill River 1231445452258 0 to 61.7 61.7	Cadmium	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 11 samples from 04/15/2008 to 02/17/2010, 0 of 11 valid samples exceed the hardness dependent criteria

Willamette Yamhill 17090008 17294	South Yamhill River 1231445452258 0 to 18.1 18.1	Chlorophyll a Programs and Projects	FallWinterSpring s and Projects	Reservoir, river, Regulations estuary, non- thermally stratified lake: 0.015 mg/l	Aesthetics; Livestock Data and Reports watering; Water supply; Water contact recreation; Fishing	Cat 3: Insufficient data	No action Permits Get	Involved About Us Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 5/23/1995 to 5/31/1995, average Chlorophyll a of 0.012 for 1 samples in 1 months. Previous Status: Cat 3: Insufficient data Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 6249	South Yamhill River 1231445452258 0 to 18.1 18.1	Chlorophyll a	Summer	Reservoir, river, estuary, non- thermally stratified lake: 0.015 mg/l	Fishing; Aesthetics; Livestock watering; Water contact recreation; Water supply	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 7/2/1996 to 9/29/1996, average Chlorophyll a of 0.005 for 3 samples in 3 months. Previous Data: DEQ Data (3 Sites: 402623, 402624, 402625; RM 1.0 - 16.5): 29% (2 of 7), 0% (0 of 19, 50) Summer values respectively exceeded chlorophyll a standard (15 ug/l) with a maximum value of 20 between WY 1986 - 1995. Did not meet "Minimum Data Requirements", data did not exceed the 3-month average criteria. Previous Assessment Year: 1998 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: No status change Previous Assessment Year: 2004
Willamette Yamhill 17090008 6880	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Chlorophyll a	Summer	Reservoir, river, estuary, non- thermally stratified lake: 0.015 mg/l	Water contact recreation; Water supply; Aesthetics; Livestock watering; Fishing	Cat 2: Attaining some criteria/uses	No action	Previous Data: DEQ Data (Site 402627; RM 36.0): 0% (0 of 13) Summer values exceeded chlorophyll a standard (15 ug/l) between 1986 - 1988. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 6882	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Chlorophyll a Programs and Projects	Summer Programs and Projects	Reservoir, Regulations, river, estuary, non-thermally stratified lake: 0.015 mg/l	Water contact Data and Reports recreation; Aesthetics; Livestock watering; Water supply; Fishing	Cat 2: Attaining some criteria/uses	No action Permits	Involved About Us Previous Data: DEQ Data (Site 402631; RM 53.4): 0% (0 of 5) Summer values exceeded chlorophyll a standard (15 ug/l) between 1986 - 1987. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 25895	South Yamhill River 1231445452258 0 to 61.7 61.7	Chromium	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 9 samples from 04/15/2008 to 02/17/2010, 0 of 9 valid samples exceed the 11 ug/L criteria
Willamette Yamhill 17090008 7146	South Yamhill River 1231445452258 0 to 18.1 18.1	Copper	Year Round	Table 20 Toxic Substances	Aquatic life; Human health	Cat 5: Water quality limited, 303(d) list, TMDL needed	Status modification - Added to 303(d) list	2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 10 samples from 04/15/2008 to 02/17/2010, 4 of 10 valid samples exceed the hardness dependent criteria Previous Data: Copper and Nickel were found in water, but levels were below the water quality standards Table 20 values. No other trace metals were detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 25902	South Yamhill River 1231445452258 18.1 to 61.7 43.6	Copper	Year Round	Table 20 Toxic Substances	Aquatic life; Human health	Cat 3: Insufficient data	Added to database	2012 Data: [ODEQ] STATION 36317 at RM 37.4 for 1 samples from 09/22/2010 to 09/22/2010, 0 of 1 valid samples exceed the hardness dependent criteria

Willamette	South Yamhill River	Cycloate	Year Round Programs and Projects	Table 20 Regulations Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining	No action	Involved	About Us
Yamhill 17090008 7531	1231445452258 0 to 18.1 18.1					some criteria/uses			Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 7563	South Yamhill River 1231445452258 0 to 18.1 18.1	Desethylatrazine	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action		Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 7573	South Yamhill River 1231445452258 0 to 18.1 18.1	Desisoproylatrazine	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action		Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998

Willamette	South Yamhill River	Dissolved Oxygen	January 1 - May 15	Spawning: Not	Resident trout	Cat 2: Attaining	Delisted - Data	Involved	About Us
Yamhill 17090008 20969	1231445452258 0 to 41 41	Programs and Projects		Regulations less than 11.0 mg/L or 95% of saturation	Data and Reports spawning	some criteria/uses	Get show criteria met	2012 Data: [DEQ] STATION 31547 at RM 5.5 from 02/11/2005 to 02/11/2005, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 10948 at RM 16.7 from 02/16/2000 to 04/05/2011, 2 of 25 (8%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 10949 at RM 27 from 05/14/2009 to 05/14/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation Previous Data: [ODA] LASAR 10948 River Mile 16.7: From 1/24/1994 to 4/29/2003, 8 out of 31 samples (26%) < 11 mg/l and applicable % saturation. Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: Added to database Previous Assessment Year: 2004	

Willamette	South Yamhill River	Dissolved Oxygen Programs	Year Round Projects (Non-spawning)	Cool water: Regulations Not less than	Cool-water Data and Reports aquatic life	Cat 2: Attaining	No status change	Involved About Us
Yamhill 17090008 12156	1231445452258 0 to 61.8 61.8			6.5 mg/l		some criteria/uses		2012 Data: [DEQ] STATION 31547 at RM 5.5 from 08/11/2004 to 07/13/2005, 0 of 3 (0%) samples < 6.5 mg/L. [DEQ] STATION 33885 at RM 14.9 from 09/20/2006 to 09/20/2006, 0 of 1 (0%) samples < 6.5 mg/L. [DEQ] STATION 10948 at RM 16.7 from 06/26/2000 to 12/07/2011, 0 of 53 (0%) samples < 6.5 mg/L. [DEQ] STATION 36089 at RM 36.7 from 10/21/2009 to 10/21/2009, 0 of 1 (0%) samples < 6.5 mg/L. [DEQ] STATION 36088 at RM 36.7 from 10/21/2009 to 10/21/2009, 0 of 1 (0%) samples < 6.5 mg/L. [DEQ] STATION 36087 at RM 36.7 from 10/21/2009 to 10/21/2009, 0 of 1 (0%) samples < 6.5 mg/L. [DEQ] STATION 35072 at RM 37.4 from 09/20/2011 to 09/20/2011, 0 of 1 (0%) samples < 6.5 mg/L. [DEQ] STATION 35451 at RM 38.7 from 06/03/2009 to 06/03/2009, 0 of 3 (0%) samples < 6.5 mg/L Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 6/1/1994 to 12/22/2003, 0 out of 54 samples (0%) < 6.5 mg/l and applicable % saturation. Previous Status: Cat 2: Attaining some criteria/uses Previous Action: Added to database Previous Assessment Year: 2004

Revised on 06-23-2014

Willamette Yamhill 17090008 25903	South Yamhill River 1231445452258 41 to 61.8 20.8	Dissolved Oxygen Programs and Projects	October 15 - May 15	Spawning: Not Regulations less than 11.0 mg/L or 95% of saturation	Data and Reports	Cat 3: Insufficient data	Permits database	Get Involved About Us	2012 Data: [DEQ] STATION 36082 at RM 42.7 from 10/20/2009 to 10/20/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 36081 at RM 42.7 from 10/20/2009 to 10/20/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 36080 at RM 42.8 from 10/20/2009 to 10/20/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 36079 at RM 52.5 from 10/20/2009 to 10/20/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 36077 at RM 52.5 from 10/20/2009 to 10/20/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 36078 at RM 52.5 from 10/20/2009 to 10/20/2009, 1 of 1 (100%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 35450 at RM 54.5 from 05/14/2009 to 05/14/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation
Willamette Yamhill 17090008 7611	South Yamhill River 1231445452258 0 to 18.1 18.1	Diuron	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998	

Willamette Yamhill 17090008 17296	South Yamhill River 1231445452258 0 to 18.1 18.1	E. Coli	Programs and Projects	FallWinterSpring Regulations of 126 E. coli	30-day log mean of 126 E. coli organisms per 100 ml; no single sample > 406 organisms per 100 ml	Water contact recreation	Cat 2: Attaining some criteria/uses	No action	Get Involved About Us Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/16/1996 to 12/22/2003, 1 out of 43 samples (2%) > 406 organisms; maximum 30-day log mean of 0 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 17297	South Yamhill River 1231445452258 0 to 18.1 18.1	E. Coli	Summer		30-day log mean of 126 E. coli organisms per 100 ml; no single sample > 406 organisms per 100 ml	Water contact recreation	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/16/1996 to 12/22/2003, 0 out of 19 samples (0%) > 406 organisms; maximum 30-day log mean of 0 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 7632	South Yamhill River 1231445452258 0 to 18.1 18.1	Ethoprop	Year Round		Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 6085	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Fecal Coliform	FallWinterSpring	Fecal coliform log mean of 200 organisms per 100 ml; no more than 10% > 400 per 100 ml	Water contact recreation	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	Involved About Us Previous Data: DEQ Data (2 Sites: 402627, 402628; RM 36.0, 39.5): 20% (3 of 15), 17% (2 of 12) FWS values exceeded fecal coliform standard (400) with maximum values of 460, 1100 respectively between 1986 - 1988. Previous Status: 303(d) Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6878	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Fecal Coliform	Summer	Fecal coliform log mean of 200 organisms per 100 ml; no more than 10% > 400 per 100 ml	Water contact recreation	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	Previous Data: DEQ Data (Site 402627; RM 36.0): 44% (4 of 9) Summer values exceeded fecal coliform standard (400) with a maximum value of 460 between 1986 - 1988. Previous Status: 303(d) Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6087	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Fecal Coliform	FallWinterSpring	Fecal coliform log mean of 200 organisms per 100 ml; no more than 10% > 400 per 100 ml	Water contact recreation	Cat 2: Attaining some criteria/uses	No action	Previous Data: DEQ Data (Site 402631; RM 53.4): 0% (0 of 12) FWS values exceeded fecal coliform standard (400) between 1986 - 1988. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6086	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Fecal Coliform	Summer	Fecal coliform log mean of 200 organisms per 100 ml; no more than 10% > 400 per 100 ml	Water contact recreation	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	Previous Data: DEQ Data (Site 402631; RM 53.4): 40% (2 of 5) Summer values exceeded fecal coliform standard (400) with a maximum value of 460 between 1986 - 1987. Previous Status: 303(d) Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 6341	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Flow Modification Programs	Undefined Programs and Projects	The creation of regulations of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish may not be allowed.	Salmonid fish rearing; Resident fish and aquatic life; Salmonid fish spawning	Cat 4C: Water quality limited, not a pollutant	No action	Involved Get About Us Cutthroat populations are a stock of concern with low flows and high temperatures constraining populations in some coast range streams (ODFW, 92); IWR (59461) is often not met at USGS gage (14194000). Previous Status: Water quality limited not needing a TMDL Previous Action: Delisted - Water quality limited, not a pollutant Previous Assessment Year: 2002
Willamette Yamhill 17090008 6342	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Flow Modification	Undefined	The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish may not be allowed.	Salmonid fish spawning; Resident fish and aquatic life; Salmonid fish rearing	Cat 3: Insufficient data	Status modification	Incorrectly assigned Water Quality Limited status in 2002 de-listing action. Status corrected to reflect 1998 assessment status. Previous Status: Water quality limited not needing a TMDL Previous Action: Delisted - Water quality limited, not a pollutant Previous Assessment Year: 2002
Willamette Yamhill 17090008 7652	South Yamhill River 1231445452258 0 to 18.1 18.1	Hexazinone	Year Round	Table 20 Toxic Substances	Drinking water; Resident fish and aquatic life; Anadromous fish passage	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998

Willamette	South Yamhill River	Iron	Year Round	Table 20 Toxic Regulations Substances	Aquatic life Data and Reports	Cat 5: Water quality limited, 303(d) list, TMDL needed	No status change	Get Involved	About Us
Yamhill 17090008 8384	1231445452258 0 to 18.1 18.1								<p>2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 26 samples from 02/16/2000 to 10/04/2007, 0 of 0 valid samples exceed the 1000 ug/L criteria</p> <p>Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/24/1994 to 8/13/2001, 10 out of 69 samples > applicable Table 20 criterion.</p> <p>Previous Data: LASAR 10948 RM 16.8: 2/4 samples > 300 ug/L. Previous Assessment Year: 2002 Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: No status change Previous Assessment Year: 2004</p>
Willamette Yamhill 17090008 25896	South Yamhill River 1231445452258 0 to 61.7 61.7	Lead	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 5: Water quality limited, 303(d) list, TMDL needed	Added to database		<p>2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 9 samples from 04/15/2008 to 02/17/2010, 2 of 9 valid samples exceed the hardness dependent criteria. [ODEQ] STATION 36317 at RM 37.4 for 1 samples from 09/22/2010 to 09/22/2010, 0 of 1 valid samples exceed the hardness dependent criteria</p>
Willamette Yamhill 17090008 17299	South Yamhill River 1231445452258 0 to 61.8 61.8	Manganese	Year Round	Table 20 Toxic Substances	Human health	Cat 3B: Insufficient data, potential concern	No action		<p>Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/24/1994 to 8/13/2001, 1 out of 69 samples > applicable Table 20 criterion. Previous Status: Cat 3B: Potential concern Previous Action: Added to database Previous Assessment Year: 2004</p>

Willamette Yamhill 17090008 6796	South Yamhill River 1231445452258 0 to 18.1 18.1	Mercury Programs and Projects	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 3B: Insufficient data, potential concern	No action	Involved About Us Previous Data: USGS Data (Site at Hwy 99 Bridge): 1 value detected above standard, a minimum of two exceedences needed to be listed - did not meet listing criteria. Previous Status: Potential concern Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 7741	South Yamhill River 1231445452258 0 to 18.1 18.1	Metolachlor	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 7754	South Yamhill River 1231445452258 0 to 18.1 18.1	Metribuzin	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Drinking water; Anadromous fish passage	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 7762	South Yamhill River 1231445452258 0 to 18.1 18.1	Napropamide	Year Round	Table 20 Toxic Regulations	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Involved About Us Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 7771	South Yamhill River 1231445452258 0 to 18.1 18.1	Nickel	Year Round	Table 20 Toxic Substances	Aquatic life; Human health	Cat 2: Attaining some criteria/uses	No status change	2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 10 samples from 04/15/2008 to 02/17/2010, 0 of 10 valid samples exceed the hardness dependent criteria Previous Data: Copper and Nickel were found in water, but levels were below the water quality standards Table 20 values. No other trace metals were detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6509	South Yamhill River 1231445452258 0 to 18.1 18.1	pH	FallWinterSpring	pH 6.5 to 8.5	Water contact recreation; Salmonid fish spawning; Anadromous fish passage; Resident fish and aquatic life; Salmonid fish rearing	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/24/1994 to 12/22/2003, 0 out of 60 samples (0%) outside pH criteria range 6.5 to 8.5. Previous Data: DEQ Data (Site 402625; RM 16.5): 0% (0 of 73) FWS values exceeded pH standard (6.5 - 8.5) between WY 1986 - 1995. Previous Assessment Year: 1998 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: No status change Previous Assessment Year: 2004

Willamette Yamhill 17090008 6877	South Yamhill River 1231445452258 0 to 18.1 18.1	pH	Programs and Projects	Summer	pH 6.5 to 8.5 Regulations	Water contact Data and Reports recreation; Salmonid fish spawning; Anadromous fish passage; Resident fish and aquatic life; Salmonid fish rearing	Cat 2: Attaining some criteria/uses	No action	Get Involved About Us Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 6/1/1994 to 8/4/2003, 0 out of 28 samples (0%) outside pH criteria range 6.5 to 8.5. Previous Data: DEQ Data (3 Sites: 402623, 402624, 402625; RM 1.0 - 16.5): 0% (0 of 7, 18, 52) Summer values respectively exceeded pH standard (6.5 - 8.5) between WY 1986 - 1995. Previous Assessment Year: 1998 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: No status change Previous Assessment Year: 2004
Willamette Yamhill 17090008 6510	South Yamhill River 1231445452258 18.1 to 42.6 24.5	pH	Fall Winter Spring	pH 6.5 to 8.5	Resident fish and aquatic life; Anadromous fish passage; Salmonid fish rearing; Water contact recreation; Salmonid fish spawning	Cat 2: Attaining some criteria/uses	No action	Previous Data: DEQ Data (2 Sites: 402627, 402628; RM 36.0, 39.5): 0% (0 of 15, 12) FWS values respectively exceeded pH standard (6.5 -8.5) between 86 - 88. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998	
Willamette Yamhill 17090008 6879	South Yamhill River 1231445452258 18.1 to 42.6 24.5	pH	Summer	pH 6.5 to 8.5	Salmonid fish spawning; Salmonid fish rearing; Water contact recreation; Resident fish and aquatic life; Anadromous fish passage	Cat 2: Attaining some criteria/uses	No action	Previous Data: DEQ Data (Site 402627; RM 36.0): 0% (0 of 12) Summer values exceeded pH standard (6.5 -8.5) between 1986 - 1988. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998	

Willamette Yamhill 17090008 6511	South Yamhill River 1231445452258 42.6 to 61.7 19.1	pH Programs and Projects	FallWinterSpring and Projects	pH 6.5 to 8.5 Regulations	Salmonid fish spawning; Data and Reports Salmonid fish rearing; Resident fish and aquatic life; Anadromous fish passage; Water contact recreation	Cat 2: Attaining some Permits criteria/uses	No action Get	Involved About Us Previous Data: DEQ Data (Site 402631; RM 53.4): 0% (0 of 12) FWS values exceeded pH standard (6.5 - 8.5) between 1986 - 1988. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6881	South Yamhill River 1231445452258 42.6 to 61.7 19.1	pH	Summer	pH 6.5 to 8.5	Resident fish and aquatic life; Salmonid fish rearing; Water contact recreation; Salmonid fish spawning; Anadromous fish passage	Cat 2: Attaining some criteria/uses	No action	Previous Data: DEQ Data (Site 402631; RM 53.4): 0% (0 of 5) Summer values exceeded pH standard (6.5 - 8.5) between 1986 - 1987. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 21575	South Yamhill River 1231445452258 0 to 61.8 61.8	Phosphate Phosphorus	Summer	Total phosphates as phosphorus (P): Benchmark 50 ug/L in streams to control excessive aquatic growths	Aquatic life	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ] LASAR 10948 River Mile 16.7: From 6/1/1994 to 8/4/2003, 1 out of 27 samples > 50 ug/L benchmark criterion. Previous Status: Cat 2: Attaining some criteria/uses Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 6422	South Yamhill River 1231445452258 0 to 18.1 18.1	Phosphorus	May 1 - October 31	Biocriteria: Waters of the state must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities.	Aesthetics	Cat 4A: Water quality limited, TMDL approved	No action	Previous Data: DEQ Data (Site 402625; RM 16.5): 0% (0 of 10) May through October values exceeded phosphorus TMDL standard (70 ug/l) with a maximum value of 60 ug/l between 6/94 - 10/95. Previous Status: TMDL approved Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 6423	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Phosphorus	May 1 - October 31	Biocriteria: Waters of the state must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities.	Aesthetics Data and Reports	Cat 4A: Water quality limited, TMDL approved	No action	Get Involved About Us Previous Data: DEQ Data (Site 402627, RM 36.0): 0% (0 of 19) May through October values exceeded TMDL phosphorus standard (70 ug/l) between 1986 - 1988. Previous Status: TMDL approved Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6424	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Phosphorus	May 1 - October 31	Biocriteria: Waters of the state must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities.	Aesthetics	Cat 4A: Water quality limited, TMDL approved	No action	Previous Data: DEQ Data (Site 402631, RM 53.4): 14% (1 of 7) May through October values exceeded TMDL phosphorus standard (70 ug/l) with a maximum of 110 ug/l between 1986 - 1988. Previous Status: TMDL approved Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6687	South Yamhill River 1231445452258 0 to 18.1 18.1	Sedimentation	Undefined	The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation, or industry may not be allowed.	Resident fish and aquatic life; Salmonid fish spawning; Salmonid fish rearing	Cat 3: Insufficient data	No action	Previous Status: Insufficient data Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 6688	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Sedimentation Programs and Projects	Undefined	The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation, or industry may not be allowed.	Salmonid fish rearing; Resident fish and aquatic life	Cat 3: Insufficient data	No action	Involved About Us Previous Status: Insufficient data Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6689	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Sedimentation	Undefined	The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation, or industry may not be allowed.	Salmonid fish spawning; Salmonid fish rearing; Resident fish and aquatic life	Cat 3: Insufficient data	No action	Previous Status: Insufficient data Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 25898	South Yamhill River 1231445452258 0 to 61.7 61.7	Selenium	Year Round	Table 20 Toxic Substances	Aquatic life; Human health	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 11 samples from 04/15/2008 to 02/17/2010, 0 of 11 valid samples exceed the 35 ug/L criteria. [ODEQ] STATION 36317 at RM 37.4 for 1 samples from 09/22/2010 to 09/22/2010, 0 of 1 valid samples exceed the 35 ug/L criteria
Willamette Yamhill 17090008 25894	South Yamhill River 1231445452258 0 to 61.7 61.7	Silver	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 11 samples from 04/15/2008 to 02/17/2010, 0 of 11 valid samples exceed the 0.12 ug/L criteria

Willamette Yamhill 17090008 7890	South Yamhill River 1231445452258 0 to 18.1 18.1	Simazine	Year Round Programs and Projects	Table 20 Toxic Regulations	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining	No action	Involved About Us Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 5963	South Yamhill River 1231445452258 0 to 18.1 18.1	Temperature	Summer	Rearing: 17.8 C	Salmonid fish rearing; Anadromous fish passage	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	Previous Data: DEQ Data (Site 402625; RM 16.5): 88% (46 of 52) Summer values exceeded temperature standard (64) with exceedances each year and a maximum of 81.5 in WY 1986 - 1995. Previous Status: 303(d) Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 5964	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Temperature	Summer	Rearing: 17.8 C	Anadromous fish passage; Salmonid fish rearing	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	Previous Data: DEQ Data (Site 402627; RM 36): 75% (9 of 12) Summer values exceeded temperature standard (64) with exceedances each year and a maximum of 75.9 in WY 1986 - 1988. Previous Status: 303(d) Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 5965	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Temperature	Undefined		Salmonid fish rearing; Resident fish and aquatic life; Anadromous fish passage; Salmonid fish spawning	Cat 3: Insufficient data	No action	Previous Status: Insufficient data Previous Action: Added to database Previous Assessment Year: 1998

Willamette	South Yamhill River	Zinc	Programs and Projects	Year Round	Table 20 Regulations Toxic Substances	Aquatic life; Data and Reports Human health	Cat 3B: Insufficient data, potential concern	Added to database	Get Involved	About Us
Yamhill 17090008 25900	1231445452258 0 to 61.7 61.7									2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 9 samples from 04/15/2008 to 02/17/2010, 1 of 9 valid samples exceed the hardness dependent criteria. [ODEQ] STATION 36317 at RM 37.4 for 1 samples from 09/22/2010 to 09/22/2010, 0 of 1 valid samples exceed the hardness dependent criteria

To select new search criteria [click here \(search.asp#db\)](#) - **DO NOT USE THE BACK ARROW.**

Contact

For more information about DEQ's Integrated Report and 303(d) list contact [Joshua Emerson \(mailto:emerson.joshua@deq.state.or.us\)](mailto:emerson.joshua@deq.state.or.us) at 503-229-5740.

Department of Environmental Quality (<http://www.oregon.gov/DEQ/>)

700 NE Multnomah Street, Suite 600 Portland, OR 97232

Hours: Mon-Fri, 8 a.m.-5 p.m

Email: [DEQInfo@deq.state.or.us \(mailto:DEQInfo@deq.state.or.us\)](mailto:DEQInfo@deq.state.or.us) | Phone: 503-229-5696 | Fax: 503-229-6124

[Website Feedback \(mailto:deqwebmaster@deq.state.or.us\)](mailto:deqwebmaster@deq.state.or.us) [Accessibility \(http://www.oregon.gov/pages/accessibility.aspx\)](http://www.oregon.gov/pages/accessibility.aspx)

[Privacy Policy \(http://www.oregon.gov/DAS/ETS/EGOV/pages/termsconditions.aspx\)](http://www.oregon.gov/DAS/ETS/EGOV/pages/termsconditions.aspx)

Department of Environmental Quality

[DEQ Home](http://www.oregon.gov/deq/Pages/index.aspx) (<http://www.oregon.gov/deq/Pages/index.aspx>) / [Water Quality Assessment](http://www.oregon.gov/deq/wq/Pages/WQ-Assessment.aspx) (<http://www.oregon.gov/deq/wq/Pages/WQ-Assessment.aspx>) / [Oregon's 2012 Integrated Report](http://www.oregon.gov/deq/wq/Pages/2012-Integrated-Report.aspx) (<http://www.oregon.gov/deq/wq/Pages/2012-Integrated-Report.aspx>) / Database Search Results

3/9/2020 1:13:59 PM

(Page 1 of 2)

Oregon's 2012 Integrated Report Yamhill River

To select new search criteria [click here](#) ([search.asp#db](#)) - **DO NOT USE THE BACK ARROW**

Records per page:
 Go to page:

Basin Name	Water Body	Pollutant	Season	Criteria	Beneficial Uses	Status	2012 Assessment Action	[Data Source] Supporting Data
<u>Subbasin</u>	LLID							
4th Field HUC	River Miles							
Record ID	Segment Miles							
	Beach Name							
	Beach ID							
Willamette	North Yamhill River	Alkalinity	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 3B: Insufficient data, potential concern	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10649 River Mile 15: From 1/24/1996 to 7/18/2001, 0 out of 3 samples < 20 mg/L (Table 20 criterion). [DEQ/ODA - Salem] LASAR 10929 River Mile 4.4: From 1/24/1994 to 12/22/2003, 3 out of 82 samples < 20 mg/L (Table 20 criterion). Previous Status: Cat 3B: Potential concern Previous Action: Added to database Previous Assessment Year: 2004
Yamhill 17090008 17303	1231445452259 0 to 32.5 32.5							
Willamette	North Yamhill River	Ammonia	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10649 River Mile 15: From 1/24/1996 to 7/18/2001, 0 out of 4 samples > applicable Table 20 criterion. [DEQ/ODA - Salem] LASAR 10929 River Mile 4.4: From 1/24/1994 to 12/22/2003, 0 out of 116 samples > applicable Table 20 criterion. Previous Status: Cat 2: Attaining some criteria/uses Previous Action: Added to database Previous Assessment Year: 2004
Yamhill 17090008 17304	1231445452259 0 to 32.5 32.5							

Willamette Yamhill 17090008 25479	North Yamhill River 1231445452259 0 to 32.4 32.4	Arsenic	Year Round Programs	Table 40 and Projects Human Health Criteria for Toxic Pollutants	Human Regulations health; Aquatic life	Cat 2: Data and Reports Attaining some criteria/uses	Added to database	Get Involved About Us 2012 Data: [ODEQ] STATION 33921 at RM 0.8 for 1 samples from 09/21/2006 to 09/21/2006, 0 of 1 valid samples exceed the 2.1 ug/L criteria. [ODEQ] STATION 10929 at RM 4.4 for 20 samples from 04/15/2008 to 02/17/2010, 0 of 20 valid samples exceed the 2.1 ug/L criteria. [ODEQ] STATION 33891 at RM 14.5 for 2 samples from 09/14/2006 to 09/14/2006, 0 of 2 valid samples exceed the 2.1 ug/L criteria
Willamette Yamhill 17090008 7305	North Yamhill River 1231445452259 0 to 20.1 20.1	Atrazine	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, simazine and Terbacil were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 24075	North Yamhill River 1231445452259 0 to 32.4 32.4	Biological Criteria	Year Round	Biocriteria: Waters of the state must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities.	Aquatic life	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	2010 Data: EPA addition to 303(d) list 12/14/2012: LASAR 33921 River Mile 0.8 FROM 9/21/2006 To 9/21/2006 1 out of 1 (100%) samples outside MWCF regional criteria. LASAR 33891 River Mile 14.46 FROM 9/14/2006 To 9/14/2006 1 out of 1 (100%) samples outside MWCF regional criteria. LASAR 30942 River Mile 19.9 FROM 9/10/2003 To 9/10/2003 1 out of 1 (100%) samples outside MWCF regional criteria. Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: Status modification - EPA addition to 303(d) list Previous Assessment Year: 2010
Willamette Yamhill 17090008 25482	North Yamhill River 1231445452259 0 to 32.4 32.4	Cadmium	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10929 at RM 4.4 for 20 samples from 04/15/2008 to 02/17/2010, 0 of 20 valid samples exceed the hardness dependent criteria

Willamette Yamhill 17090008 17305	North Yamhill River 1231445452259 0 to 20.1 20.1	Chlorophyll a	FallWinterSpring Programs	Reservoir, river, and Projects estuary, non-thermally stratified lake: 0.015 mg/l	Water contact recreation; Aesthetics; Water supply; Fishing; Livestock watering	Cat 3: Insufficient data	No action Permits	Get Involved About Us Previous Data: [DEQ/ODA - Salem] LASAR 10929 River Mile 4.4: From 5/23/1995 to 5/31/1995, average Chlorophyll a of 0.012 for 1 samples in 1 months. Previous Status: Cat 3: Insufficient data Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 6248	North Yamhill River 1231445452259 0 to 20.1 20.1	Chlorophyll a	Summer	Reservoir, river, estuary, non-thermally stratified lake: 0.015 mg/l	Fishing; Water supply; Water contact recreation; Aesthetics; Livestock watering	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10929 River Mile 4.4: From 6/10/1996 to 9/7/1996, average Chlorophyll a of 0.013 for 3 samples in 3 months. [DEQ] LASAR 10649 River Mile 15: From 7/18/2001 to 9/30/2001, average Chlorophyll a of 0.005 for 1 samples in 1 months. Previous Data: DEQ Data (3 Sites: 402605, 402606, 402607; RM 1.5 - 10.0): 0% (0 of 7); 14% (6 of 42); 5% (1 of 20) Summer values respectively exceeded chlorophyll a standard (15 ug/l) with maximum values of 51, 18 between 1986 - 1995. Previous Assessment Year: 1998 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: No status change Previous Assessment Year: 2004
Willamette Yamhill 17090008 25481	North Yamhill River 1231445452259 0 to 32.4 32.4	Chlorpyrifos	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 3: Insufficient data	Added to database	2012 Data: [USGS] STATION 452149123194900 at RM 25.5 for 2 samples from 05/18/2004 to 08/27/2004, 0 of 2 valid samples exceed the 0.041 ug/L criteria
Willamette Yamhill 17090008 25473	North Yamhill River 1231445452259 0 to 32.4 32.4	Chromium	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10929 at RM 4.4 for 16 samples from 04/15/2008 to 02/17/2010, 0 of 16 valid samples exceed the 11 ug/L criteria
Willamette Yamhill 17090008 25474	North Yamhill River 1231445452259 0 to 32.4 32.4	Copper	Year Round	Table 20 Toxic Substances	Aquatic life; Human health	Cat 5: Water quality limited, 303(d) list, TMDL needed	Added to database	2012 Data: [ODEQ] STATION 10929 at RM 4.4 for 18 samples from 04/15/2008 to 02/17/2010, 2 of 18 valid samples exceed the hardness dependent criteria

Willamette Yamhill 17090008 7530	North Yamhill River 1231445452259 0 to 20.1 20.1	Cycloate	Year Round Programs	Table 20 Toxic and Projects Substances	Resident fish Regulations and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining Data and Reports some criteria/uses	No action Permits	Get Involved About Us Previous Data: Atrazine, Cycloate, simazine and Terbacil were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 21958	North Yamhill River 1231445452259 0 to 14 14	Dissolved Oxygen	January 1 - May 15	Spawning: Not less than 11.0 mg/L or 95% of saturation	Resident trout spawning	Cat 5: Water quality limited, 303(d) list, TMDL needed	No status change	2012 Data: [DEQ] STATION 10929 at RM 4.4 from 02/16/2000 to 02/17/2010, 5 of 19 (26%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 34039 at RM 9.4 from 03/16/2007 to 04/27/2010, 13 of 22 (59%) samples < 11.0 mg/l and < 95% saturation Previous Data: DEQ] LASAR 10929 River Mile 4.4: From 1/24/1994 to 4/29/2003, 11 out of 31 samples (35%) < 11 mg/L and applicable % saturation. Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: Added to database Previous Assessment Year: 2004

<p>Willamette</p> <p>Yamhill 17090008</p> <p>12157</p>	<p>North Yamhill River 1231445452259</p> <p>0 to 20.1 20.1</p>	<p>Dissolved Oxygen</p>	<p>Year Round (Non-spawning) Programs</p>	<p>Cool water: Not and Projects less than 6.5 mg/l</p>	<p>Cool-water Regulations aquatic life</p>	<p>Cat 2: Attaining Data and Reports some criteria/uses</p>	<p>Status Permits modification - Attaining criteria/uses</p>	<p>Segment modified to reflect current application of cool water criterion. Get Involved About Us</p> <p>Cool water criterion previously applied from RM 0 to 28.5. Current data show attainment of criterion.</p> <p>2012 Data:</p> <p>[DEQ] STATION 33921 at RM 0.8 from 09/21/2006 to 09/21/2006, 0 of 1 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 10929 at RM 4.4 from 06/26/2000 to 12/07/2011, 1 of 53 (2%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 35165 at RM 8.6 from 10/16/2008 to 10/16/2008, 0 of 1 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 35166 at RM 8.6 from 10/16/2008 to 10/16/2008, 0 of 1 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 35164 at RM 8.6 from 10/16/2008 to 10/16/2008, 0 of 1 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 34039 at RM 9.4 from 05/25/2007 to 05/26/2010, 0 of 14 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 34036 at RM 13.2 from 05/31/2005 to 10/30/2006, 0 of 10 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 35163 at RM 14 from 10/16/2008 to 10/16/2008, 0 of 1 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 35161 at RM 14 from 10/16/2008 to 10/16/2008, 0 of 1 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 10649 at RM 15 from 07/18/2001 to 07/18/2001, 0 of 1 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 34035 at RM 15.8 from 05/31/2005 to 08/11/2011, 0 of 11 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 30942 at RM 19.9 from 05/31/2005 to 09/30/2006, 0 of 8 (0%) samples < 6.5 mg/L</p> <p>Previous Data: [DEQ/ODA - Salem] LASAR 10649 River Mile 15: From 7/18/2001 to 7/18/2001, 0 out of 1 samples (0%) < 6.5 mg/l and applicable % saturation.</p> <p>Previous Status: Cat 3: Insufficient data</p> <p>Previous Action: Added to database</p> <p>Previous Assessment Year: 2004</p>
--	--	-------------------------	---	--	--	---	--	---

Willamette Yamhill 17090008 12485	North Yamhill River 1231445452259 14 to 30.7 16.7	Dissolved Oxygen	October 15 - May 15 Programs and Projects	Spawning: Not less than 11.0 mg/L or 95% of saturation	Salmon and steelhead spawning	Cat 3: Insufficient data	No status change	Get Involved About Us 2012 Data: [DEQ] STATION 34035 at RM 15.8 from 10/26/2005 to 10/29/2006, 2 of 2 (100%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 30942 at RM 19.9 from 10/26/2005 to 10/29/2006, 1 of 2 (50%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 35448 at RM 20.2 from 05/13/2009 to 05/13/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation Previous Data: [DEQ/ODA - Salem] LASAR 10649 River Mile 15: From 1/24/1996 to 1/24/1996, 1 out of 1 samples (100%) < 11 mg/l and applicable % saturation. Previous Status: Cat 3: Insufficient data Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 24883	North Yamhill River 1231445452259 20.1 to 32.4 12.3	Dissolved Oxygen	Year Round (Non-spawning)	Cold water: Not less than 8.0 mg/l or 90% of saturation	Cold-water aquatic life	Cat 3: Insufficient data	Added to database	Current application of cold water criterion to this segment. 2012 Data: [USGS] STATION 452149123194900 at RM 25.5 from 05/18/2004 to 08/27/2004, 0 of 2 (0%) samples < 8.0 mg/l and < 90% saturation
Willamette Yamhill 17090008 17307	North Yamhill River 1231445452259 0 to 20.1 20.1	E. Coli	FallWinterSpring	30-day log mean of 126 E. coli organisms per 100 ml; no single sample > 406 organisms per 100 ml	Water contact recreation	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	Previous Data: [ODA] LASAR 10649 River Mile 15: From 1/24/1996 to 1/24/1996, 0 out of 1 samples (0%) > 406 organisms; maximum 30-day log mean of 0 [DEQ/ODA - Salem] LASAR 10929 River Mile 4.4: From 1/16/1996 to 12/22/2003, 5 out of 41 samples (12%) > 406 organisms; maximum 30-day log mean of 0 Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 17308	North Yamhill River 1231445452259 0 to 20.1 20.1	E. Coli	Summer	30-day log mean of 126 E. coli organisms per 100 ml; no single sample > 406 organisms per 100 ml	Water contact recreation	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10929 River Mile 4.4: From 1/16/1996 to 12/22/2003, 1 out of 18 samples (6%) > 406 organisms; maximum 30-day log mean of 0 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: Added to database Previous Assessment Year: 2004

Willamette Yamhill 17090008 24582	North Yamhill River 1231445452259 12.3 to 32.4 20.1	E. Coli	Summer Programs and Projects	30-day log mean of 126 E. coli organisms per 100 ml; no single sample > 406 organisms per 100 ml	Water contact recreation	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action Permits	Get Involved About Us 2010 Data: EPA addition to 303(d) list 12/14/2012: Two exceedences of the 406 maximum criteria out of 9 days of sampling at LASAR station 34035, North Yamhill River at bridge on Moores Valley Road (North Yamhill), between 8/16/05 and 9/12/06; the geometric mean criteria is also exceeded at this station between 8/26/03 and 9/24/03 and between 8/25/04 and between 8/15/06 and 9/12/06. Two exceedences of the 406 maximum criteria out of 17 days of sampling at LASAR station 30942, North Yamhill River below Turner Creek, between 8/26/03 and 9/12/06. Exceedence of the geometric mean criteria at LASAR station 34036, North Yamhill River downstream of Yamhill Creek (North Yamhill), between 8/15/06 and 9/12/05. Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: EPA addition to 303(d) list Previous Assessment Year: 2010
Willamette Yamhill 17090008 6081	North Yamhill River 1231445452259 0 to 20.1 20.1	Fecal Coliform	FallWinterSpring	Fecal coliform log mean of 200 organisms per 100 ml; no more than 10% > 400 per 100 ml	Water contact recreation	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	Previous Data: DEQ Data (2 Sites: 402605, 402606; RM 1.5, 4.5): 30% (6 of 20), 40% (21 of 53) FWS values respectively exceeded fecal coliform standard (400) with maximum values of 2400, 2400 between WY 1986 - 1995. Previous Status: 303(d) Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6082	North Yamhill River 1231445452259 20.1 to 32.4 12.3	Fecal Coliform	Undefined		Water contact recreation	Cat 3: Insufficient data	No action	Previous Status: Insufficient data Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6340	North Yamhill River 1231445452259 0 to 20.1 20.1	Flow Modification	Undefined	The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish may not be allowed.	Resident fish and aquatic life; Salmonid fish rearing; Salmonid fish spawning	Cat 4C: Water quality limited, not a pollutant	No action	Cutthroat populations are a stock of concern with low flows and high temperatures constraining populations in some coast range streams (ODFW, 92); IWR (70746) is often not met at USGS gage (14197000). Previous Status: Water quality limited not needing a TMDL Previous Action: Delisted - Water quality limited, not a pollutant Previous Assessment Year: 2002

Willamette Yamhill 17090008 17309	North Yamhill River 1231445452259 0 to 32.5 32.5	Iron	Year Round Programs	Table 20 Toxic and Projects Substances	Aquatic life Regulations	Cat 5: Water quality limited, 303(d) list, TMDL needed	No status change Permits	Get Involved About Us 2012 Data: [ODEQ] STATION 10929 at RM 4.4 for 33 samples from 02/16/2000 to 10/04/2007, 0 of 0 valid samples exceed the 1000 ug/L criteria Previous Data: [DEQ/ODA - Salem] LASAR 10929 River Mile 4.4: From 1/24/1994 to 8/13/2001, 12 out of 63 samples > applicable Table 20 criterion. Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 25477	North Yamhill River 1231445452259 0 to 32.4 32.4	Lead	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 3B: Insufficient data, potential concern	Added to database	2012 Data: [ODEQ] STATION 10929 at RM 4.4 for 14 samples from 04/15/2008 to 02/17/2010, 1 of 14 valid samples exceed the hardness dependent criteria
Willamette Yamhill 17090008 25471	North Yamhill River 1231445452259 0 to 32.4 32.4	Malathion	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 3: Insufficient data	Added to database	2012 Data: [USGS] STATION 452149123194900 at RM 25.5 for 2 samples from 05/18/2004 to 08/27/2004, 0 of 2 valid samples exceed the 0.1 ug/L criteria
Willamette Yamhill 17090008 17310	North Yamhill River 1231445452259 0 to 32.5 32.5	Manganese	Year Round	Table 20 Toxic Substances	Human health	No criteria	Delisted - Criteria change or use clarification	The freshwater manganese criterion has been withdrawn Previous Data: [DEQ/ODA - Salem] LASAR 10929 River Mile 4.4: From 1/24/1994 to 8/13/2001, 3 out of 63 samples > applicable Table 20 criterion. Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 25475	North Yamhill River 1231445452259 0 to 32.4 32.4	Nickel	Year Round	Table 20 Toxic Substances	Aquatic life; Human health	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10929 at RM 4.4 for 16 samples from 04/15/2008 to 02/17/2010, 0 of 16 valid samples exceed the hardness dependent criteria
Willamette Yamhill 17090008 6421	North Yamhill River 1231445452259 20.1 to 32.4 12.3	Nutrients	Undefined		Aesthetics	Cat 3: Insufficient data	No action	Previous Status: Insufficient data Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 6508	North Yamhill River 1231445452259 0 to 20.1 20.1	pH	FallWinterSpring Programs	pH 6.5 to 8.5 and Projects	Salmonid fish rearing; Resident fish and aquatic life; Anadromous fish passage; Water contact recreation; Salmonid fish spawning	Cat 2: Data and Reports Attaining some criteria/uses	No action Permits	Get Involved About Us Previous Data: [DEQ/ODA - Salem] LASAR 10649 River Mile 15: From 1/24/1996 to 1/24/1996, 0 out of 1 samples (0%) outside pH criteria range 6.5 to 8.5. [DEQ/ODA - Salem] LASAR 10929 River Mile 4.4: From 1/24/1994 to 12/22/2003, 0 out of 56 samples (0%) outside pH criteria range 6.5 to 8.5. Previous Data: DEQ Data (2 Sites: 402605, 402606; RM 1.5, 4.5): 0% (0 of 20, 53) FWS values respectively exceeded pH standard (6.5 - 8.5) between WY 1986 - 1995. Previous Assessment Year: 1998 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: No status change Previous Assessment Year: 2004
Willamette Yamhill 17090008 6875	North Yamhill River 1231445452259 0 to 20.1 20.1	pH	Summer	pH 6.5 to 8.5	Water contact recreation; Resident fish and aquatic life; Anadromous fish passage; Salmonid fish rearing; Salmonid fish spawning	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10649 River Mile 15: From 7/18/2001 to 7/18/2001, 0 out of 1 samples (0%) outside pH criteria range 6.5 to 8.5. [DEQ/ODA - Salem] LASAR 10929 River Mile 4.4: From 8/29/1994 to 8/4/2003, 0 out of 25 samples (0%) outside pH criteria range 6.5 to 8.5. Previous Data: DEQ Data (3 Sites: 402605, 402606, 402607; RM 1.5 - 10.0): 0% (0 of 6, 43, 20) Summer values respectively exceeded pH standard (6.5 - 8.5) between WY 1986 - 1995. Previous Assessment Year: 1998 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: No status change Previous Assessment Year: 2004
Willamette Yamhill 17090008 21576	North Yamhill River 1231445452259 0 to 32.5 32.5	Phosphate Phosphorus	Summer	Total phosphates as phosphorus (P): Benchmark 50 ug/L in streams to control excessive aquatic growths	Aquatic life	Cat 3B: Insufficient data, potential concern	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10649 River Mile 15: From 7/18/2001 to 7/18/2001, 1 out of 1 samples > 50 ug/L benchmark criterion. [DEQ] LASAR 10929 River Mile 4.4: From 8/29/1994 to 8/4/2003, 3 out of 24 samples > 50 ug/L benchmark criterion. Previous Status: Cat 3B: Potential concern Previous Action: Added to database Previous Assessment Year: 2004

Willamette Yamhill 17090008 6420	North Yamhill River 1231445452259 0 to 20.1 20.1	Phosphorus	May 1 - October 31 Programs	Biocriteria: Waters of the state must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities.	Aesthetics Regulations	Cat 4A: Water quality limited, TMDL approved	No action Permits	Get Involved About Us Previous Data: DEQ Data (Site 402606; RM 4.5): 0% (0 of 10) May through October values exceeded phosphorus TMDL standard (70 ug/l) with a maximum value of 60 ug/l between 6/94 - 10/95. Previous Status: TMDL approved Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6686	North Yamhill River 1231445452259 0 to 20.1 20.1	Sedimentation	Undefined	The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation, or industry may not be allowed.	Salmonid fish spawning; Resident fish and aquatic life; Salmonid fish rearing	Cat 3: Insufficient data	No action	Previous Status: Insufficient data Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 25478	North Yamhill River 1231445452259 0 to 32.4 32.4	Selenium	Year Round	Table 20 Toxic Substances	Aquatic life; Human health	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10929 at RM 4.4 for 20 samples from 04/15/2008 to 02/17/2010, 0 of 20 valid samples exceed the 35 ug/L criteria
Willamette Yamhill 17090008 25476	North Yamhill River 1231445452259 0 to 32.4 32.4	Silver	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10929 at RM 4.4 for 20 samples from 04/15/2008 to 02/17/2010, 0 of 20 valid samples exceed the 0.12 ug/L criteria
Willamette Yamhill 17090008 7889	North Yamhill River 1231445452259 0 to 20.1 20.1	Simazine	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, simazine and Terbacil were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 5962	North Yamhill River 1231445452259 0 to 20.1 20.1	Temperature	Summer	Rearing: 17.8 C	Salmonid fish rearing; Anadromous fish passage	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	Previous Data: DEQ Data (Site 402606; RM 4.5): 77% (33 of 43) Summer values exceeded temperature standard (64) with exceedances each year and a maximum of 78.8 in WY 1986 - 1995. Previous Status: 303(d) Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 7136	North Yamhill River 1231445452259 20.1 to 32.4 12.3	Temperature	Summer Programs	Rearing: 17.8 C and Projects	Anadromous Regulations fish passage;	Cat 5: Water quality limited, Data and Reports 303(d) list, TMDL needed	No action Permits	Get Involved About Us Previous Data: Two BLM sites: RM 20 and 27 in 1995, 7 day aver. max. temperature was 71.9/64.4°F, both sites exceeded temperature standard (64 °F) Previous Status: 303(d) Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 7910	North Yamhill River 1231445452259 0 to 20.1 20.1	Terbacil	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, simazine and Terbacil were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 25480	North Yamhill River 1231445452259 0 to 32.4 32.4	Zinc	Year Round	Table 20 Toxic Substances	Aquatic life; Human health	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10929 at RM 4.4 for 13 samples from 04/15/2008 to 02/17/2010, 0 of 13 valid samples exceed the hardness dependent criteria
Willamette Yamhill 17090008 17292	South Yamhill River 1231445452258 0 to 61.8 61.8	Alkalinity	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 3B: Insufficient data, potential concern	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/24/1994 to 12/22/2003, 11 out of 88 samples < 20 mg/L (Table 20 criterion). Previous Status: Cat 3B: Potential concern Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 17293	South Yamhill River 1231445452258 0 to 61.8 61.8	Ammonia	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/24/1994 to 12/22/2003, 0 out of 136 samples > applicable Table 20 criterion. Previous Status: Cat 2: Attaining some criteria/uses Previous Action: Added to database Previous Assessment Year: 2004

Willamette Yamhill 17090008 25897	South Yamhill River 1231445452258 0 to 61.7 61.7	Arsenic	Year Round Programs	Table 40 and Projects Human Health Criteria for Toxic Pollutants	Human Regulations health; Aquatic life	Cat 2: Data and Reports Attaining some criteria/uses	Added to database Permits	Get Involved About Us 2012 Data: [ODEQ] STATION 33885 at RM 14.9 for 1 samples from 09/20/2006 to 09/20/2006, 0 of 1 valid samples exceed the 2.1 ug/L criteria. [ODEQ] STATION 10948 at RM 16.7 for 11 samples from 04/15/2008 to 02/17/2010, 0 of 11 valid samples exceed the 2.1 ug/L criteria. [ODEQ] STATION 36317 at RM 37.4 for 1 samples from 09/22/2010 to 09/22/2010, 0 of 1 valid samples exceed the 2.1 ug/L criteria
Willamette Yamhill 17090008 7304	South Yamhill River 1231445452258 0 to 18.1 18.1	Atrazine	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisopropylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 25901	South Yamhill River 1231445452258 0 to 61.7 61.7	Cadmium	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 11 samples from 04/15/2008 to 02/17/2010, 0 of 11 valid samples exceed the hardness dependent criteria
Willamette Yamhill 17090008 17294	South Yamhill River 1231445452258 0 to 18.1 18.1	Chlorophyll a	FallWinterSpring	Reservoir, river, estuary, non- thermally stratified lake: 0.015 mg/l	Aesthetics; Livestock watering; Water supply; Water contact recreation; Fishing	Cat 3: Insufficient data	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 5/23/1995 to 5/31/1995, average Chlorophyll a of 0.012 for 1 samples in 1 months. Previous Status: Cat 3: Insufficient data Previous Action: Added to database Previous Assessment Year: 2004

Willamette Yamhill 17090008 6249	South Yamhill River 1231445452258 0 to 18.1 18.1	Chlorophyll a	Summer Programs	Reservoir, river, and Projects estuary, non-thermally stratified lake: 0.015 mg/l	Fishing; Regulations; Aesthetics; Livestock watering; Water contact recreation; Water supply	Cat 2: Data and Reports Attaining some criteria/uses	No action Permits	Get Involved About Us Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 7/2/1996 to 9/29/1996, average Chlorophyll a of 0.005 for 3 samples in 3 months. Previous Data: DEQ Data (3 Sites: 402623, 402624, 402625; RM 1.0 - 16.5): 29% (2 of 7), 0% (0 of 19, 50) Summer values respectively exceeded chlorophyll a standard (15 ug/l) with a maximum value of 20 between WY 1986 - 1995. Did not meet "Minimum Data Requirements", data did not exceed the 3-month average criteria. Previous Assessment Year: 1998 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: No status change Previous Assessment Year: 2004
Willamette Yamhill 17090008 6880	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Chlorophyll a	Summer	Reservoir, river, estuary, non-thermally stratified lake: 0.015 mg/l	Water contact recreation; Water supply; Aesthetics; Livestock watering; Fishing	Cat 2: Attaining some criteria/uses	No action	Previous Data: DEQ Data (Site 402627; RM 36.0): 0% (0 of 13) Summer values exceeded chlorophyll a standard (15 ug/l) between 1986 - 1988. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6882	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Chlorophyll a	Summer	Reservoir, river, estuary, non-thermally stratified lake: 0.015 mg/l	Water contact recreation; Aesthetics; Livestock watering; Water supply; Fishing	Cat 2: Attaining some criteria/uses	No action	Previous Data: DEQ Data (Site 402631; RM 53.4): 0% (0 of 5) Summer values exceeded chlorophyll a standard (15 ug/l) between 1986 - 1987. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 25895	South Yamhill River 1231445452258 0 to 61.7 61.7	Chromium	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 9 samples from 04/15/2008 to 02/17/2010, 0 of 9 valid samples exceed the 11 ug/L criteria

Willamette Yamhill 17090008 7146	South Yamhill River 1231445452258 0 to 18.1 18.1	Copper	Year Round Programs	Table 20 Toxic and Projects Substances	Aquatic life; Regulations Human health	Cat 5: Water quality limited, 303(d) list, TMDL needed	Status Permits modification - Added to 303(d) list	Get Involved About Us 2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 10 samples from 04/15/2008 to 02/17/2010, 4 of 10 valid samples exceed the hardness dependent criteria Previous Data: Copper and Nickel were found in water, but levels were below the water quality standards Table 20 values. No other trace metals were detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 25902	South Yamhill River 1231445452258 18.1 to 61.7 43.6	Copper	Year Round	Table 20 Toxic Substances	Aquatic life; Human health	Cat 3: Insufficient data	Added to database	2012 Data: [ODEQ] STATION 36317 at RM 37.4 for 1 samples from 09/22/2010 to 09/22/2010, 0 of 1 valid samples exceed the hardness dependent criteria
Willamette Yamhill 17090008 7531	South Yamhill River 1231445452258 0 to 18.1 18.1	Cycloate	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 7563	South Yamhill River 1231445452258 0 to 18.1 18.1	Desethylatrazine	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 7573	South Yamhill River 1231445452258 0 to 18.1 18.1	Desisoproylatrazine	Year Round Programs	Table 20 Toxic and Projects Substances	Resident fish Regulations and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Data and Reports Attaining some criteria/uses	No action Permits	Get Involved About Us Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 20969	South Yamhill River 1231445452258 0 to 41 41	Dissolved Oxygen	January 1 - May 15	Spawning: Not less than 11.0 mg/L or 95% of saturation	Resident trout spawning	Cat 2: Attaining some criteria/uses	Delisted - Data show criteria met	2012 Data: [DEQ] STATION 31547 at RM 5.5 from 02/11/2005 to 02/11/2005, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 10948 at RM 16.7 from 02/16/2000 to 04/05/2011, 2 of 25 (8%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 10949 at RM 27 from 05/14/2009 to 05/14/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation Previous Data: [ODA] LASAR 10948 River Mile 16.7: From 1/24/1994 to 4/29/2003, 8 out of 31 samples (26%) < 11 mg/l and applicable % saturation. Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: Added to database Previous Assessment Year: 2004

<p>Willamette</p> <p>Yamhill</p> <p>17090008</p> <p>12156</p>	<p>South Yamhill River</p> <p>1231445452258</p> <p>0 to 61.8</p> <p>61.8</p>	<p>Dissolved Oxygen</p>	<p>Year Round Programs and Projects (Non-spawning)</p>	<p>Cool water: Not less than 6.5 mg/l</p>	<p>Cool-water Regulations aquatic life</p>	<p>Cat 2: Data and Reports Attaining some criteria/uses</p>	<p>No status change Permits</p>	<p>Get Involved About Us</p> <p>2012 Data:</p> <p>[DEQ] STATION 31547 at RM 5.5 from 08/11/2004 to 07/13/2005, 0 of 3 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 33885 at RM 14.9 from 09/20/2006 to 09/20/2006, 0 of 1 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 10948 at RM 16.7 from 06/26/2000 to 12/07/2011, 0 of 53 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 36089 at RM 36.7 from 10/21/2009 to 10/21/2009, 0 of 1 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 36088 at RM 36.7 from 10/21/2009 to 10/21/2009, 0 of 1 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 36087 at RM 36.7 from 10/21/2009 to 10/21/2009, 0 of 1 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 35072 at RM 37.4 from 09/20/2011 to 09/20/2011, 0 of 1 (0%) samples < 6.5 mg/L.</p> <p>[DEQ] STATION 35451 at RM 38.7 from 06/03/2009 to 06/03/2009, 0 of 3 (0%) samples < 6.5 mg/L</p> <p>Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 6/1/1994 to 12/22/2003, 0 out of 54 samples (0%) < 6.5 mg/l and applicable % saturation.</p> <p>Previous Status: Cat 2: Attaining some criteria/uses</p> <p>Previous Action: Added to database</p> <p>Previous Assessment Year: 2004</p>
---	--	-------------------------	--	---	--	---	---------------------------------	---

Willamette Yamhill 17090008 25903	South Yamhill River 1231445452258 41 to 61.8 20.8	Dissolved Oxygen	October 15 - May 15 Programs	Spawning: Not less and Projects > than 11.0 mg/L or 95% of saturation	Regulations	Cat 3: Insufficient Data and Reports	Added to database Permits	Get Involved About Us 2012 Data: [DEQ] STATION 36082 at RM 42.7 from 10/20/2009 to 10/20/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 36081 at RM 42.7 from 10/20/2009 to 10/20/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 36080 at RM 42.8 from 10/20/2009 to 10/20/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 36079 at RM 52.5 from 10/20/2009 to 10/20/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 36077 at RM 52.5 from 10/20/2009 to 10/20/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 36078 at RM 52.5 from 10/20/2009 to 10/20/2009, 1 of 1 (100%) samples < 11.0 mg/l and < 95% saturation. [DEQ] STATION 35450 at RM 54.5 from 05/14/2009 to 05/14/2009, 0 of 1 (0%) samples < 11.0 mg/l and < 95% saturation
Willamette Yamhill 17090008 7611	South Yamhill River 1231445452258 0 to 18.1 18.1	Diuron	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisopropylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 17296	South Yamhill River 1231445452258 0 to 18.1 18.1	E. Coli	FallWinterSpring	30-day log mean of 126 E. coli organisms per 100 ml; no single sample > 406 organisms per 100 ml	Water contact recreation	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/16/1996 to 12/22/2003, 1 out of 43 samples (2%) > 406 organisms; maximum 30-day log mean of 0 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: Added to database Previous Assessment Year: 2004

Willamette Yamhill 17090008 17297	South Yamhill River 1231445452258 0 to 18.1 18.1	E. Coli	Summer Programs	30-day log mean of 126 E. coli organisms per 100 ml; no single sample > 406 organisms per 100 ml	Water contact recreation	Cat 2: Attaining some criteria/uses	No action Permits	Get Involved About Us Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/16/1996 to 12/22/2003, 0 out of 19 samples (0%) > 406 organisms; maximum 30-day log mean of 0 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 7632	South Yamhill River 1231445452258 0 to 18.1 18.1	Ethoprop	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisopropylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6085	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Fecal Coliform	FallWinterSpring	Fecal coliform log mean of 200 organisms per 100 ml; no more than 10% > 400 per 100 ml	Water contact recreation	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	Previous Data: DEQ Data (2 Sites: 402627, 402628; RM 36.0, 39.5): 20% (3 of 15), 17% (2 of 12) FWS values exceeded fecal coliform standard (400) with maximum values of 460, 1100 respectively between 1986 - 1988. Previous Status: 303(d) Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6878	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Fecal Coliform	Summer	Fecal coliform log mean of 200 organisms per 100 ml; no more than 10% > 400 per 100 ml	Water contact recreation	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	Previous Data: DEQ Data (Site 402627; RM 36.0): 44% (4 of 9) Summer values exceeded fecal coliform standard (400) with a maximum value of 460 between 1986 - 1988. Previous Status: 303(d) Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6087	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Fecal Coliform	FallWinterSpring	Fecal coliform log mean of 200 organisms per 100 ml; no more than 10% > 400 per 100 ml	Water contact recreation	Cat 2: Attaining some criteria/uses	No action	Previous Data: DEQ Data (Site 402631; RM 53.4): 0% (0 of 12) FWS values exceeded fecal coliform standard (400) between 1986 - 1988. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 6086	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Fecal Coliform	Summer Programs	Fecal coliform log mean of 200 organisms per 100 ml; no more than 10% > 400 per 100 ml	Water contact Regulations recreation	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action Permits	Get Involved About Us Previous Data: DEQ Data (Site 402631; RM 53.4): 40% (2 of 5) Summer values exceeded fecal coliform standard (400) with a maximum value of 460 between 1986 - 1987. Previous Status: 303(d) Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6341	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Flow Modification	Undefined	The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish may not be allowed.	Salmonid fish rearing; Resident fish and aquatic life; Salmonid fish spawning	Cat 4C: Water quality limited, not a pollutant	No action	Cutthroat populations are a stock of concern with low flows and high temperatures constraining populations in some coast range streams (ODFW, 92); IWR (59461) is often not met at USGS gage (14194000). Previous Status: Water quality limited not needing a TMDL Previous Action: Delisted - Water quality limited, not a pollutant Previous Assessment Year: 2002
Willamette Yamhill 17090008 6342	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Flow Modification	Undefined	The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life or affect the potability of drinking water or the palatability of fish or shellfish may not be allowed.	Salmonid fish spawning; Resident fish and aquatic life; Salmonid fish rearing	Cat 3: Insufficient data	Status modification	Incorrectly assigned Water Quality Limited status in 2002 de-listing action. Status corrected to reflect 1998 assessment status. Previous Status: Water quality limited not needing a TMDL Previous Action: Delisted - Water quality limited, not a pollutant Previous Assessment Year: 2002
Willamette Yamhill 17090008 7652	South Yamhill River 1231445452258 0 to 18.1 18.1	Hexazinone	Year Round	Table 20 Toxic Substances	Drinking water; Resident fish and aquatic life; Anadromous fish passage	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 8384	South Yamhill River 1231445452258 0 to 18.1 18.1	Iron	Year Round Programs	Table 20 Toxic and Projects Substances	Aquatic life Regulations	Cat 5: Water quality limited, 303(d) list, TMDL needed	No status change Permits	Get Involved About Us 2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 26 samples from 02/16/2000 to 10/04/2007, 0 of 0 valid samples exceed the 1000 ug/L criteria Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/24/1994 to 8/13/2001, 10 out of 69 samples > applicable Table 20 criterion. Previous Data: LASAR 10948 RM 16.8: 2/4 samples > 300 ug/L. Previous Assessment Year: 2002 Previous Status: Cat 5: Water quality limited, 303(d) list, TMDL needed Previous Action: No status change Previous Assessment Year: 2004
Willamette Yamhill 17090008 25896	South Yamhill River 1231445452258 0 to 61.7 61.7	Lead	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 5: Water quality limited, 303(d) list, TMDL needed	Added to database	2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 9 samples from 04/15/2008 to 02/17/2010, 2 of 9 valid samples exceed the hardness dependent criteria. [ODEQ] STATION 36317 at RM 37.4 for 1 samples from 09/22/2010 to 09/22/2010, 0 of 1 valid samples exceed the hardness dependent criteria
Willamette Yamhill 17090008 17299	South Yamhill River 1231445452258 0 to 61.8 61.8	Manganese	Year Round	Table 20 Toxic Substances	Human health	Cat 3B: Insufficient data, potential concern	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/24/1994 to 8/13/2001, 1 out of 69 samples > applicable Table 20 criterion. Previous Status: Cat 3B: Potential concern Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 6796	South Yamhill River 1231445452258 0 to 18.1 18.1	Mercury	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 3B: Insufficient data, potential concern	No action	Previous Data: USGS Data (Site at Hwy 99 Bridge): 1 value detected above standard, a minimum of two exceedences needed to be listed - did not meet listing criteria. Previous Status: Potential concern Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 7741	South Yamhill River 1231445452258 0 to 18.1 18.1	Metolachlor	Year Round Programs	Table 20 Toxic and Projects Substances	Resident fish Regulations and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining Data and Reports some criteria/uses	No action Permits	Get Involved About Us Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 7754	South Yamhill River 1231445452258 0 to 18.1 18.1	Metribuzin	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Drinking water; Anadromous fish passage	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 7762	South Yamhill River 1231445452258 0 to 18.1 18.1	Napropamide	Year Round	Table 20 Toxic Substances	Resident fish and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Attaining some criteria/uses	No action	Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 7771	South Yamhill River 1231445452258 0 to 18.1 18.1	Nickel	Year Round	Table 20 Toxic Substances	Aquatic life; Human health	Cat 2: Attaining some criteria/uses	No status change	2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 10 samples from 04/15/2008 to 02/17/2010, 0 of 10 valid samples exceed the hardness dependent criteria Previous Data: Copper and Nickel were found in water, but levels were below the water quality standards Table 20 values. No other trace metals were detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 6509	South Yamhill River 1231445452258 0 to 18.1 18.1	pH	FallWinterSpring Programs	pH 6.5 to 8.5 and Projects	Water contact recreation; recreation; Salmonid fish spawning; Anadromous fish passage; Resident fish and aquatic life; Salmonid fish rearing	Cat 2: Attaining Data and Reports some criteria/uses	No action Permits	Get Involved About Us Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 1/24/1994 to 12/22/2003, 0 out of 60 samples (0%) outside pH criteria range 6.5 to 8.5. Previous Data: DEQ Data (Site 402625; RM 16.5): 0% (0 of 73) FWS values exceeded pH standard (6.5 - 8.5) between WY 1986 - 1995. Previous Assessment Year: 1998 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: No status change Previous Assessment Year: 2004
Willamette Yamhill 17090008 6877	South Yamhill River 1231445452258 0 to 18.1 18.1	pH	Summer	pH 6.5 to 8.5	Water contact recreation; Salmonid fish spawning; Anadromous fish passage; Resident fish and aquatic life; Salmonid fish rearing	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10948 River Mile 16.7: From 6/1/1994 to 8/4/2003, 0 out of 28 samples (0%) outside pH criteria range 6.5 to 8.5. Previous Data: DEQ Data (3 Sites: 402623, 402624, 402625; RM 1.0 - 16.5): 0% (0 of 7, 18, 52) Summer values respectively exceeded pH standard (6.5 - 8.5) between WY 1986 - 1995. Previous Assessment Year: 1998 Previous Status: Cat 2: Attaining some criteria/uses Previous Action: No status change Previous Assessment Year: 2004
Willamette Yamhill 17090008 6510	South Yamhill River 1231445452258 18.1 to 42.6 24.5	pH	FallWinterSpring	pH 6.5 to 8.5	Resident fish and aquatic life; Anadromous fish passage; Salmonid fish rearing; Water contact recreation; Salmonid fish spawning	Cat 2: Attaining some criteria/uses	No action	Previous Data: DEQ Data (2 Sites: 402627, 402628; RM 36.0, 39.5): 0% (0 of 15, 12) FWS values respectively exceeded pH standard (6.5 -8.5) between 86 - 88. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6879	South Yamhill River 1231445452258 18.1 to 42.6 24.5	pH	Summer	pH 6.5 to 8.5	Salmonid fish spawning; Salmonid fish rearing; Water contact recreation; Resident fish and aquatic life; Anadromous fish passage	Cat 2: Attaining some criteria/uses	No action	Previous Data: DEQ Data (Site 402627; RM 36.0): 0% (0 of 12) Summer values exceeded pH standard (6.5 -8.5) between 1986 - 1988. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6511	South Yamhill River 1231445452258 42.6 to 61.7 19.1	pH	FallWinterSpring	pH 6.5 to 8.5	Salmonid fish spawning; Salmonid fish rearing; Resident fish and aquatic life; Anadromous fish passage; Water contact recreation	Cat 2: Attaining some criteria/uses	No action	Previous Data: DEQ Data (Site 402631; RM 53.4): 0% (0 of 12) FWS values exceeded pH standard (6.5 - 8.5) between 1986 - 1988. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 6881	South Yamhill River 1231445452258 42.6 to 61.7 19.1	pH	Summer Programs	pH 6.5 to 8.5 and Projects	Resident fish and aquatic Regulations and aquatics life; Salmonid fish rearing; Water contact recreation; Salmonid fish spawning; Anadromous fish passage	Cat 2: Data and Reports Attaining some criteria/uses	No action Permits	Get Involved About Us Previous Data: DEQ Data (Site 402631; RM 53.4): 0% (0 of 5) Summer values exceeded pH standard (6.5 - 8.5) between 1986 - 1987. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 21575	South Yamhill River 1231445452258 0 to 61.8 61.8	Phosphate Phosphorus	Summer	Total phosphates as phosphorus (P): Benchmark 50 ug/L in streams to control excessive aquatic growths	Aquatic life	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ] LASAR 10948 River Mile 16.7: From 6/1/1994 to 8/4/2003, 1 out of 27 samples > 50 ug/L benchmark criterion. Previous Status: Cat 2: Attaining some criteria/uses Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 6422	South Yamhill River 1231445452258 0 to 18.1 18.1	Phosphorus	May 1 - October 31	Biocriteria: Waters of the state must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities.	Aesthetics	Cat 4A: Water quality limited, TMDL approved	No action	Previous Data: DEQ Data (Site 402625; RM 16.5): 0% (0 of 10) May through October values exceeded phosphorus TMDL standard (70 ug/l) with a maximum value of 60 ug/l between 6/94 - 10/95. Previous Status: TMDL approved Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6423	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Phosphorus	May 1 - October 31	Biocriteria: Waters of the state must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities.	Aesthetics	Cat 4A: Water quality limited, TMDL approved	No action	Previous Data: DEQ Data (Site 402627, RM 36.0): 0% (0 of 19) May through October values exceeded TMDL phosphorus standard (70 ug/l) between 1986 - 1988. Previous Status: TMDL approved Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6424	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Phosphorus	May 1 - October 31	Biocriteria: Waters of the state must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities.	Aesthetics	Cat 4A: Water quality limited, TMDL approved	No action	Previous Data: DEQ Data (Site 402631, RM 53.4): 14% (1 of 7) May through October values exceeded TMDL phosphorus standard (70 ug/l) with a maximum of 110 ug/l between 1986 - 1988. Previous Status: TMDL approved Previous Action: Added to database Previous Assessment Year: 1998

Willamette Yamhill 17090008 6687	South Yamhill River 1231445452258 0 to 18.1 18.1	Sedimentation	Undefined Programs	The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation, or industry may not be allowed.	Resident fish Regulations and aquatic life; Salmonid fish spawning; Salmonid fish rearing	Cat 3: Insufficient Data and Reports	No action Permits	Get Involved About Us Previous Status: Insufficient data Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6688	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Sedimentation	Undefined	The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation, or industry may not be allowed.	Salmonid fish rearing; Salmonid fish spawning; Resident fish and aquatic life	Cat 3: Insufficient data	No action	Previous Status: Insufficient data Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 6689	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Sedimentation	Undefined	The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation, or industry may not be allowed.	Salmonid fish spawning; Salmonid fish rearing; Resident fish and aquatic life	Cat 3: Insufficient data	No action	Previous Status: Insufficient data Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 25898	South Yamhill River 1231445452258 0 to 61.7 61.7	Selenium	Year Round	Table 20 Toxic Substances	Aquatic life; Human health	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 11 samples from 04/15/2008 to 02/17/2010, 0 of 11 valid samples exceed the 35 ug/L criteria. [ODEQ] STATION 36317 at RM 37.4 for 1 samples from 09/22/2010 to 09/22/2010, 0 of 1 valid samples exceed the 35 ug/L criteria
Willamette Yamhill 17090008 25894	South Yamhill River 1231445452258 0 to 61.7 61.7	Silver	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 2: Attaining some criteria/uses	Added to database	2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 11 samples from 04/15/2008 to 02/17/2010, 0 of 11 valid samples exceed the 0.12 ug/L criteria

Willamette Yamhill 17090008 7890	South Yamhill River 1231445452258 0 to 18.1 18.1	Simazine	Year Round Programs	Table 20 Toxic and Projects Substances	Resident fish Regulations and aquatic life; Anadromous fish passage; Drinking water	Cat 2: Data and Reports Attaining some criteria/uses	No action Permits	Get Involved About Us Previous Data: Atrazine, Cycloate, Desethylatrazine, Desisoproylatrazine, Diuron, Ethoprop, Hexazinone, Metolachlor, Metribuzin, Napropamide and Simazine were found but either do not have or were below any water quality standard, guidance level or criteria. No other pesticides detected. Previous Status: Attaining Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 5963	South Yamhill River 1231445452258 0 to 18.1 18.1	Temperature	Summer	Rearing: 17.8 C	Salmonid fish rearing; Anadromous fish passage	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	Previous Data: DEQ Data (Site 402625; RM 16.5): 88% (46 of 52) Summer values exceeded temperature standard (64) with exceedances each year and a maximum of 81.5 in WY 1986 - 1995. Previous Status: 303(d) Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 5964	South Yamhill River 1231445452258 18.1 to 42.6 24.5	Temperature	Summer	Rearing: 17.8 C	Anadromous fish passage; Salmonid fish rearing	Cat 5: Water quality limited, 303(d) list, TMDL needed	No action	Previous Data: DEQ Data (Site 402627; RM 36): 75% (9 of 12) Summer values exceeded temperature standard (64) with exceedances each year and a maximum of 75.9 in WY 1986 - 1988. Previous Status: 303(d) Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 5965	South Yamhill River 1231445452258 42.6 to 61.7 19.1	Temperature	Undefined		Salmonid fish rearing; Resident fish and aquatic life; Anadromous fish passage; Salmonid fish spawning	Cat 3: Insufficient data	No action	Previous Status: Insufficient data Previous Action: Added to database Previous Assessment Year: 1998
Willamette Yamhill 17090008 25900	South Yamhill River 1231445452258 0 to 61.7 61.7	Zinc	Year Round	Table 20 Toxic Substances	Aquatic life; Human health	Cat 3B: Insufficient data, potential concern	Added to database	2012 Data: [ODEQ] STATION 10948 at RM 16.7 for 9 samples from 04/15/2008 to 02/17/2010, 1 of 9 valid samples exceed the hardness dependent criteria. [ODEQ] STATION 36317 at RM 37.4 for 1 samples from 09/22/2010 to 09/22/2010, 0 of 1 valid samples exceed the hardness dependent criteria

Willamette Yamhill 17090008 16915	Yamhill River 1229962452299 0 to 11.2 11.2	Alkalinity	Year Round Programs	Table 20 Toxic and Projects Substances	Aquatic life Regulations	Cat 3B: Insufficient data, potential concern	No action Permits	Get Involved About Us Previous Data: [DEQ] LASAR 10648 River Mile 0: From 8/30/1995 to 8/30/1995, 0 out of 1 samples < 20 mg/L (Table 20 criterion). [DEQ/ODA - Salem] LASAR 10363 River Mile 5: From 1/24/1994 to 12/22/2003, 9 out of 83 samples < 20 mg/L (Table 20 criterion). Previous Status: Cat 3B: Potential concern Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 16916	Yamhill River 1229962452299 0 to 11.2 11.2	Ammonia	Year Round	Table 20 Toxic Substances	Aquatic life	Cat 2: Attaining some criteria/uses	No action	Previous Data: [DEQ/ODA - Salem] LASAR 10363 River Mile 5: From 1/24/1994 to 12/22/2003, 0 out of 112 samples > applicable Table 20 criterion. [DEQ] LASAR 10648 River Mile 0: From 8/30/1995 to 8/30/1995, 0 out of 1 samples > applicable Table 20 criterion. Previous Status: Cat 2: Attaining some criteria/uses Previous Action: Added to database Previous Assessment Year: 2004
Willamette Yamhill 17090008 7157	Yamhill River 1229962452299 0 to 11.2 11.2	Antimony	Year Round	Toxic substances may not be introduced above natural background levels in the waters of the State in amounts, concentrations, or combinations that may be harmful, may chemically change to harmful forms in the environment, or may accumulate in sediment...	Drinking water; Resident fish and aquatic life; Anadromous fish passage	Cat 3B: Insufficient data, potential concern	No action	Previous Data: Antimony, Arsenic, Chromium, Copper, Manganese, Nickel and Zinc were found in elevated levels in sediments when compared to various guidelines or guidance values, however, sediment toxicity does not correlate well with sediment contaminant concentrations and is dependent on local conditions. To determine toxicity a demonstration of a beneficial use impairment is needed. No data on beneficial use impairment (e.g. bioassays) is available. For constituents in sediment there is no single type of sediment-quality guideline generally accepted in the scientific literature. Previous Status: Potential concern Previous Action: Added to database Previous Assessment Year: 1998

[Next](#)

To select new search criteria [click here \(search.asp#db\)](#) - DO NOT USE THE BACK ARROW.

Contact

For more information about DEQ's Integrated Report and 303(d) list contact [Joshua Emerson \(mailto:emerson.joshua@deq.state.or.us\)](mailto:emerson.joshua@deq.state.or.us) at 503-229-5740.

Department of Environmental Quality (<http://www.oregon.gov/DEQ/>)

700 NE Multnomah Street, Suite 600 Portland, OR 97232

Hours: Mon-Fri, 8 a.m.-5 p.m

Email: [DEQInfo@deq.state.or.us \(mailto:DEQInfo@deq.state.or.us\)](mailto:DEQInfo@deq.state.or.us) | Phone: 503-229-5696 | Fax: 503-229-6124

[Website Feedback \(mailto:deqwebmaster@deq.state.or.us\)](mailto:deqwebmaster@deq.state.or.us) [Accessibility \(http://www.oregon.gov/pages/accessibility.aspx\)](http://www.oregon.gov/pages/accessibility.aspx)

[Privacy Policy \(http://www.oregon.gov/DAS/ETS/EGOV/pages/termsconditions.aspx\)](http://www.oregon.gov/DAS/ETS/EGOV/pages/termsconditions.aspx)

Revised on 06.23.2022
448 of 614

KNOWN NEARBY NPDES PERMITS

Department of Environmental Quality

[DEQ Home \(http://www.deq.state.or.us/\)](http://www.deq.state.or.us/)

Status of Permit Application - Search

View the status of current DEQ permit applications.

Note: at the present time, only Water Quality permit applications can be viewed.

To view the status of a permit application, enter the facility/file number below and press the "Search" button:

Search by Facility/File #	
Facility/File #:	<input type="text"/>
<input type="button" value="Search"/>	<input type="button" value="Clear"/>

Or, if you don't know the facility number, enter one or more of the available search options below and press the "Search" button:

Search by Facility Name and/or Address	
Facility Name:	<input type="text"/>
Facility Street:	<input type="text"/>
Facility City:	<input type="text" value="Mcminnville"/>
Facility Zip Code:	<input type="text"/>
<input type="button" value="Search"/>	<input type="button" value="Clear"/>

Results[Programs and Projects](#) ▾[Regulations](#) ▾[Data and Reports](#) ▾[Permits](#) ▾[Get Involved](#) ▾[About Us](#) ▾

Facility #: 105395
AIRGAS USA, LLC (aka. AIRGAS
USA, LLC)
2750 LAFAYETTE AVE
MCMINNVILLE, OR 97128

[View Permit\(s\)](#)
([StatusOfPermitApplicationResults.aspx?facilityID=105395](#))

Facility #: 121976
ALAN RUDEN, INC. (aka.
BUNGALOWS @ CHEGWYN
VILLAGE (PHASES I, II, & III))
SUNFLOWER STREET
MCMINNVILLE, OR 97128

[View Permit\(s\)](#)
([StatusOfPermitApplicationResults.aspx?facilityID=121976](#))

Facility #: 124303
ALAN RUDEN, INC. (aka.
COTTAGE AT CHEGWYN
VILLAGE III)
NE. HEMBREE ST
MCMINNVILLE, OR 97128

[View Permit\(s\)](#)
([StatusOfPermitApplicationResults.aspx?facilityID=124303](#))

Facility #: 124187
AMERICAN VILLAGE OF
MCMINNVILLE LLC (aka.
AMERICAN VILLAGE OF
MCMINNVILLE LLC)
624 DRUMWOOD AVE
MCMINNVILLE, OR 97128

[View Permit\(s\)](#)
([StatusOfPermitApplicationResults.aspx?facilityID=124187](#))

Facility #: 125340
BAKER CREEK DEVELOPMENT,
LLC (aka. BAKER CREEK
SUBDIVISION - EAST)
NW COTTONWOOD DR & NW
MEDINA DR
MCMINNVILLE, OR 97128

[View Permit\(s\)](#)
([StatusOfPermitApplicationResults.aspx?facilityID=125340](#))

Facility #: 105379
BIBLE MENNONITE
FELLOWSHIP - DBA (aka. ROCK
OF AGES MENNONITE HOME,
VALLEY VIEW)
15600 SW ROCK OF AGES RD
MCMINNVILLE, OR 97128

[View Permit\(s\)](#)
([StatusOfPermitApplicationResults.aspx?facilityID=105379](#))

Facility #: 121027 BREWER, PAUL (aka. OLDE STONE VILLAGE RV EXPANSION) 4155 NE THREE MILE LANE MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=121027)
---	---

Facility #: 119145 C.C. MEISEL CO., INC DBA MEISEL ROCK PRODUCTS (aka. WILSON PIT) END OF DORSEY ROAD MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=119145)
--	---

Facility #: 119465 C.C. MEISEL CO., INC. DBA MEISEL ROCK PRODUCTS (aka. PENLAND FARM) END OF DORSEY ROAD MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=119465)
---	---

Facility #: 110039 C.D. REDDING CONSTRUCTION, INC. (aka. MCMINNVILLE HONDA) 8515 LONE OAK RD N MCMINNVILLE, OR 97128-8250	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=110039)
--	---

Facility #: 14900 CASCADE STEEL ROLLING MILLS, INC. (aka. CASCADE STEEL) 3200 N HWY 99W MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=14900)
--	--

Facility #: 107414 Champion Home Builders Inc. (aka. SKYLINE HOMES) 550 SE BOOTH BEND RD MCMINNVILLE, OR 97128-9314	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=107414)
---	---

Facility #: 123940 CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (aka. BARKER MCMINNVILLE) 1625 NE LAFAYETTE AVE. MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=123940)
---	---

<p>Facility #: 112847 CITY OF MCMINNVILLE (aka. CITY OF MCMINNVILLE) MULTIPLE SOURCES - MCMINNVILLE MCMINNVILLE, OR 97128</p>	<p>Regulations Data and Reports View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=112847)</p>
--	--

Get Involved

About Us

<p>Facility #: 114504 COEUR DE TERRE VINEYARD, LLC (aka. COEUR DE TERRE VINEYARD, LLC) 21000 SW EAGLE POINT WAY MCMINNVILLE, OR 97128</p>	<p>View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=114504)</p>
--	---

<p>Facility #: 100073 COOPERATIVE REGIONS OF ORGANIC PRODUCER POOLS (aka. ORGANIC VALLEY) 700 NORTH HWY 99W MCMINNVILLE, OR 97128</p>	<p>View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=100073)</p>
--	---

<p>Facility #: 100029 COVE ORCHARD SEWER SERVICE DISTRICT (aka. COVE ORCHARD SEWER SERVICE DISTRICT) 535 EAST 5TH STREET MCMINNVILLE, OR 97128</p>	<p>View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=100029)</p>
---	---

<p>Facility #: 125165 DECEHCC II INVESTMENTS, LLC (aka. MCMINNVILLE RV & MINI STORAGE) 13999 OREGON HWY 99W MCMINNVILLE, OR 97128</p>	<p>View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=125165)</p>
--	---

<p>Facility #: 112705 FIRST STUDENT INC. (aka. FIRST STUDENT, INC. #10449 - MCMINNVILLE) 1936 NE LAFAYETTE AVE MCMINNVILLE, OR 97128</p>	<p>View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=112705)</p>
---	---

<p>Facility #: 125556 GALLANT CONSTRUCTION CORPORATION (aka. SAWTOOTH INDUSTRIAL DEVELOPMENT) 1445 NE MILLER STREET MCMINNVILLE, OR 97128</p>	<p>View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=125556)</p>
--	---

Facility #: 108625 GLACIER NORTHWEST, INC. (DBA CALPORTLAND) (aka. CALPORTLAND - MCMINNVILLE READY MIX) 2245 NE Cumulus Avenue MCMINNVILLE, OR 97128-9414	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=108625)
---	---

Facility #: 125272 HEISER EDITION, LLC (aka. HEISER ADDITION) 2946 REDMOND HILL RD MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=125272)
--	---

Facility #: 125973 Hoilien, Michael Dean (aka. Michael Dean Hoilien) 2701 NW HORIZON DR MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=125973)
---	---

Facility #: 125855 J. CONSER AND SONS, LLC (aka. EVERGREEN VALLEY APARTMENTS) NE FIRCREST DR AND NE CUMULUS AVE MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=125855)
---	---

Facility #: 124882 JACKSON FAMILY WINES, INC. (aka. JACKSON FAMILY WINES) 3440 NE THREE MILE LANE MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=124882)
--	---

Facility #: 126014 K&E Excavating (aka. Evans Street Apartment Complex) 2501 NE EVANS STREET MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=126014)
--	---

Facility #: 123808 KLAUS, DEAN C. (aka. YOUR SPACE STORAGE ADDITION) 1500 LAFAYETTE AVE MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=123808)
---	---

<p>Facility #: 126402 Knife River Corporation - Northwest (aka. Knife River - McMinnville) 1425 NORTHEAST ALPHA DRIVE MCMINNVILLE, OR 97128</p>	<p>View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=126402)</p>
--	--

<p>Facility #: 123659 LAFAYETTE PLACE APARTMENTS, LLC (aka. LAFAYETTE PLACE APARTMENTS) LAFAYETTE AVE AND ORCHARD AVE MCMINNVILLE, OR 97128</p>	<p>View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=123659)</p>
--	--

<p>Facility #: 125084 LCG PENCE CONSTRUCTION (aka. MCMINNVILLE HIGH SCHOOL ADDITION AND REMODEL-PHASE 1) 615 NE 15TH STREET MCMINNVILLE, OR 97128</p>	<p>View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=125084)</p>
--	--

<p>Facility #: 125347 LGI Homes - Oregon LLC (aka. LGI Homes) NW HILL RD AND NW BAKER RD MCMINNVILLE, OR 97128</p>	<p>View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=125347)</p>
---	--

<p>Facility #: 111320 MAYSARA WINERY, LLC (aka. MAYSARA WINERY) 15765 MUDDY VALLEY RD MCMINNVILLE, OR 97128</p>	<p>View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=111320)</p>
--	--

<p>Facility #: 123043 MCMINNVILLE AREA HABITAT FOR HUMANITY (aka. ATLANTIC STREET COMMUNITY) 105 NW ATLANTIC ST. MCMINNVILLE, OR 97128</p>	<p>View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=123043)</p>
---	--

Facility #: 106896 MCMINNVILLE, CITY OF (aka. MCMINNVILLE MUNICIPAL AIRPORT) 4000 CIRRUS AVE. MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=106896)
--	---

Facility #: 106694 MCMINNVILLE, CITY OF (aka. MCMINNVILLE WATER RECLAMATION FACILITY) 3500 NE CLEARWATER DR MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=106694)
--	---

Facility #: 108883 MCMINNVILLE, CITY OF (aka. MCMINNVILLE, CITY OF) 3500 NE CLEARWATER DR MCMINNVILLE, OR 97128-8252	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=108883)
--	---

Facility #: 107116 MORELAND OIL CO. (aka. MORELAND OIL CO.) 1700 NE LAFAYETTE AVE MCMINNVILLE, OR 97128-3432	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=107116)
--	---

Facility #: 124452 MOSAIC MANAGEMENT INC. (aka. MCMINNVILLE SENIOR LIVING MEMORY CARE FACILITY) 235 NE DUNN PLACE MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=124452)
---	---

Facility #: 125542 NWSS MCMINNVILLE STORAGE LLC (aka. NW SELF STORAGE - MCMINNVILLE) SALMON RIVER HWY & THREE MILE LN. MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=125542)
--	---

Facility #: 126006 Olde Stone Village NW, LLC (aka. Olde Stone Village RV Storage Expansion) NE HEATHER DRIVE AND NE DAWN DRIVE MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=126006)
---	---

Facility #: 125768 PACIFIC NORTH CONSTRUCTION (aka. PACIFIC NORTH CONSTRUCTION) 2090 NE Colvin Ct Mcminnville, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=125768)
--	---

Facility #: 109300 PAPE' MACHINERY, INC. (aka. PAPE' MACHINERY, INC.) 9889 S. HWY. 99W MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=109300)
--	---

Facility #: 126124 Parr Development LLC (aka. Parr Apartment Project) 1601 NE MCDANIEL LANE MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=126124)
---	---

Facility #: 124107 PREMIER DEVELOPMENT, LLC (aka. WEST VALLEY ESTATES PHASE 4) SW MT. WASHINGTON STREET MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=124107)
--	---

Facility #: 126581 Premier Home Builders, Inc. (aka. Colvin Court) 1815 COLVIN COURT MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=126581)
--	---

Facility #: 125844 RB&R CONTRACTORS (aka. THE VILLAGE AT BLACK ROCK FALLS) 1730 SW 2ND ST MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=125844)
--	---

Facility #: 110280 RECOLOGY WESTERN OREGON - VALLEY RECOVERY ZONE, INC. (aka. VALLEY RECOVERY ZONE) 2200 NE ORCHARD AVE MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx? facilityID=110280)
---	---

Facility #: 106873 RECOLOGY WESTERN OREGON, INC. (aka. RECOLOGY WESTERN OREGON) 1850 NE LAFAYETTE AVE MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=106873)
--	---

Facility #: 104708 RIVERBEND LANDFILL CO. (aka. RIVERBEND LANDFILL) 14325 S. W. HWY. 18 MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=104708)
--	---

Facility #: 106959 RIVERBEND LANDFILL CO. (aka. RIVERBEND LANDFILL) 13469 SW HIGHWAY 18 MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=106959)
--	---

Facility #: 105375 ROYAL PACIFIC INDUSTRIES, INC. (aka. ROYAL PACIFIC INDUSTRIES INC) 4035 NE RIVERSIDE DR MCMINNVILLE, OR 97128-9366	View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=105375)
--	---

Facility #: 126508 Soaring Hill LLC (aka. Soaring Hill LLC) 15500 SW DUSTY DRIVE MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=126508)
---	---

Facility #: 125325 SP SOLAR 7, LLC (aka. DAYTON CUTOFF SOLAR FARM) 9810 SE AMITY DAYTON HWY MCMINNVILLE, OR 97128-8713	View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=125325)
---	---

Facility #: 109341 UFP MCMINNVILLE, LLC (aka. PLANT 388) 1726 SW HWY 18 MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=109341)
--	---

Facility #: 123879 ULTIMATE RB, INC. (aka. RB RUBBER) 904 NE 10TH AVENUE MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=123879)
---	---

Programs and Projects ▾ Facility #: 107592 West Coast Feed and Seed LLC (aka. West Coast Feed and Seed) 102 SE BOOTH BEND ROAD MCMINNVILLE, OR 97128	Regulations ▾ Data and Reports ▾ View Permit(s) Permits ▾ (StatusOfPermitApplicationResults.aspx?facilityID=107592)	Get Involved ▾ About Us ▾
Facility #: 124842 WEST HILLS PROPERTIES LLC (aka. VALLEY'S EDGE PHASE 4) NW 2ND ST AND SW VALLEY'S EDGE ST MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=124842)	
Facility #: 124336 WEST HILLS PROPERTIES, LLC (aka. BROOKSHIRE PHASE 1) WESTERN END OF NW SECOND ST MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=124336)	
Facility #: 125020 WORLD CLASS TECHNOLOGY CORPORATION (aka. WORLD CLASS TECHNOLOGY SITE EXPANSION) NE ALPHA DR & NE RIVERSIDE DR. MCMINNVILLE, OR 97128	View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=125020)	
Facility #: 125263 YAMHILL COMMUNITY DEVELOPMENT CORPORATION (aka. WHISPERING MEADOWS) 3055 NE CUMULUS AVE MCMINNVILLE, OR 97114	View Permit(s) (StatusOfPermitApplicationResults.aspx?facilityID=125263)	

If you would like to contact DEQ regarding a permit application, please contact your [local DEQ office](#) (<http://www.deq.state.or.us/about/locations.htm>).

[Department of Environmental Quality \(http://www.oregon.gov/DEQ/\)](http://www.oregon.gov/DEQ/)

700 NE Multnomah Street, Suite 600 Portland, OR 97232

Hours: Mon-Fri, 8 a.m.-5 p.m

Email: DEQInfo@deq.state.or.us (mailto:DEQInfo@deq.state.or.us) | Phone: 503-229-5696 | Fax: 503-229-6124

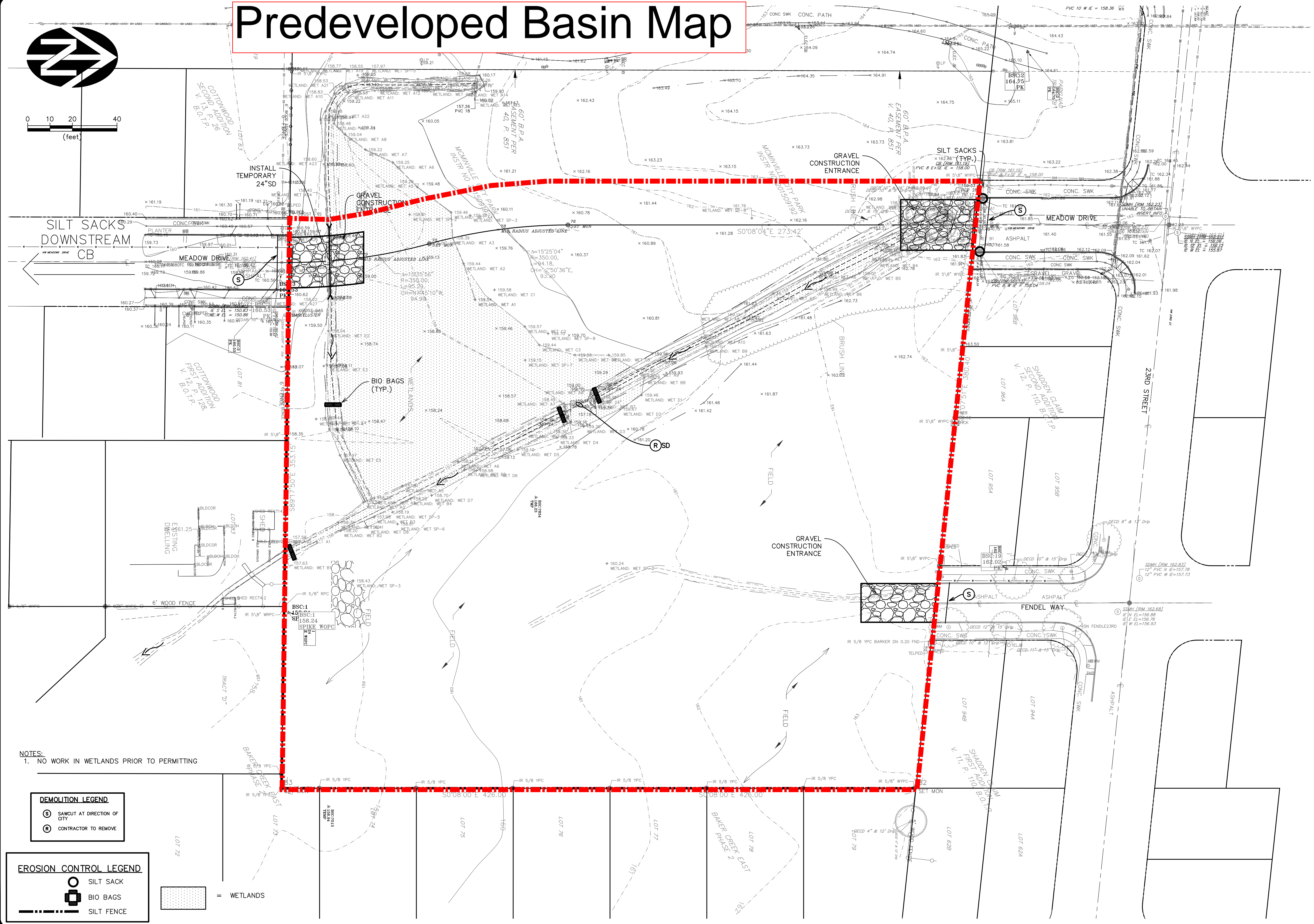
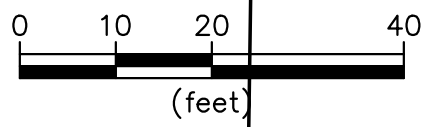
**Elysian Subdivision
McMinnville, Oregon
Stormwater Management Report**

APPENDIX II

Drainage Basin Map

PREDEVELOPED BASIN MAP

Predeveloped Basin Map



NOTES:
1. NO WORK IN WETLANDS PRIOR TO PERMITTING

DEMOLITION LEGEND

- (S) SANICUT AT DIRECTION OF CITY
- (C) CONTRACTOR TO REMOVE

EROSION CONTROL LEGEND

- (O) SILT SACK
- (□) BIO BAGS
- (---) SILT FENCE
- (stippled area) = WETLANDS

NO.	DATE	DESCRIPTION	BY
1			

REVIEW REVIEW

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON SCALES ACCURACIES

DATE: 06/20/08

WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS

WE

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westech@westech-eng.com

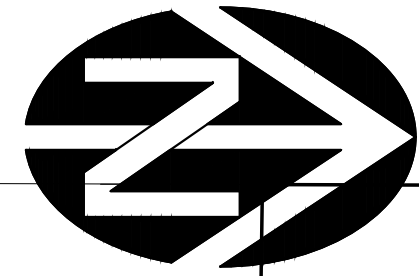
VJ-2 DEVELOPMENT
FENDEL WAY SUBDIVISION
PRE-DEVELOPED EROSION CONTROL PLAN

DRAWING
C1.0

JOB NUMBER
2931.0000.0

DEVELOPED BASIN MAP

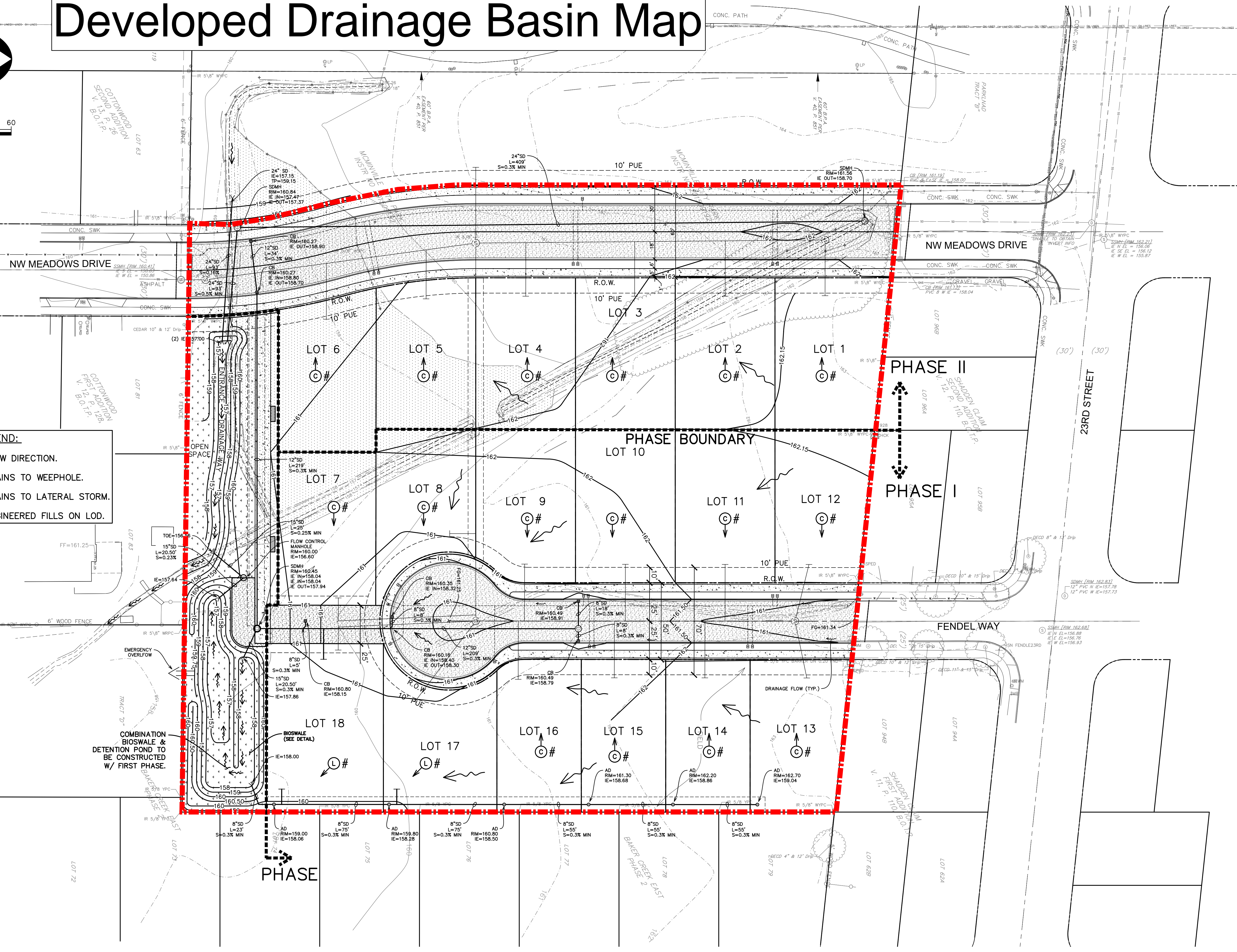
Developed Drainage Basin Map



0 15 30 60
(feet)

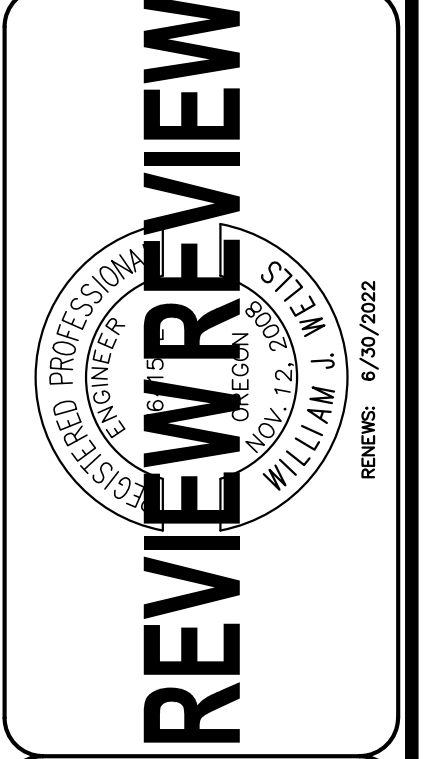
GRADING LEGEND:

- = FLOW DIRECTION.
- = DRAINS TO WEEPHOLE.
- = DRAINS TO LATERAL STORM.
- = ENGINEERED FILLS ON LOD.



NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACIES
 DSN. JW
 DRN. JH/AK
 CKD. JW
 DATE: 06/20/2022



WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS
 3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
OVERALL GRADING AND DRAINAGE PLAN

DRAWING
C3.0
 JOB NUMBER
2931.0000.0

**Elysian Subdivision
McMinnville, Oregon
Stormwater Management Report**

APPENDIX III

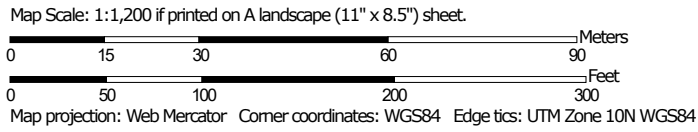
Basin Hydrologic Characteristics

SOILS MAPS WITH HYDROLOGIC SOIL GROUP

































Hydrologic Soil Group—Yamhill County, Oregon



Soil Map may not be valid at this scale.



MAP LEGEND

- Area of Interest (AOI)**
 -  Area of Interest (AOI)
- Soils**
 - Soil Rating Polygons**
 -  A
 -  A/D
 -  B
 -  B/D
 -  C
 -  C/D
 -  D
 -  Not rated or not available
 - Soil Rating Lines**
 -  A
 -  A/D
 -  B
 -  B/D
 -  C
 -  C/D
 -  D
 -  Not rated or not available
 - Soil Rating Points**
 -  A
 -  A/D
 -  B
 -  B/D
- Water Features**
 -  Streams and Canals
- Transportation**
 -  Rails
 -  Interstate Highways
 -  US Routes
 -  Major Roads
 -  Local Roads
- Background**
 -  Aerial Photography
- Other**
 -  C
 -  C/D
 -  D
 -  Not rated or not available

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.
 Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Yamhill County, Oregon
 Survey Area Data: Version 7, Sep 10, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 16, 2015—Feb 12, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
2301A	Amity silt loam, 0 to 3 percent slopes	C/D	2.0	40.6%
2310A	Woodburn silt loam, 0 to 3 percent slopes	C	2.9	59.4%
Totals for Area of Interest			4.9	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

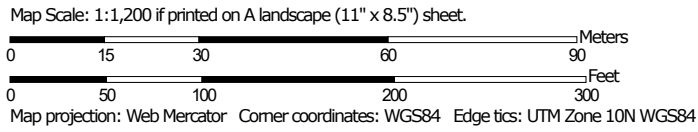
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Soil Map—Yamhill County, Oregon




Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Yamhill County, Oregon

Survey Area Data: Version 7, Sep 10, 2019

Soil map units are labeled (as space allows) for map scales

1:50,000 or larger.

Date(s) aerial images were photographed: Apr 16, 2015—Feb

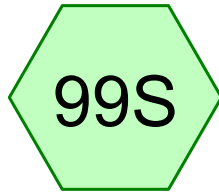
12, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

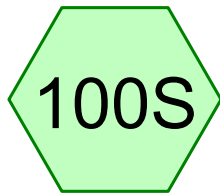
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2301A	Amity silt loam, 0 to 3 percent slopes	2.0	40.6%
2310A	Woodburn silt loam, 0 to 3 percent slopes	2.9	59.4%
Totals for Area of Interest		4.9	100.0%

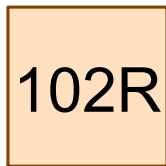
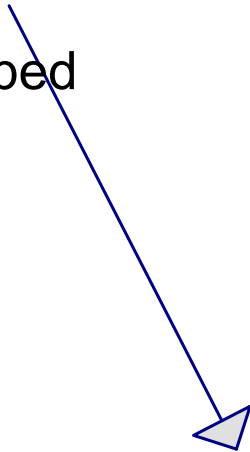
HYDROCAD ANALYSIS



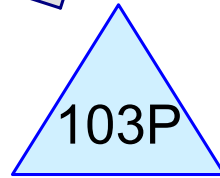
Predeveloped



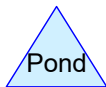
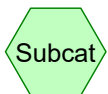
Developed



Swale



Detention Pond



Routing Diagram for Elysian Subdivision
Prepared by Westech Engineering, Inc.
HydroCAD® 10.10-7a s/n 12008 © 2021 HydroCAD Software Solutions LLC

Elysian Subdivision

Type IA 24-hr Mcminn. 2 YR Rainfall=2.60"

Prepared by Westech Engineering, Inc.

HydroCAD® 10.10-7a s/n 12008 © 2021 HydroCAD Software Solutions LLC

Summary for Subcatchment 99S: Predeveloped

Runoff = 0.28 cfs @ 8.37 hrs, Volume= 0.253 af, Depth= 0.80"

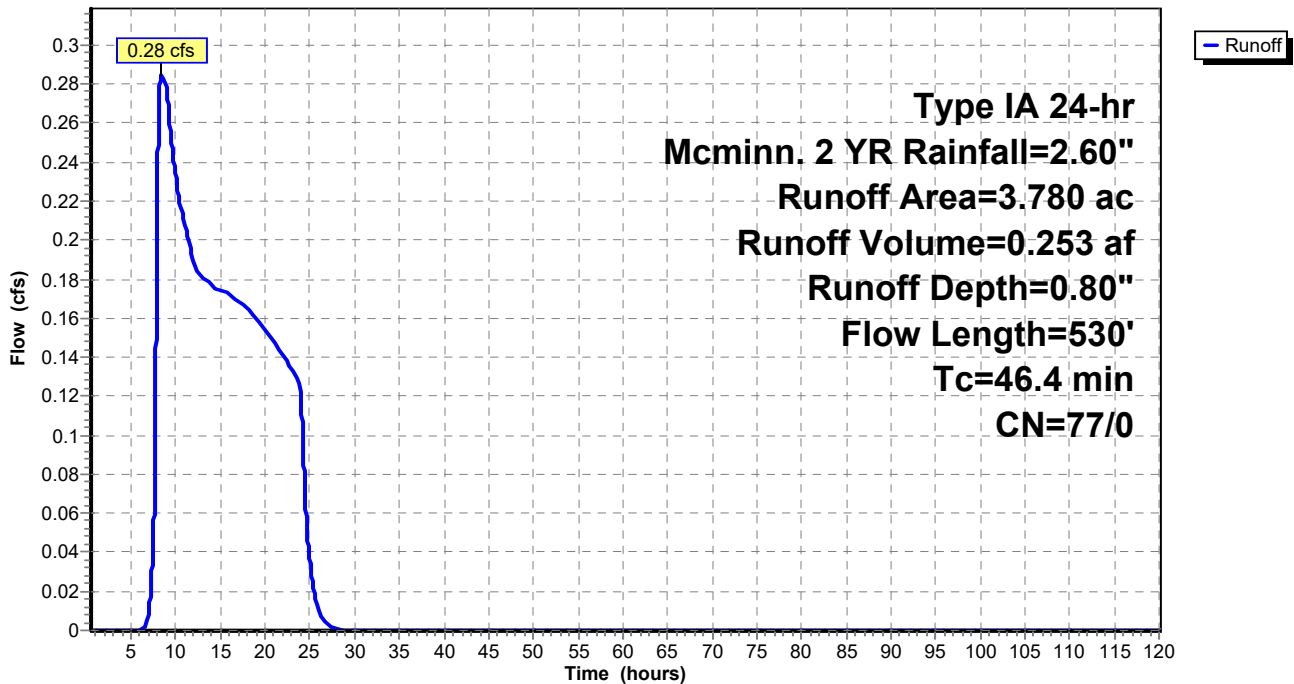
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.50-120.00 hrs, dt= 0.01 hrs
Type IA 24-hr Mcminn. 2 YR Rainfall=2.60"

Area (ac)	CN	Description
2.200	74	Pasture/grassland/range, Good, HSG C
1.580	80	Pasture/grassland/range, Good, HSG D
3.780	77	Weighted Average
3.780		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
40.4	300	0.0107	0.12		Sheet Flow, Cultivated: Residue>20% n= 0.170 P2= 2.20"
6.0	230	0.0083	0.64		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
46.4	530	Total			

Subcatchment 99S: Predeveloped

Hydrograph



Elysian Subdivision

Type IA 24-hr Mcminn. 10 YR Rainfall=3.80"

Prepared by Westech Engineering, Inc.

HydroCAD® 10.10-7a s/n 12008 © 2021 HydroCAD Software Solutions LLC

Summary for Subcatchment 99S: Predeveloped

Runoff = 0.76 cfs @ 8.22 hrs, Volume= 0.522 af, Depth= 1.66"

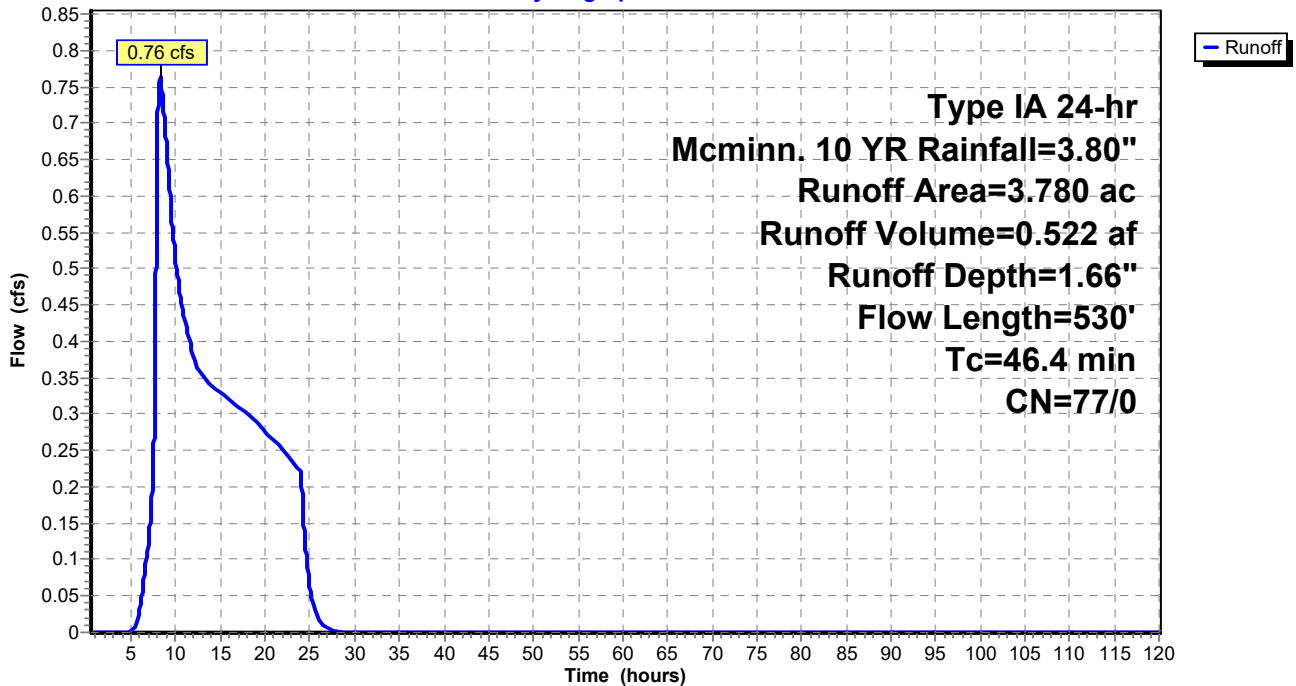
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.50-120.00 hrs, dt= 0.01 hrs
Type IA 24-hr Mcminn. 10 YR Rainfall=3.80"

Area (ac)	CN	Description
2.200	74	Pasture/grassland/range, Good, HSG C
1.580	80	Pasture/grassland/range, Good, HSG D
3.780	77	Weighted Average
3.780		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
40.4	300	0.0107	0.12		Sheet Flow, Cultivated: Residue>20% n= 0.170 P2= 2.20"
6.0	230	0.0083	0.64		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
46.4	530	Total			

Subcatchment 99S: Predeveloped

Hydrograph



Summary for Subcatchment 100S: Developed

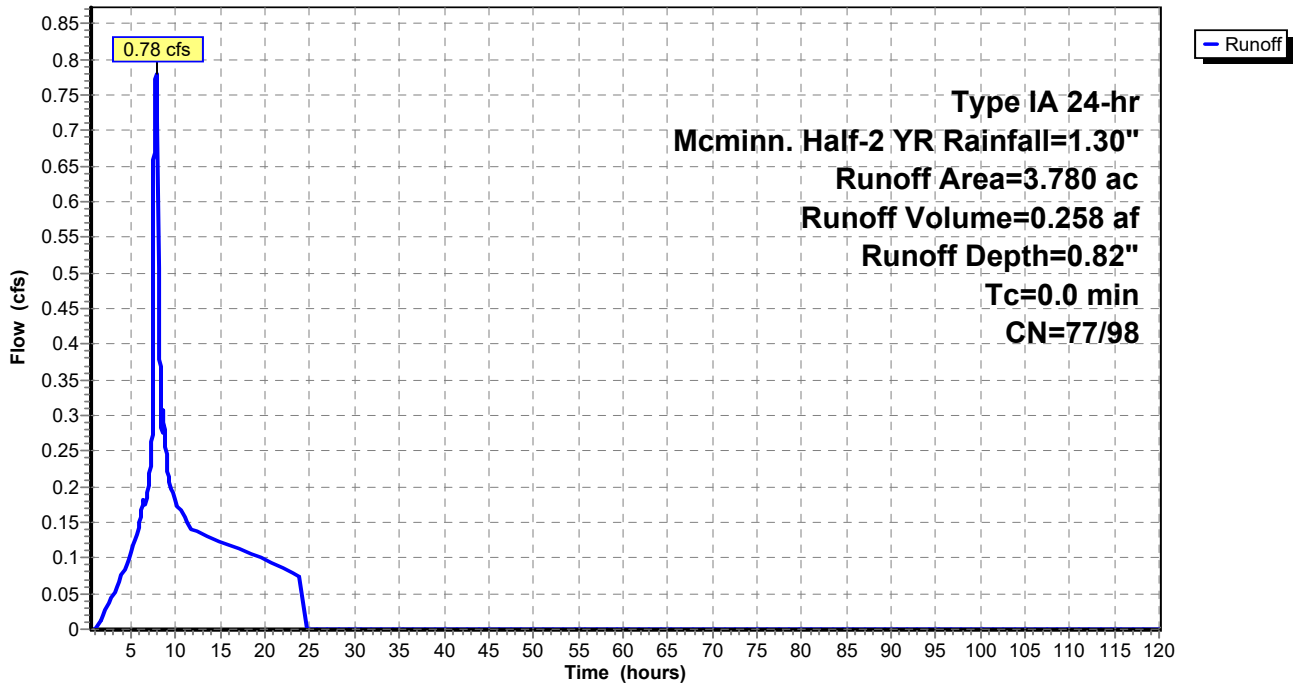
Runoff = 0.78 cfs @ 7.80 hrs, Volume= 0.258 af, Depth= 0.82"
 Routed to Reach 102R : Swale

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.50-120.00 hrs, dt= 0.01 hrs
 Type IA 24-hr Mcminn. Half-2 YR Rainfall=1.30"

Area (ac)	CN	Description
0.500	74	>75% Grass cover, Good, HSG C
0.550	80	>75% Grass cover, Good, HSG D
2.730	98	Paved parking, HSG C
3.780	92	Weighted Average
1.050		27.78% Pervious Area
2.730		72.22% Impervious Area

Subcatchment 100S: Developed

Hydrograph



Elysian Subdivision

Type IA 24-hr Mcminn. 10 YR Rainfall=3.80"

Prepared by Westech Engineering, Inc.

HydroCAD® 10.10-7a s/n 12008 © 2021 HydroCAD Software Solutions LLC

Page 1

Summary for Subcatchment 100S: Developed

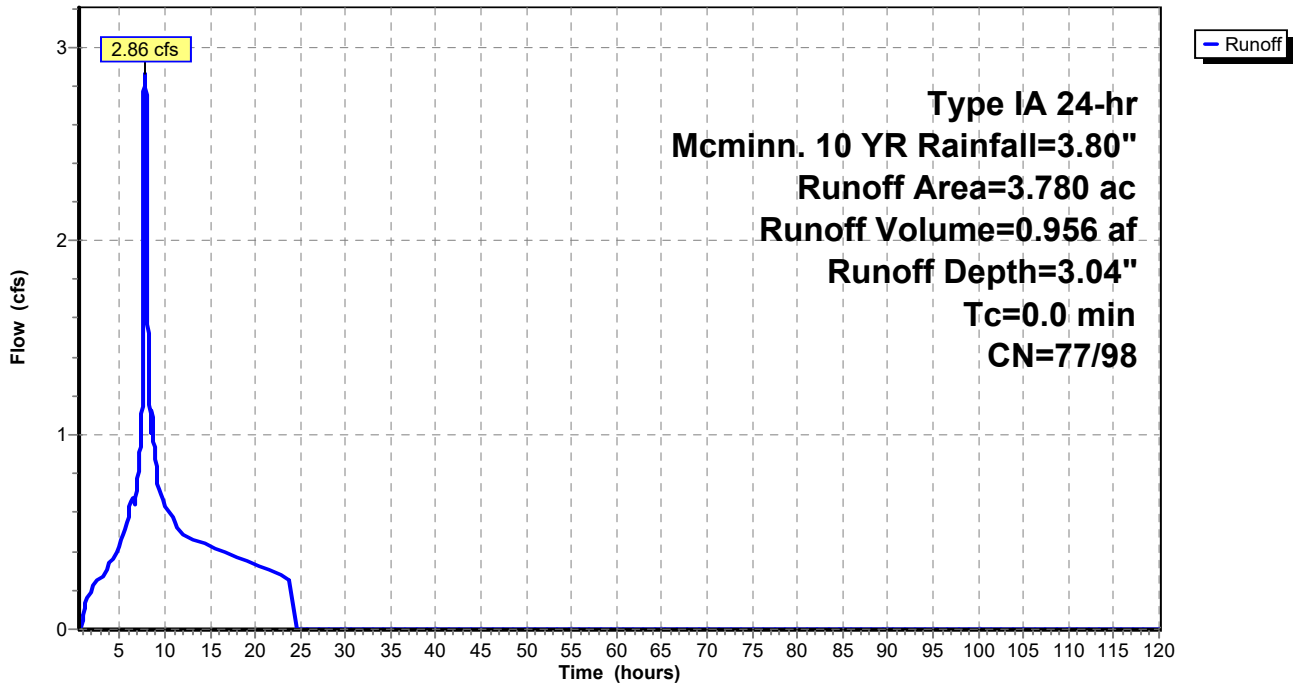
Runoff = 2.86 cfs @ 7.81 hrs, Volume= 0.956 af, Depth= 3.04"
Routed to Reach 102R : Swale

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.50-120.00 hrs, dt= 0.01 hrs
Type IA 24-hr Mcminn. 10 YR Rainfall=3.80"

Area (ac)	CN	Description
0.500	74	>75% Grass cover, Good, HSG C
0.550	80	>75% Grass cover, Good, HSG D
2.730	98	Paved parking, HSG C
3.780	92	Weighted Average
1.050		27.78% Pervious Area
2.730		72.22% Impervious Area

Subcatchment 100S: Developed

Hydrograph



Elysian Subdivision

Type IA 24-hr SLOPES WQ Rainfall=1.30"

Prepared by Westech Engineering, Inc.

HydroCAD® 10.10-7a s/n 12008 © 2021 HydroCAD Software Solutions LLC

Page 3

Summary for Subcatchment 100S: Developed

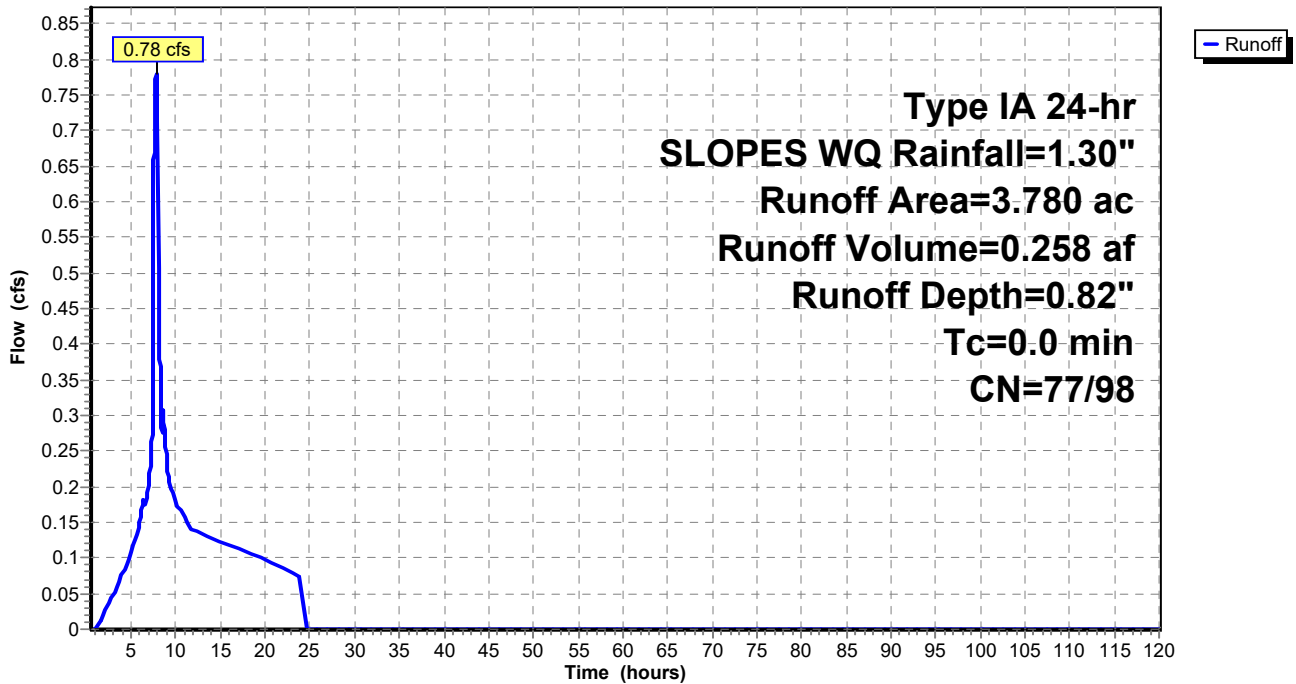
Runoff = 0.78 cfs @ 7.80 hrs, Volume= 0.258 af, Depth= 0.82"
Routed to Reach 102R : Swale

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.50-120.00 hrs, dt= 0.01 hrs
Type IA 24-hr SLOPES WQ Rainfall=1.30"

Area (ac)	CN	Description
0.500	74	>75% Grass cover, Good, HSG C
0.550	80	>75% Grass cover, Good, HSG D
2.730	98	Paved parking, HSG C
3.780	92	Weighted Average
1.050		27.78% Pervious Area
2.730		72.22% Impervious Area

Subcatchment 100S: Developed

Hydrograph



Elysian Subdivision

Type IA 24-hr Mcminn. Half-2 YR Rainfall=1.30"

Prepared by Westech Engineering, Inc.

HydroCAD® 10.10-7a s/n 12008 © 2021 HydroCAD Software Solutions LLC

Summary for Pond 103P: Detention Pond

Inflow Area = 3.780 ac, 72.22% Impervious, Inflow Depth = 0.82" for Mcminn. Half-2 YR event
 Inflow = 0.78 cfs @ 7.80 hrs, Volume= 0.258 af
 Outflow = 0.14 cfs @ 11.60 hrs, Volume= 0.250 af, Atten= 82%, Lag= 228.0 min
 Primary = 0.14 cfs @ 11.60 hrs, Volume= 0.250 af

Routing by Stor-Ind method, Time Span= 0.50-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 157.56' @ 11.60 hrs Surf.Area= 4,058 sf Storage= 4,002 cf

Plug-Flow detention time= 427.5 min calculated for 0.250 af (97% of inflow)
 Center-of-Mass det. time= 404.2 min (1,112.4 - 708.2)

Volume	Invert	Avail.Storage	Storage Description
#1	156.50'	15,533 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
156.50	3,500	0	0
157.00	3,750	1,813	1,813
158.00	4,300	4,025	5,838
159.00	4,840	4,570	10,408
160.00	5,410	5,125	15,533

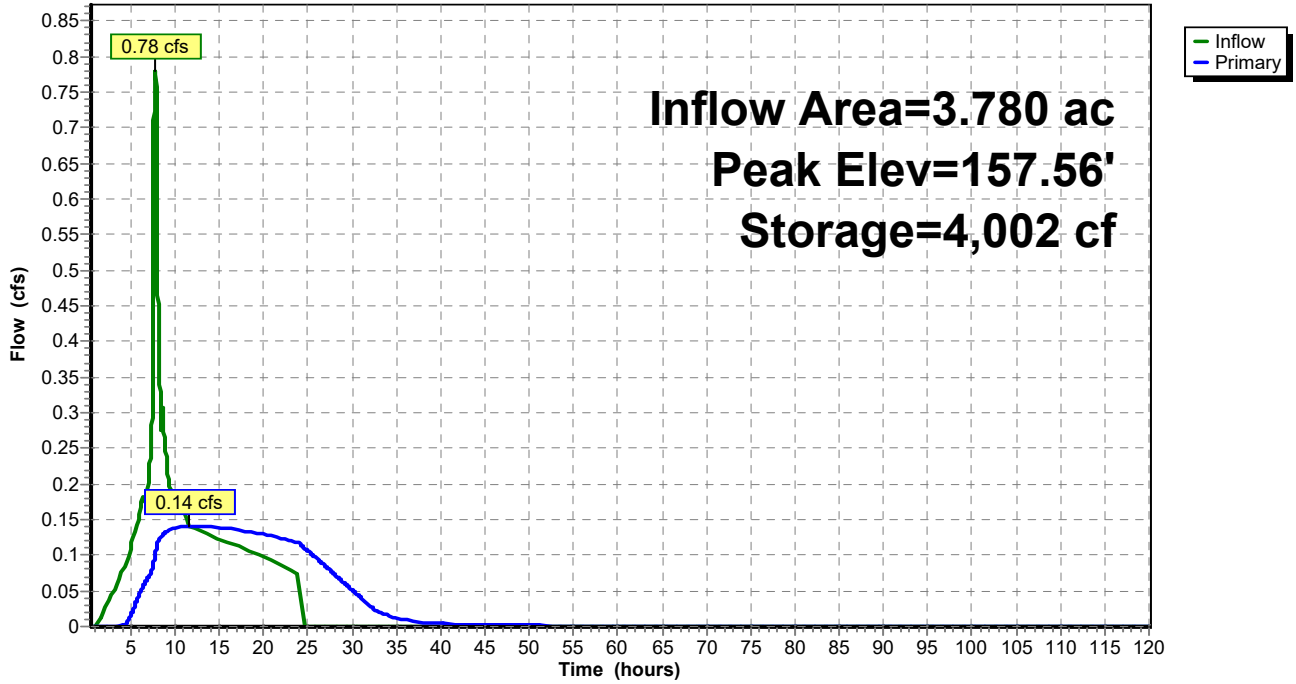
Device	Routing	Invert	Outlet Devices
#1	Primary	156.60'	2.4" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	157.60'	3.9" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	159.40'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.14 cfs @ 11.60 hrs HW=157.56' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.14 cfs @ 4.47 fps)
- 2=Orifice/Grate (Controls 0.00 cfs)
- 3=Orifice/Grate (Controls 0.00 cfs)

Pond 103P: Detention Pond

Hydrograph



Elysian Subdivision

Type IA 24-hr Mcminn. 10 YR Rainfall=3.80"

Prepared by Westech Engineering, Inc.

HydroCAD® 10.10-7a s/n 12008 © 2021 HydroCAD Software Solutions LLC

Summary for Pond 103P: Detention Pond

Inflow Area = 3.780 ac, 72.22% Impervious, Inflow Depth = 3.04" for Mcminn. 10 YR event
 Inflow = 2.86 cfs @ 7.81 hrs, Volume= 0.956 af
 Outflow = 0.76 cfs @ 9.23 hrs, Volume= 0.948 af, Atten= 74%, Lag= 85.3 min
 Primary = 0.76 cfs @ 9.23 hrs, Volume= 0.948 af

Routing by Stor-Ind method, Time Span= 0.50-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 159.38' @ 9.23 hrs Surf.Area= 5,056 sf Storage= 12,283 cf

Plug-Flow detention time= 276.4 min calculated for 0.948 af (99% of inflow)
 Center-of-Mass det. time= 270.2 min (950.3 - 680.1)

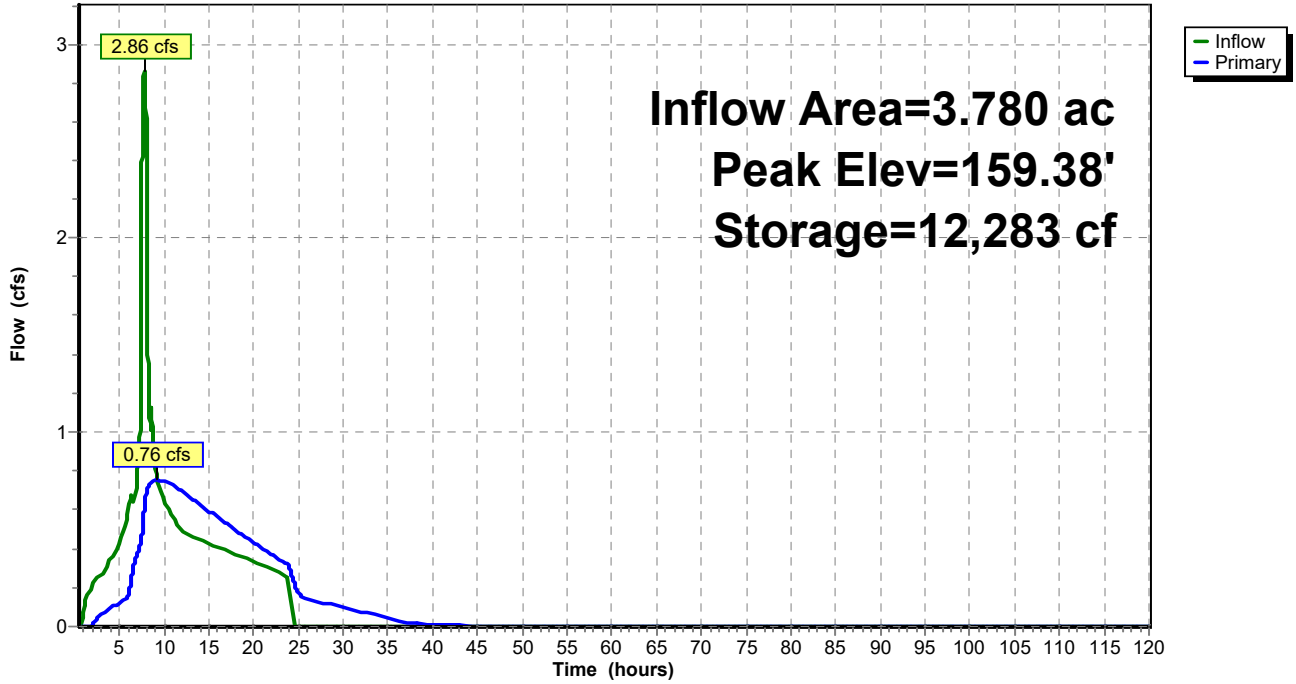
Volume	Invert	Avail.Storage	Storage Description
#1	156.50'	15,533 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
156.50	3,500	0	0
157.00	3,750	1,813	1,813
158.00	4,300	4,025	5,838
159.00	4,840	4,570	10,408
160.00	5,410	5,125	15,533

Device	Routing	Invert	Outlet Devices
#1	Primary	156.60'	2.4" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	157.60'	3.9" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	159.40'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.76 cfs @ 9.23 hrs HW=159.38' (Free Discharge)
 1=Orifice/Grate (Orifice Controls 0.25 cfs @ 7.88 fps)
 2=Orifice/Grate (Orifice Controls 0.51 cfs @ 6.12 fps)
 3=Orifice/Grate (Controls 0.00 cfs)

Pond 103P: Detention Pond

Hydrograph



Elysian Subdivision

Type IA 24-hr Mcminn. 100 YR Rainfall=5.50"

Prepared by Westech Engineering, Inc.

HydroCAD® 10.10-7a s/n 12008 © 2021 HydroCAD Software Solutions LLC

Page 3

Summary for Pond 103P: Detention Pond

Inflow Area = 3.780 ac, 72.22% Impervious, Inflow Depth > 4.65" for Mcminn. 100 YR event
 Inflow = 4.40 cfs @ 7.80 hrs, Volume= 1.464 af
 Outflow = 3.30 cfs @ 8.01 hrs, Volume= 1.455 af, Atten= 25%, Lag= 12.4 min
 Primary = 3.30 cfs @ 8.01 hrs, Volume= 1.455 af

Routing by Stor-Ind method, Time Span= 0.50-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 159.82' @ 8.01 hrs Surf.Area= 5,308 sf Storage= 14,576 cf

Plug-Flow detention time= 236.5 min calculated for 1.455 af (99% of inflow)
 Center-of-Mass det. time= 232.1 min (904.0 - 671.8)

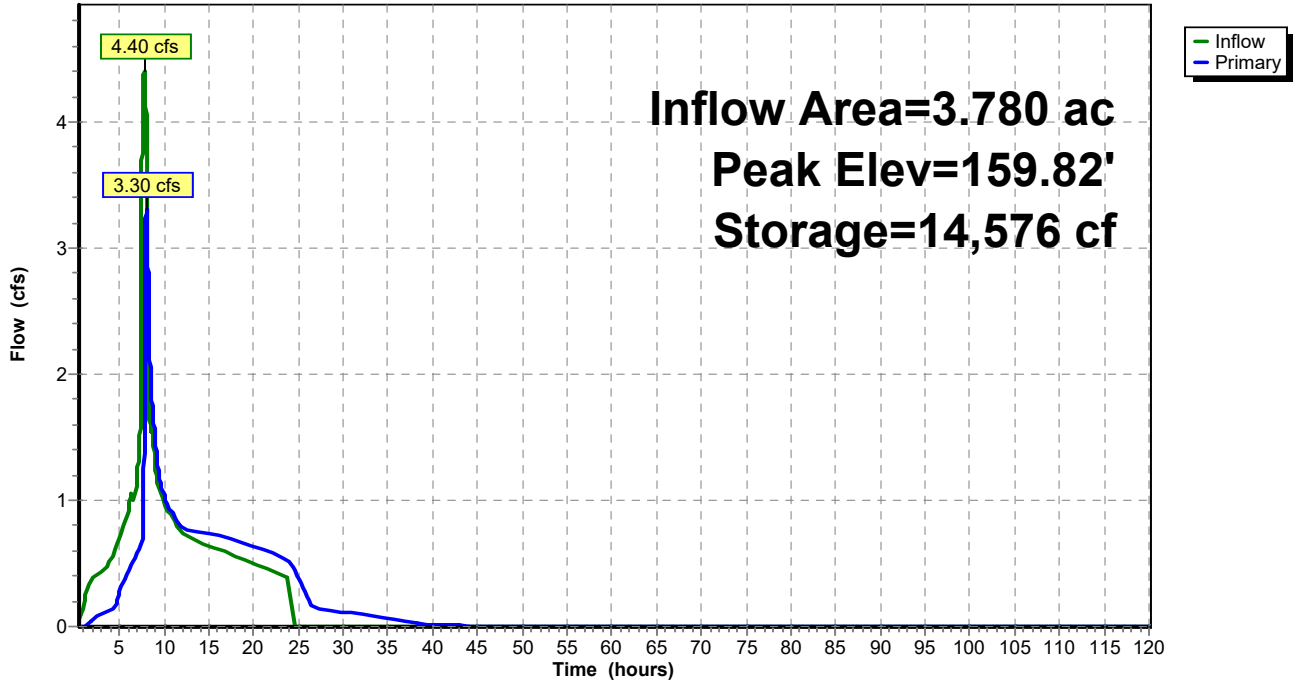
Volume	Invert	Avail.Storage	Storage Description
#1	156.50'	15,533 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
156.50	3,500	0	0
157.00	3,750	1,813	1,813
158.00	4,300	4,025	5,838
159.00	4,840	4,570	10,408
160.00	5,410	5,125	15,533

Device	Routing	Invert	Outlet Devices
#1	Primary	156.60'	2.4" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	157.60'	3.9" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	159.40'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.29 cfs @ 8.01 hrs HW=159.82' (Free Discharge)
 1=Orifice/Grate (Orifice Controls 0.27 cfs @ 8.51 fps)
 2=Orifice/Grate (Orifice Controls 0.57 cfs @ 6.91 fps)
 3=Orifice/Grate (Orifice Controls 2.45 cfs @ 3.12 fps)

Pond 103P: Detention Pond

Hydrograph



Elysian Subdivision

Type IA 24-hr SLOPES WQ Rainfall=1.30"

Prepared by Westech Engineering, Inc.

HydroCAD® 10.10-7a s/n 12008 © 2021 HydroCAD Software Solutions LLC

Page 7

Summary for Pond 103P: Detention Pond

Inflow Area = 3.780 ac, 72.22% Impervious, Inflow Depth = 0.82" for SLOPES WQ event
 Inflow = 0.78 cfs @ 7.80 hrs, Volume= 0.258 af
 Outflow = 0.14 cfs @ 11.60 hrs, Volume= 0.250 af, Atten= 82%, Lag= 228.0 min
 Primary = 0.14 cfs @ 11.60 hrs, Volume= 0.250 af

Routing by Stor-Ind method, Time Span= 0.50-120.00 hrs, dt= 0.01 hrs
 Peak Elev= 157.56' @ 11.60 hrs Surf.Area= 4,058 sf Storage= 4,002 cf

Plug-Flow detention time= 427.5 min calculated for 0.250 af (97% of inflow)
 Center-of-Mass det. time= 404.2 min (1,112.4 - 708.2)

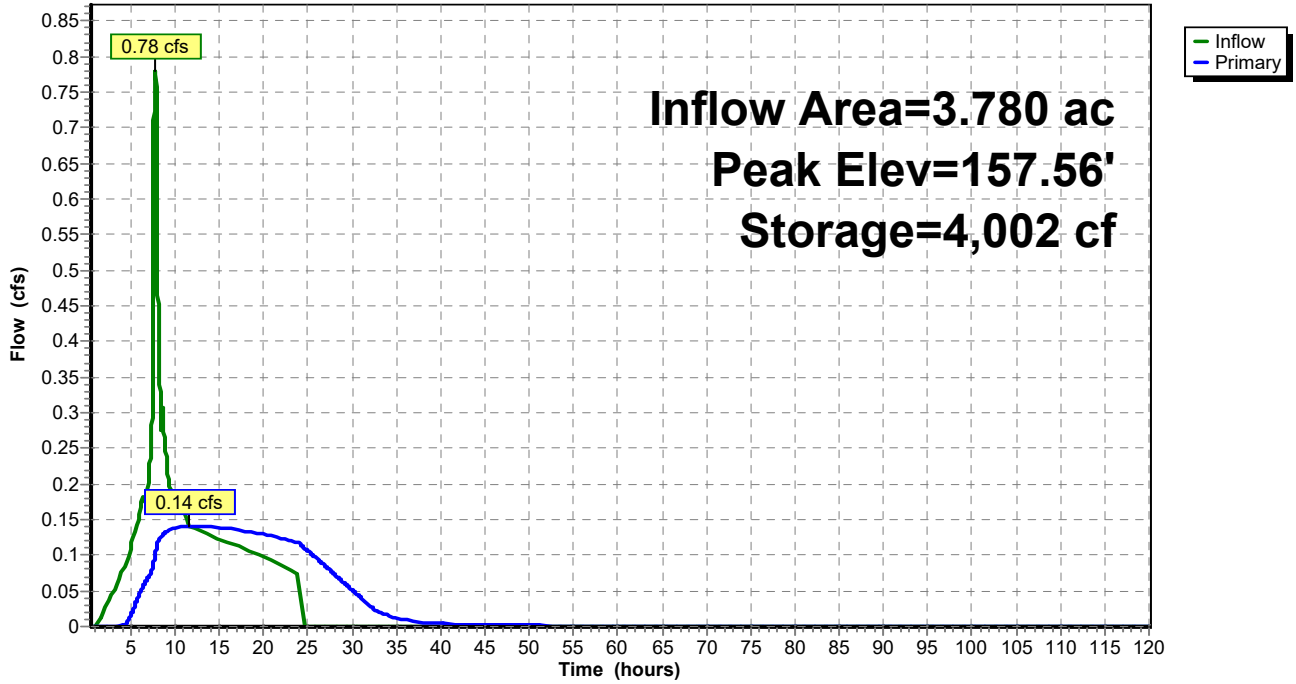
Volume	Invert	Avail.Storage	Storage Description
#1	156.50'	15,533 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
156.50	3,500	0	0
157.00	3,750	1,813	1,813
158.00	4,300	4,025	5,838
159.00	4,840	4,570	10,408
160.00	5,410	5,125	15,533

Device	Routing	Invert	Outlet Devices
#1	Primary	156.60'	2.4" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	157.60'	3.9" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	159.40'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.14 cfs @ 11.60 hrs HW=157.56' (Free Discharge)
 1=Orifice/Grate (Orifice Controls 0.14 cfs @ 4.47 fps)
 2=Orifice/Grate (Controls 0.00 cfs)
 3=Orifice/Grate (Controls 0.00 cfs)

Pond 103P: Detention Pond

Hydrograph



Elysian Subdivision

Type IA 24-hr SLOPES WQ Rainfall=1.30"

Prepared by Westech Engineering, Inc.

HydroCAD® 10.10-7a s/n 12008 © 2021 HydroCAD Software Solutions LLC

Page 1

Summary for Reach 102R: Swale

Inflow Area = 3.780 ac, 72.22% Impervious, Inflow Depth = 0.82" for SLOPES WQ event
Inflow = 0.78 cfs @ 7.80 hrs, Volume= 0.258 af
Outflow = 0.69 cfs @ 8.00 hrs, Volume= 0.258 af, Atten= 11%, Lag= 11.7 min

Routing by Stor-Ind method, Time Span= 0.50-120.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.19 fps, Min. Travel Time= 19.2 min
Avg. Velocity = 0.06 fps, Avg. Travel Time= 64.3 min

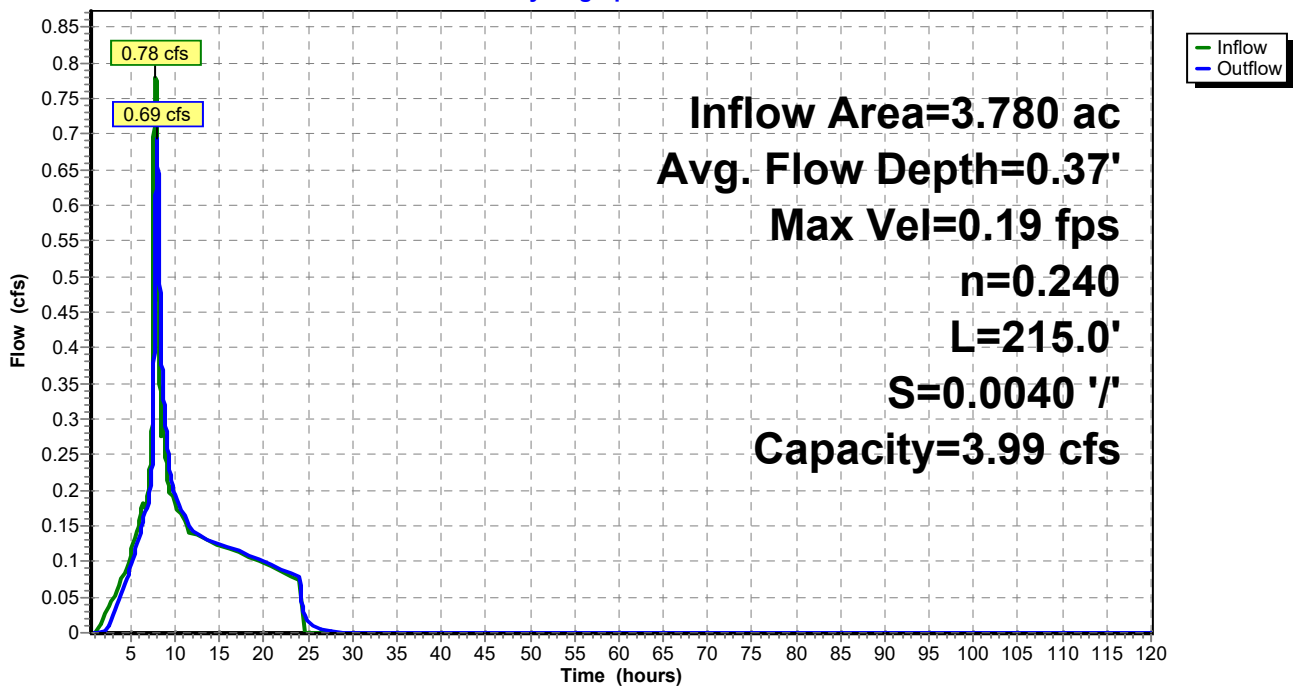
Peak Storage= 799 cf @ 8.00 hrs
Average Depth at Peak Storage= 0.37' , Surface Width= 11.21'
Bank-Full Depth= 1.00' Flow Area= 12.0 sf, Capacity= 3.99 cfs

9.00' x 1.00' deep channel, n= 0.240
Side Slope Z-value= 3.0 '/' Top Width= 15.00'
Length= 215.0' Slope= 0.0040 '/'
Inlet Invert= 157.86', Outlet Invert= 157.00'



Reach 102R: Swale

Hydrograph



PRECIPITATION FREQUENCY ATLAS – ATLAS 2

NOAA ATLAS 2

Precipitation-Frequency Atlas of the Western United States

J. F. Miller, R. H. Frederick, and R. J. Tracey

Volume X—Oregon



U.S. DEPARTMENT OF COMMERCE
Frederick B. Dent, Secretary

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
Robert M. White, Administrator

NATIONAL WEATHER SERVICE
George P. Cressman, Director
Silver Spring, Maryland—1973

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 - Price \$8.45
Stock Number 0317-00164

Prepared for U.S. Department of Agriculture, Soil Conservation Service, Engineering Division

NOAA ATLAS 2

Precipitation Frequency Atlas of the
Western United States

Volume	I.	Montana
Volume	II.	Wyoming
Volume	III.	Colorado
Volume	IV.	New Mexico
Volume	V.	Idaho
Volume	VI.	Utah
Volume	VII.	Nevada
Volume	VIII.	Arizona
Volume	IX.	Washington
Volume	X.	Oregon
Volume	XI.	California

UDC 551.577.36(084.4)(795)

551.5	Meteorology
.577	Precipitation
.36	Frequencies
(084.4)	Atlases
(795)	Oregon

Contents

	Page	List of Illustrations	Page	List of Tables	Page
Abstract	iv	Figure 1. Relation between 2-yr 1,440-min precipitation and 2-yr observation-day precipitation	2	Table 1. Number of precipitation stations by length and type of record in each Western State	3
Preface	iv	Figure 2. Test of 2-yr 24-hr precipitation values from short- and long-record stations for the State of Washington	2	Table 2. Empirical factors for converting partial-duration series to annual series	3
Introduction	1	Figure 3. Geographic distribution of stations with recording gages. Symbols indicate total length of record available	4	Table 3. Statistical parameters for relations used for interstation interpolation of 2-yr 24-hr precipitation values	6
Objective	1	Figure 4. Geographic distribution of stations with nonrecording gages. Symbols indicate total length of record available	5	Table 4. Factors most useful in relations for interstation interpolation for 2-yr 24-hr precipitation values	8
Historical review	1	Figure 5. Relation between annual and partial-duration series	6	Table 5. Statistical parameters for relations used for interstation interpolation of 100-yr 24-hr precipitation values	9
Approach	1	Figure 6. Precipitation depth versus return period for partial-duration series	6	Table 6. Factors most useful in relations for interstation interpolation for 100-yr 24-hr precipitation values	9
Analysis	1	Figure 7. Principal paths of moisture inflow in the western United States for storms producing large precipitation amounts. Hatched areas are major orographic barriers	6	Table 7. Statistical parameters for relations used for interstation interpolation of 2-yr 6-hr precipitation values	9
Basic data	1	Figure 8. Regions used to develop statistical parameters for interstation interpolation of 2-yr 24-hr precipitation values	7	Table 8. Statistical parameters for relations used for interstation interpolation of 100-yr 6-hr precipitation values	12
Frequency analysis	3	Figure 9. Regions used to develop statistical parameters for interstation interpolation of 100-yr 24-hr precipitation values	10	Table 9. Factors most useful in relations for interstation interpolation of 2-yr 6-hr precipitation values	12
Isopluvial maps	4	Figure 10. Regions used to develop statistical parameters for interstation interpolation of 2-yr and 100-yr 6-hr precipitation values	11	Table 10. Factors most useful in relations for interstation interpolation for 100-yr 6-hr precipitation values	12
Interpretation of results	13	Figure 11. Geographic distribution of errors for equation used to interpolate 2-yr 24-hr precipitation values for the Eel River Basin, Calif.	12	Table 11. Percent of snowfall stations in Pacific Northwest by regions	16
Season of occurrence	13	Figure 12. Geographic distribution of errors for equation used to interpolate 2-yr 24-hr precipitation values for the Big Horn River Basin, Wyo.	12	Table 12. Equations for estimating 1-hr values in Oregon with statistical parameters for each equation	17
Within versus among storms	13	Figure 13. Examples of isohyetal patterns used to develop: (A) storm-centered depth-area curves and (B) geographically fixed depth-area curves	13	Table 13. Adjustment factors to obtain <i>n</i> -min estimates from 1-hr values	17
Point probabilities	13	Figure 14. Depth-area curves	13	Table 14. Precipitation data for depth-frequency atlas computation point 44°00' N., 118°00' W.	17
Areal analysis	13	Figure 15. Precipitation depth-duration diagram (1- to 6-hr)	15		
Importance of snow in estimating frequency values	14				
Reliability of results	14				
Oregon	15				
Discussion of maps	15				
Procedures for estimating values for durations other than 6 and 24 hrs	16				
Illustration of use of precipitation-frequency maps, diagrams, and equations	16				
References	18				
		Figure 16. Precipitation depth-duration diagram (6- to 24-hr)	16		
		Figure 17. Illustration of use of precipitation-frequency diagrams using values from precipitation-frequency maps and relations	17		
		Figure 18. Regions used to develop equations for 2- and 100-yr 1-hr values	19		
		Figure 19. 2-yr 6-hr precipitation	21		
		Figure 20. 5-yr 6-hr precipitation	23		
		Figure 21. 10-yr 6-hr precipitation	25		
		Figure 22. 25-yr 6-hr precipitation	27		
		Figure 23. 50-yr 6-hr precipitation	29		
		Figure 24. 100-yr 6-hr precipitation	31		
		Figure 25. 2-yr 24-hr precipitation	33		
		Figure 26. 5-yr 24-hr precipitation	35		
		Figure 27. 10-yr 24-hr precipitation	37		
		Figure 28. 25-yr 24-hr precipitation	39		
		Figure 29. 50-yr 24-hr precipitation	41		
		Figure 30. 100-yr 24-hr precipitation	43		

Abstract

Each volume of this Atlas contains precipitation-frequency maps for 6- and 24-hr durations for return periods from 2 to 100 yrs for one of the 11 western states (west of about 103° W.). Also included are methods and nomograms for estimating values for durations other than 6 and 24 hrs. This new series of maps differs from previous publications through greater attention to the relation between topography and precipitation-frequency values. This relation is studied objectively through the use of multiple regression screening techniques which develop equations used to assist in interpolating values between stations in regions of sparse data. The maps were drawn on a scale of 1:1,000,000 and reduced to 1:2,000,000 for publication.

In addition to the maps, each volume includes a historical review of precipitation-frequency studies, a discussion of the data handling and analysis methods, a section on the use and interpretation of the maps, and a section outlining information pertinent to the precipitation-frequency regime in the individual state. This state section includes a discussion of the importance of snow in the precipitation-frequency analysis and formulas and nomograms for obtaining values for 1-, 2-, 3-, and 12-hr durations.

Preface

Previous precipitation-frequency studies for the 11 western states have considered topography in only a general sense despite the numerous mountain ranges present. As a result, variation in precipitation-frequency values is greater than was portrayed in these studies. In this Atlas, the relation between precipitation-frequency values and topography has been considered both objectively and subjectively.

This work has been supported and financed by the Soil Conservation Service, Department of Agriculture, to provide material for use in developing planning and design criteria for the Watershed Protection and Flood Prevention program (P.L. 566, 83d Congress and as amended).

Each volume of the Atlas can be considered to consist of three parts. The first part contains several sections giving a historical review of the field, a discussion of the approach and methods used in the development of the precipitation-frequency maps, and a discussion of how to interpret and use the maps. This section outlines the general background information and is applicable to all states. The second part of the Atlas contains a discussion of items pertinent to the individual state. Included in this section are methods and nomograms designed to estimate precipitation-frequency values for durations other than 6 and 24 hrs. These procedures were developed for broad geographic regions; the ones applicable to a particular state are included in the appropriate volume. The last part contains the maps for the 6- and 24-hr durations for return periods of 2, 5, 10, 25, 50, and 100 yrs.

Coordination with the Soil Conservation Service was maintained through Kenneth M. Kent, Chief, Hydrology Branch, Engineering Division, and through his successor, Robert E. Rallison. The work was done in the Special Studies Branch, Water Management Information Division, Office of Hydrology, National Weather Service. Hugo V. Goodyear, Chief of the Branch (since retired) made many contributions to the preparation of the final manuscript. Overall direction and guidance was furnished by William E. Hiatt, Associate Director (Hydrology), National Weather Service, his successor, Max A. Kohler, and Joseph Paulhus, former Chief, Water Management Information Division. Data tabulations, computations and many other assisting duties were done by the Branch meteorological technicians.

Introduction

Objective

Although generalized maps of precipitation-frequency values have been available for many years, the construction of isopluvial lines in mountainous regions has been done considering topography and its effect on precipitation in a general sense only. Investigations for this Atlas were undertaken to depict more accurately variations in the precipitation-frequency regime in mountainous regions of the 11 conterminous states west of approximately 103° W. These investigations are intended to provide material for use in developing planning and design criteria for the Watershed Protection and Flood Prevention programs.

Primary emphasis has been placed on developing generalized maps for precipitation of 6- and 24-hr duration and for return periods of 2 to 100 yrs. Procedures also have been developed to estimate values for 1-hr duration. Values for other durations can be estimated from the 1-, 6-, and 24-hr duration values.

Historical Review

The first generalized study of the precipitation-frequency regime for the United States was prepared in the early 1930's by David L. Yarnell (1935). Yarnell's publication contains a series of generalized rainfall maps for durations of 5 min to 24 hrs for return periods of 2 to 100 yrs. Yarnell's study served as a basic source of frequency data for economic and engineering design until the middle 1950's. The maps were based on data from about 200 first-order Weather Bureau stations equipped with recording precipitation gages. In 1940, about 5 yrs after Yarnell's study was published, a hydrologic network of recording gages, supported largely by the U.S. Army Corps of Engineers, was installed. This was done to supplement the Weather Bureau recording-gage network and the network of a relatively large number of nonrecording gages maintained by private individuals in cooperation with the Weather Bureau, for a long period of years. The additional recording gages have subsequently increased the amount of short-duration (1- to 24-hr) precipitation data by a factor of about 20.

Weather Bureau Technical Paper No. 24, published in two parts, (U.S. Weather Bureau 1953-54a) was prepared for the Corps of Engineers, in connection with its military construction program. This Technical Paper contained the results of the first investigation of precipitation-frequency information for an extensive region of the increased hydrologic data network. The results showed the importance of the additional data for defining the short-duration rainfall-frequency regime in a mountainous region of the western United States. In many instances, the differences between the values given in Technical Paper No. 24 and those given by Yarnell reach a factor of three, with Yarnell's figures generally higher. Results from these two studies in the United States were then used to prepare similar reports for the coastal regions of North Africa (U.S. Weather Bureau 1954b) and for several Arctic regions (U.S. Weather Bureau 1955a) where recording-gage data were lacking. These reports were also prepared in cooperation with the Corps of Engineers to support its military construction program.

In 1955, the Weather Bureau and the Soil Conservation Service began a cooperative effort to define the depth-area-duration precipitation-frequency regime in the entire United States. *Weather Bureau Technical Paper No. 25* (U.S. Weather Bureau 1955b), partly a byproduct of previous work done for the Corps of Engi-

neers, was the first study published under the sponsorship of the Soil Conservation Service; it contains a series of precipitation intensity-duration-frequency curves for about 200 first-order Weather Bureau stations. This was followed by *Weather Bureau Technical Paper No. 28* (U.S. Weather Bureau 1956) which was an expansion of information contained in Technical Paper No. 24 to longer return periods and durations. The five parts of *Weather Bureau Technical Paper No. 29* (U.S. Weather Bureau 1957-60), for the region east of longitude 90° W., were published next. This Technical Paper included seasonal variation on a frequency basis and area-depth curves so that the point-frequency values could be transformed to areal-frequency values.

In the next study, *Weather Bureau Technical Paper No. 40* (U.S. Weather Bureau 1961), the results of previous Weather Bureau investigations of the precipitation-frequency regime of the conterminous United States were combined into a single publication. Investigations by the Weather Bureau during the 1950's had not covered the region between longitudes 90° and 105° W. Technical Paper No. 40 contained the results of an investigation for this region, and was the first such study of the midwestern plains region since Yarnell's work of the early 1930's. Topography was considered only in a general sense in this and earlier studies.

Technical Paper No. 40 has been accepted as the standard source for precipitation-frequency information in the United States for the past decade. Results presented in that publication are most reliable in relatively flat plains. While the averages of point values over relatively large mountainous regions are reliable, the variations within such regions are not adequately defined. In the largest of these regions, the western United States, topography plays a significant role in the incidence and distribution of precipitation. Consequently, the variations in precipitation-frequency values are actually greater than portrayed in the region. Investigations reported herein were made using currently available longer records and the maximum number of stations possible (consistent with the constraints explained in the section on Basic Data).

Approach

The approach used for this Atlas is basically the same as that used for Technical Paper No. 40, in which simplified relations between duration and return period were used to determine numerous combinations of return periods and durations from several generalized key maps. For this Atlas, relations were developed between precipitation-frequency values and meteorologic and topographic factors at observing sites. These were used to aid in interpolating values between stations on the key maps.

The key maps developed in this study were for 2- and 100-yr return periods for 6- and 24-hr durations. The initial map developed was for the 2-yr return period for the 24-hr duration. This return period was selected because values for shorter return periods can be estimated with greater reliability than for longer return periods. The 24-hr duration was selected because this permitted use of data from both recording and nonrecording gages. Also, because an extensive nonrecording-gage network was in existence for many years before the recording-gage network was established in 1940, the period of record available for 24-hr observations is much longer than that for the 6-hr duration. The second map developed was for the 100-yr return period for the 24-hr duration. In the development of this map the advantage of maximum sample size and length of record was retained at the expense of some decrease in reliability of computed values. The 6-hr maps for the 2- and 100-yr return periods followed. For the 6-hr duration, the sample size was materially smaller in both numbers and length of record because only recording-gage data could be used. After these four maps were completed, values for intermediate return periods were computed for a grid of about 47,000 points, and appropriate maps were prepared.

In previous studies, topography was considered only in a general sense and the isopluvials were drawn by interpolating subjectively between the individual stations. In preparing this Atlas, multiple linear regression equations were developed for each of many regions of the western United States as an aid to estimating the precipitation-frequency values at each of about 47,000 grid points. These equations related topographic and climatologic factors to the variations in the precipitation-frequency values. Iso-pluvials were smoothed subjectively between values in adjoining regions. The subjective smoothing was based upon experience in analyzing precipitation-frequency maps; the amount of smoothing was rarely greater than the standard error of estimate for the equations in the adjoining regions.

Analysis

Basic Data

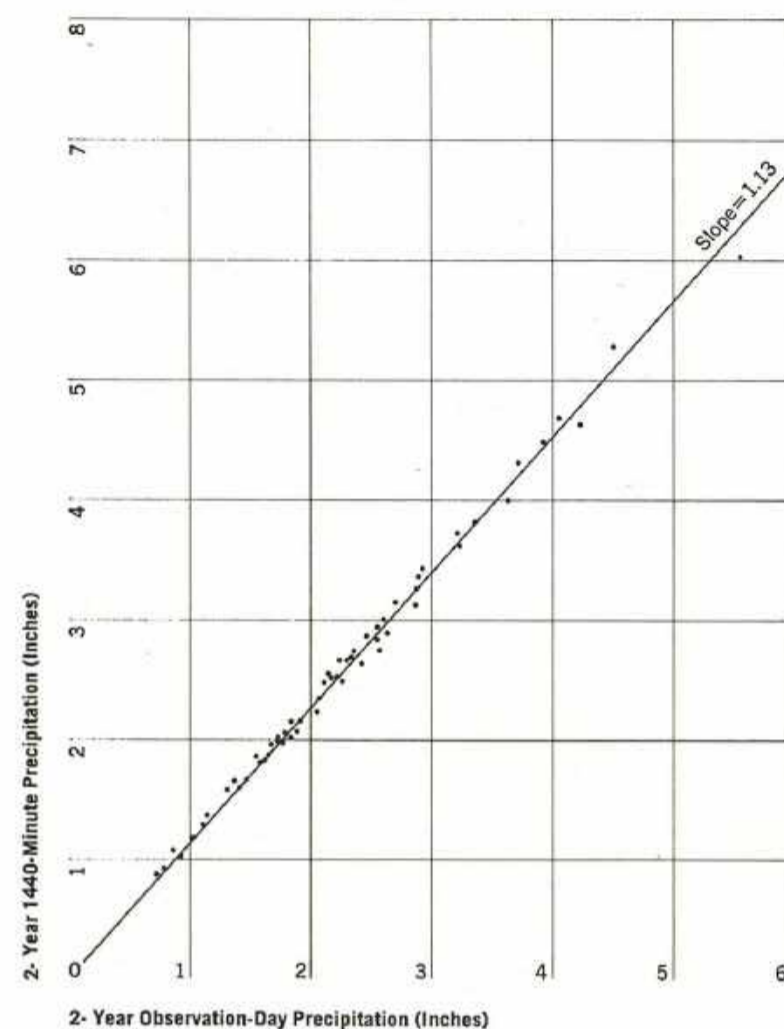
Station location. Frequency analysis of precipitation data requires a relatively long and stable station record. In analyzing a mean annual or a seasonal precipitation map, it is possible to use double-mass curve analysis to evaluate the effects of changes in station location or exposure. Within limits, the effects of differing locations on the annual precipitation values can be eliminated by use of relations determined from the double-mass curve analysis (Weiss and Wilson 1953). However, no technique for evaluation and modification of a series of extreme precipitation values has been developed. Therefore, it was necessary to ensure that the data used in this Atlas represented, as nearly as possible, observations taken from a single location.

Official records of station locations (latitude, longitude, and elevation) were examined to determine physical moves. The criterion was adopted that if a move at any station changed the elevation 100 ft or more or changed the horizontal location 5 mi or more, its data were treated as though they came from separate stations. In some cases, a station retained the same name but investigation indicated that it had been moved beyond acceptable limits. In such cases, the records for the station were terminated and new records were started. In other cases, published sources indicated location changes beyond acceptable limits, but subsequent inspection of records indicated these changes were corrections to reported values of elevation, latitude, or longitude rather than actual physical moves. Thus, the observations for the station actually were continuous at one location. Occasionally, a lesser move resulted in a significant difference in exposure, such as from the windward to the lee side of a mountain range. Data from stations such as these also were treated as data from separate stations.

Types of data. The primary data used in this Atlas can be divided into two categories. First, there are data from recording gages; these data are published for clock-hour intervals. These data were processed to obtain maximum 6- and 24-consecutive clock-hour amounts for each month of record. The time interval selected did not have to start at a particular hour; for example, the 6-hr interval might be from 1 to 7 a.m., or from 3 to 9 p.m.; the 24-hr interval might be from 4 a.m. on one day to 4 a.m. on the following day, or from 2 p.m. on one day to 2 p.m. on the next. Second, there is the large amount of data from nonrecording gages. At these gages, observations are usually made once each day at a given time for each station. At observation time, the amount of precipitation that fell in the preceding 24-hr interval is measured; this precipitation may have fallen during any part or all of the 24-hr period. These data are commonly referred to as observation-day amounts.

A subset of data in the first category is the recording-gage data from the long-record first-order Weather Bureau (now National Weather Service) stations. There are approximately 200 such stations in the entire country (about 50 in the western United States). Maximum values for each year of record from these stations have been tabulated for the various durations to the nearest minute. The maximum 6-hr amount recorded each year is for a period of 360 consecutive minutes, regardless of the time beginning; for example, such a period might begin at 2:03 p.m. or at 3:59 p.m. Similarly, data for the 24-hr duration are for a 1,440-min period. These amounts are commonly referred to as *n*-minute amounts.

Figure 1. Relation between 2-yr 1,440-min precipitation and 2-yr observation-day precipitation.



Fixed- versus true-interval precipitation values. The continuous clock-hour and observation-day data from most stations are available for intervals fixed by arbitrary clock intervals. Because the time of occurrence of precipitation is a random phenomenon, straddling often occurs; for example, part of the maximum precipitation may start in one time interval and end in the succeeding time interval. Seldom does maximum precipitation for a specified duration occur within a mandatory measurement interval. For this reason, it was necessary to use relations between fixed-time intervals (of actual occurrence) and the 360- and 1,440-min periods to make maximum use of available data.

These relations have been investigated in previous studies (U.S. Weather Bureau 1954a, 1956, 1957-60). It was found that on the average 1.13 times a statistical value for a particular return period, based on a series of annual maximum observation-day (fixed-interval) amounts, was equivalent to a statistical value for the same return period obtained from a series of 1,440-min (true-interval) values. The ratio of statistical values computed from a series of six consecutive clock-hour measurements to those from a series of 360-min observations is 1.02; a similar ratio of statistical values computed from 24 consecutive clock-hour amounts to those from 1,440 min values is 1.01.

These ratios (for example, n -year 1,440-min precipitation equals 1.13 times n -year observation-day precipitation) are not built on a causal relation. They are average index ratios because the distributions of observation-day, n -hour, and n -minute precipitation are irregular and unpredictable. For example, the annual maxima of the two series for the same year do not necessarily come from the same storm. Graphical comparison of the values for the 2-yr return period based on observation-day and 1,440-min precipitation data is shown in figure 1.

The frequency and amount of straddling that occur can be investigated on probability considerations as well as empirically. The time axis can be represented by a straight line separated into uniform time intervals by an evenly spaced series of points. These intervals can represent individual hours, 6- or 24-hr periods, an observation day, and so forth. The maximum precipitation for any duration can be assumed to occur at a uniform rate in a time unit exactly equal to one of the fixed intervals, but without regard to the location of the fixed intervals. This time unit may fall at random with respect to the fixed intervals and will, in general, overlap two adjacent intervals. Using probability theory, Weiss (1964) confirmed the empirical values used.

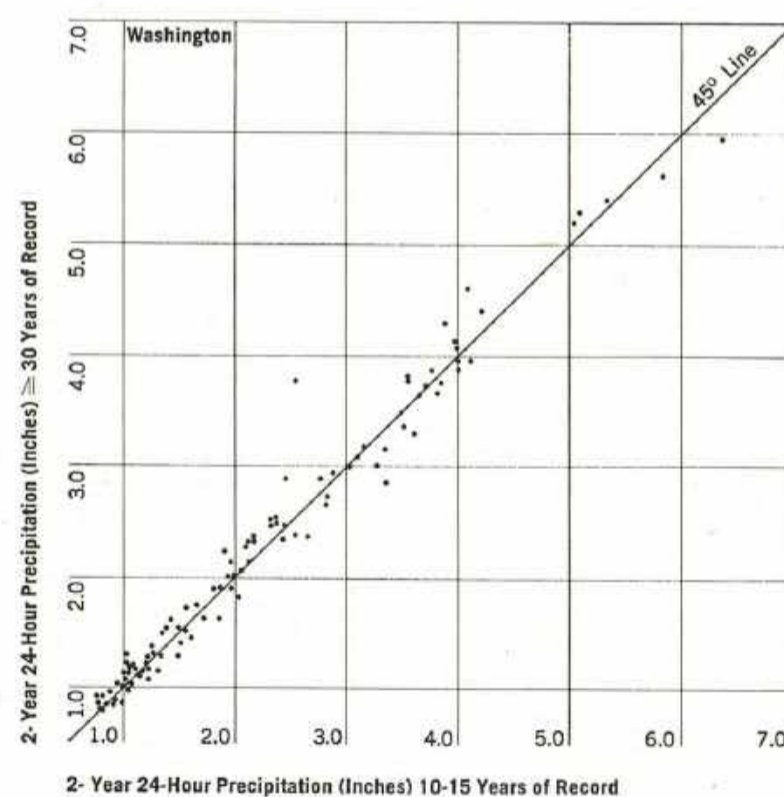


Figure 2. Test of 2-yr 24-hr precipitation values from short- and long-record stations for the State of Washington.

Data sources. The primary data sources used were *Climatological Data for the United States by Sections* (National Climatic Center 1897-1970) and *Hourly Precipitation Data* (National Climatic Center 1940-70). In California, it was possible to increase the data sample 15 to 20 percent by using unpublished data from gages maintained by the State, local agencies, private corporations, or individuals (California, Department of Water Resources 1900-69). Published data are routinely of high quality because of periodic checks of observing sites and observation techniques and the quality-control procedures used in the publication process. The quality of unpublished data must be checked by a review of the inspection records of the organization maintaining the gage and by a careful screening of the data.

Length and period of record. In preparing generalized maps of precipitation-frequency values, a uniform period of record several times the length of the return period desired and computed at a relatively dense network of stations (for sampling all data and topographic extremes) is the ideal. In practical work, compromises are necessary.

The use of a nonuniform record period, especially when the period is short, may result in unrealistic relations between stations. For instance, if data taken during a short-record period at one station were taken during a relatively dry period, while data from the neighboring station were taken during a relatively wet period, the interstation relation would not be valid. Because the objective of this investigation is to define the geographic variation in mountainous regions, it is desirable to minimize other causes of variation. Use of a standard base period would minimize the above variation. This is common practice in the preparation of mean annual precipitation maps and also can be applied to the preparation of precipitation-frequency maps for shorter return periods.

Determination of precipitation-frequency values is usually based upon the longest record available. These values are assumed to be reasonably representative of the values that would be obtained if the entire record were known. The use of a short-record base period requires testing to determine if the data provide unbiased results representative of values that would be obtained from use of a long-record base period. For most regions covered in this study, the most recent 15-yr period immediately preceding the period when the maps for this Atlas were developed was used to compute precipitation values for the 2-yr return period. At locations with at least 30 years of data, the 2-yr values from the 15-yr base period were compared with the 2-yr values computed using the total record. If the differences between the two series were small and randomly distributed, the 15-yr base period was adopted for all stations. Figure 2 shows the result of such a test for the

24-hr duration values for stations in Washington. The same test was made for the rest of the western states.

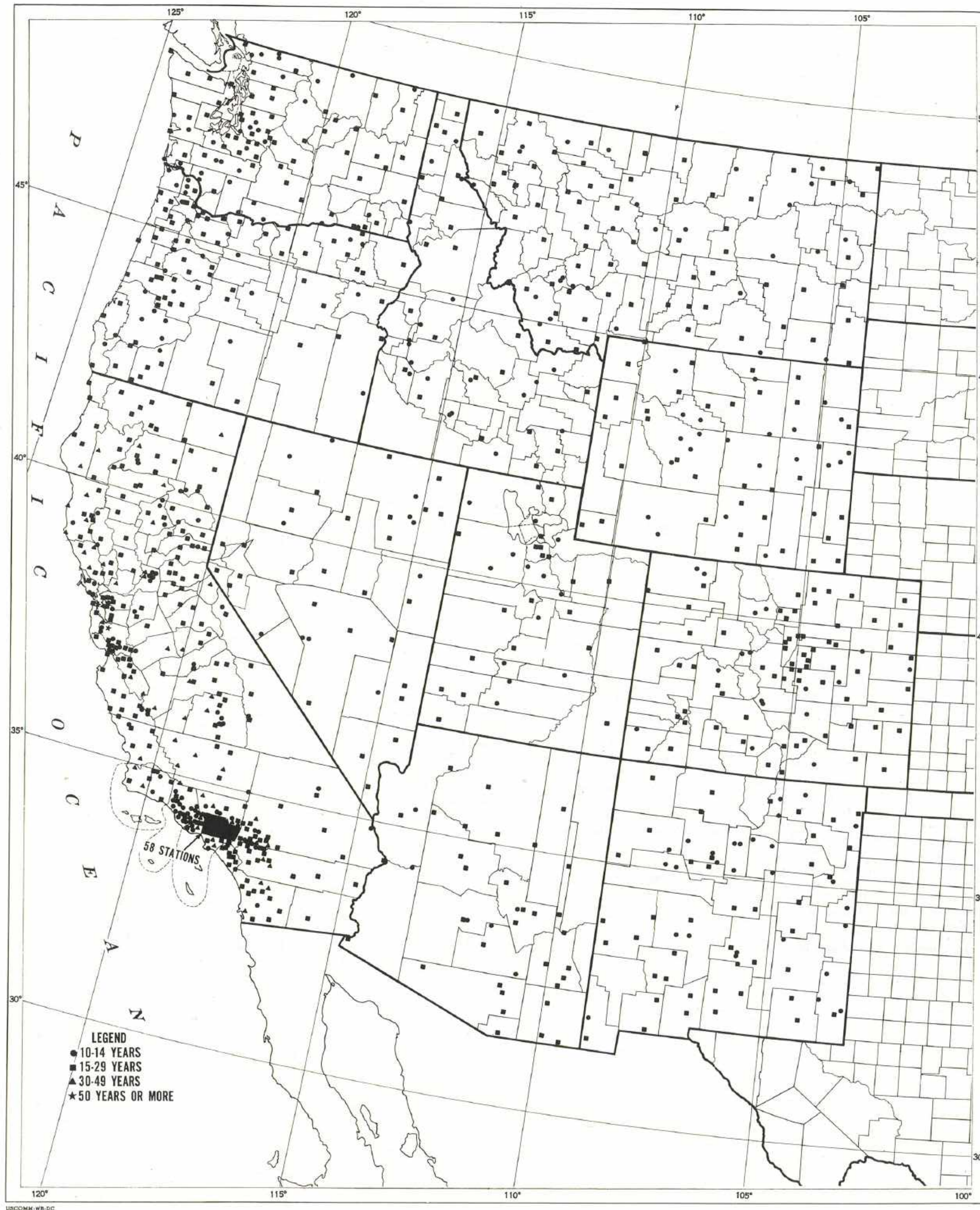
In most of California and Nevada, the values computed from the 15-yr base period data showed significant differences and some bias to values based upon the total record. In this region, it was necessary to use values based on the longest record possible for each station in preparation of the 2-yr maps. Stations without data during all or most of the more recent years were identified on the working maps.

To make use of data from the maximum number of stations, data from stations with 10 to 14 yrs of record were used in preparing the 2-yr maps. Such stations also were suitably identified on the working maps so that the analyst could use judgment in his interpretation of such values.

While a 15-yr record provides data several times the length of the return period for 2-yr maps, it provides only a small fraction of the length of the 100-yr return period. During a 15-yr period, some stations may experience precipitation amounts equivalent to a return period of 50, 100, or more years. However, the probability of having a 100-yr value in any preselected 15-yr period is only 0.14. Similarly, the probability of not having a true 15-yr return period value in any preselected 15-yr period is about 0.09. Thus, in a given 15-yr period, the probability that a station has received its true 100-yr value is not greatly different from the probability that its neighboring station has not experienced its true 15-yr value. While, admittedly, this would be an extreme case, this example shows the importance of using as long a record as possible when preparing precipitation-frequency maps for long return periods. In this study, records for as long as possible for each station (without violating the 100-ft or 5-mi criterion) were used to compute the 100-yr return period values. The length of record and a confidence band to indicate the range of values likely to be experienced at each station were included in the plotting model. With this information, the analyst could more effectively evaluate the reliability of each data point.

Published and unpublished data from approximately 3,300 stations were used in this study. The number of stations grouped by length of record and state are shown in table 1. Many recording gages were established at sites where nonrecording gages had been located for many years. In table 1, the first column for each state shows the number of stations with recording-gage data. The second column for each state shows the total period of record for which observation-day data were available for each of these stations. The total record includes both recording and nonrecording data for the recording-gage station. (Note: The total number of stations in columns 1 and 2 are equal.) The third column for each state shows the number of stations with nonrecording-gage data only.

Figure 3 shows the location of the 1,030 recording stations used in this study. The length of record indicated is for the longest available record and includes the period where only a nonrecording gage may have been located at the particular station. Figure 4 shows the location of the 2,292 nonrecording gages that, together with the recording gages, were used to provide data to define the 24-hr isopluvial pattern. A few additional stations with records of less than 10 yrs were used to provide guidance for estimating the precipitation pattern in extremely mountainous regions where no other data were available. Most of the data were for observation days. Empirical adjustments were used to convert statistical analyses of these data to the equivalent of 1,440-min data.



precipitation values for return periods between 2 and 100 yrs are desired, it is necessary to obtain the 2- and 100-yr values from this series of generalized precipitation-frequency maps. These values are then plotted on the appropriate verticals and connected with a straight line. The precipitation values for the intermediate return periods are determined by reading values where the straight line intersects the appropriate verticals. If the rainfall values are then converted to the annual series by applying the factors of table 2 and plotted on either Gumbel or log-normal graph paper, the points will very nearly approximate a straight line.

Isopluvial Maps

Methodology. The factors considered to determine the sequence of preparation of the basic isopluvial maps for this series of generalized precipitation-frequency maps were (1) availability of data, (2) reliability of estimates for the return period, and (3) range of durations and return periods. Because of the large amount of data for the 24-hr duration and the relatively small standard error associated with the 2-yr values, a map showing such data was selected for preparation as the basic map for this series. The second map was prepared for the 24-hr duration and 100 yrs, the longest return period of interest. Next, the 2-yr 6-hr and the 100-yr 6-hr precipitation maps were prepared. These four key maps envelop the range of durations and return periods required and provide the data to be used for obtaining values for four intermediate return period maps at each duration.

Development of relations for interpolating precipitation-frequency values. The adequacy of the basic data network for determining precipitation-frequency values varies from place to place within the western United States. The greatest station density occurs along the Pacific coast west of the Cascade and Sierra Nevada Ranges (figs. 3 and 4). The lowest densities are in the intermountain plateau—between the Cascade-Sierra Nevada ranges and the Continental Divide—particularly in Nevada and in the Salmon River Mountains of Idaho. Even within particular regions, the stations are not evenly distributed. Most of the stations are located in the coastal plains, the river valleys, the western portion of the Great Plains, and the lower foothills of the mountains. Relatively few stations are located on steep slopes or on crests of mountains, in sparsely populated areas, or in areas where access is difficult.

It is desirable, therefore, to develop relations that can be used in interpolating precipitation-frequency values between stations in regions where data are relatively scarce. A preferred method is to relate variations in precipitation-frequency directly to variations in topographic factors; this is done when an adequate relation can be developed. The primary advantage of this procedure is that topographic factors can be determined at any point in a region. Topographic maps can be prepared from aerial photographs or surveys, or by other methods that do not require observations taken at a fixed point over a period of time. Among topographic factors frequently considered are: (1) elevation of the station, either the actual elevation or some effective elevation (an average elevation determined along a circle of a given radius around the station); (2) slope of the terrain near the station, both in the small and large scales; (3) distances from both major and minor barriers; (4) distances and directions from moisture sources; and (5) roughness of the terrain in the vicinity of the station.

Figure 3. Geographic distribution of stations with recording gages. Symbols indicate total length of record available.

It has not been possible to develop such relations for all regions. Hence, it also was necessary to develop relations that included climatological or meteorological factors. The factors selected for use must be available at locations where precipitation data for durations of between 1 and 24 hrs are not available. Otherwise, they would not provide additional information needed for use in interpolating between locations with frequency values. An example of such a factor is normal annual precipitation. In the construction of such a map, data from snow courses, adjusted short records, and storage gages that give weekly, seasonal, or annual accumulations of precipitation can be used. Such records do not yield the short-duration precipitation amounts necessary for this study. Thus, normal annual precipitation data, particularly because it provides greater areal coverage in mountainous regions, might be of definite use in developing the patterns of the precipitation-frequency maps.

Several other meteorologic factors can be used in combination with normal annual precipitation data and topographic factors to interpolate short-duration precipitation-frequency values at intermediate points. Examples of such factors are: (1) number of thunderstorm days, (2) number of days or hours with precipitation above a threshold value, (3) percentage frequencies of various wind directions and speeds, and (4) percentage frequencies of class intervals of relative humidity. Since these factors can be obtained only where there are recording meteorological gages or where there are observers to record the data they do not supplement the available short-duration precipitation-frequency values by providing data at additional sites.

It would have been desirable to develop a single equation, utilizing physiographic factors, to interpolate between locations with short-duration precipitation-frequency values for the western United States. Such an equation could not be developed, so relations for interpolating the precipitation-frequency values were developed for each of several smaller regions considered to be meteorologically homogeneous. The extent of each region was determined from consideration of the weather situations that could be expected to produce large precipitation amounts. Among the questions asked and answered were: What is the source and from what direction does moisture for major storms come and are there major orographic barriers that influence the precipitation process? Figure 7 shows some of the principal paths of moisture inflow for the western United States and the major orographic barriers to such inflow.

The regions selected for their homogeneity normally are river basins or combinations of river basins. The river basins selected were usually bounded by major orographic barriers that significantly influence the precipitation regime. The size of these regions varied, partly because of meteorologic and topographic considerations and partly because of the availability of data. Some regions included more variability in topographic and meteorologic factors than was ideal. Efforts made to reduce the size of the regions were not successful because sample sizes decreased to less than acceptable limits.

After the geographic regions were selected, various topographic factors that could cause variation of precipitation-frequency values within limited regions such as slope, elevation, roughness, and orientation were examined. Individual precipitation-frequency values and exposures around the stations were examined to gain insight into topographic factors that could be im-

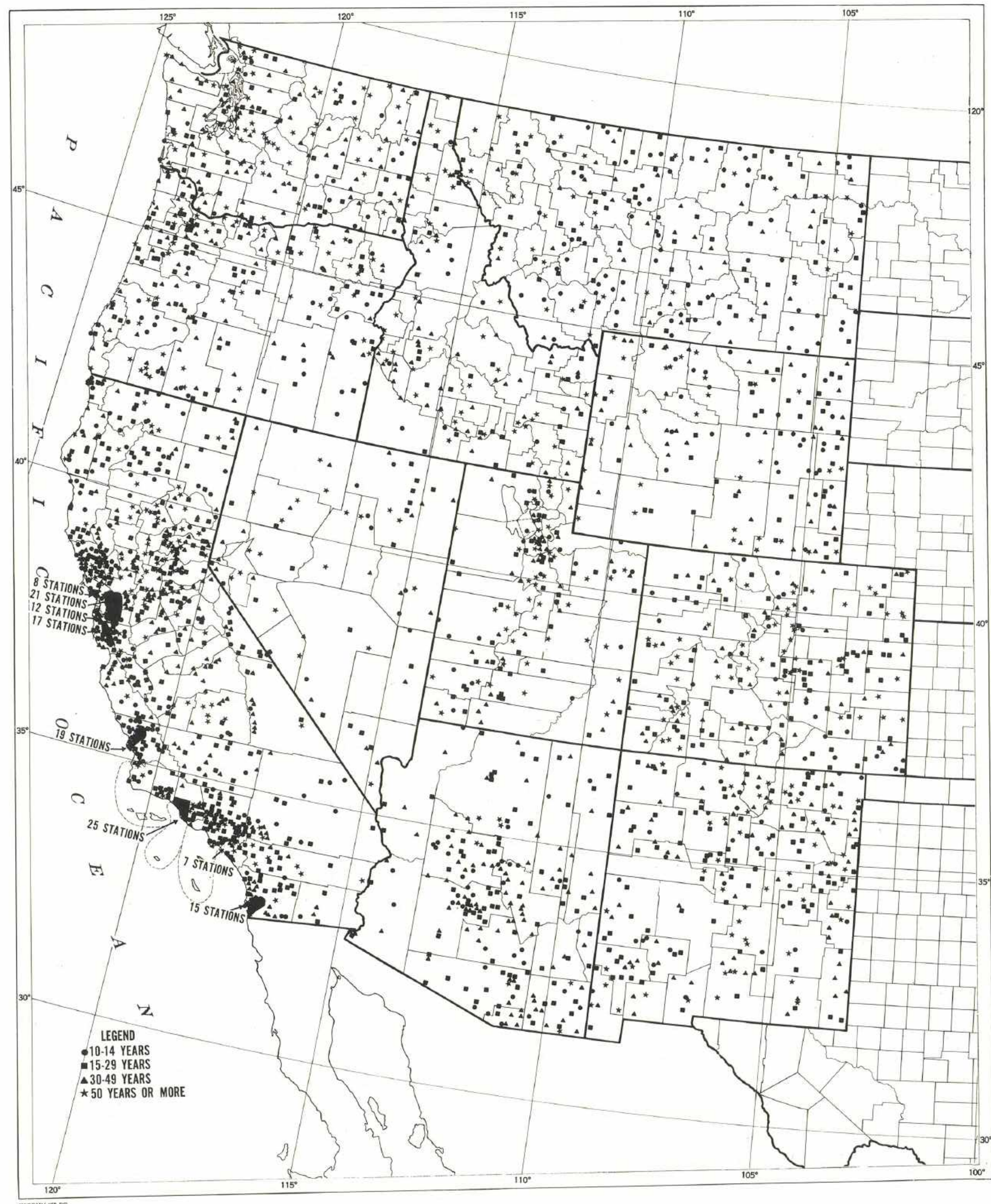


Figure 4. Geographic distribution of stations with nonrecording gages. Symbols indicate total length of record available.

Figure 5. Relation between annual and partial-duration series.

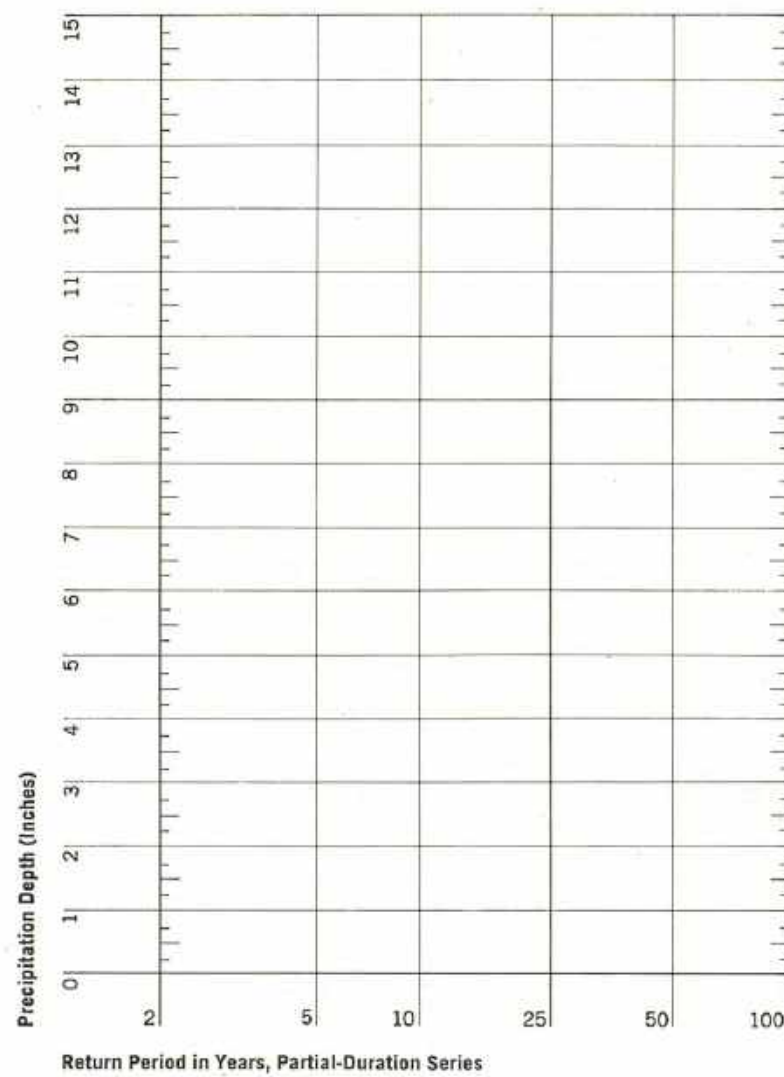
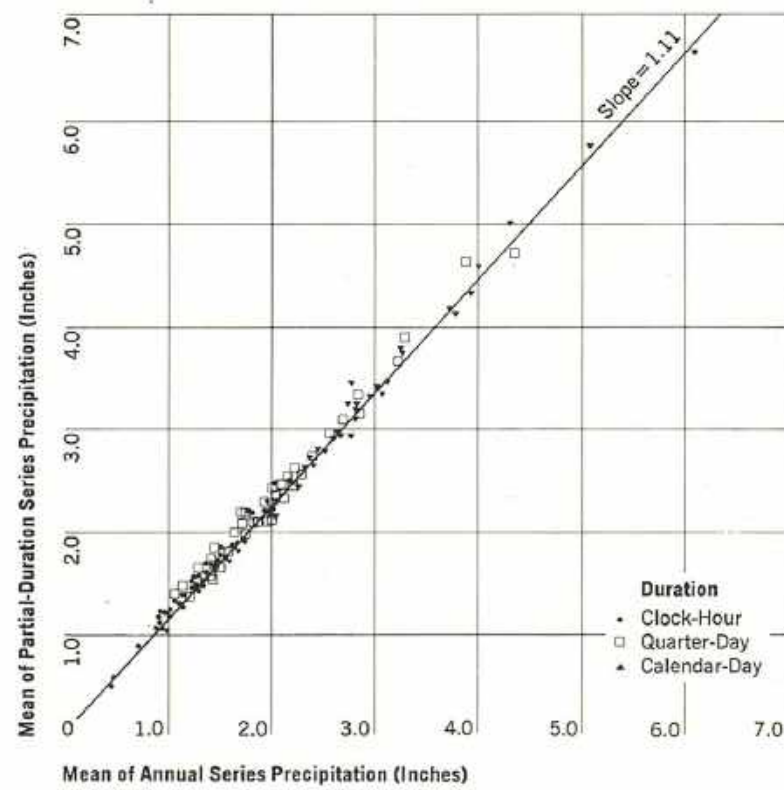
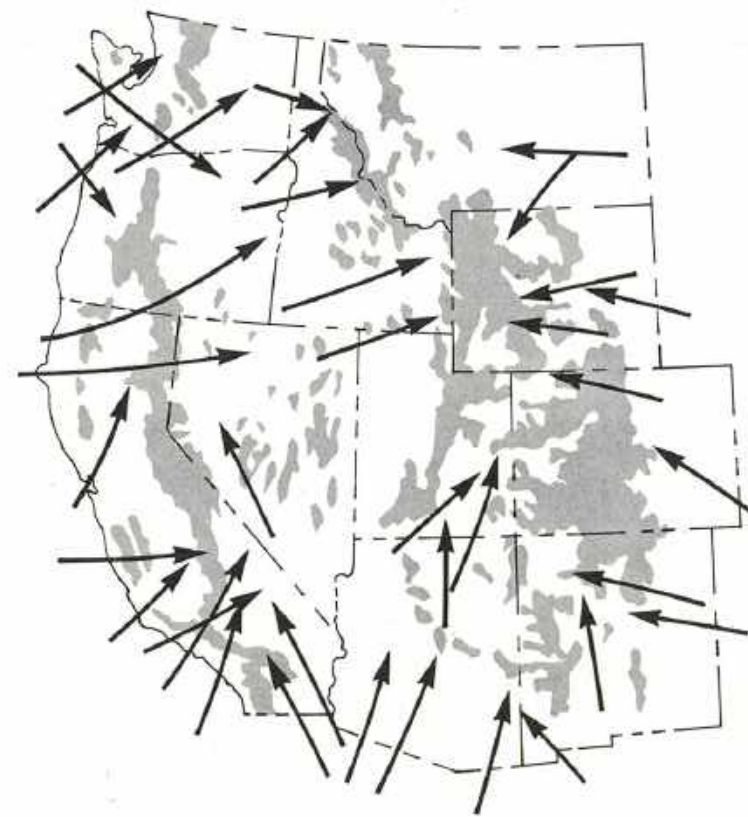


Figure 6. Precipitation depth versus return period for partial-duration series.

Figure 7. Principal paths of moisture inflow in the western United States for storms producing large precipitation amounts. Toned areas are major orographic barriers.



portant. Next, an examination was made of factors that combined topographic and meteorologic considerations, such as distance and direction to moisture sources. Each factor considered was a measure of some physical reality, and each was understandably related to variation in the precipitation-frequency regime.

Finally, various climatological and meteorological factors that could be indexes of variation of the precipitation-frequency values were considered. The procedure used for developing interpolating equations was a multiple-regression screening technique. This process was done by computer using a least-squares technique. The computer program was capable of accepting a total of 174 independent variables for as many locations as data were available. The number of variables screened for the various relations ranged between 60 and 100. This does not mean that 60 or more completely different factors could be identified. For example, several factors might involve different measures of slope. Moreover, these measures of slope might be over different distances or have different orientations. In each instance, the practice was to permit the computer to select the most critical of the various measures of each factor.

Although the computer program treated each variable as linear during the regression analysis, it was possible through internal computations to use logarithms, powers, roots, reciprocals, or combinations of any or all of the factors. The computer program selected the single variable most highly correlated with the precipitation-frequency value under investigation. The next step was to select the variable that, combined with the variable already selected, would explain the greatest variation in the precipitation-frequency values. The third, fourth, fifth, and further variables were selected in a similar manner. The program continued to select

Region of applicability ¹	Corr. coeff.	No. of stations	Mean of computed stn. values (inches)	Standard error of estimate (inches)
Gila, Williams, and lower Colorado River Basins (1)	0.84	86	1.86	0.21
Little Colorado, San Juan, and Virgin River Basins, except higher elevations of south-facing slopes (2) ² ..	0.81	105	1.36	0.20
Higher elevations of south-facing slopes of Little Colorado, San Juan, and Virgin River Basins (2) ²	0.93	41	1.31	0.13
Rio Grande Basin north of El Paso, Tex. (3)	0.77	110	1.35	0.18
Crest of Continental Divide and Sangre de Cristo Mountains to generalized 7,000-ft contour from southern Wyoming to southern tip of Sangre de Cristo Mountains (4)	0.83	122	1.43	0.22
Upper Colorado and Gunnison River Basins and Green River Basin below confluence of Green and Yampa Rivers (5)	0.79	69	1.12	0.13
Yampa River Basin, Green River Basin above confluence of Green and Yampa Rivers, and Bear River Basin east of Wasatch Mountains (6)	0.83	29	1.03	0.08
Mountains of central Utah (7)	0.85	86	1.35	0.18
Western Utah and Nevada, except Snake and Virgin River Basins and spillover zone east of Sierra Nevada Crest (8) ³	0.71	79	1.03	0.13
Western Utah and Nevada, except Snake and Virgin River Basins and spillover zone east of Sierra Nevada crest (8) ³	0.71	55	1.04	0.15
Big Horn River Basin above Saint Xavier and minor portions of North Platte, Powder, Tongue, and Yellowstone River Basins (9)	0.78	55	1.25	0.21
Upper Missouri River Basin above Holter Dam, Mont.; Snake River Basin above Alpine, Wyo.; and upper Yellowstone River Basin above Springdale, Mont. (10)	0.76	57	1.19	0.16
From generalized 4,000-ft contour on east to crests of Crazy and Little Belt Mountains and Lewis Range on west (11)	0.80	52	1.67	0.26
West of Continental Divide, but east of Bitterroot Range and Cabinet and Selkirk Mountains (12)	0.85	44	1.36	0.12
Mountainous region of eastern Washington and Oregon and of Idaho west of Bitterroot Range crest and Continental Divide, and north of southern boundary of Snake River Basin—excluding Snake River Valley below a generalized 5,000-ft contour (13)	0.78	147	1.44	0.24
Orographic region east of crest of Cascade Range and west of Snake River Basin (14)	0.90	115	1.75	0.35
Western slopes of Coast Ranges, Olympic Mountains, and Cascade Range (15)	0.87	125	3.69	0.48
Eel River Basin; southern portion of Klamath River Basin; and Cottonwood, Elder, Thomas, and Gladstone Creeks (16)	0.91	39	4.19	0.50
Russian River, Cache and Putah Creeks, and coastal drainages west of Russian River (17)	0.84	63	5.31	0.78
Santa Cruz Mountains and La Panza, Santa Lucia, and Coast Ranges (18)	0.95	55	4.32	0.45
Diablo, Gabilan, and Temblor Ranges (19)	0.82	58	2.21	0.35
San Rafael, San Bernardino, Santa Monica, and San Gabriel Mountains (20)	0.88	149	3.98	0.59
Santa Ana, Santa Rosa, Coyote, and other extreme southern coastal mountains (21)	0.88	34	2.44	0.33
Northern Sierra Nevada north of Mokelumne River Basin (22)	0.92	84	4.56	0.53
Southern Sierra Nevada south of Consumnes River Basin (23)	0.88	61	3.43	0.53
Southeastern desert region of California (24)	0.89	41	1.07	0.16
Spillover zone east of Sierra Nevada crest (25)	0.94	41	2.05	0.27
Spillover zone east of crest of coastal mountains of southern California (26)	0.97	10	2.08	0.15

¹ Numbers in parentheses refer to geographic regions shown in figure 8.
² Two different equations were used in region 2. See text for explanation.
³ Two different equations were used in region 8. See text for explanation.

Table 3. Statistical parameters for relations used for interstation interpolation of 2-yr 24-hr precipitation values

variables until the variance explained by an additional variable was less than some preselected amount or until a fixed number of variables was selected. Final equations did not contain more than five independent variables.

In the development of these equations, data from all stations with daily or hourly observations were considered. The data sample used was not completely adequate. First, it did not include for each factor the full range of values that occur within the region. Application of the equation, therefore, required unavoidable extrapolation. Second, the number of data points used to develop these equations was occasionally less than desirable. Nevertheless, the equations provided the best available method of developing preliminary estimates of frequency values in regions lacking adequate data.

Relations for interpolating between 24-hr precipitation-frequency data points. Figure 8 shows generalized boundaries of the regions used to develop relations for interpolation between locations with 2-yr 24-hr precipitation values. Topographic maps show recognizable topographic barriers chosen as the boundary lines of most regions. For example, the boundary separating regions 3 and 4 from those to the west is the Continental Divide. The boundary separating region 15 from 14 is the crest of the Cascade Range. A few of the boundaries between adjoining regions may appear somewhat arbitrary, but examination of detailed topographic maps will show a physical basis for each.

In areas where topographic variation is gradual and where there are no large differences in elevations or slopes over short distances, precipitation-frequency values at a station usually are representative of a much larger area than are such values in a mountainous region. Within the western United States, some rather extensive regions met this criteria. Within these regions, there were also numerous stations with suitable records. The lack of topographic controls means only there is limited variation in precipitation-frequency values, and this variation is such that it can be depicted using the numerous station data points. No equations for interpolating between stations were developed for such regions (shown shaded in fig. 8).

The equations developed for interpolating between locations with 2-yr 24-hr precipitation values in regions of sparse data were not all equally reliable. On the average, the 28 equations developed for estimating the 2-yr 24-hr precipitation values at intermediate points in western United States explained about 70 percent of the variance. The standard error of estimate averaged about 13 percent of the average station value for 2-yr 24-hr precipitation. The correlation coefficient, the number of stations used, the average 2-yr precipitation value, and the standard error of estimate for each equation used to estimate 2-yr 24-hr precipitation values are shown in table 3.

The equation that explained the least variance, only slightly over one-half, was for western Utah and most of Nevada (region 8, fig. 8). This is a region with diverse topography and no well-defined orographic barrier. It is also a region where a wide variety of storms produce large precipitation amounts. The equation developed for the coastal mountains of California (region 18, fig. 8) explained the greatest portion of the variance, about 90 percent. The region consists primarily of mountain ranges oriented north-northwest to south-southeast; within this region, large precipitation amounts generally result from one storm type.

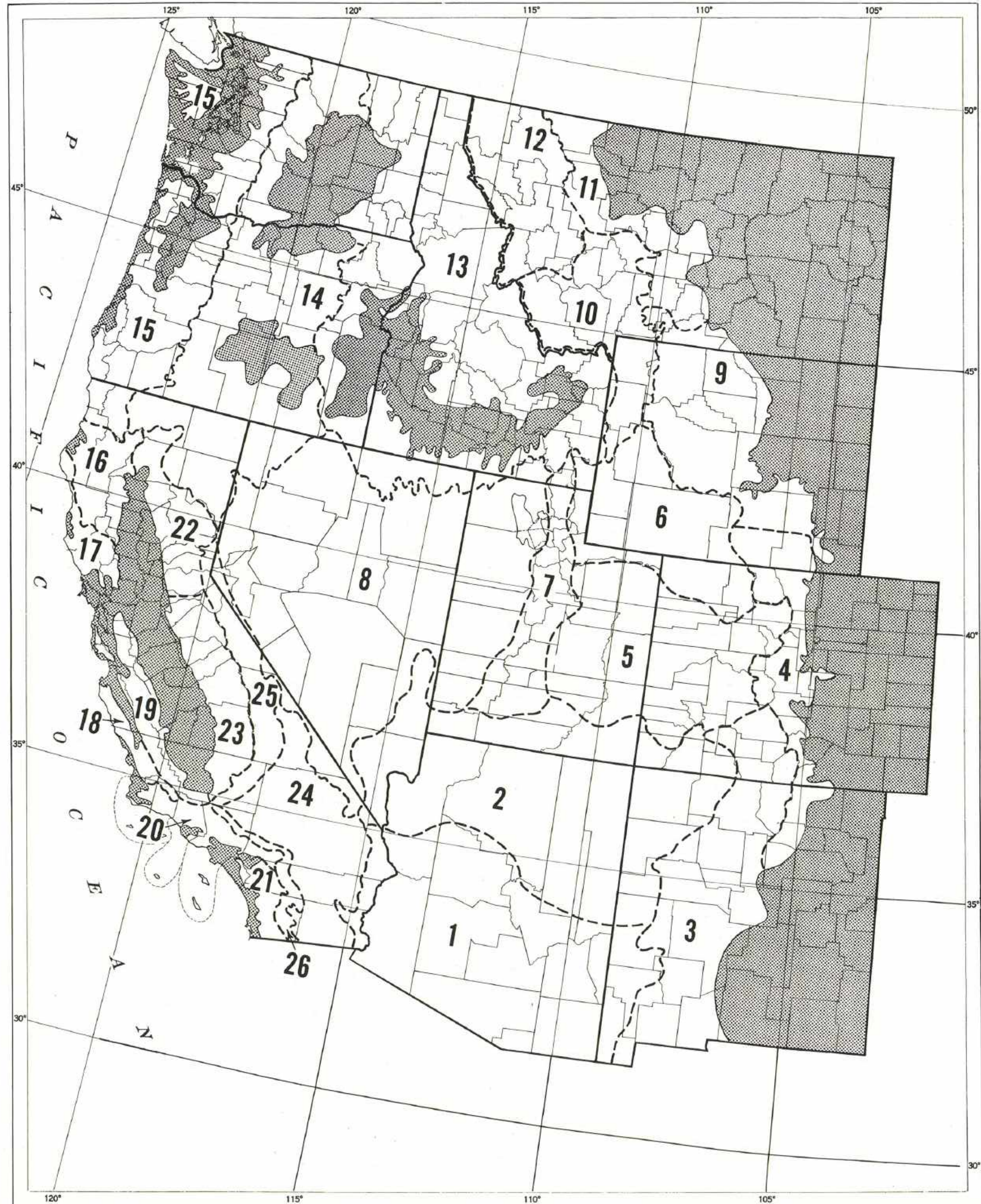


Figure 8. Regions used to develop statistical parameters for interstation interpolation of 2-yr 24-hr precipitation values.

Table 4. Factors most useful in relations for interstation interpolation for 2-yr 24-hr precipitation values

Factors (by category)	Number of equations using factor	Percent of equations using factor	Number of times each factor used	Percent of total number of times each factor used
Slope	18	64	37	42
Normal annual precipitation	15	54	15	17
Barrier to airflow	10	36	11	12
Elevation	10	36	10	11
Distance to moisture	9	32	9	10
Location (latitude or longitude)	4	14	5	6
Roughness	2	7	2	2

Two equations were developed for region 8 (fig. 8), which includes western Utah and Nevada except for the Snake and Virgin River Basins and a spillover zone east of the Sierra Nevada. The two relations had nearly equal correlation coefficients and standard error of estimates. The first equation was developed using normal annual precipitation, the second topographic factors only. The equation using normal annual precipitation data was developed during preparation of maps for Utah because reliable normal annual precipitation maps were available. Investigations continued, and a relation that gave about equally reliable results was obtained during the development of the maps for Nevada. Values computed using both equations for points near the Nevada-Utah border showed results that did not differ greatly. The second equation was then used to prepare the maps for Nevada.

Table 4 shows the factors, grouped in general categories, found most useful in depicting variations in the 2-yr 24-hr precipitation values for the western United States. The first and second columns show the number and percent of equations in which each factor was used. The total for the second column is larger than 100 percent because several factors were used in the equations developed for each region. The third column shows the total number of times each factor was used, and the fourth what percentage each factor used was of the total number of factors. For example, of the 89 different factors used in the 28 equations, 37 were some measure of slope; the use of the slope factor represents 42 percent of the total number of factors used.

The single most important factor considered was slope, a topographic factor. Measurement of slope varied from region to region. In some regions, slope was measured directly by dividing the difference in height between two points by the distance between the points. In the Cascade and Coast Ranges of Washington and Oregon, the difference between the station elevation and the average elevation at a distance of 20 miles in the western quadrant

proved to be the most significant factor. A less direct measure was used in north-central Wyoming and south-central Montana, where the greatest change in elevation between the station and the lowest point within 20 miles was used and the distance between the station and such a point was not involved. In several portions of California, a more complicated method was used. A path 5 miles wide was oriented along the prevailing direction of moist airflow. At 1-mi intervals along this path, the average height was measured. The difference in height between adjoining lines indicated whether there was an upslope or a downslope in this particular segment. The summation of the upslopes and downslopes, separately, was an indirect measurement of slope. A combination of these upslopes and downslopes, each divided by the distance between the station and the center of the area included between two adjoining lines, was a direct measurement of slope.

The second most important topographic factor was found to be the barrier to moist airflow; this factor is actually a combination of meteorology and topography. In selecting a barrier, the first consideration was the direction of moist air inflow. The barrier had to be normal, or nearly normal, to this direction. The barrier range, or ranges, had to be sufficiently massive to cause a significant disruption in the airflow. Barriers of limited lateral extent that would permit air to flow around as easily as over were not considered. A generalized crest line was drawn along the significant barrier, and measurements of barrier height or distances or directions to this barrier were then made from the station to this generalized crestline. The orientation of barriers to moist airflow was determined as appropriate for each region. For example, along the Pacific coast, a westerly direction of moist airflow was used; in Colorado and New Mexico, a southeasterly airflow was appropriate. The direction selected was determined from an examination of the moist air inflow in storms that produce large precipitation amounts in these regions. In some regions, the distance behind the barrier was important. In others, the height of the barrier proved to be more significant.

The distance to the principal moisture source, a combination of topographic and meteorologic influences, was another important factor. In northeastern New Mexico, central Colorado, and southeastern Wyoming (region 4, fig. 8), examination of a topographic map and consideration of the moist air inflow in storms that produced large precipitation amounts (fig. 7), made it evident that the general moist airflow was from the Gulf of Mexico. Distance to moisture was therefore measured in that direction.

Another topographic factor used frequently was the elevation of the station, either the actual station elevation or, preferably, where narrow valleys and ridges predominate in the area the average elevation around the station at some distance (effective elevation). Elevation alone usually correlated rather poorly with precipitation-frequency values. In many regions, the simple correlation between elevation and precipitation-frequency values was not statistically significant at either the 0.01 or 0.05 level. It was not elevation alone but a combination of elevation with other factors, such as slope, height of intervening barriers, and distance to moisture source, that was significant.

Normal annual precipitation was used in many of these index relations. However, the policy adopted was that normal annual precipitation was not used if an equally reliable relation could be derived solely on the basis of topographic factors, even though normals could have been used in almost every region. The one

exception was the southeastern desert regions of California, where normal annual precipitation did not correlate well with precipitation-frequency values. Normal annual precipitation maps are most exact at points where data are available. Isoleths used to arrive at estimates in areas where data are not available are only as accurate as the standard error of estimate of the relation used in the interpolation and as the skill of the analyst will permit. Therefore, where estimates of normal annual precipitation (or other climatological factors) are used to develop precipitation-frequency maps, the error incorporated in development of the normal annual precipitation map is combined with the standard error of estimate of the relation for precipitation-frequency maps. Normal annual precipitation maps were, however, helpful and were used. Storage-gage and snow-course data, streamflow data, and vegetation maps are useful for drawing accurate normal annual or seasonal precipitation maps in regions where lack of short-duration precipitation data decreases the reliability of relations between frequency values and topographic factors. Normal annual precipitation was used as a factor where topographic factors could not be quantified to estimate the precipitation-frequency values with sufficient accuracy.

Table 5 shows the statistical parameters of the interpolating equations used to estimate the 100-yr 24-hr precipitation values. The equations were developed for the same regions as those for the 2-yr return period, with one exception (fig. 9). This was in Arizona where data from the Gila, Williams, and lower Colorado Basins were combined with data from the San Juan, Little Colorado, and Virgin River Basins. In regions relatively unaffected by orography, equations were developed that related the 2-yr 24-hr precipitation values to those for the 100-yr return period. These equations were developed as an additional aid for interpolating between stations in these regions because of the relatively few stations with long records available. Although the longest record stations were generally within the nonorographic regions, most states had less than 20 percent of the stations within these regions with 50 or more years of record. Equations for these regions provided an objective method of providing space-averaged ratios between 100-yr 24-hr precipitation values and 2-yr 24-hr precipitation values.

As with the relations for estimating the values for the 2-yr return period, the equations did not all have the same degree of reliability. The orographic region for which the equation accounted for the least variance (not quite one-half of the variation) was the region including the Yampa River Basin, the Green River Basin above the confluence of the Green and Yampa Rivers, and the Bear River Basin east of the Wasatch Mountains (region 5, fig. 9). For several regions in California, over 90 percent of the variance was accounted for by the equations. The equation developed for the San Rafael, San Bernardino, Santa Monica, and San Gabriel Mountains (region 20, fig. 9) accounted for the greatest amount of the variation. On the average, the 35 equations developed to interpolate the 100-yr 24-hr precipitation values in this portion of the United States accounted for about 75 percent of the variance, and the standard error of estimate averaged about 12 percent of the average station value.

There was one region (region 7, fig. 9) for which two equations were developed. In the preparation of frequency maps for Utah, basins that were wholly or partly within Utah were investigated. One region extended westward from Utah to include most of Nevada. Within this region, a relation was developed that

accounted for about 60 percent of the variance. During subsequent investigations, a superior relation was developed when frequency maps for Nevada were prepared. The newly developed equation accounted for about 80 percent of the variance.

Table 6 shows the factors found most useful for interpolating variations in the 100-yr 24-hr precipitation values in sparse-data areas of the western United States. This table is in the same format as table 4. The definitions of the variables—slope, distance to moisture, elevation, etc.—are the same as those for table 4. Again, slope is the most important topographic factor. The next most important topographic factor was elevation. In the equations, the 2-yr 24-hr precipitation values were used in interpolation. In table 6, it can be seen that the 2-yr 24-hr precipitation value was the most important variable. However, this may be misleading because about one-fourth of the regions for which equations were developed were considered nonorographic. In such regions, the use of the 2-yr 24-hr precipitation value in an equation was similar to using an average 100- to 2-yr ratio. Frequently, these equations included a location factor that reflected the variation of such a ratio over the region. As with other meteorological or climatological factors—for example, normal annual precipitation—it would have been preferable to avoid the use of precipitation-frequency values in the equations. However, this was not always possible.

Relations for estimating the 6-hr precipitation-frequency values. Data from both recording and nonrecording gages can be incorporated in equations for estimating precipitation-frequency values for the 24-hr duration. For durations of less than 24 hrs, only data from recording gages can be used. This frequently reduces the number of data points within a particular region by one-half or more. The effect of topography on precipitation-frequency values decreases as the duration decreases. Thus, there is less variability in the precipitation-frequency values for the 6-hr duration. For these reasons, larger regions are used to develop interpolation equations for 6-hr duration maps. Figure 10 shows the regions used to develop the equations for estimating 2-yr 6-hr precipitation values. The regions used for developing relations for the 100-yr return period were the same with one exception; the region south of the Snake, Bear, Yampa, and North Platte River Basins (region 1, fig. 10). This region was divided approximately along the Arizona-Utah and the New Mexico-Colorado boundary lines into Regions 1A and 1B.

The equation for the northern Sierra Nevada region of California (region 7, fig. 10) accounted for the least amount of variation—about 60 percent—in the 2-yr 6-hr precipitation values (table 7). The equation for the coastal mountains of California (region 6, fig. 10) accounted for over 90 percent of the variation and was the most reliable equation developed. On the average, the equations accounted for over 80 percent of the variations and had a standard error of estimate of about 11 percent of the average 2-yr 6-hr precipitation values.

For the 100-yr 6-hr precipitation values, the equation for the coastal mountains of California (region 6, fig. 10) accounted for the greatest amount of variation in these values (table 8). In this region, over 90 percent of the variation in the data sample was accounted for. The equation for the northern Great Basin (region 3, fig. 10) accounted for the least variation. In this region, the equation accounted for about 60 percent of the variation. On the average, the equations accounted for over 80 percent of the variation with a standard error of estimate of about 14 percent of the

Table 6. Factors most useful in relations for interstation interpolation for 100-yr 24-hr precipitation values

Factors (by category)	Number of equations using factor	Percent of equations using factor	Number of times each factor used	Percent of total number of times each factor used
2-yr 24-hr precipitation	27	77	27	29
Slope	26	74	26	28
Elevation	20	57	20	22
Distance to moisture	6	17	6	7
Location (latitude or longitude)	5	14	6	7
Normal annual precipitation	4	11	4	4
Barrier to airflow	2	6	2	2
Roughness	1	3	1	1

is the average elevation (in hundreds of feet) of the points on a 1-mile radius circle centered on the station and divided by the distance (in miles) to the coast. X_2 is the slope of the terrain near

average 100-yr 6-hr precipitation values.

The factors used most frequently in the equations for estimating the 2-yr 6-hr precipitation values are listed in table 9; those for the 100-yr 6-hr precipitation values are given in table 10. The format and definitions of variables of tables 9 and 10 are the same as those of table 4. For the 2-yr return period, the factor used most frequently was a measurement of slope. Most equations, however, related variations in the 6-hr precipitation values to variations in the 24-hr values. For the 100-yr return period, slope and elevation were equally important topographic factors. As with the 100-yr 24-hr and 2-yr 6-hr maps, precipitation-frequency values were used in the equations for some regions.

Typical multiple linear regression equations. It is beyond the scope of this publication to present all the equations used for estimating precipitation-frequency values for this Atlas. However, it is useful to discuss in some detail two equations used to estimate the 2-yr 24-hr precipitation values. The factors used and the accuracy of the results obtained are typical of other equations developed.

The first of these is the equation for the northern Coastal Mountains of California (region 16, fig. 8). This region includes the Eel River Basin, some southern portions of the Klamath River Basin, and the western portion of the Sacramento River Basin. This equation is

$$Y = 3.117 + 1.814(X_1) + 0.016(X_2) - 0.049(X_3), \quad (1)$$

where Y is the 2-yr 24-hr precipitation value in inches, and X_1

Region of applicability*	Corr. coeff.	No. of stations	Mean of computed stn. values (inches)	Standard error of estimate (inches)
Arizona, New Mexico, extreme eastern California, Nevada south of the Snake River Basin, Utah south of the Snake and Bear River Basins, and Colorado south of the Yampa and North Platte River Basins (1a and 1b)	0.92	262	1.10	0.16
Montana and Wyoming east of a generalized crestline extending along the Continental Divide in northern Montana, the Crazy and Little Belt Mountains, the Absaroka Range, and the Continental Divide in southern Wyoming (2)	0.94	125	1.07	0.10
Region north of the southern boundaries of the Snake, Bear, and Yampa River Basins and between a generalized crestline of the Cascades and a generalized crestline extending along the Continental Divide in northern Montana, the Crazy and Little Belt Mountains, the Absaroka Range, and the Continental Divide in southern Wyoming and northern Colorado (3)	0.91	151	0.73	0.07
Orographic regions of western Washington, Oregon, and California from the crest of the Cascade Range to the Pacific Ocean extending southward to include the area drained by the Klamath and Salmon Rivers in northern California (4)	0.78	57	1.66	0.23
Nonorographic coastal lowlands of Washington and Oregon (5)	0.97	59	1.41	0.10
Coastal mountains of California from the Trinity River Basin in the north to the Mexican border (6)	0.97	87	1.85	0.16
Northern Sierra Nevada north of Mokelumne River Basin (7)	0.78	31	2.03	0.34
Southern Sierra Nevada south of Consumnes River Basin (8)	0.92	26	1.68	0.18
Spillover zone east of the crests of the Sierra Nevada and the coastal mountains of southern California and the southeastern desert region of California (9)	0.86	25	0.84	0.12
Coastal lowlands and San Joaquin and Sacramento Valleys of California (10)	0.95	73	1.37	0.11

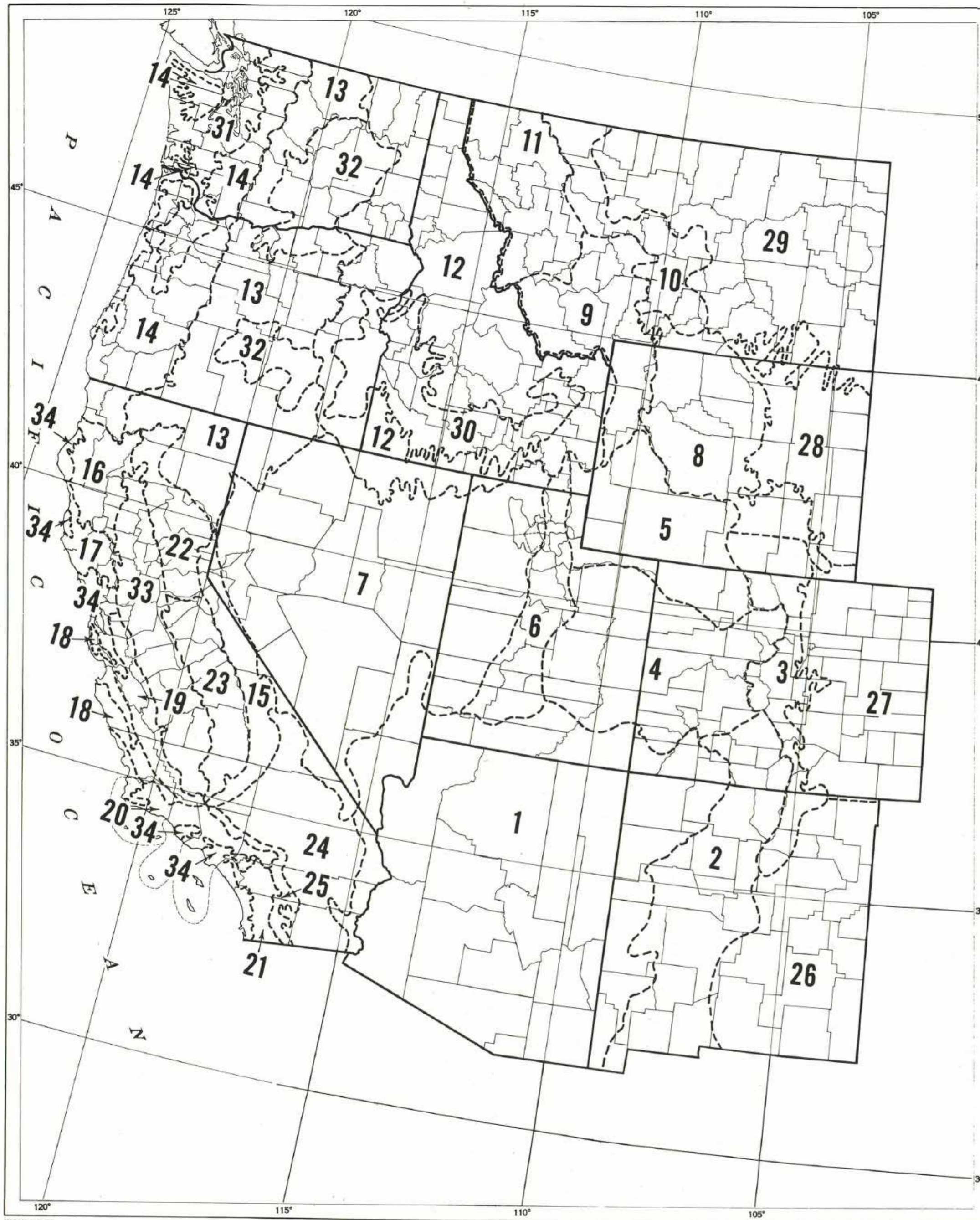
* Numbers in parentheses refer to geographic regions shown in figure 10.

Region of applicability ¹	Corr. coeff.	No. of stations	Mean of computed stn. values (inches)	Standard error of estimate (inches)
Gila, Williams, San Juan, Little Colorado, and Virgin River Basins (1)	0.80	148	3.98	0.59
Río Grande Basin north of El Paso, Tex. (2)	0.78	110	3.26	0.48
Crest of Continental Divide and Sangre de Cristo Mountains to generalized 7,000-ft contour from southern Wyoming to southern tip of Sangre de Cristo Mountains (3)	0.91	69	3.28	0.38
Upper Colorado and Gunnison River Basins and Green River Basin below confluence of Green and Yampa Rivers (4)	0.79	53	2.57	0.31
Yampa River Basin, Green River Basin above confluence of Green and Yampa Rivers, and Bear River east of Wasatch Mountains (5)	0.68	27	2.41	0.30
Mountains of central Utah (6)	0.88	65	2.84	0.25
Western Utah and Nevada, except Snake and Virgin River Basins and spillover zone east of Sierra Nevada crest (7) ²	0.77	64	2.50	0.29
Western Utah and Nevada, except Snake and Virgin River Basins and spillover zone east of Sierra Nevada crest (7) ²	0.90	55	2.42	0.22
Big Horn River Basin above Saint Xavier and minor portions of North Platte, Powder, Tongue, and Yellowstone River Basins (8)	0.94	47	3.10	0.31
Upper Missouri River Basin above Holter Dam, Mont.; Snake River Basin above Alpine, Wyo.; and upper Yellowstone River Basin above Springdale, Mont. (9)	0.88	48	2.68	0.34
From generalized 4,000-ft contour on the east to crests of Crazy and Little Belt Mountains and Lewis Range on the west (10)	0.85	41	3.71	0.44
West of Continental Divide, but east of Bitterroot Range and Cabinet and Selkirk Mountains (11)	0.90	37	2.87	0.20
Mountainous region of eastern Washington and Oregon and of Idaho west of Bitterroot Range crest and Continental Divide, and north of southern boundary of Snake River Basin—excluding Snake River Valley below a generalized 5,000-ft contour (12)	0.87	99	2.74	0.32
Orographic region east of crest of Cascade Range and west of Snake River Basin (13)	0.92	115	3.76	0.61
Western slopes of Coast Ranges, Olympic Mountains, and Cascade Range (14)	0.80	119	7.09	1.13
Spillover zone east of crest of Sierra Nevada (15)	0.91	28	5.39	0.75
Eel River Basin; southern portion of Klamath River Basin; and Cottonwood, Elder, Thomas, and Gladstone Creeks (16)	0.85	26	8.34	1.42
Russian River, Cache and Putah Creeks, and coastal drainages west of Russian River (17)	0.88	35	10.17	1.24
Santa Cruz Mountains and La Panza, Santa Lucia, and Coast Ranges (18)	0.96	26	10.90	1.25
Diablo, Gabilan, and Tumbler Ranges (19)	0.97	29	5.26	0.48
San Rafael, San Bernardino, Santa Monica, and San Gabriel Mountains (20)	0.98	68	11.72	0.97
Santa Ana, Santa Rosa, Coyote, and other extreme southern coastal mountains (21)	0.87	29	6.74	1.06
Northern Sierra Nevada north of Mokelumne River Basin (22)	0.96	65	9.74	1.01
Southern Sierra Nevada south of Consumnes River Basin (23)	0.89	42	8.14	1.29
Southeastern desert region of California (24)	0.93	41	3.37	0.47
Spillover zone east of crest of coastal mountains of southern California (25)	0.98	10	6.20	0.50
New Mexico east of Río Grande Basin (26)	0.66	136	5.28	0.88
Colorado east of generalized 7,000-ft contour, and southeastern Wyoming east of generalized 7,000-ft contour and south of North Platte River Basin (27)	0.82	119	4.73	0.52
Eastern Wyoming and southeastern Montana east of generalized 6,000- to 5,000-ft contour and south of generalized 4,000-ft contour in vicinity of Wyoming-Montana border (28)	0.83	66	4.08	0.45
Montana east and north of generalized 4,000-ft contour (29)	0.76	83	3.86	0.42
Snake River Valley below 5,000 ft (30)	0.85	48	2.25	0.21
Coastal Plain, Puget Sound region, and Willamette Valley below 1,000 ft (31)	0.94	146	5.47	0.62
Nonorographic region east of crest of Cascade Range (32)	0.71	50	2.07	0.25
Sacramento and San Joaquin River Valleys of California below 1,000 ft (33)	0.94	102	4.07	0.51
Coastal lowlands of California (34)	0.87	180	6.65	1.03

¹ Numbers in parentheses refer to geographic regions shown in figure 9.
² Two different equations were used in region 7. See text for explanation.

Table 5. Statistical parameters for relations used for interstation interpolation of 100-yr 24-hr precipitation values

Table 7. Statistical parameters for relations used for interstation interpolation of 2-yr 6-hr precipitation values



the station (in hundreds of feet per mile). X_2 was computed by subtracting the average height along a 90° arc centered 10 miles southwest of the station (downwind for the most prevalent storm-wind direction) from the average height along a 90° arc centered 5 miles northeast of the station (upwind for the most prevalent storm-wind direction). X_3 is the average height (in hundreds of feet) of the final crest (measured along a 10° arc) divided by the distance (in miles) between the station and the final crest. The final crest was a generalized crestline that separated the Sacramento River Basin from basins to the west; it was drawn on a 1:1,000,000 World Aeronautical Chart. Distances to the east of this crest were considered negative.

The first factor, X_1 , combines the measurements of the horizontal and vertical distances from moisture. It also measures the average slope between the station and the coast. The second factor, X_2 , is a measure of the lift imparted to the airflow in the vicinity of the station—small-scale slope. The third factor, X_3 , is a measure of large-scale lifting—large-scale slope. It can also be considered to represent the general distortion in the large-scale moist airflow caused by the major orographic barrier.

This equation explains about 84 percent of the variance in the 2-yr 24-hr precipitation values, with a standard error of estimate of 0.50 in. which is about 12 percent of the average 2-yr 24-hr precipitation value for stations in the region. Of the total variance, the first variable accounts for about 70 percent, the second, 9 percent, and the third, 4 percent. Other variables examined did not account for significant additional portions of the variance. The geographic distribution of the errors is shown in figure 11. The upper number at each station is the actual difference (in hundredths of inches) between the value computed from observed data and that estimated from the equation. The lower number is the error expressed in a percent of the 2-yr 24-hr precipitation value at the station. No discernible regional pattern in the errors was apparent. Although the factors used in this and the other equations have a physical meaning, the equation is a statistical relation of physical factors. There is no intention to imply a cause-and-effect relation. The requisite knowledge of the precipitation process is not yet available to develop equations that incorporate the dynamics of motion, condensation, and other factors to predict precipitation frequency.

The second illustrative equation was developed for the Big Horn River Basin, south of Saint Xavier, Mont. (region 9, fig. 8). Minor portions of the North Platte, Powder, Tongue, and Yellowstone River Basins were also included in this region. The equation is

$$Y = 1.497 + 0.027(X_4) + 0.002(X_5) - 0.023(X_6). \quad (2)$$

Y is the estimated 2-yr 24-hr precipitation value in inches. X_4 is the difference between the station elevation and the lowest elevation within 20 miles (in hundreds of feet). X_5 is the difference between the sum of the maximum heights within 40 miles along radials to the northwest, west, and southwest, and the sum of the maximum elevations within 40 miles along radials to the northeast, east, and southeast (in hundreds of feet). X_6 is the direction to the nearest point on the Continental Divide within the sector from southwest to north. If, however, there is a peak higher than 9,000 ft within this sector and it is closer to the station than is the Continental Divide, X_6 is the direction to this peak.

Figure 9. Regions used to develop statistical parameters for interstation interpolation of 100-yr 24-hr precipitation values.

All three variables are related to the effect of the ground slope in the vicinity of the station. The first two variables measure differences in height over small and medium distances and reflect the importance of the steepness of the slope in the precipitation process. Here, the moist airflow of large storms comes from an easterly direction, frequently associated with a cyclonic center south or southeast of the region, and ground elevation generally increases toward the west or northwest. The third variable relates the orientation of the ground slope and its effectiveness in the precipitation process to an optimum inflow direction. The total amount of the variance accounted for by this relation is about 60 percent, with a standard error of estimate of 0.21 in., or about 17 percent of the average 2-yr 24-hr precipitation value. The first variable accounts for about 41 percent of the variance; the second, 11 percent; and the last, 8 percent. The geographic distribution of the errors from this equation is shown in figure 12.

It would have been possible to include normal annual precipitation in this relation. This factor would have accounted for an additional 15 percent of the variance and a corresponding decrease in the standard error of estimate. Where this factor could be determined from data, the use of normal annual precipitation would have improved the results. As indicated earlier, the results would include some points for which short-duration precipitation data were not available. At points where such data were not available, any improvement would have been dependent on the ability to estimate normal annual precipitation. In using an equation with normal annual precipitation, the standard error of estimate incorporated in the procedure for preparing normal annual precipitation maps is combined with the standard error of estimate for the interpolating equation for 2-yr 24-hr precipitation values. When this combined error is greater than the standard error of estimate for an interpolating equation for 2-yr 24-hr precipitation that does not include normal annual precipitation, there is a loss of accuracy through use of the equation including normal annual precipitation. Within this particular region, the uncertainty in estimating normal annual precipitation at nondata points was sufficiently large and an equation developed using only topographic factors was sufficiently reliable that use of the equation containing normal annual precipitation for estimating the 2-yr 24-hr precipitation values was not justified.

Drawing of isopluvial lines on four key maps. In preparing the isopluvial maps, the computed precipitation-frequency values for all stations were plotted. In addition to the computed values, the width of the confidence band, computed according to standard statistical procedures, was plotted for the 100-yr return-period maps. Values estimated from the equations described in the preceding section were plotted for a latitude-longitude grid with 5-min grid points. The total number of grid points was approximately 47,000. Along the boundaries of each region, values were estimated by the equations applicable to each of the adjoining regions.

In the construction of isopluvial lines, the question arises as to how much the station and grid-point data should be smoothed for the most effective use of the maps. When drawing the isopluvial lines through the field of grid points and station data, the standard error of estimate for the various multiple regression equations and the confidence band about the station data must be considered. Also, smoothing between adjoining regions, where multiple regression equations give somewhat different values at the boundary

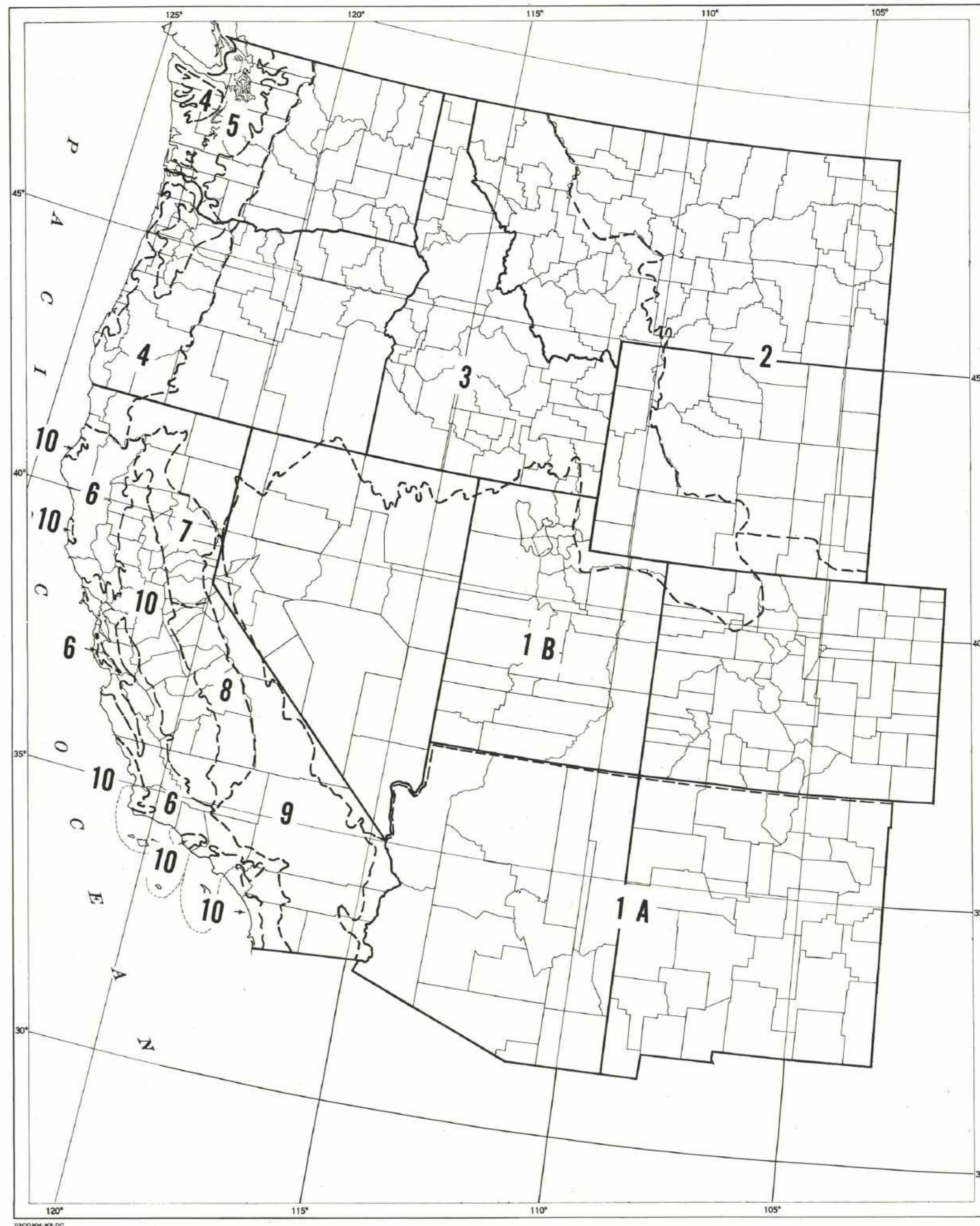


Figure 10. Regions used to develop statistical parameters for interstation interpolation of 2-yr and 100-yr 6-hr precipitation values.

Table 8. Statistical parameters for relations used for interstation interpolation of 100-yr 6-hr precipitation values

Region of applicability*	Corr. coeff.	No. of stations	Mean of computed stn. values (inches)	Standard error of estimate (inches)
Arizona, New Mexico, and lower Colorado River Basin in southeastern California (1a)	0.91	103	3.16	0.50
Nevada south of the Snake River Basin, Utah south of the Snake and Bear River Basins, and Colorado south of the Yampa and North Platte River Basins (1b)	0.91	144	2.34	0.47
Montana and Wyoming east of a generalized crestline extending along the Continental Divide in northern Montana, the Crazy and Little Belt Mountains, the Absaroka Range, and the Continental Divide in southern Wyoming (2)	0.92	110	2.62	0.31
Region north of the southern boundaries of the Snake, Bear, and Yampa River Basins and between a generalized crestline of the Cascades and a generalized crestline extending along the Continental Divide in northern Montana, the Crazy and Little Belt Mountains, the Absaroka Range, and the Continental Divide in southern Wyoming and northern Colorado (3)	0.79	120	1.62	0.22
Orographic regions of western Washington, Oregon, and California from the crest of the Cascade Range to the Pacific Ocean extending southward to include the area drained by the Klamath and Salmon Rivers in northern California (4)	0.89	57	2.98	0.33
Nonorographic coastal lowlands of Washington and Oregon (5)	0.91	59	2.49	0.31
Coastal mountains of California from the Trinity River Basin in the north to the Mexican border (6)	0.97	87	3.95	0.39
Northern Sierra Nevada north of Mokelumne River Basin (7)	0.93	31	3.81	0.45
Southern Sierra Nevada south of Consumnes River Basin (8)	0.93	26	3.87	0.50
Spillover zone east of the crests of the Sierra Nevada and the coastal mountains of southern California and the southeastern desert region of California (9)	0.84	25	2.29	0.36
Coastal lowlands and San Joaquin and Sacramento Valleys of California (10)	0.87	71	2.98	0.41

* Numbers in parentheses refer to geographic regions shown in figure 10.

Factors (by category)	Number of equations using factor	Percent of equations using factor	Number of times each factor used	Percent of total number of times each factor used
Slope	4	40	10	38
2-yr 24-hr precipitation	7	70	7	27
Location (latitude or longitude)	4	40	4	15
Elevation	3	30	3	12
Barrier to airflow	1	10	1	4
Distance to moisture	1	10	1	4

Table 9. Factors most useful in relations for interstation interpolation of 2-yr 6-hr precipitation values

Factors (by category)	Number of equations using factor	Percent of equations using factor	Number of times each factor used	Percent of total number of times each factor used
2-yr 6-hr precipitation	5	55	5	23
100-yr 24-hr precipitation	4	36	4	19
Elevation	4	36	4	19
Slope	4	36	4	19
2-yr 24-hr precipitation	1	9	1	5
Normal annual precipitation	1	9	1	5
Distance to moisture	1	9	1	5
Location	1	9	1	5

Table 10. Factors most useful in relations for interstation interpolation for 100-yr 6-hr precipitation values

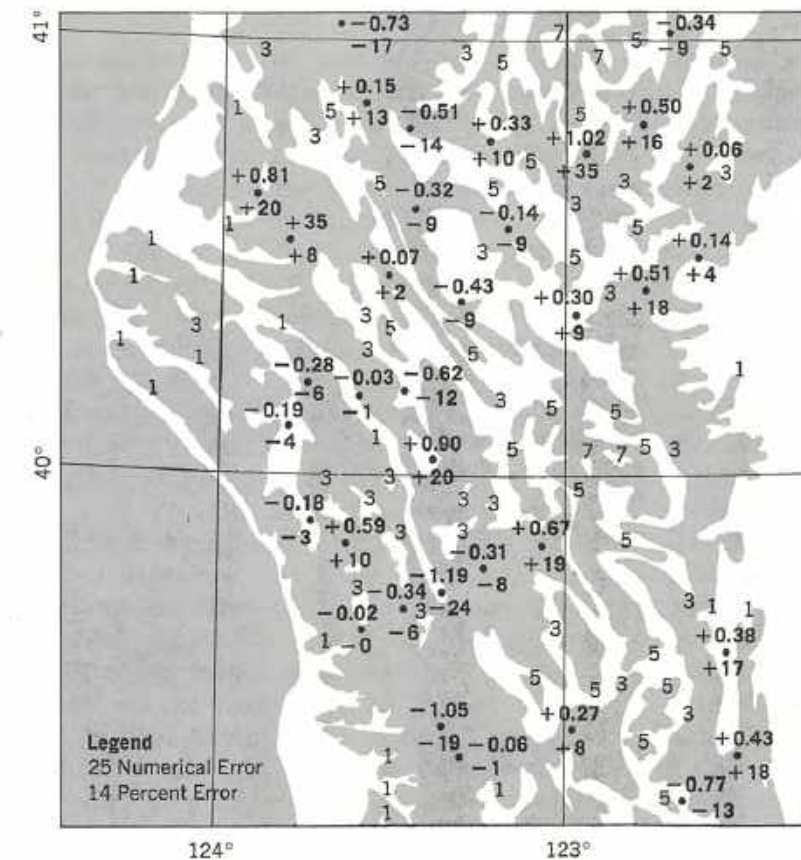
lines, must be considered separately. Isolines can be drawn to fit every point plotted on the map, although this would not allow for some of the random differences between adjoining grid points that result from errors in the multiple regression equation or sampling errors in station data. Also, the coarseness of even a 5-min latitude-longitude grid is such that sometimes narrow ridges and valleys are missed. Because of these considerations, occasionally it was necessary to make additional computations for such locations. Some subjective smoothing must be used to make allowances for factors that could not be expressed quantitatively.

In analysis, smoothness and closeness of fit are basically inconsistent in that smoothing cannot be carried beyond a certain point without some sacrifice of closeness of fit and vice versa. As the isolines were drawn, the sampling error of the station values and the standard error of estimate were considered.

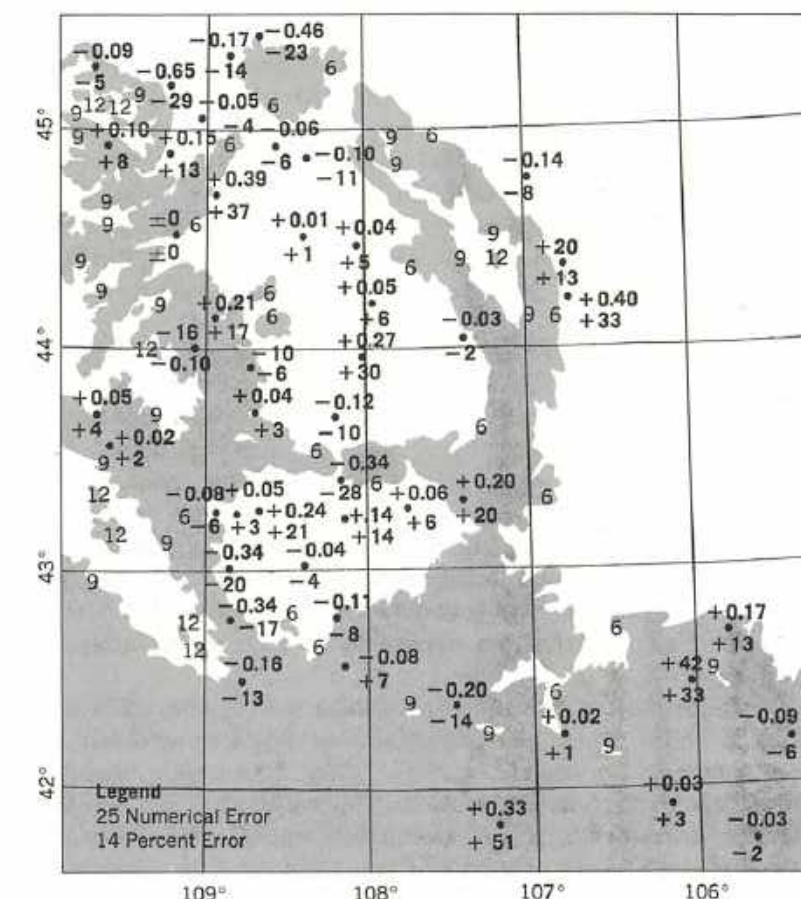
Additional working maps. Additional working maps were prepared showing the 100- to 2-yr ratios for the 6- and 24-hr durations and the 6- to 24-hr ratios for the 2- and 100-yr return periods. To minimize the exaggerated effect of an outlier (anomalous event) from a short record, only data from those stations with a minimum record length of 20 yrs for the 6- and 24-hr durations at the 100-yr return period were used in these working maps. Experience has shown that for long-record station data, the ratio of 6- to 24-hr values for the same return period and the 100- to 2-yr ratio for the same duration do not vary greatly over relatively large areas. The variation present is consistent with the variations in relations between meteorologic and topographic characteristics. Climatic factors that provide general guides on variations of precipitation-frequency values were examined and considered in a qualitative sense. Among these factors are the mean annual number of thunderstorm days (U.S. Weather Bureau 1952, 1947), normal monthly number of days above various threshold values (Environmental Science Services Administration, Weather Bureau, 1966), and mean number of days with rain (Environmental Science Services Administration, Environmental Data Service 1968).

Intermediate maps. The 47,000-point grid described earlier was also used in the analysis of the isopluvial patterns of the eight intermediate maps. These maps—for 5-, 10-, 25-, and 50-yr return periods for 6- and 24-hr durations were prepared primarily for the convenience of the user, because it is technically sufficient to provide two points of the frequency curve for a particular duration and to describe the method of interpolation. Four values, one from each of the four key maps, were read for each grid point. These four values were used in a computer program based on the return-period diagram (fig. 6) to compute values for eight additional maps. The key maps were used as underlays to maintain the basic isopluvial pattern on all maps.

Figure 11. Geographic distribution of errors for equation used to interpolate 2-yr 24-hr precipitation values for the Eel River Basin; southern portion of Klamath River Basin; and Cottonwood, Elder, Thomas; and Gladstone Creeks, California.



Eel River Basin



Big Horn River Basin

Figure 12. Geographic distribution of errors for equation used to interpolate 2-yr 24-hr precipitation values for the Big Horn River Basin above Saint Xavier, Montana; minor portions of the North Platte, Powder, and Tongue River Basins in eastern Wyoming; and minor portions of the Yellowstone River Basin in northwestern Wyoming and southeastern Montana.

Interpretation of Results

Season of Occurrence

The maps in this Atlas are based upon data for the entire year. In certain sections of the West, precipitation is highly seasonal. Thus, rainy season precipitation-frequency values approach the annual values. In sections where the greatest annual n -hour precipitation amount may be observed in any season, seasonal precipitation-frequency maps would differ from those presented in this Atlas. In no case could the seasonal value be greater than the annual value. However, the seasonal values would be a certain percent of the annual values, with the percent varying according to the frequency of large storms during the season under investigation. Generalizations about the seasonal distribution of large storms can be obtained from ESSA, *U.S. Weather Bureau Technical Paper No. 57* (Environmental Science Services Administration, Weather Bureau, 1966). Currently, there is no convenient manner of applying this knowledge to the maps of this Atlas, other than subjectively.

Within Vs. Among Storms

Data for the various duration maps and diagrams in this Atlas were determined independently; that is, there was no requirement that the maximum 6- or 1-hr amount for a particular year be included within the maximum 24-hr amount for that year. The maps, therefore, represent an "among" storm distribution. In regions where winter-type storms predominate, the 6-hr value for a particular return period would more closely approximate the 6-hr value within the 24-hr storm for the same return period than would generally be the case in regions where convective storms predominate. In a study for the United States east of the Mississippi River, Miller (1971) showed that the ratio between the 2-yr 1-hr value computed from the maximum 1-hr amount within the 24-hr maximum and the 2-yr 1-hr value computed using maximum 1-hr amounts varied between 0.52 and 0.91. Studies have not been undertaken of this relation in the West, but a wide range in such ratios and similar ratios for the 6-hr duration could be expected.

Point Probabilities

The maps in this Atlas are derived from and depict point probabilities; the data points are independent of each other. Precipitation over a region is variable, even in large general area storms; neighboring stations do not necessarily experience maximum annual amounts from the same storm. Thus, the individual points on these maps express individual probabilities. That a point within a particular watershed may receive an amount equal to or greater than its 50- or 100-yr value on a particular day does not affect probabilities for any other point within that watershed. A second point within the watershed may experience an amount equal to or greater than its 50- or 100-yr value within the same storm or on the next day, within the next week or at any other time.

Areal Analysis

A value read from an isopluvial map in this Atlas is the value for that point and the amount for that particular duration which will be equaled or exceeded, on the average, once during the period indicated on the individual map. In hydrologic design, engineers are more concerned with the average depth of precipitation

over an area than with the depth at a particular point. Depth-area curves were developed to meet this need. The depth-area curve is an attempt to relate the average of all point values for a given duration and frequency within a basin to the average depth over the basin for the same duration and frequency.

Generally, there are two types of depth-area relations. The first is the storm-centered relation; that is, the maximum precipitation occurring when the storm is centered on the area affected (fig. 13). The second type is the geographically fixed-area relation where the area is fixed and the storm is either centered over it or is displaced so only a portion of the storm affects the area (fig. 13). We can say that storm-centered rainfall data represent profiles of discrete storms, whereas the fixed-area data are statistical averages in which the maximum point values frequently come from different storms. At times, the maximum areal value for the network is from a storm that does not produce maximum point amounts. Each type of depth-area relation is useful, but each must be applied to appropriate data. Generally, the storm-centered relations are used for preparing estimates of probable maximum precipitation, while the geographically fixed relations are used for studies of precipitation-frequency values for basins.

Dense networks of precipitation gages are required to furnish basic data used in developing depth-area relations for fixed areas. The criteria used in selecting dense networks for the determination of areal precipitation-frequencies by the National Weather Service have been:

1. A network should be composed entirely of recording gages. The use of nonrecording gages may greatly increase the number and density of stations within a network, but it involves the construction of mass curves and introduces additional subjectivity. Nonrecording gages are read at various hours, usually early morning, late afternoon, or midnight. Because of conflicting activities, a cooperative observer may not always be able to read his precipitation gage at the exact hour specified. In these cases, the exact time of the observation may not be available, so it is hard to relate the reported amounts to those of surrounding stations with the precision required for development of depth-area relations.
2. A minimum length of record should be established to ensure a reasonable estimate of the 2-yr areal precipitation.
3. Gage locations and exposures should remain consistent during the period of record analyzed.
4. Gages should be located so that there is at least one gage located within each 100 square-mile area.

The average depth-area curves in this Atlas (fig. 14) are for fixed areas and were developed from dense networks meeting the above criteria. The curves were first prepared for an earlier study (U.S. Weather Bureau 1957-60) and have since been rechecked against longer record data; no changes were needed. Application of these curves must be consistent with the manner in which they were developed. The following steps are used:

1. Estimate point values from a grid of many points over the basin of interest for the duration and return period required.
2. Compute an average of the point values obtained in step 1.
3. Use figure 14 to obtain an areal reduction factor required for the precipitation duration and size of area under consideration.
4. Multiply the average value obtained in step 2 by the ratio obtained in step 3. The value obtained in this step provides the areal value for the basin of interest for the duration and return period under consideration.

Figure 13. Examples of (A) isohyetal pattern centered over basin as would be the case for storm-centered depth-area curves and (B) two possible occurrences of isohyetal patterns over a geographically fixed area as would be the case in development of curves for a geographically fixed area.

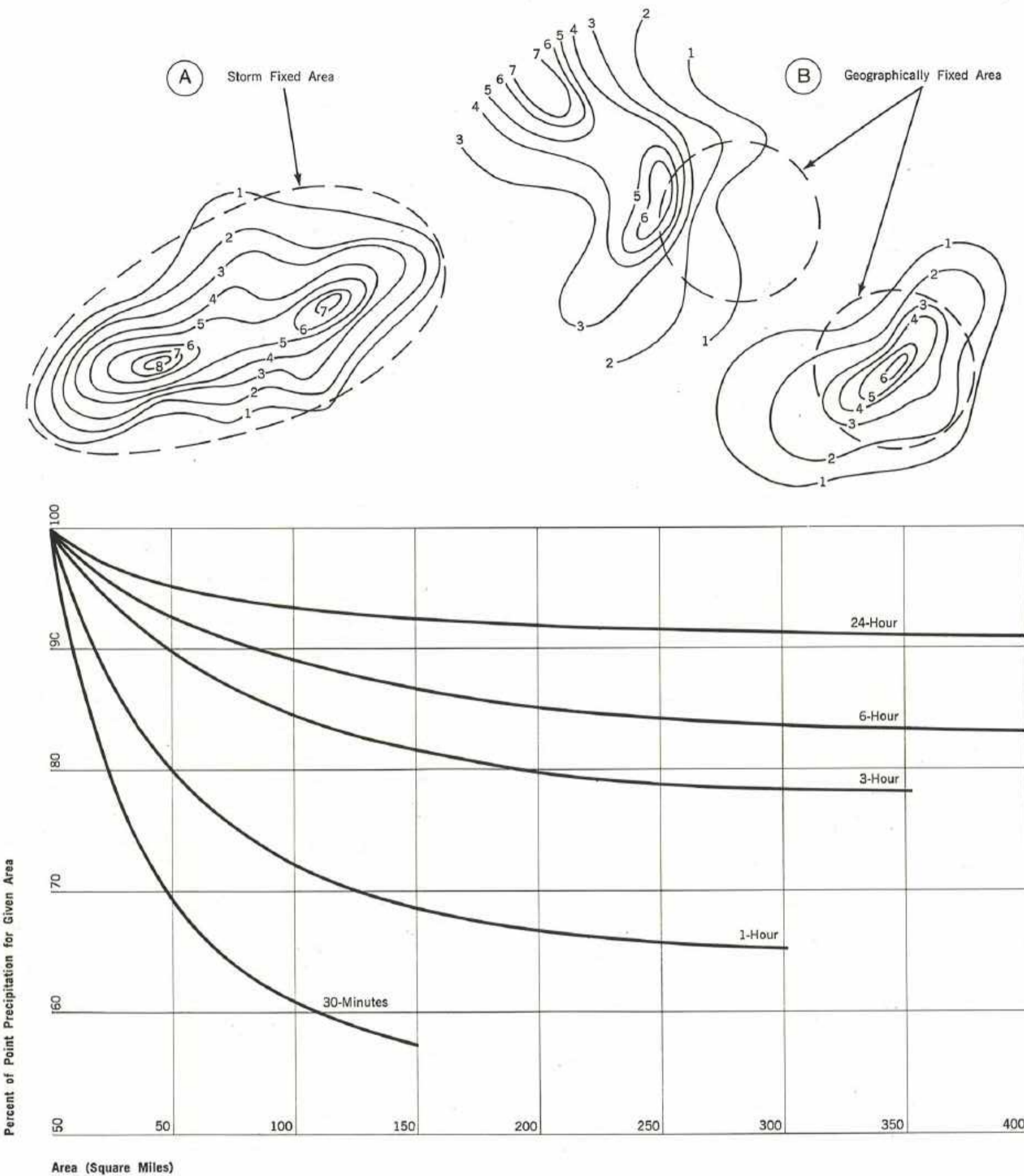


Figure 14. Depth-Area curves.

Data used to develop and validate the curves of figure 14 exhibited no systematic regional pattern. Duration turned out to be the major factor. The curves shown are based on data for the 2-yr return period. Within the accuracy of the data available, it could be shown that neither magnitude nor return period was a significant factor.

Importance of Snow in Estimating Frequency Values

The contribution of snow amounts to the precipitation-frequency values for durations of 24 hours or less has been investigated in most of the western United States. In many parts of this region, particularly at higher elevations, snow accounts for over 50 percent of the normal annual precipitation. Thus, the importance of snowfall to short-duration (6- to 24-hr) precipitation-frequency values is of interest for a more complete understanding of the precipitation-frequency regime.

Mean annual precipitation containing a high percentage of snow occurrences does not necessarily mean that snow contributed significantly to the annual series of maximum 6- or 24-hr precipitation amounts. This problem was investigated by tabulating two sets of data for all stations where snowfall observations were made routinely. The first set of data contained the greatest 24-hr (and 6-hr amounts at recording-gage stations) precipitation amount for each year, regardless of type of precipitation (water equivalent for snowfall amounts). The second series was restricted solely to rainfall events. In some cases, the second series contained amounts as low as the fifth highest for a particular year. Results of these investigations are reported in the section for each state.

Reliability of Results

The term "reliability" is used here as an indication of the degree of confidence that can be placed in the accuracy of the results obtained from the maps. The reliability of these results is influenced by the sampling errors in time and space, and by the manner in which the maps were constructed. Sampling errors in time and space result from: (1) the chance occurrence of an anomalous storm which has a disproportionate effect on the statistics for one station, but not on those for a nearby station, and (2) the geographic distribution of stations. In the relatively nonorographic regions (shown shaded on fig. 8), the occurrence of large precipitation events can be considered to be relatively random over a limited geographic area. Thus, a large precipitation event (especially of convective nature) at a station could just as easily have occurred at a neighboring station or between stations. Results from a generalized analysis based on space-averaging techniques are considered more nearly correct than results determined from an analysis of only individual station data. In the more mountainous regions, orography has greater control on the location and magnitude of the largest storms and simple space averaging between neighboring stations is inappropriate; consideration must be given to effects of the slopes of surrounding terrain, station elevations, the intervening barrier between station location and moisture source, etc.

The locations of the stations used in the analyses are shown in figures 3 and 4. This geographic network of stations does not reveal with complete accuracy the very detailed structure of the isopluvial patterns in the mountainous regions of the West. The multiple regression equations discussed earlier were used to help in interpolation between values computed for these stations. The standard error of estimate for these relations should be considered when using the precipitation-frequency values shown on the maps. In general, the accuracy of the estimates obtained from the maps of this Atlas varies from a minimum of about 10 percent for the shorter return periods in relatively nonorographic regions to 20 percent for the longer return periods in the more rugged orographic regions.

The values shown on these maps are in general agreement with those of *Weather Bureau Technical Paper No. 40* (U.S. Weather Bureau 1961). Differences are found because of the greater attention paid to physiographic features in the present study. Even though the precipitation-frequency maps presented are prepared considering physiographic factors, only those of a major scale could be considered. There are some basins, therefore, that are more sheltered or exposed than a generalized topographic map would indicate. The map values may not be representative of the precipitation regimes in such basins.

The major centers of large precipitation-frequency values are located on the most exposed and steepest slopes of the mountains. Objective studies (such as the regression analysis previously discussed) and experience in precipitation-frequency analysis have indicated some general guidelines for the placement of isopluvial centers along crests and on slopes of mountain ranges. Two examples will serve to illustrate such guidelines. For an initial completely exposed orographic barrier, where the crest of the range was 3,000 to 4,000 ft. above the plains region to the windward of the mountain and the slope was on the order of 300 ft per mile, the largest isopluvial line should extend past the crest and include a

little of the lee side of the mountain. Where the crest of the range was 8,000 to 10,000 ft above the plains region to the windward of the mountain range and the slope was on the order of 1,000 ft per mile, the isopluvial center would generally be about 4,000 to 6,000 ft above the plains region. For mountain ranges with crests and slopes having other combinations of these values, the placement of the highest precipitation-frequency values would depend upon the degree of exposure of the mountain range to moisture-bearing wind, the steepness of the slope, the height of the crest, and other orographic factors. In general, isopluvial centers for the longer return periods tend to be located at lower elevations than the centers for the shorter return periods. The distance downslope that the center is displaced depends on the exposure and steepness of the slope. Centers will be displaced less on a steep slope than on a gentle slope similarly exposed.

Oregon

Discussion of Maps

Figures 19 through 30 present precipitation-frequency maps for Oregon for 6- and 24-hr durations for return periods of 2, 5, 10, 25, 50, and 100 yrs. The isopleth maps represent the 360- and 1,440-min durations for the partial-duration series. Data were tabulated for clock and observation-day intervals for the annual series and were adjusted by the empirical factors given in the ANALYSIS section.

Isoline interval. The isoline intervals selected were designed to provide a reasonably complete description of the isopleth pattern in various regions of the state. For that portion of Oregon that extends from the eastern foothills of the Cascade Range westward to the coast, the isoline interval for the 24-hr duration is 0.5 in. for precipitation-frequency values below 8.0 in., with an interval of 1.0 in. above that value at the 2- and 5-yr return period. For the 10- through 100-yr return period, the 7.0-in. precipitation-frequency value separates the 0.5-in. and 1.0-in. intervals. At the 6-hr duration, the isoline interval in this part of the State is 0.1 in. below a precipitation-frequency value of 1.4 in. and 0.2 in. from 1.4 to 3.0 in. Above 3.0 in., the interval is 0.4 in. for 2- through 25-yr return periods and 0.5 in. for return periods of 50 and 100 yrs. For that portion of the state east of the eastern foothills of the Cascade Range, the isoline interval on the 24-hr precipitation-frequency maps is 0.2 in. for values up to 3.0 in. and 0.4 in. for values over 3.0 in. On the maps for the 6-hr duration, the interval is 0.1 in. for values to 1.6 in. on the 2- to 25-yr return periods and to 1.4 in. at the 50- and 100-yr return periods. From 1.6 in. (or 1.4 in. for the 50- and 100-yr maps) to 3.0 in., the isoline interval is 0.2 in. and above 3.0 in. the interval is 0.4 in. Dashed intermediate lines have been placed between widely separated isolines and in regions where a linear interpolation between the normal isopleth interval would lead to erroneous interpolation. "Lows" that close within the boundaries of a particular map have been hatched on the low-valued side of the isoline.

Importance of snow in precipitation-frequency values. The maps in this Atlas represent frequency values of precipitation regardless of type. For many hydrologic purposes, precipitation falling as rain must be treated in a different manner from that falling as snow. The contribution of snow amounts to precipitation-frequency values in Oregon and the Pacific Northwest (roughly Idaho, Oregon, Washington, and small adjacent portions of California and Nevada) was investigated. In this area, there were 179 stations having 10 to 15 yrs of observations of snowfall as part of the precipitation observing program. Sixty-two of these stations are in Oregon. Table 11 shows the distribution of these stations by regions considered to be more meteorologically realistic than are state boundaries. For each of the 179 stations (56 of which were equipped with recording precipitation gages), two data series were formed as discussed under Interpretation of Results, Importance of Snow in Estimating Frequency Values.

A ratio was formed of the 2-yr 24-hr value for the series containing maximum annual events without regard to type of precipitation and the 2-yr 24-hr value for the series with snow occurrences eliminated. At more than 75 percent of the stations in the Pacific Northwest, this ratio showed differences between the two series to be 10 percent or less. A similar ratio for the 25-yr return period showed a difference as great as 10 percent at only about 5 percent of the stations. Further analysis was made for stations having ratios that showed the greatest difference between the two series.

Data from stations in the coastal plains region of Washington and Oregon (Region 31, fig. 9) showed that the maximum annual 24-hr event can contain snow, but such a case occurs only about 5 percent of the time. Less than half the stations within this region had any maximum annual event that included snow, and ratios for all durations and stations showed less than 10 percent difference between the two data series. Thus, snow was not considered to be of importance to precipitation-frequency values in this region.

Most of the mountainous portions of Oregon are included within Regions 13 and 14 of figure 9. In these regions, it is not unusual for the maximum annual event to include some snow or

even to be composed of all or mostly snow. However, the areas where such events cause major differences between the series of all precipitation data regardless of type and the series composed exclusively of rain are relatively limited in extent. These areas are at the higher elevations of the Cascades and immediately to the lee of the crest of the Cascades. In this area of Washington and Oregon, data are available from about 20 stations ranging in elevation from 2,000 ft to over 6,500 ft. These data indicate that the 2-yr 24-hr values for a series containing only rain events would be 10 to 20 percent lower than the values presented on the precipitation-frequency maps in this Atlas at elevations of 2,000 to 4,000 ft, and the differences would range upward to 30 and possibly as much as 50 percent lower above 5,000 ft. The area to the lee of the crest of the Cascades would be limited to somewhat less than 50 mi in width; and in this narrow band, the rain-only series would be from 20 to as much as 35 percent less than the values presented on the 2-yr 24-hr map for Oregon.

Data from stations in the nonorographic regions east of the Cascades (Region 32, fig. 9) show snow to be of minor importance in the precipitation-frequency regime. Less than one maximum annual value out of every five will contain any snow, and 80 percent of the stations available for analysis showed differences of less than 10 percent in the two series of data tabulated.

The remainder of Oregon is included within Region 12, figure 9. Most of this region lies in Idaho. Analysis of the data for this region leads to the conclusion that snow is not an important factor in the precipitation-frequency regime. Ratios between 2-yr 24-hr values from the two series of data that were tabulated showed differences between the two series to be mostly small. It was found that maximum annual values that contained snow were most likely to be found in the lower two-thirds of the ranked data sample. This is discussed in more detail in NOAA Atlas 2, "Precipitation-Frequency Atlas of Western United States, Volume V—Idaho" (National Oceanic and Atmospheric Administration 1973).

The data analysis of the two series showed that the curves converge with increasing return period. At the 25-yr return period,

only about 5 percent of the 179 stations showed differences greater than 10 percent between the two series. These stations were not concentrated in any region and did not show a geographic pattern. Generally, such differences result when one or a few of the larger values in the data series composed of all maximum annual events contains some snow, while the rain-only amount for that year is small and becomes a much lower ranked value in the exclusively rain series.

At the 6-hr duration, the data are restricted to stations with recording gages (12 recording precipitation-gage stations in Oregon). An analysis similar to that for the 24-hr duration showed that the ratio of the maximum annual series and the series without snow was lower at the 6-hr duration than at the 24-hr duration. This is meteorologically realistic since the portion of a 24-hr storm that contains snow is most likely to be of less intensity than is the maximum 6-hr period of that storm.

The conclusion was made that, except as previously noted, the elimination of amounts containing snow does not materially change the precipitation-frequency values on maps for Oregon. For the 24-hr duration where there are differences between results computed from the two series at the 2-yr return period, the differences would decrease to no more than half as large at the 25-yr recurrence interval and be negligible at the 100-yr recurrence interval.

In the selection of data for the series made up of amounts containing rain only, an observation was eliminated no matter how much snow was reported. Thus, an eliminated amount could have contained only a small portion of the precipitation as snow or it could have been all snow. In some cases, the amount of rain in a storm with little snow could have been greater than the value actually selected for that year since only a few stations report water content of snow (which would have enabled the tabulator to segregate such cases). Thus, the data could yield rain-only values actually less than the true amount but could not give results greater than the true amount. Therefore, the ratios compared tended to show maximum differences.

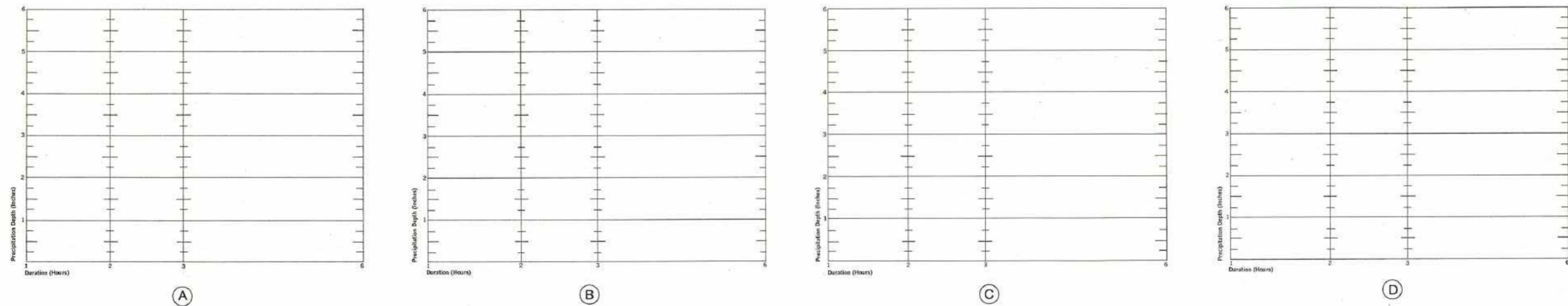


Figure 15. Precipitation depth-duration diagram (1- to 6-hr).
a. Mountainous regions of Washington and Oregon east of crest of Cascade Range and of Idaho and Montana west of Continental Divide and north of southern boundary of Snake River Basin (Region 1, fig. 18).

b. Nonorographic region east of crest of Cascade Range (Region 2, fig. 18).

c. Coastal plains, Puget Sound region, and Willamette Valley below 1,000 ft (Region 3, fig. 18). Olympic Mountains, western slopes of Cascade and Coast Ranges (Region 4 fig. 18).

d. Southeastern Oregon drained by the Quinn River (Region 5, fig. 18).

Table 11. Percent of snowfall stations in Pacific Northwest by regions

Number of region in figure 9	Region	Percent of stations
12	Mountainous region of Idaho west of Bitterroot Range crest and Continental Divide and north of southern boundary of Snake River Basin—excluding Snake River Valley below a generalized 5,000-ft contour	30
13	Orographic region east of crest of Cascade Range and west of Snake River Basin	20
14	Olympic Mountains and western slopes of Coast and Cascade Ranges	14
30	Snow River Valley below 5,000 ft	13
31	Coastal Plain, Puget Sound region, and Willamette Valley below 1,000 ft	12
32	Nonorographic region east of crest of Cascade Range	11

Procedures for Estimating Values for Durations Other Than 6 and 24 Hrs

The isopleth maps in this Atlas are for 6- and 24-hr durations. For many hydrologic purposes, values for other durations are necessary. Such values can be estimated using the 6- and 24-hr maps and the empirical methods outlined in the following sections. The procedures detailed below for obtaining 1-, 2-, and 3-hr estimates were developed specifically for this Atlas. The procedures for obtaining estimates for less than 1-hr duration and for 12-hr duration were adopted from *Weather Bureau Technical Paper No. 40* (U.S. Weather Bureau 1961) only after investigation demonstrated their applicability to data from the area covered by this Atlas.

Procedures for estimating 1-hr (60-min) precipitation-frequency values. Multiple-regression screening techniques were used to develop equations for estimating 1-hr values. Factors considered in the screening process were restricted to those that could be determined easily from the maps of this Atlas or from generally available topographic maps.

The 11 western states were separated into several geographic regions. The regions were chosen on the basis of meteorological and climatological homogeneity and are generally combinations of river basins separated by prominent divides. Five of these geographic regions are partially within Oregon. For convenience and use as an overlay on the precipitation-frequency maps, the regions are outlined on figure 18. The first region includes the mountainous sections of eastern Oregon east of the crest of the Cascades (Region 1, fig. 18). This is part of a larger region that includes all the mountainous sections from the crest of the Cascades eastward to the Continental Divide and north of the southern boundary of the Snake River Basin. Region 2, figure 18, is the essentially nonorographic portions of eastern Oregon. There are three such nonorographic regions between the crest of the Cascades and the Continental Divide found to have similar relations between data for 1-, 6-, and 24-hr durations. One of these is completely within Oregon, whereas the other two extend partially into Oregon from Washington and Idaho. The coastal lowlands and nonorographic sections of western Washington and Oregon below 1,000-ft elevation make up another region (Region 3, fig. 18). This includes the Willamette Valley below 1,000 ft. The fourth region consists of the western slopes of the Cascade and the Coast Ranges of Oregon (Region 4, fig. 18). This region extends into Washington, where it also includes the Olympic Mountains. Region 5, figure 18, in southeastern Oregon is a small portion of a region that extends from central Utah through Nevada and into the desert regions of California. In Oregon, this is the area drained by the Quinn River. Equations to provide estimates for the 1-hr duration for the 2- and 100-yr return periods are shown in table 12. Also listed are the statistical parameters associated with each equation. The variable $[(X_1)(X_2/X_3)]$ or $[X_3](X_2/X_4)$ can be regarded as the 6-hr value times the slope of a line connecting the 6- and 24-hr values for the appropriate return period. The variable Y_2 appears in the right side of the 100-yr 1-hr equations for Regions 3 and 4. If the 2-yr 1-hr value is not required, the equation for Y_2 can be substituted and the second equation for Y_{100} shown in table 12 can be used.

As with any separation into regions, the boundary can only be regarded as the sharpest portion of a zone of transition between regions. These equations have been tested for boundary discontinuities by computing values using equations from both sides of the boundary. Differences were found to be mostly under 15 percent. However, it is suggested that when computing estimates along or within a few miles of a regional boundary computations be made using equations applicable to each region and that the average of such computations be adopted.

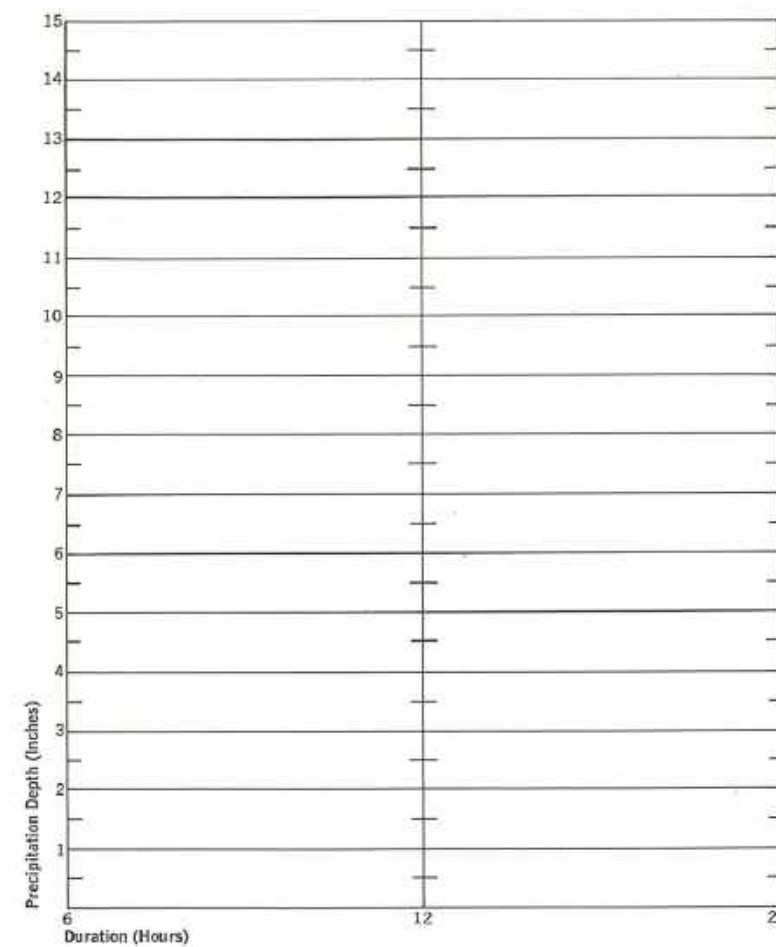


Figure 16. Precipitation depth-duration diagram (6- to 24-hr).

Illustration of Use of Precipitation-Frequency Maps, Diagrams, and Equations

To illustrate the use of these maps, values were read from figures 19 to 30 for the point at 44°00' N. and 118°00' W. These values are shown in boldface type in table 14. The values read from the maps should be plotted on the return-period diagram of figure 6 because (1) not all points are as easy to locate on a series of maps as are latitude-longitude intersections, (2) there may be some slight registration differences in printing, and (3) precise interpolation between isolines is difficult. This has been done for the 24-hr values in table 14 (fig. 17a) and a line of best fit has been drawn subjectively. On this nomogram, the 2- and 25-yr values appear to be somewhat off the line. The value read from the maps is corrected (as shown by the strikeout in table 14); such corrected values are adopted in preference to the original readings.

The 2- and 100-yr 1-hr values for the point were computed from the equations applicable to Region 2, figure 18 (table 12) since the point is in the nonorographic region. The 2-yr 1-hr is estimated at 0.37 in. (latitude of 44° and longitude of 118° and the 2-yr 6- and 24-hr values from table 14); the estimated 100-yr 1-hr value is 1.07 in. (100-yr 6- and 24-hr values from table 14). By plotting these 1-hr values on figure 6 and connecting them with a straight line, one can obtain estimates for return periods of 5, 10, 25, and 50 yrs.

The 2- and 3-hr values can be estimated by using the proper nomogram of figure 15 or equations (5) and (6). The 1- and 6-hr values for the desired return period are obtained as above. Plot these points on the nomogram in figure 15 and connect them with a straight line. Read the estimates for 2 or 3 hrs at the intersections of the connecting line and the 2- and 3-hr vertical lines. An example is shown in figure 17b for the 2-yr return period. The 2-yr 2-hr (0.50 in.) and 2-yr 3-hr (0.55 in.) values are in italics in table 14 and compare closely with the values of 0.47 and 0.57, which would result from application of equations (5) and (6).

Estimates of 1-hr precipitation-frequency values for return periods between 2 and 100 yrs. The 1-hr values for the 2- and 100-yr return periods can be plotted on the nomogram of figure 6 to obtain values for return periods greater than 2 yrs or less than 100 yrs. Draw a straight line connecting the 2- and 100-yr values and read the desired return-period value from the nomogram.

Estimates for 2- and 3-hr (120- and 180-min) precipitation-frequency values. To obtain estimates of precipitation-frequency values for 2 or 3 hrs, plot the 1- and 6-hr values from the Atlas on the appropriate nomogram of figure 15. Draw a straight line connecting the 1- and 6-hr values, and read the 2- and 3-hr values from the nomogram. This nomogram is independent of return period. It was developed using data from the same regions used to develop the 1-hr equations.

The mathematical solution from the data used to develop figure 15 gives the following equations for estimating the 2- and 3-hr values:

- For Region 1, 2-hr = 0.250 (6-hr) + 0.750 (1-hr) (3)
- figure 18 3-hr = 0.467 (6-hr) + 0.533 (1-hr) (4)
- For Region 2, 2-hr = 0.278 (6-hr) + 0.722 (1-hr) (5)
- figure 18 3-hr = 0.503 (6-hr) + 0.497 (1-hr) (6)
- For Regions 3 2-hr = 0.240 (6-hr) + 0.760 (1-hr) (7)
- and 4, figure 18 3-hr = 0.468 (6-hr) + 0.532 (1-hr) (8)
- For Region 5, 2-hr = 0.299 (6-hr) + 0.701 (1-hr) (9)
- figure 18 3-hr = 0.526 (6-hr) + 0.476 (1-hr) (10)

Estimates for 12-hr (720-min) precipitation-frequency values. To obtain estimates for the 12-hr duration, plot values from the 6- and 24-hr maps on figure 16. Read the 12-hr estimates at the intersection of the line connecting these points with the 12-hr duration line of the nomogram.

Estimates for less than 1 hr. To obtain estimates for durations of less than 1 hr, apply the values in table 13 to the 1-hr value for the return period of interest.

Table 12. Equations for estimating 1-hr values in Oregon with statistical parameters for each equation

Region of applicability*	Equation	Corr. coeff.	No. of stations	Mean of computed stn. values (inches)	Standard error of estimate (inches)
Mountainous regions of Washington and Oregon east of crest of Cascade Range and of Idaho and Montana west of Continental Divide and north of southern boundary of Snake River Basin (1)	$Y_2 = 0.019 + 0.711[(X_1)(X_2/X_3)] + 0.001Z$	0.82	98	0.40	0.031
	$Y_{100} = 0.338 + 0.670[(X_3)(X_3/X_4)] + 0.001Z$	.80	79	1.04	.141
Nonorographic region east of crest of Cascade Range (2)	$Y_2 = 0.077 + 0.715[(X_1)(X_2/X_3)] - 0.0004(X_5)(X_6)$	.86	30	0.35	.034
	$Y_{100} = 0.187 + 0.833[(X_3)(X_3/X_4)]$	.87	30	1.08	.161
Coastal plains, Puget Sound region, and Willamette Valley below 1,000 ft (3)	$Y_2 = 0.157 + 0.513[(X_1)(X_2/X_3)]$	.89	61	0.52	.050
	$Y_{100} = 0.324 + 0.752[(Y_2)(X_3/X_4)]$	.82	61	1.01	.113
	$Y_{100} = 0.324 + 0.118(X_3/X_1) + 0.386[(X_1)(X_3/X_2)]$				
Olympic Mountains, western slopes of Cascade and Coast Ranges (4)	$Y_2 = 0.160 + 0.520[(X_1)(X_2/X_3)]$	.86	70	0.54	.054
	$Y_{100} = 0.177 + 0.965[(Y_2)(X_3/X_4)]$	.74	66	1.10	.171
	$Y_{100} = 0.177 + 0.154(X_3/X_1) + 0.502[(X_1)(X_3/X_2)]$				
Southeastern Oregon drained by the Quinn River (5)	$Y_2 = 0.005 + 0.852[(X_1)(X_2/X_3)]$	.89	65	0.41	.047
	$Y_{100} = 0.322 + 0.789[(X_3)(X_3/X_4)]$	.87	65	1.25	.196

* Numbers in parentheses refer to geographic regions shown in figure 18. See text for more complete description.

List of variables

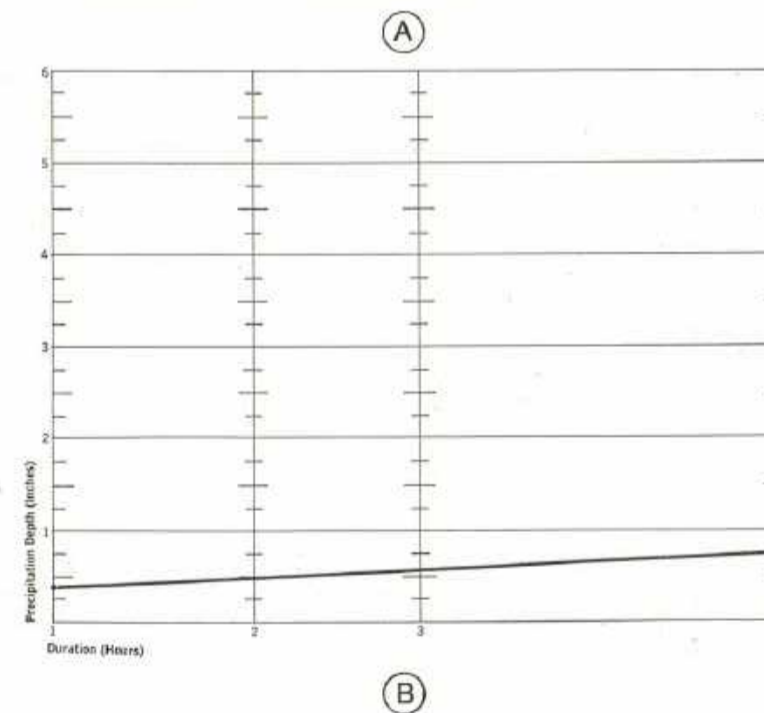
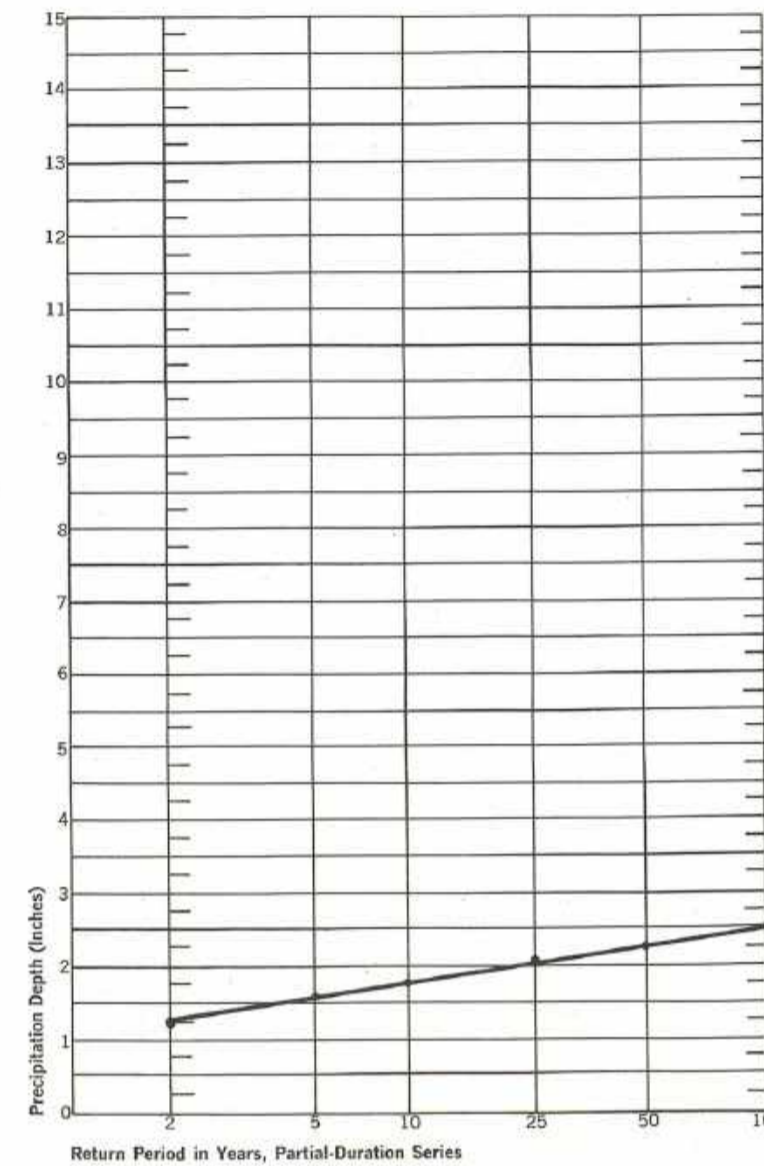
- Y_2 = 2-yr 1-hr estimated value
- Y_{100} = 100-yr 1-hr estimated value
- X_1 = 2-yr 6-hr value from precipitation-frequency maps
- X_2 = 2-yr 24-hr value from precipitation-frequency maps
- X_3 = 100-yr 6-hr value from precipitation-frequency maps
- X_4 = 100-yr 24-hr value from precipitation-frequency maps
- X_5 = latitude (in decimals) minus 40°
- X_6 = longitude (in decimals) minus 100°
- Z = point elevation in hundreds of feet

Duration (min)	5	10	15	30
Ratio to 1-hr	0.29	0.45	0.57	0.79

(Adopted from U.S. Weather Bureau Technical Paper No. 40, 1961.)

Table 13. Adjustment factors to obtain n-min estimates from 1-hr values

Figure 17. Illustration of use of precipitation-frequency diagrams using values from precipitation-frequency maps and relations.

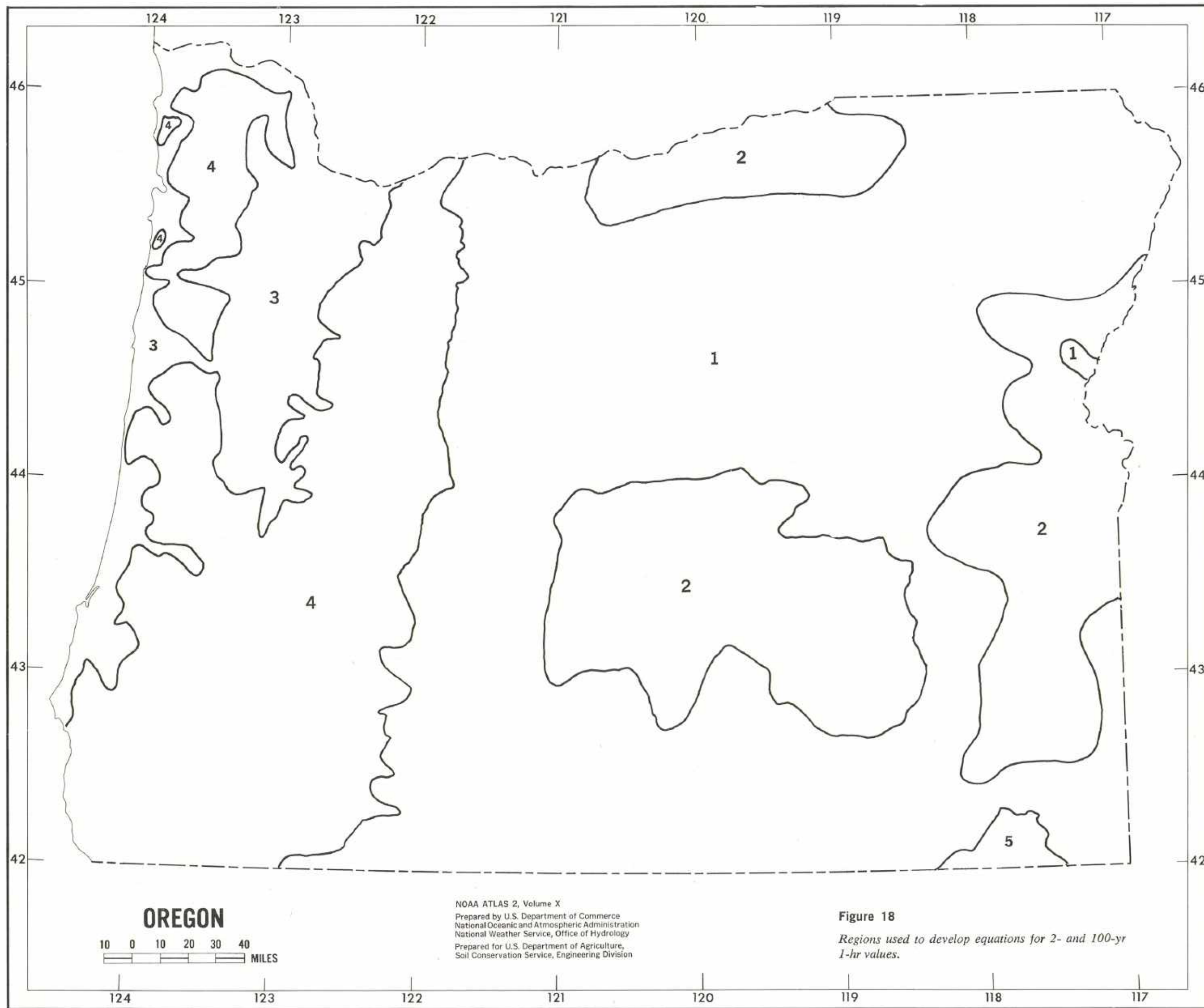


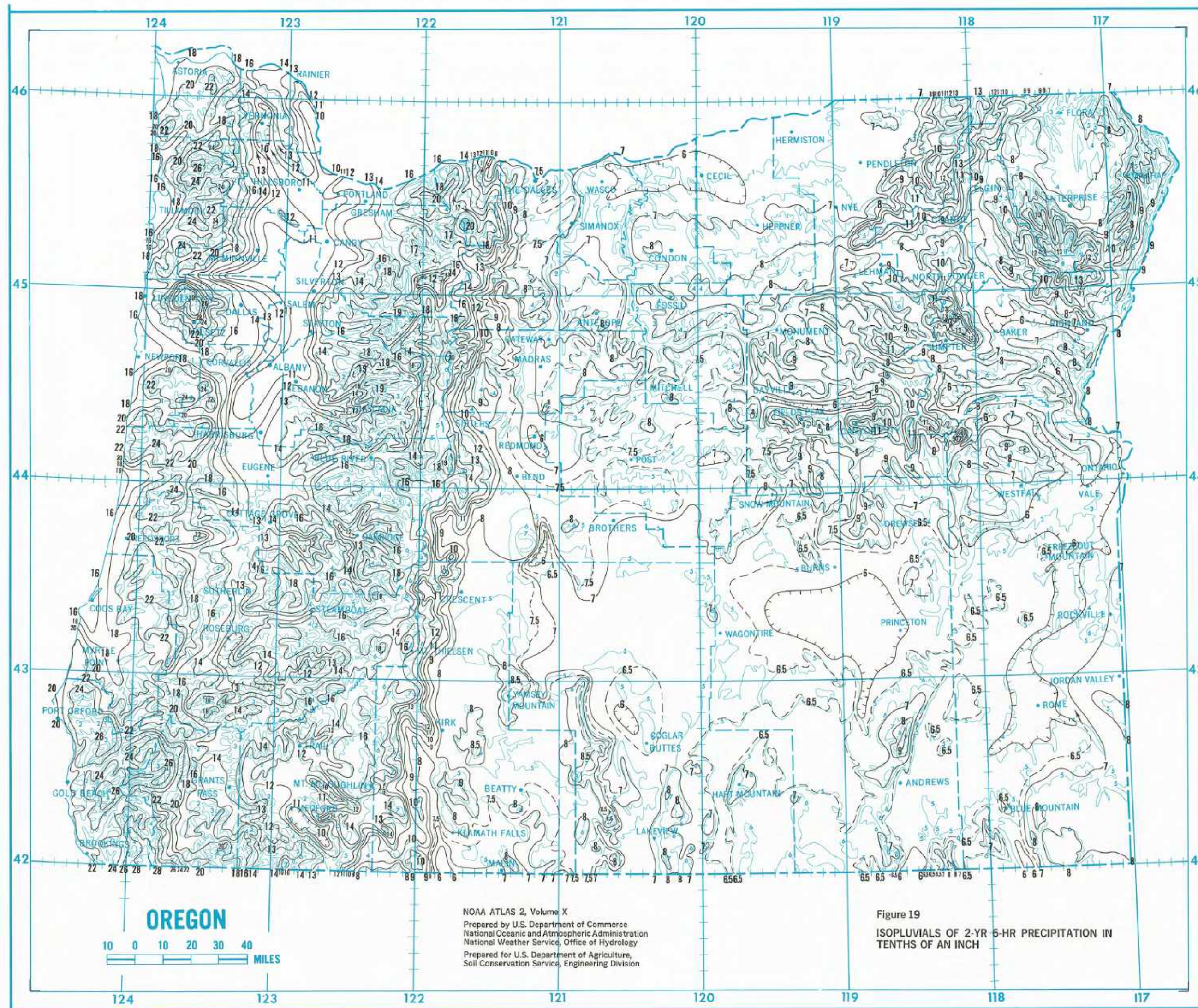
	1-hr	2-hr	3-hr	6-hr	24-hr
2-yr	0.37	0.47	0.57	0.74	1.26
5-yr				0.95	1.56
10-yr				1.12	1.75
25-yr				1.34	2.02
50-yr				1.49	2.25
100-yr	1.07			1.63	2.50

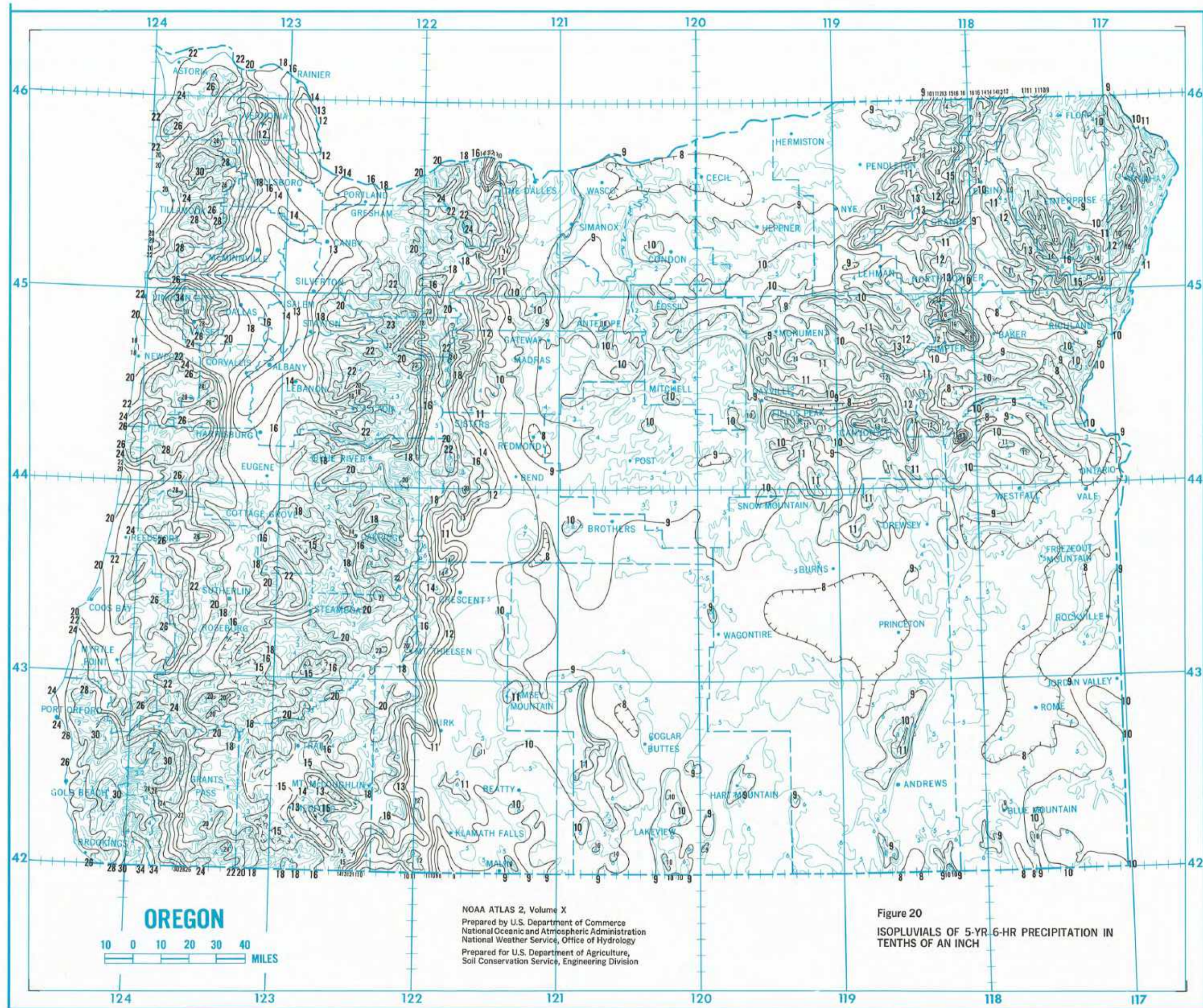
Table 14. Precipitation data for depth-frequency atlas computation point 44°00' N., 118°00' W.

References

- California Department of Water Resources, unpublished data tabulations, 1900–1969.
- Chow, V. T., "Discussion on Annual Floods and the Partial-Duration Flood Series, by W. B. Langbein," *Transactions American Geophysical Union*, Vol. 31, No. 6, December 1950, pp. 939–941.
- Environmental Science Services Administration, Environmental Data Service, *Climatic Atlas of the United States*, Washington, D.C., June 1968, 80 pp.
- Environmental Science Services Administration, Weather Bureau, "Normal Monthly Number of Days with Precipitation of 0.5, 1.0, 2.0, and 4.0 Inches or More in the Conterminous United States," *Weather Bureau Technical Paper No. 57*, prepared by J. F. Miller and R. H. Frederick, Washington, D.C., 1966, 52 pp.
- Gumbel, E. J., "Statistics of Extremes," Columbia University Press, New York, 1958, 375 pp.
- Hershfield, David M. and Kohler, M. A., "An Empirical Appraisal of the Gumbel Extreme-Value Procedure," *Journal of Geophysical Research*, Vol. 65, No. 6, June 1960, pp. 1737–1746.
- Hershfield, David M., "An Empirical Comparison of the Predictive Value of Three Extreme-Value Procedures," *Journal of Geophysical Research*, Vol. 67, No. 4, April 1962, pp. 1535–1542.
- Langbein, W. B., "Annual Floods and the Partial-Duration Series," *Transactions American Geophysical Union*, Vol. 30, No. 6, December 1949, pp. 879–881.
- Miller, John F., "Within Storm Precipitation-Frequency Values," ASCE National Water Resources Engineering Meeting, *Meeting Preprint 1316*, Phoenix, Arizona, January 1971, 10 pp.
- National Climatic Center, Asheville, North Carolina
U.S. Weather Bureau, *Climate and Crop Service*, 1896–1910
U.S. Weather Bureau, *Monthly Weather Review*, 1910–1913
U.S. Weather Bureau, *Climatological Data by Sections*, 1914–1964
Environmental Science Services Administration, *Climatological Data by Sections*, 1965–1969.
- National Climatic Center, Asheville, North Carolina
U.S. Weather Bureau, *Hydrologic Bulletin*, 1940–1948
U.S. Weather Bureau, *Hourly Precipitation Data*, 1951–1964
Environmental Science Services Administration, *Hourly Precipitation Data*, 1965–1969.
- National Oceanic and Atmospheric Administration, National Weather Service, "Precipitation-Frequency Atlas of Western United States, Volume V, Idaho," *NOAA Atlas 2*, prepared by J. F. Miller, R. H. Frederick, and R. J. Tracey, Washington, D.C., 1973.
- U.S. Weather Bureau, "Thunderstorm Rainfall," *Hydrometeorological Report No. 5*, "Part 1: Text"; "Part 2: Figures," Vicksburg, Mississippi, 1947, 331 pp., 155 figures.
- U.S. Weather Bureau, "Mean Number of Thunderstorm Days in the United States," *Weather Bureau Technical Paper No. 19*, Washington, D.C., December 1952, 22 pp.
- U.S. Weather Bureau, "Rainfall Intensities for Local Drainage Design in the United States for Durations of 5 to 240 Minutes and 2-, 5-, and 10-Year Return Periods," *Weather Bureau Technical Paper No. 24*, "Part I: West of the 115th Meridian," Washington, D.C., August 1953, Revised February 1955, 19 pp., "Part II: Between 105° W. and 115° W.," Washington, D.C., August 1954a, 9 pp.
- U.S. Weather Bureau, "Rainfall Intensities for Local Drainage Design in Coastal Regions of North Africa, Longitude 11° W. to 14° E. for Durations of 5 to 240 Minutes and 2-, 5-, and 10-Year Return Periods," Washington, D.C., September 1954b, 13 pp.
- U.S. Weather Bureau, "Rainfall Intensities for Local Drainage Design in Arctic and Subarctic Regions of Alaska, Canada, Greenland, and Iceland for Durations of 5 to 240 Minutes and 2-, 5-, 10-, 20-, and 50-Year Return Periods," Washington, D.C., September 1955a, 13 pp.
- U.S. Weather Bureau, "Rainfall Intensity-Duration-Frequency Curves for Selected Stations in the United States, Alaska, Hawaiian Islands, and Puerto Rico," *Weather Bureau Technical Paper No. 25*, Washington D.C., December 1955b, 53 pp.
- U.S. Weather Bureau, "Rainfall Intensities for Local Drainage Design in Western United States for Durations of 20 Minutes to 24 Hours and 1- to 100-Year Return Periods," *Weather Bureau Technical Paper No. 28*, Washington, D.C., November 1956, 46 pp.
- U.S. Weather Bureau, "Rainfall Intensity-Frequency Regime," *Weather Bureau Technical Paper No. 29*, "Part 1: The Ohio Valley," June 1957, 44 pp.; "Part 2: Southeastern United States," March 1958, 51 pp.; "Part 3: The Middle Atlantic Region," July 1958, 38 pp.; "Part 4: Northeastern United States," May 1959, 35 pp.; "Part 5: Great Lakes Region," February 1960, 31 pp., Washington, D.C.
- U.S. Weather Bureau, "Rainfall Frequency Atlas of the United States for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years," *Weather Bureau Technical Paper No. 40*, prepared by David M. Hershfield, U.S. Weather Bureau, Washington, D.C., May 1961, 115 pp.
- Weiss, Leonard L. and Wilson, Walter T., "Evaluation of the Significance of Slope Changes in Double Mass Curves," *Transactions American Geophysical Union*, Vol. 34, No. 6, December 1953, pp. 893–896.
- Weiss, Leonard L., "Ratio of True to Fixed Interval Maximum Rainfall," *Journal of the Hydraulics Division, Proceedings ASCE*, Vol. 90, HY-1, Proceedings Paper 3758, January 1964, pp. 77–82.
- Yarnell, David L., "Rainfall Intensity-Frequency Data," *Miscellaneous Publication No. 204*, U.S. Department of Agriculture, Washington, D.C., 1935, 68 pp.







NOAA ATLAS 2, Volume X
 Prepared by U.S. Department of Commerce
 National Oceanic and Atmospheric Administration
 National Weather Service, Office of Hydrology
 Prepared for U.S. Department of Agriculture,
 Soil Conservation Service, Engineering Division

Figure 20
 ISOPLUVIALS OF 5-YR 6-HR PRECIPITATION IN
 TENTHS OF AN INCH

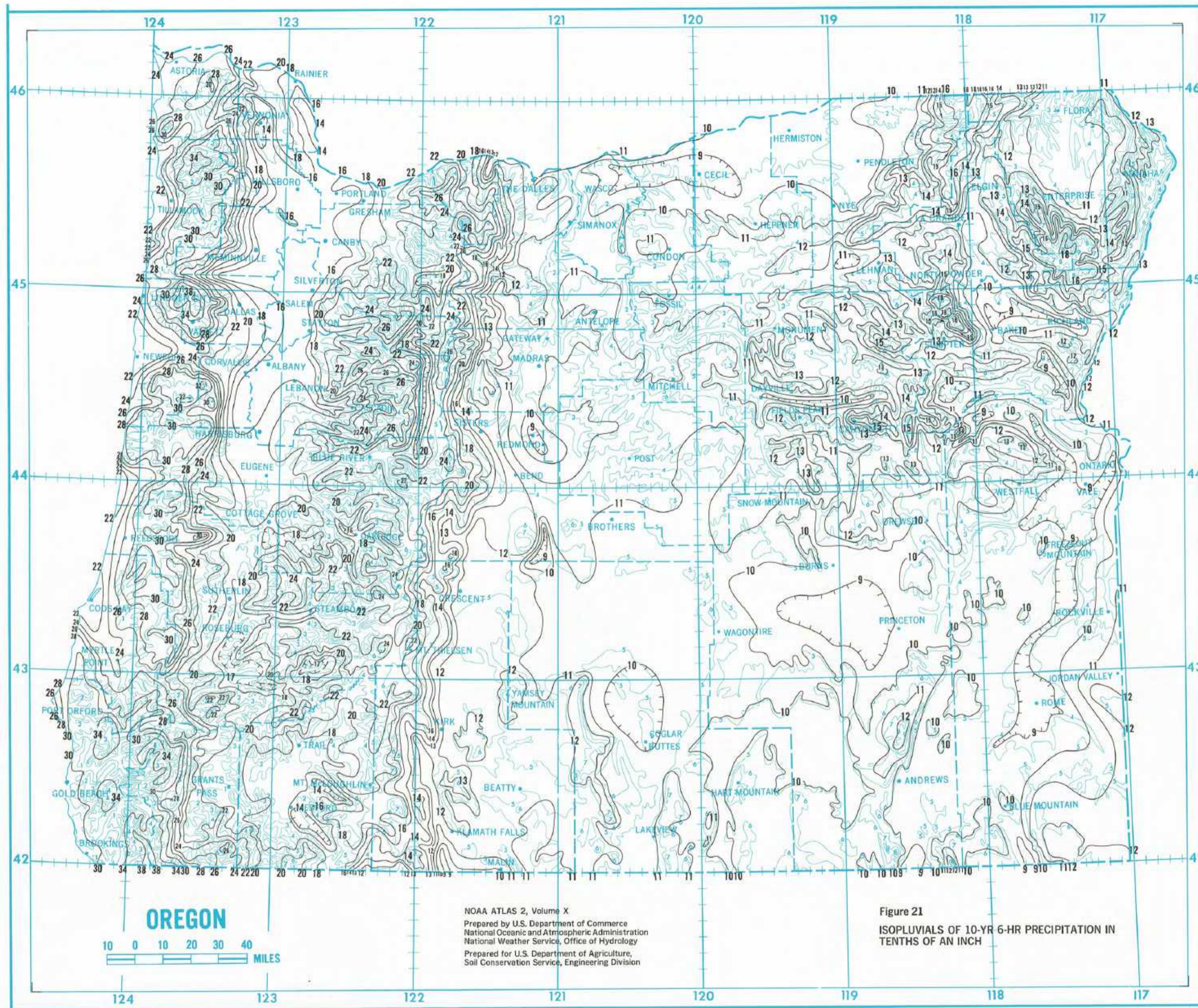
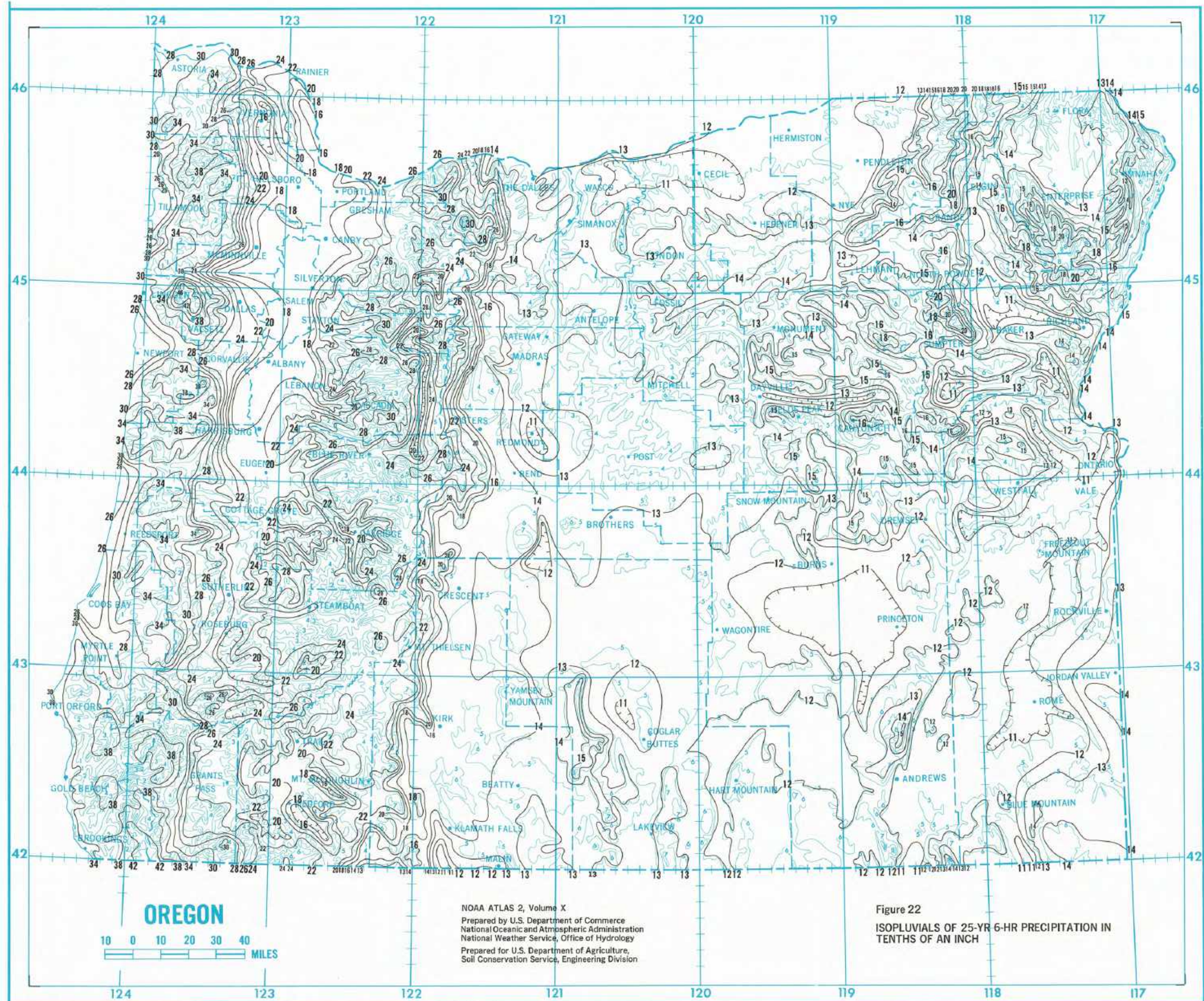
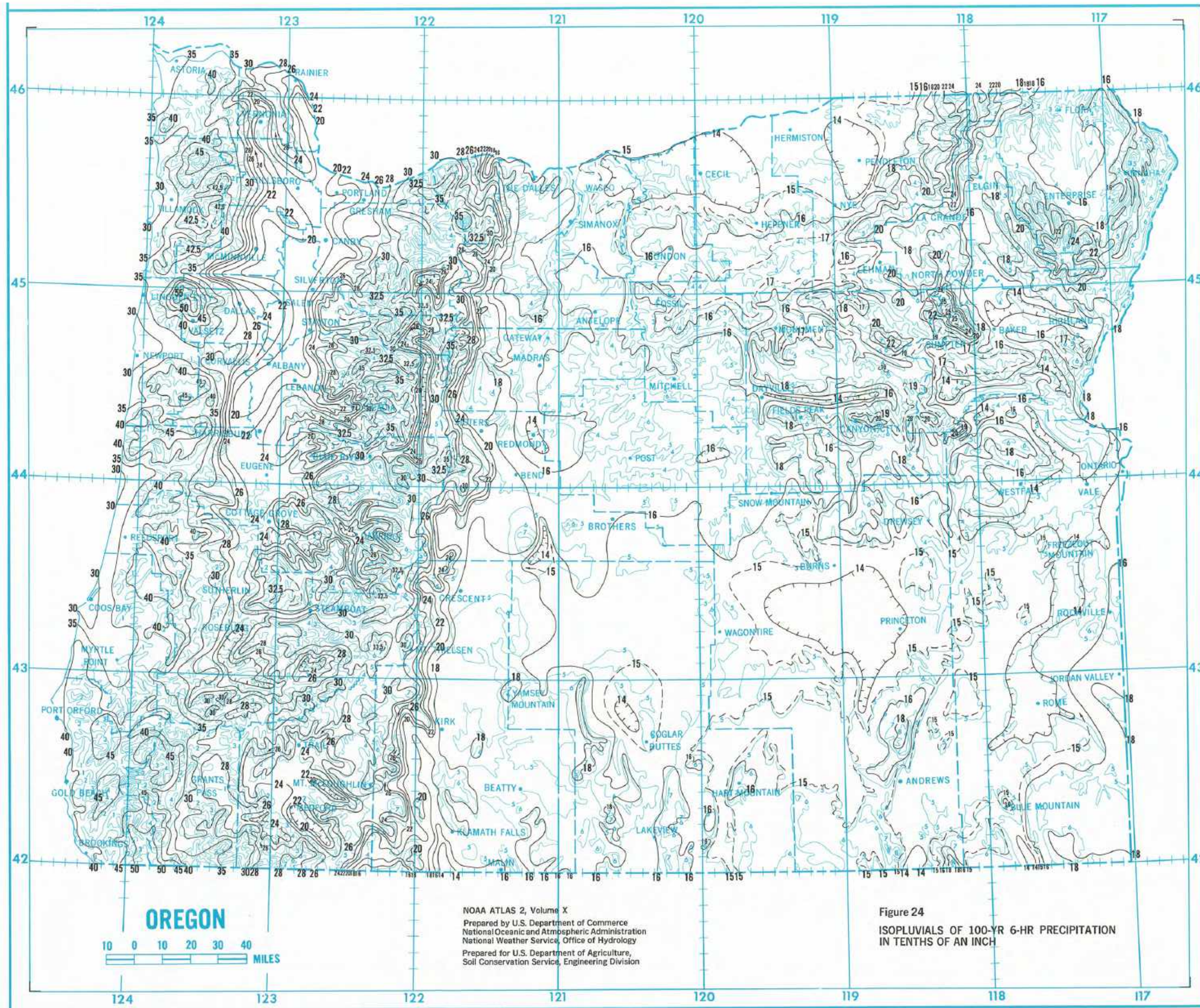
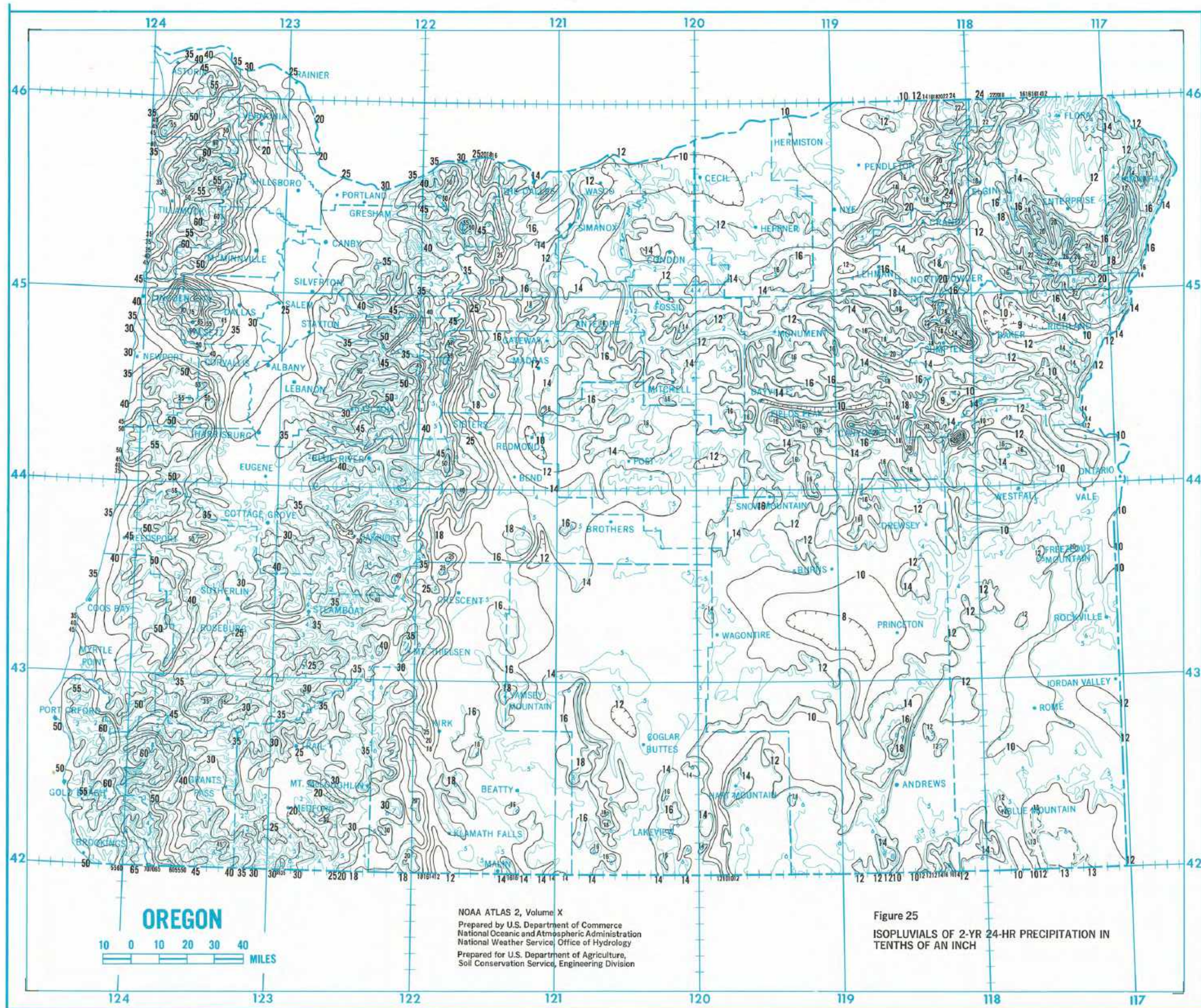
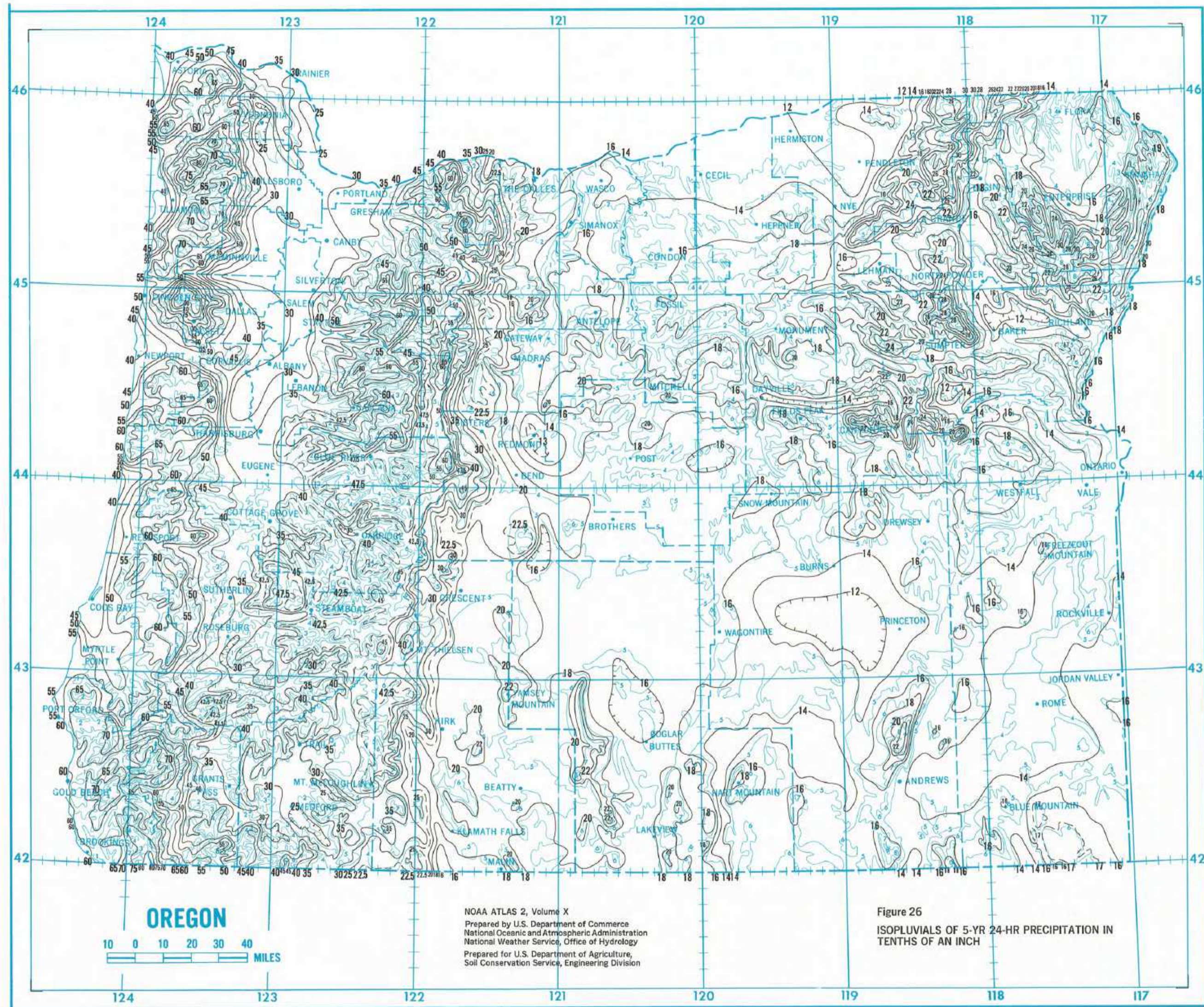


Figure 21
ISOPLUVIALS OF 10-YR 6-HR PRECIPITATION IN
TENTHS OF AN INCH



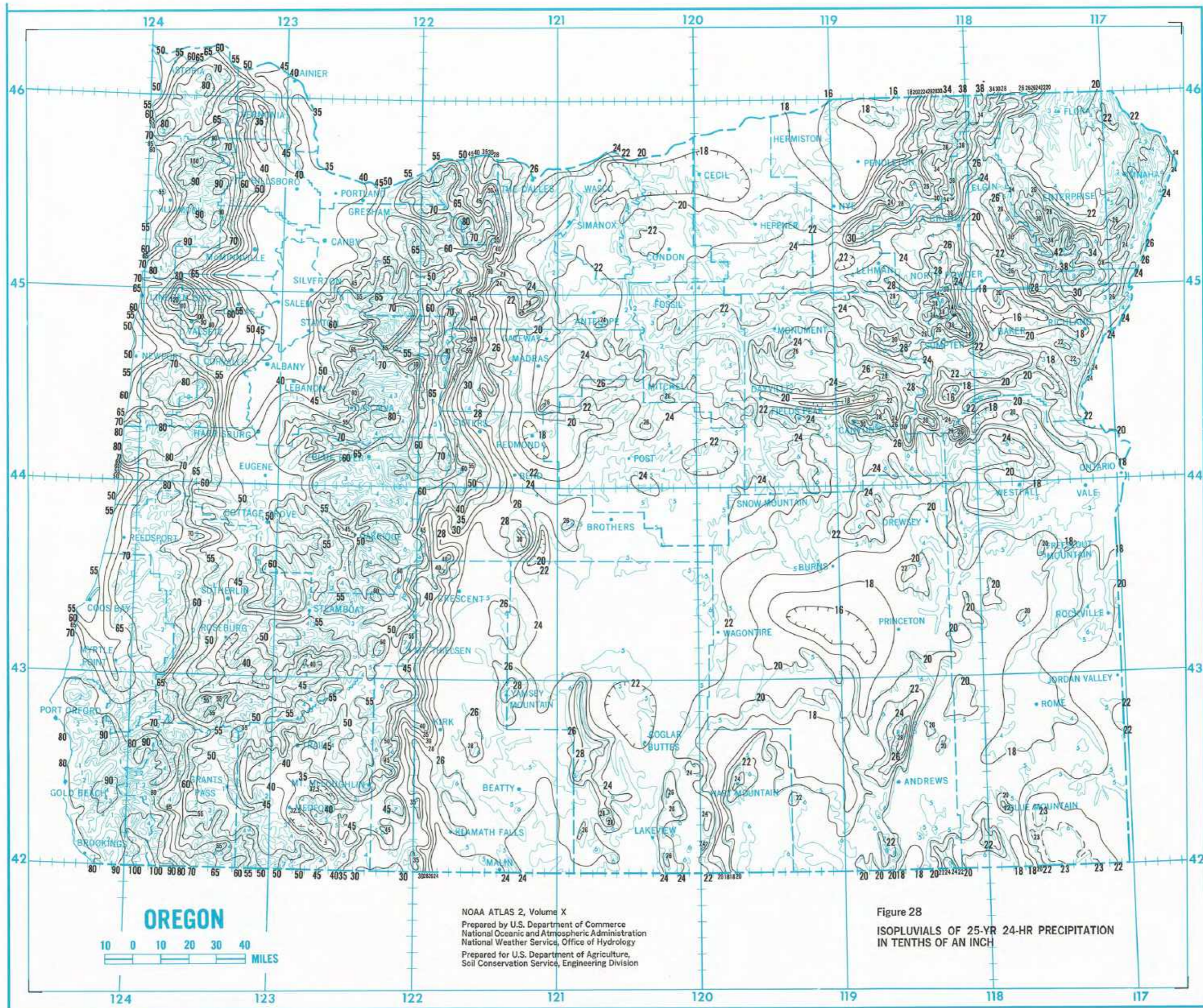


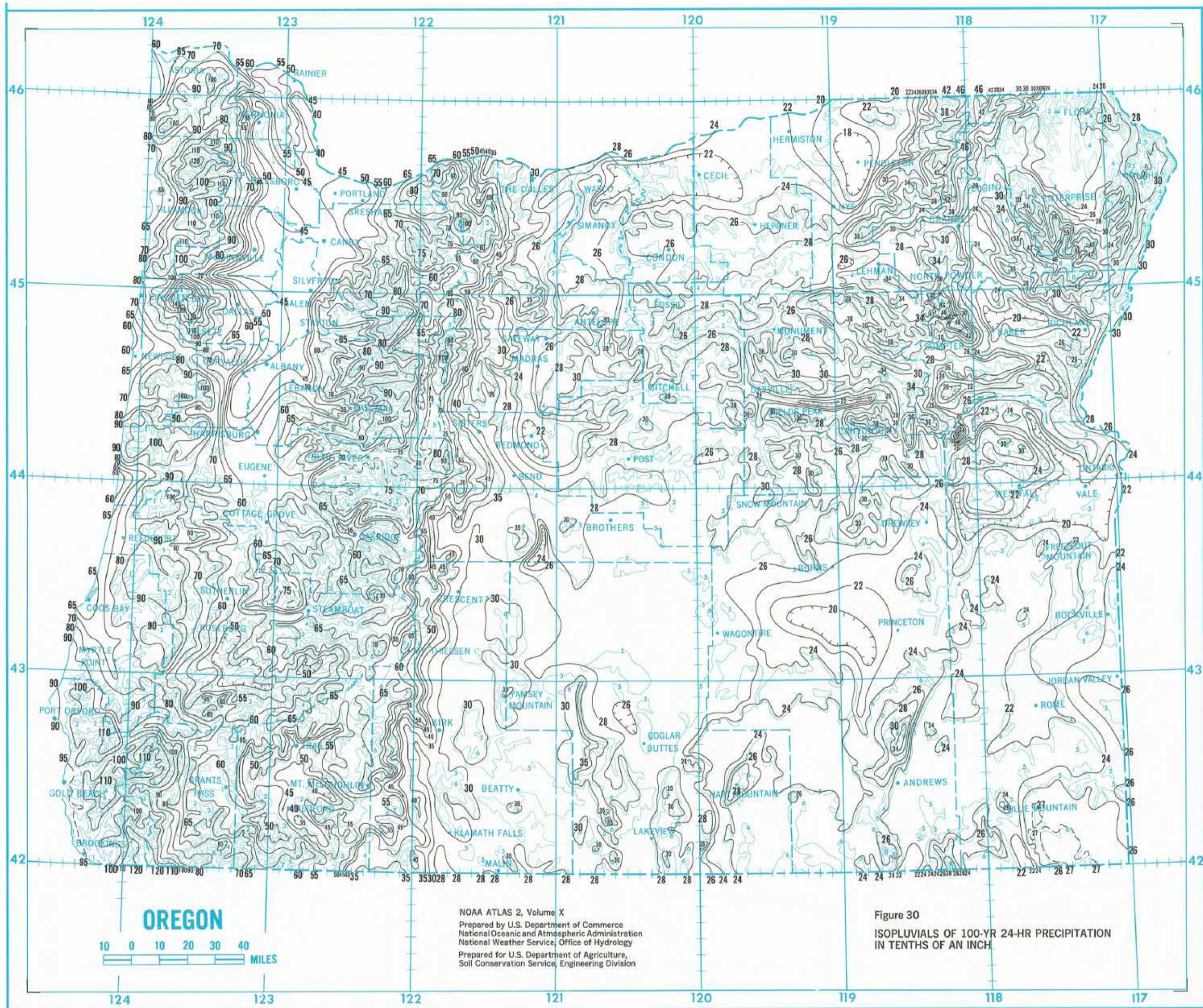




NOAA ATLAS 2, Volume X
 Prepared by U.S. Department of Commerce
 National Oceanic and Atmospheric Administration
 National Weather Service, Office of Hydrology
 Prepared for U.S. Department of Agriculture,
 Soil Conservation Service, Engineering Division

Figure 26
 ISOPLUVIALS OF 5-YR 24-HR PRECIPITATION IN
 TENTHS OF AN INCH





NOAA ATLAS 2, Volume X
 Prepared by U.S. Department of Commerce
 National Oceanic and Atmospheric Administration
 National Weather Service, Office of Hydrology
 Prepared for U.S. Department of Agriculture,
 Soil Conservation Service, Engineering Division

Figure 30
 ISOPLUVIALS OF 100-YR 24-HR PRECIPITATION
 IN TENTHS OF AN INCH

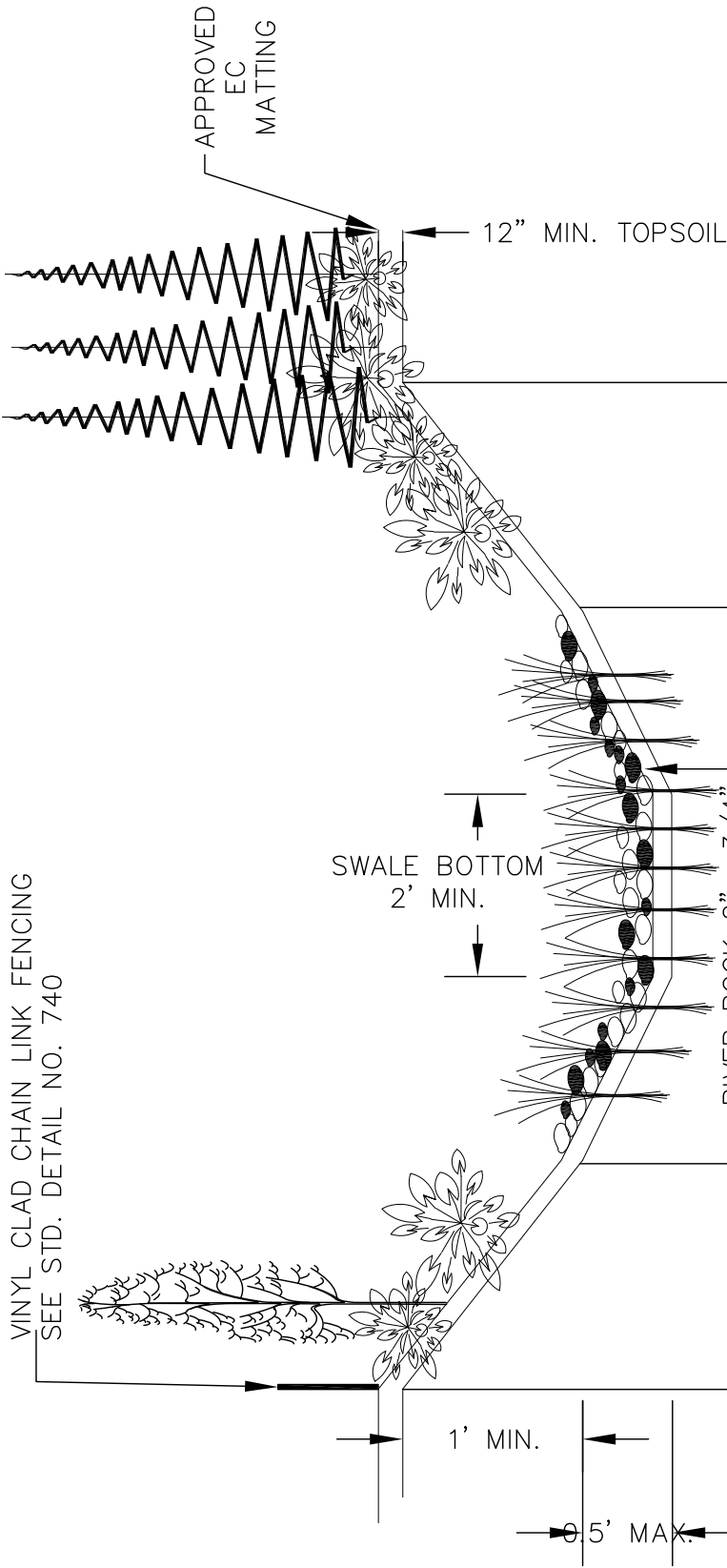
**Elysian Subdivision
McMinnville, Oregon
Stormwater Management Report**

APPENDIX IV

Operation & Maintenance Plans

VEGETATED SWALES

VINYL CLAD CHAIN LINK FENCING
SEE STD. DETAIL NO. 740



SWALE AREA	FREEBOARD AREA	TREATMENT AREA 6' MINIMUM WIDTH	FREEBOARD AREA	BUFFER/MITIGATION AREA
EC MATTING	ECONOJUTE* LOW GROW MIX SEE NOTE #5	COCONUT FIBER OR GEOJUTE PLUS* NONE	ECONOJUTE* LOW GROW MIX SEE NOTE #5	ECONOJUTE* (S > 20%) AS APPROVED BY DISTRICT OR CITY
SEED MIX	LOW GROW MIX SEE NOTE #5	NONE	LOW GROW MIX SEE NOTE #5	AS APPROVED BY DISTRICT OR CITY
MAX. SLOPE	2.5:1	FLAT BOTTOM	2.5:1	NA

* OR AS APPROVED

NOTES:

1. REFER TO APPENDIX A, CWS DESIGN & CONSTRUCTION STANDARDS, FOR LANDSCAPING REQUIREMENTS INCLUDING TREE PLACEMENT, TOPSOIL AND PLANTING SPECIFICATIONS.
2. PROVIDE IRRIGATION AS APPROVED BY CWS.
3. JUTE MATTING- GEOJUTE PLUS IN TREATMENT AREA, ECONOJUTE FOR ALL OTHER AREAS, OR SIMILAR FABRICS. COCONUT FIBER IS ALSO ACCEPTABLE.
4. 12-INCHES OF TOPSOIL SHALL BE PLACED THROUGHOUT THE WATER QUALITY TRACT.
5. FREEBOARD AREA SEED MIX, DWARF TALL FESCUE 40%, DWARF PERENNIAL RYE 30%, CREEPING RED FESCUE 25%, COLONIAL BENT GRASS 5%. APPLY AT A RATE OF 120# / ACRE.

WATER QUALITY SWALE



CONSTRUCTION

1. Water Quality Swale shall be over-excavated and filled to final grade with 12-inch amended topsoil. Topsoil amendments shall be garden compost, not conventional fertilizer amendments.
2. A biodegradable Erosion Control Matting shall be placed over the topsoil throughout the swale cross section, fabric shall be held in place in accordance with the manufacturer's installation requirements. Anchor spacing shall be based on 3 fps flow over the fabric.
 - a. Treatment area - high-density jute matting (Geojute Plus or other approved equal)
 - b. All other areas - low-density jute matting (Econojute or other approved equal)
3. 2.5-3 inches of 2"- $\frac{3}{4}$ " river run rock shall be placed over the matting evenly throughout the length and width of the swale.
4. Plant materials shall be placed in accordance with the plan and plant table as shown on approved plans.
5. The water quality swale treatment area plantings can be deemed "substantially complete" once active green growth has occurred to an average growth of 3" and plant density is an average of approx. 6 plants (minimum 1-inch plugs or equivalent) per square foot.
6. The facility shall be deemed acceptable to begin the maintenance period when plant growth and density matches the engineer's design as shown on the approved plans and all other requirements have been met. The engineer must certify the facility to be functional, in accordance with the approved plan design to begin the two-year maintenance period.

MAINTENANCE

1. The permittee is responsible for the maintenance of this facility for a minimum of two years following construction and acceptance of this facility per Chapter 2.
2. Irrigation is to be provided per separate irrigation plan as approved.

Note: Irrigation needs are to be met using a temporary irrigation system with a timer during the dry season. Systems should be winterized during the wet season to assure longevity and guard against damage from freezing temperatures. Water source shall be as shown on the approved plans.
3. Engineer or Owners Representative is to visit and evaluate the site a minimum of twice annually (Spring and Fall). The landscaping shall be evaluated and replanted as necessary to ensure a minimum of 80% survival rate of the required vegetation and 90% aerial coverage. Non-native, invasive plant species shall be removed when occupying more than 20% of the site.
4. The facility shall be re-excavated and planted if siltation greater than 3 inches in depth occurs within the two-year maintenance period.

WATER QUALITY SWALE CONSTRUCTION & MAINTENANCE NOTES



PLANTING REQUIREMENTS

Appendix A

PLANTING REQUIREMENTS

1.0 INTRODUCTION

1.1 General

The District recognizes the importance of Water Quality Sensitive Areas, Vegetated Corridors, and Stormwater Facilities that, along with the Tualatin River, are under its jurisdiction. To improve water quality and preserve aquatic species, and meet the intent of both the federal Clean Water and the Endangered Species Acts, the District developed requirements for planting of Vegetated Corridors, Sensitive Areas, and Stormwater Facilities.

Successful revegetation is critical to the proper function of Sensitive Areas, Vegetated Corridors, and Stormwater Facilities for the benefit of water quality and quantity management, and aquatic species preservation. This Appendix aids professionals, the development community, and field crews in planning, designing and implementing successful revegetation projects in these areas. This document guides design decisions to promote successful planting efforts, while allowing flexibility to address opportunities and constraints at each site.

1.2 Jurisdiction

Most Sensitive Areas are regulated by the Division of State Lands (DSL) and/or the U.S. Army Corps of Engineers (Corps). Where the Corps and/or DSL permit mitigation, planting plans for these areas shall follow DSL and Corps guidelines and approved plans. Vegetated Corridors and Stormwater Facilities are regulated by the District and the plans and management strategies for these areas shall follow the steps outlined in this document. Alternative plans and management strategies may be approved by the District.

1.3 Professional Assistance

Revegetation in Sensitive Areas, Vegetated Corridors and Stormwater Facilities should facilitate succession toward low-maintenance plant communities. Consultation with a professional landscape architect, ecologist, or horticulturist knowledgeable in native plants is highly recommended when preparing plans. Satisfying the landscaping requirements may require the services of a registered landscape architect. See ORS 671.310 through 671.459.

Non-native, invasive plant management and wildlife damage management strategies are provided in Clean Water Services *Integrated Pest Management (IPM) Plan*. Especially challenging management situations may require assistance from a landscape maintenance contractor or a wildlife biologist.

2.0 PLANTING PLAN METHODS

Planting plans shall be required for development projects with Vegetated Corridors or Stormwater Facilities. When a planting plan is required, four major components shall be addressed: hydrology, soils, plant materials, and maintenance. When developing planting plans, the following steps should be used:

2.1 Step 1: Assess Hydrologic and Hydraulic Conditions

- a. Determine the frequency and duration of water inundation, including appropriate elevations of the revegetation area. Watershed hydrology and hydraulic models for major streams are available from the District. In some cases, current site conditions (i.e. wetland presence) will suffice. For Stormwater Facilities, the models used to design and size the facility shall be used to determine frequency, duration and surface water elevations within the facility.
- b. Assign appropriate hydrologic zones to the revegetation area and apply them to the plan. Most project sites include one or more of the following planting zones with respect to hydrology during the growing season:
 1. Wet - standing or flowing water/nearly constant saturation; anaerobic soils
 2. Moist - periodically saturated; anaerobic and/or aerobic soils
 3. Dry - infrequent inundation/saturation, if any; aerobic soils

2.2 Step 2: Assess Soil Conditions and Assign Appropriate Preparation Specifications to Plans

- a. Determine the organic content and non-native, invasive seed bank likely in the soil. For most Stormwater Facilities, the soil is often high in clay, gravel, or minerals devoid of topsoil and organic material, and/or high in non-native, invasive weed content. The conditions in Sensitive Areas and Vegetated Corridors vary greatly.
- b. For upland sites with at least one foot of native topsoil, but containing a non-native, invasive seed bank or plants, add notes to the plan to remove the undesirable plants, roots, and seeds (*see IPM Plan*) prior to planting.
- c. For upland sites with either disturbed and compacted soils or less than one foot of topsoil and invasive, non-native seed bank or plants that have become established, the following notes shall be added to the plan:
 1. Remove the undesirable plants, roots, and seeds (*see IPM Plan*) prior to adding topsoil.

2. Till the sub-grade in these areas to a depth of at least four inches and add at least 12 inches of clean compost-amended topsoil. The compost-amended topsoil shall have the following characteristics to ensure a good growing medium:
 - A) Texture – material passes through one-inch screen
 - B) Fertility – 35% organic matter
3. In the event of floodplain grading, over-excavate the sub grade to ensure 12 inches of topsoil can be applied without impacting surface water elevations.
 - d. For wet areas in Sensitive Areas and Stormwater Facilities, the soil conditions shall be hydric or graded to hold sufficient water to promote hydric soil formation. The addition of organic muck soil will improve plant establishment for some bulbs and tubers.
 - e. Where appropriate and necessary for erosion control or to enhance organic matter, leaf compost may be placed uniformly on topsoil. (Refer to Chapter 6, Erosion Prevention and Sediment Control). Other amendments, conditioners, and bio-amendments may be added as needed to support the specified plants or adjust the soil pH. Traditional fertilization techniques (applying N-P-K) are not necessary for native plants.

2.3 Step 3: Identify Plants to be Preserved, Select Revegetation Plant Materials, Quantities, Placement, and Assign Planting Zones and Specifications to Plans

- a. Preservation: Every effort shall be made to protect a site’s existing native vegetation. Native vegetation along Sensitive Areas and Vegetated Corridors shall be retained to the maximum extent practicable.
- b. Selection: Plant selection shall be from a native species palette and shall consider site soil types, hydrologic conditions, and shade requirements. Containerized or bare root plants may be used. A list of common native plant community types appropriate for planting Sensitive Areas, Vegetated Corridors and Stormwater Facilities is provided in Table A-1. Upon approval from the District, limited use of non-invasive non-native plants may be permitted in highly urbanized and other unique settings such as regional town centers. Unless approved by District staff, planting restrictions are limited to the following:
 1. Deep rooting trees and shrubs (e.g. willow) shall not be planted on top of concrete pipes, or within 10 feet of retaining walls, inlet/outlet structures or other culverts; and

2. Large trees or shrubs shall not be planted on berms over four feet tall that impound water. Small trees or shrubs with fibrous root systems may be installed on berms that impound water and are less than four feet tall.

c. Quantities:

1. Vegetated Corridors and Sensitive Areas

Trees and shrubs shall be planted using the following equations to achieve the specified densities on a per acre basis.

- A) Total number of trees per acre = area in square feet x 0.01
- B) Total number of shrubs per acre = area in square feet x 0.05
- C) Groundcover = plant and seed to achieve 100% areal coverage

2. Stormwater Facilities

- A) Stormwater Facilities in tracts or easements less than 30 feet wide shall be planted using the following equations to achieve the specified densities on a per acre basis:

- i. Total number of shrubs per acre = area in square feet x 0.05
- ii. Groundcover = plant and seed to achieve 100% areal coverage

- B) Stormwater Facilities in tracts or easements 30 feet wide or more shall be planted using the following equations to achieve the specified densities on a per acre basis:

- i. Total number of trees per acre = area in square feet x 0.01
- ii. Total number of shrubs per acre = area in square feet x 0.05
- iii. Groundcover = plant and seed to achieve 100% areal coverage

- d. Size: Potted plants shall follow size requirements outlined in Table A-1. Bare root plants shall be 12 to 16 inches long.

- e. Placement: Plant placement shall be consistent with naturally occurring plant communities. Trees and shrubs shall be placed in singles or clusters of the same species to provide a natural planting scheme. This arrangement may follow curved rows to facilitate maintenance. Distribution and relative abundance shall be dependant on the plant species and on the size of the revegetation area. The Vegetated Corridor revegetation area shall be overseeded with native seed mixes appropriate to the plant community and hydrologic zone of the site (see Table A-1: Plant Communities for Revegetation). Plant placement and seeding shall promote maximum vegetative cover to minimize weed establishment.

- 2.4 Step 4: Determine Plant Installation Requirements and Assign Specifications to Plans
- a. Timing
Containerized stock shall be installed only from February 1 through May 1 and October 1 through November 15. Bare root stock shall be installed only from December 15 through April 15. Plantings outside these times may require additional measures to ensure survival which shall be specified on the plans.
 - b. Erosion Control
Grading, soil preparation, and seeding shall be performed during optimal weather conditions and at low flow levels to minimize sediment impacts. Site disturbance shall be minimized and desirable vegetation retained, where possible. Slopes shall be graded to support the establishment of vegetation. Where seeding is used for erosion control, an appropriate native grass, Regreen (or its equivalent), or sterile wheat shall be used to stabilize slopes until permanent vegetation is established. Biodegradable fabrics (coir, coconut or approved jute matting (minimum 1/4" square holes) may be used to stabilize slopes and channels. Fabrics such as burlap may be used to secure plant plugs in place and to discourage floating upon inundation. No plastic mesh that can entangle wildlife is permitted. Consult Chapter 6 - Erosion Prevention and Sediment Control for additional information.
 - c. Mulching
Trees, shrubs, and groundcovers planted in upland areas shall be mulched a minimum of three inches in depth and 18 inches in diameter, to retain moisture and discourage weed growth around newly installed plant material. Appropriate mulches are made from composted bark or leaves that have not been chemically treated. The use of mulch in frequently inundated areas shall be limited, to avoid any possible water quality impacts including the leaching of tannins and nutrients, and the migration of mulch into waterways.
 - d. Plant Protection from Wildlife
Depending on site conditions, appropriate measures shall be taken to limit wildlife-related damage (*see IPM Plan*).
 - e. Irrigation
Appropriate plant selection, along with adequate site preparation and maintenance, reduces the need for irrigation. However, unless site hydrology is currently adequate, a District/City approved irrigation system or equivalent (i.e., polymer, plus watering) shall be used during the two-year plant establishment period. Watering shall be at a minimum rate of at least one inch per week from June 15 through October 15. Other irrigation techniques, such as deep watering, may be allowed with prior approval by District staff.

- f. Access
Maintenance access for plant maintenance shall be provided for Sensitive Areas and Vegetated Corridors via a five-foot easement or shared boundary with Stormwater Facilities. Stormwater Facilities access requirements are provided in Chapter 4.

2.5 Step 5: Determine Plant Monitoring and Maintenance Requirements

- a. Monitoring
Site visits are necessary throughout the growing season to assess the status of the plantings, irrigation, mulching, etc. and ensure successful revegetation.
- b. Weed Control
The removal of non-native, invasive weeds shall be necessary throughout the maintenance period, or until a healthy stand of desirable vegetation is established (*see IPM Plan*).
- c. Plant Replacement and Preservation
Installed plants that fail to meet the acceptance criteria (see Chapter 2) shall be replaced during the maintenance period. Prior to replacement, the cause of loss (wildlife damage, poor plant stock, etc.) shall be documented with a description of the corrective actions taken.

2.6 Step 6: Prepare Construction Documents and Specifications

The construction documents and specifications shall include:

- a. Sensitive Area and Vegetated Corridor boundaries as shown on the Service Provider Letter, including limits of approved, temporary construction encroachment. Orange construction fencing shall be noted at Vegetated Corridor boundaries as well as at encroachment limits during construction. Note permanent type fencing and signage between the development and the Vegetated Corridor for project completion is required.
- b. Site Preparation plan and specifications, including limits of clearing, existing plants and trees to be preserved, and methods for removal and control of invasive, non-native species, and location and depth of topsoil and or compost to be added to revegetation area.
- c. Planting plan and specifications, including all of the following:
 1. Planting table that documents the common name, scientific name, distribution (zone and spacing), condition and size of plantings
 2. Installation methods for plant materials
 3. Mulching
 4. Plant tagging for identification
 5. Plant protection
 6. Seeding mix, methods, rates, and areas

- d. Irrigation plan and specifications, including identification of water source, watering timing and frequency, and maintenance of the system.
- e. Maintenance schedule; including responsible party and contact information, dates of inspection (minimum three per growing season and one prior to onset of growing season) and estimated maintenance schedule (as necessary) over the two-year monitoring period.
- f. Easement descriptions for all Vegetated Corridor and Sensitive Areas that are required as part of the development.
- g. Good rated corridor notes i.e. invasive species removal resulting in cleared areas exceeding 25 square feet shall be replanted with native vegetation.
- h. Access points for installation and maintenance including vehicle access if available.
- i. Standard drawing details (north arrow, scale bar, property boundaries, project name, drawing date, name of designer and Property Owner).

**TABLE A-1
SUGGESTED PLANT COMMUNITIES FOR REVEGETATION**

Plant Communities	Minimum Species Composition	Plant Category	Water Requirements	Light Requirements	Minimum Rooting Size	Minimum Plant Height	Spacing Format
Riparian Forest (RF)							
Red alder (<i>Alnus rubra</i>)	X	Tree	Moist	Sun	1 gal	3'	Single
Western red cedar (<i>Thuja plicata</i>)	X	Tree	Moist	Shade	2 gal	2'	Single
Red elderberry (<i>Sambucus racemosa</i>)	X	Shrub	Moist	Part	1 gal	1.5'	Single
Black twinberry (<i>Lonicera involucrata</i>)		Shrub	Moist	Part	1 gal	1.5'	Single
Red-osier dogwood (<i>Cornus stoniferia</i>)	X	Shrub	Wet	Part	1 gal	2'	Cluster
Indian plum (<i>Oemleris cerasiformis</i>)	X	Shrub	Moist	Shade	2 gal	2'	Cluster
Swamp rose (<i>Rosa pisocarpa</i>)		Shrub	Moist	Part	1 gal	1.5'	Cluster
Pacific ninebark (<i>Pysocarpus capitatus</i>)		Shrub	Moist	Shade	1 gal	2'	Single
Snowberry (<i>Symphoricarpos albus</i>)	X	Shrub	Dry	Part	1 gal	1.5'	Cluster
Salmonberry (<i>Rubus spectabilis</i>)	X	Shrub	Moist	Shade	1 gal	1.5'	Cluster
Maidenhair fern (<i>Adiantum aleuticum</i>)		Herb	Moist	Shade	4"	na	Cluster
Lady fern (<i>Athyrium filix-femina</i>)		Herb	Moist	Shade	1 gal	na	Cluster
Skunk cabbage (<i>Lysichiton americanum</i>)		Herb	Wet	Shade	bulbs	na	Cluster
False lily-of-the-valley (<i>Maianthemum dilatatum</i>)		Herb	Moist	Shade	bulbs, 4"	na	Cluster
Candy flower (<i>Claytonia sibirica</i>)		Herb	Moist	Shade	4"	na	Cluster
Miners lettuce (<i>Montia perfoliata</i>)		Herb	Moist	Shade	4"	na	Cluster
Stream violet (<i>Viola glabella</i>)		Herb	Moist	Shade	4"	na	Cluster
Youth-on-age (<i>Tolmiea menziesii</i>)		Herb	Moist	Shade	4"	na	Cluster
Insideout flower (<i>Vancouveria hexandra</i>)		Herb	Moist	Shade	4"	na	Cluster
Dewey's sedge (<i>Carex deweyana</i>)		Herb	Dry	Shade	plugs, 4"	4"	Mass
Hair bentgrass (<i>Agrostis scabra</i>)		Grass	Moist	Part	seed	na	Mass
Spike bentgrass (<i>Agrostis exarata</i>)	X	Grass	Moist	Part	seed	na	Mass
Tall manna-grass (<i>Glyceria elata</i>)	X	Grass	Moist	Part	seed	na	Mass

Plant Communities	Minimum Species Composition	Plant Category	Water Requirements	Light Requirements	Minimum Rooting Size	Minimum Plant Height	Spacing Format
Upland Forest (UF)							
Red alder (<i>Alnus rubra</i>)	X	Tree	Moist	Sun	1 gal	3'	Single
Big leaf maple (<i>Acer macrophyllum</i>)	X	Tree	Dry	Sun	2gal	3'	Single
Douglas Fir (<i>Pseudotsuga menziesii</i>)	X	Tree	Dry	Sun	2gal	3'	Single
Grand fir (<i>Abies grandis</i>)	X	Tree	Dry	Sun	2 gal	2'	Single
Pacific yew (<i>Taxus brevifolia</i>)		Tree	Moist	Shade	2 gal	2'	Single
Cascara (<i>Rhamnus purshiana</i>)		Tree	Dry	Part	2 gal	2'	Single
Pacific dogwood (<i>Cornus nuttallii</i>)		Tree	Moist	Shade	1 gal	2'	Single
Bitter cherry (<i>Prunus emarginata</i>)		Tree	Moist	Part	2 gal	2'	Single
Vine Maple (<i>Acer circinatum</i>)	X	Tree	Moist	Part	2 gal	2'	Single
Oceanspray (<i>Holodiscus discolor</i>)	X	Shrub	Dry	Sun	1 gal	1.5'	Single
Red elderberry (<i>Sambucus racemosa</i>)	X	Shrub	Moist	Part	1 gal	1.5'	Single
Red flowering currant (<i>Ribes sanguineum</i>)	X	Shrub	Dry	Sun	1 gal	1.5'	Cluster
Cascade Oregon grape (<i>Mahonia nervosa</i>)		Shrub	Moist	Part	1 gal	4"	Cluster
Tall Oregon grape (<i>Mahonia aquifolium</i>)		Shrub	Dry	Sun	1 gal	6"	Single
Red huckleberry (<i>Vaccinium parvifolium</i>)		Shrub	Moist	Shade	1 gal	1.5'	Cluster
Thimbleberry (<i>Rubus pariflorus</i>)		Shrub	Moist	Shade	1 gal	1.5'	Cluster
Snowberry (<i>symphoricarpos albus</i>)	X	Shrub	Dry	Part	1 gal	1.5'	Cluster
Baldhip Rose (<i>Rosa gymnocarpa</i>)	X	Shrub	Dry	Part	1 gal	1.5'	Cluster
Serviceberry (<i>Almelanchier alnifolia</i>)		Shrub	Dry	Part	2 gal	2'	Single
Sword fern (<i>Polystichum munitum</i>)		Shrub	Moist	Shade	2 gal	na	Cluster
Deer fern (<i>Blechnum spicant</i>)		Herb	Moist	Shade	1 gal	na	Cluster
Orange honeysuckle (<i>Lonicera ciliosa</i>)		Herb	Moist	Shade	2 gal	na	Single
Salal (<i>Gaultheria shallon</i>)		Herb	Moist	Part	1 gal	4"	Cluster
Wood strawberry (<i>Fragaria vesca</i>)		Herb	Moist	Shade	4"	na	Cluster
Western trillium (<i>Trillium ovatum</i>)		Herb	Moist	Shade	4"	na	Cluster
Five-stemmed mitrewort (<i>Mitella pentandra</i>)		Herb	Moist	Shade	1 gal	na	Cluster
Red columbine (<i>Aquilegia formosa</i>)		Herb	Dry	Part	4"	na	Cluster
False solomon's seal (<i>Smilacina racemosa</i>)		Herb	Moist	Shade	4"	na	Cluster
Native California brome (<i>Bromus carinatus</i>)	X	Grass	Dry	Sun	seed	na	Mass
Blue Wildrye (<i>Elymus glaucus</i>)	X	Grass	Dry	Part	seed	na	Mass

Plant Communities	Minimum Species Composition	Plant Category	Water Requirements	Light Requirements	Minimum Rooting Size	Minimum Plant Height	Spacing Format
Oak Woodland / Savanna (OW)							
Oregon white oak (<i>Quercus garryana</i>)	X	Tree	Dry	Sun	2 gal	2'	Single
Snowberry (<i>Symphoricarpos albus</i>)	X	Shrub	Dry	Part	1 gal	1.5'	Cluster
Serviceberry (<i>Almelanchier alnifolia</i>)	X	Shrub	Dry	Part	1 gal	2'	Single
Oceanspray (<i>Holodiscus discolor</i>)	X	Shrub	Dry	Sun	1 gal	1.5'	Cluster
Training blackberry (<i>Rubus ursinus</i>)		Shrub	Dry	Sun	1 gal	1.5'	Cluster
Cascade Oregon grape (<i>Mahonia nervosa</i>)		Herb	Moist	Part	1 gal	4"	Cluster
Blue wild-rye (<i>Elymus glaucus</i>)	X	Grass	Dry	Part	seed	na	Mass
Native California brome (<i>Bromus carinatus</i>)	X	Grass	Dry	Sun	seed	na	Mass
Ash Forested Wetland (FW)							
Oregon Ash (<i>Fraxinus latifolia</i>)	X	Tree	Moist	Part	2 gal	3'	Single
Pacific Ninebark (<i>Physocarpus capitatus</i>)	X	Shrub	Moist	Shade	2 gal	2'	Single
Red-osier dogwood (<i>Cornus sericea</i>)	X	Shrub	Wet	Part	1 gal	2'	Cluster
Snowberry (<i>Symphoricarpus albus</i>)	X	Shrub	Dry	Part	1gal	1.5'	Cluster
Slough sedge (<i>Carex obnupta</i>)	X	Herb	Moist	Part	plugs	6"	Mass
Candy flower (<i>Claytonia sibirica</i>)		Herb	Moist	Shade	4"	na	Cluster
Streambank springbeauty (<i>Montia parvifolia</i>)		Herb	Moist	Shade	4"	na	Cluster
Dewey's sedge (<i>Carex deweyana</i>)		Herb	Dry	Shade	plugs	4"	Mass
Small fruited bulrush (<i>Scirpus microcarpus</i>)		Herb	Wet	Sun	plugs	4"	Mass
Tall mannagrass (<i>Glyceria elata</i>)	X	Grass	Moist	Shade	seed	na	Mass

Plant Communities	Minimum Species Composition	Plant Category	Water Requirements	Light Requirements	Minimum Rooting Size	Minimum Plant Height	Spacing Format
Shrub / Scrub Wetland (SS)							
Pacific willow (<i>Salix lasiandra</i>)	X	Tree	Wet	Sun	1 gal	3'	Single
Sitka willow (<i>Salix sitchensis</i>)		Tree	Moist	Sun	1 gal	3'	Cluster
Douglas hawthorne (<i>Crataegus douglasii</i>)		Tree	Moist	Part	2 gal	2'	Cluster
Pacific Crabapple (<i>Malus fusca</i>)	X	Tree	Moist	Part	2 gal	2'	Cluster
Scouler willow (<i>Salix scouleriana</i>)	X	Shrub	Moist	Sun	1 gal	3'	Cluster
Red-osier dogwood (<i>Cornus sericea</i>)	X	Shrub	Wet	Part	1 gal	2'	Cluster
Clustered rose (<i>Rosa pisocarpa</i>)		Shrub	Wet	Part	1 gal	1.5'	Cluster
Douglas's spiraea (<i>Spiraea douglasii</i>)	X	Shrub	Wet	Sun	1 gal	1.5'	Cluster
Nodding beggartick (<i>Bidens cernua</i>)		Herb	Wet	Sun	1 gal	1.5'	Cluster
Spreading rush (<i>Juncus patens</i>)		Herb	Moist	Part	plugs	6"	Mass
Western manna-grass (<i>Glyceria occidentalis</i>)	X	Grass	Wet	Sun	seed	na	Mass
Emergent Marsh (EM)							
Nodding beggarstick (<i>Bidens cernua</i>)	X	Herb	Moist	Sun	1 gal	1.5'	Cluster
Hardstem bulrush (<i>Scirpus acutus</i>)		Herb	Wet	Sun	plugs	1.5'	Cluster
Small-fruited bulrush (<i>Scirpus microcarpus</i>)	X	Herb	Wet	Sun	plugs	6"	Mass
Creeping spike rush (<i>Eleocharis palustris</i>)	8	Herb	Wet	Sun	seed, plugs	4"	Mass
Wapato (<i>Sagittaria latifolia</i>)		Herb	Wet	Sun	bulbs	na	Cluster
American water plantain (<i>Alisma plantago-aquatica</i>)		Herb	Wet	Sun	bulbs	na	Cluster
Soft stemmed bulrush (<i>Scirpus tabernaemontani</i>)		Herb	Wet	Sun	plugs	1.5'	Cluster
American brooklime (<i>Veronica americana</i>)		Herb	Wet	Sun	plugs	na	Cluster
Marsh speedwell (<i>Veronica scutellata</i>)		Herb	Wet	Sun	plugs	na	Cluster
American sloughgrass (<i>Beckmannia syzigachne</i>)	X	Grass	Wet	Sun	seed, plugs	na	Mass
Western manna-grass (<i>Glyceria occidentalis</i>)	X	Grass	Wet	Sun	seed	na	Mass

Plant Communities	Minimum Species Composition	Plant Category	Water Requirements	Light Requirements	Minimum Rooting Size	Minimum Plant Height	Spacing Format
Storm Water Facility (SWF)							
		Tree	Moist	Part	2 gal	3'	Single
	X	Tree	Moist	Part	2 gal	2'	Single
		Tree	Moist/Dry	Part	1 gal	2'	Single
		Tree	Moist	Part	2 gal	2'	Single
		Shrub	Wet/dry	Part	1 gal	2'	Cluster
	X	Shrub	Wet	Part	1 gal	2'	Cluster
		Shrub	Moist	Shade	1 gal	2'	Single
	X	Shrub	Dry	Sun	1 gal	1.5'	Single
	X	Shrub	Dry	Part	1 gal	2'	Single
		Shrub	Moist	Sun	1 gal	1.5'	Cluster
	X	Shrub	Dry	Part	1gal	1.5'	Cluster
	X	Shrub	Wet	Sun	1 gal	1.5'	Cluster
	X	Shrub	Dry	Sun	1 gal	1.5'	Cluster
		Herb	Wet	Sun	1 gal	1.5'	Cluster
		Herb	Moist	Part	plugs	6"	Mass
		Herb	Wet	Sun	plugs	6"	Mass
	X	Herb	Moist	Part	plugs	6"	Mass
		Herb	Dry	Sun	seed, plugs	4"	Mass
		Herb	Moist	Sun	plugs	4"	Mass
		Herb	Mix	Sun	seed	na	Mass
	X	Grass	Dry	Sun	seed	na	Mass
		Grass	Dry	Sun	seed	na	Mass
		Grass	Wet	Sun	seed	na	Mass

* - Grows 5-30 cm tall

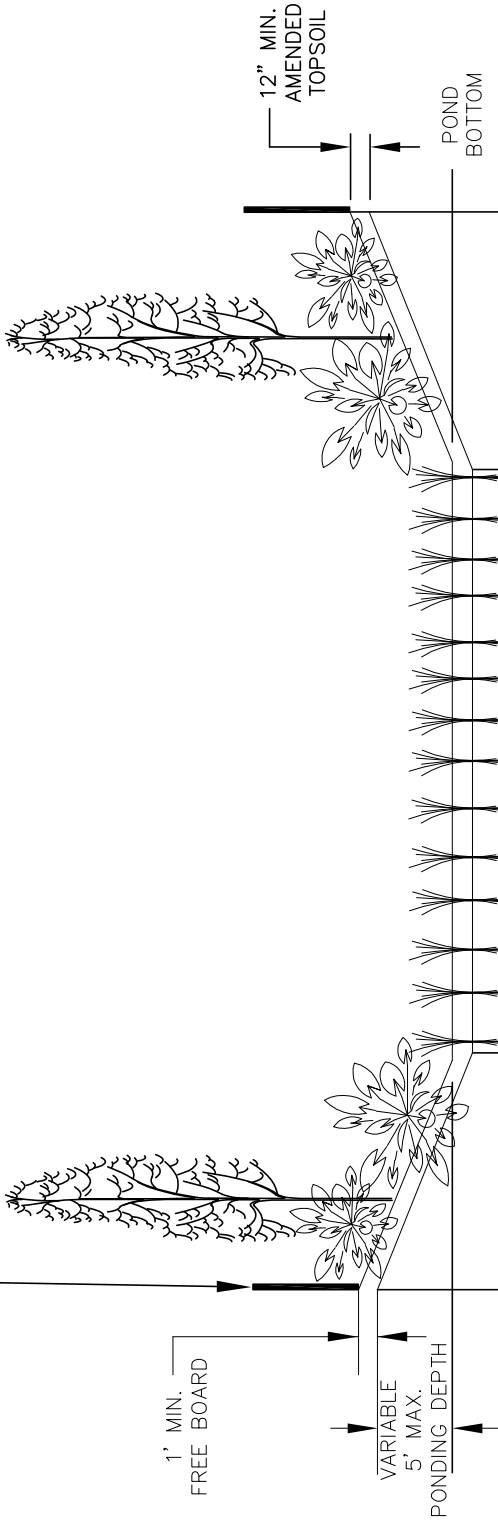
**Elysian Subdivision
McMinnville, Oregon
Stormwater Management Report**

APPENDIX V

Detail Drawings/Specifications

VEGETATED SWALES

VINYL CLAD CHAIN LINK FENCING
SEE STD. DETAIL NO. 740
OR AS APPROVED BY DISTRICT OR CITY.



1' MIN.
FREE BOARD

VARIABLE
5' MAX.
PONDING DEPTH

12" MIN.
AMENDED
TOPSOIL

POND
BOTTOM

EC MATTING	SIDE SLOPE AREA	DETENTION AREA 6' MINIMUM WIDTH	SIDE SLOPE AREA
SEED MIX	ECONOJUTE*	COCONUT FIBER OR GEOJUTE PLUS*	ECONOJUTE*
MAX. SLOPE	LOW GROW MIX SEE NOTE #5	NONE	LOW GROW MIX SEE NOTE #5
	3H:1V TYP	FLAT BOTTOM	3H:1V TYP

* OR AS APPROVED

NOTES:

1. REFER TO CHAPTER 4, CWS DESIGN & CONSTRUCTION STANDARDS, FOR LANDSCAPING REQUIREMENTS INCLUDING TREE PLACEMENT, TOPSOIL AND PLANTING SPECIFICATIONS.
2. PROVIDE IRRIGATION AS APPROVED BY CWS.
3. JUTE MATTING-- GEOJUTE PLUS IN DETENTION AREA, ECONOJUTE FOR ALL OTHER AREAS, OR SIMILAR FABRICS. COCONUT FIBER IS ALSO ACCEPTABLE.
4. 12 INCHES OF AMENDED TOPSOIL SHALL BE PLACED THROUGHOUT THE WATER QUANTITY FACILITY.
5. SIDE SLOPE AREA SEED MIX, DWARF TALL FESCUE 40%, DWARF PERENNIAL RYE 30%, CREEPING RED FESCUE 25%, COLONIAL BENT GRASS 5%. APPLY AT A RATE OF 120# / ACRE.

DETENTION POND



CONSTRUCTION

1. Detention Pond shall be over-excavated and filled to final grade with 12-inch amended topsoil. Topsoil amendments shall be garden compost, not conventional fertilizer amendments.
2. A biodegradable Erosion Control Matting shall be placed over the topsoil throughout the Detention Pond cross section, fabric shall be held in place in accordance with the manufacturer's installation requirements. Anchor spacing shall be based on 3 fps flow over the fabric.
 - a. Pond bottom - high-density jute matting (Geojute Plus or other approved equal)
 - b. All other areas - low-density jute matting (EconoJute or other approved equal)
3. Plant materials shall be placed in accordance with the plan and plant table as shown on approved plans.
4. The facility shall be deemed acceptable to begin the maintenance period when plant growth and density matches the Engineer's design as shown on the approved plans and all other requirements have been met. The Engineer must certify the facility to be functional, in accordance with the approved plan design to begin the two-year maintenance period..

MAINTENANCE

1. The permittee is responsible for the maintenance of this facility for a minimum of two years following construction and acceptance of this facility per Chapter 2.
2. Irrigation is to be provided per separate irrigation plan as approved.

Note: Irrigation needs are to be met using a temporary irrigation system with a timer during the dry season. Systems should be winterized during the wet season to assure longevity and guard against damage from freezing temperatures. Water source shall be as shown on the approved plans.
3. Engineer or Owner's Representative is required to perform Monitoring and Maintenance of the Site and provide Documentation as required in Appendix A, 2.5 of the Design and Construction Standards. The Approved Plans shall include a Maintenance Schedule per Appendix A, 2.6.e of the Design and Construction Standards.
4. The Facility shall be re-excavated and planted if siltation greater than 3 inches in depth occurs within the two-year maintenance period.

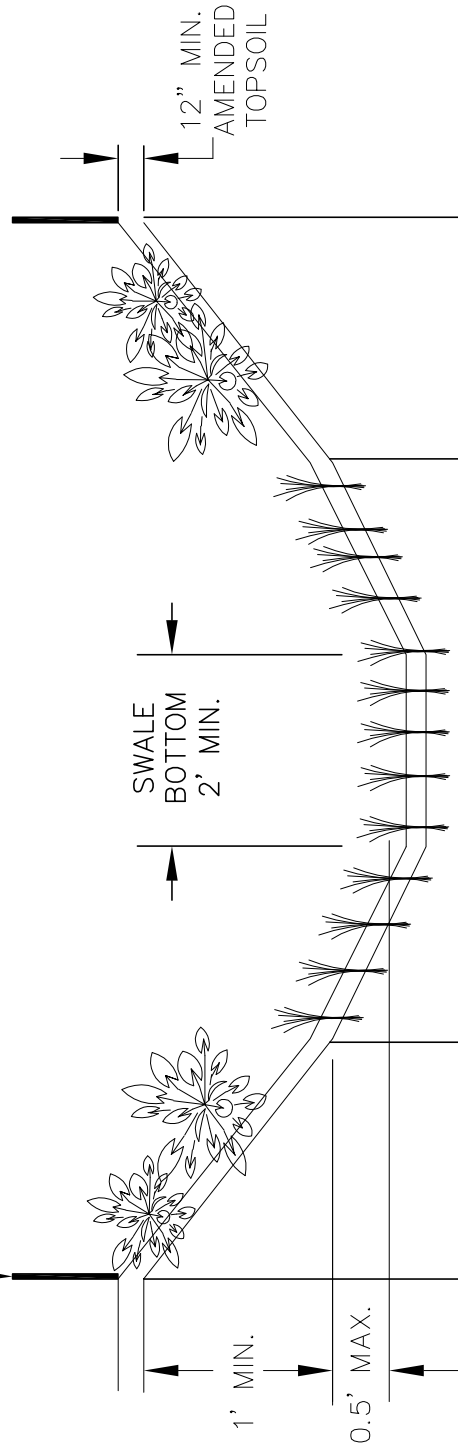
DETENTION POND CONSTRUCTION & MAINTENANCE NOTES

DETAIL NO. 701

REVISED 10-31-19



VINYL CLAD CHAIN LINK FENCING
 SEE STD. DRAWING NO. 740
 AS APPROVED BY DISTRICT OR CITY.



SWALE AREA	SIDE SLOPE AREA	TREATMENT AREA 6' MINIMUM WIDTH	SIDE SLOPE AREA
EC MATTING	ECONOJUTE*	COCONUT FIBER OR GEOJUTE PLUS*	ECONOJUTE*
SEED MIX	LOW GROW MIX SEE NOTE #5	NONE	LOW GROW MIX SEE NOTE #5
MAX. SLOPE	2.5H:1V	4H:1V TYP FLAT BOTTOM	2.5H:1V

* OR AS APPROVED

NOTES:

1. REFER TO CHAPTER 4, CWS DESIGN & CONSTRUCTION STANDARDS, FOR LANDSCAPING REQUIREMENTS INCLUDING TREE PLACEMENT, TOPSOIL AND PLANTING SPECIFICATIONS.
2. PROVIDE IRRIGATION AS APPROVED BY CWS.
3. JUTE MATTING- GEOJUTE PLUS IN TREATMENT AREA, ECONOJUTE FOR ALL OTHER AREAS, OR SIMILAR FABRICS. COCONUT FIBER IS ALSO ACCEPTABLE.
4. 12 INCHES OF AMENDED TOPSOIL SHALL BE PLACED THROUGHOUT THE WATER QUALITY FACILITY.
5. FREEBOARD AREA SEED MIX, DWARF TALL FESCUE 40%, DWARF PERENNIAL RYE 30%, CREEPING RED FESCUE 25%, COLONIAL BENT GRASS 5%. APPLY AT A RATE OF 120# / ACRE.

WATER QUALITY SWALE



CONSTRUCTION

1. Water Quality Facility shall be over-excavated and filled to final grade with 12-inch amended topsoil. Topsoil amendments shall be garden compost, not conventional fertilizer amendments.
2. A biodegradable Erosion Control Matting shall be placed over the topsoil throughout the swale cross section, fabric shall be held in place in accordance with the manufacturer's installation requirements. Anchor spacing shall be based on 3 fps flow over the fabric.
 - a. Treatment area - high-density jute matting (Geojute Plus or other approved equal)
 - b. All other areas - low-density jute matting (EconoJute or other approved equal)
3. Plant materials shall be placed in accordance with the plan and plant table as shown on approved plans.
4. The water quality facility treatment area plantings can be deemed "substantially complete" once active green growth has occurred to an average growth of 3" and plant density is an average of approx. 6 plants (minimum 1-inch plugs or equivalent) per square foot.
5. The facility shall be deemed acceptable to begin the maintenance period when plant growth and density matches the engineer's design as shown on the approved plans and all other requirements have been met. The engineer must certify the facility to be functional, in accordance with the approved plan design to begin the two-year maintenance period.

MAINTENANCE

5. The permittee is responsible for the maintenance of this facility for a minimum of two years following construction and acceptance of this facility per Chapter 2.
6. Irrigation is to be provided per separate irrigation plan as approved.

Note: Irrigation needs are to be met using a temporary irrigation system with a timer during the dry season. Systems should be winterized during the wet season to assure longevity and guard against damage from freezing temperatures. Water source shall be as shown on the approved plans.
7. Engineer or Owner's Representative is required to perform Monitoring and Maintenance of the Site and provide Documentation as required in Appendix A, 2.5 of the Design and Construction Standards. The Approved Plans shall include a Maintenance Schedule per Appendix A, 2.6.e of the Design and Construction Standards.
8. The facility shall be re-excavated and planted if siltation greater than 3 inches in depth occurs within the two-year maintenance period.

WATER QUALITY SWALE CONSTRUCTION & MAINTENANCE NOTES

DETAIL NO. 706

REVISED 10-31-19



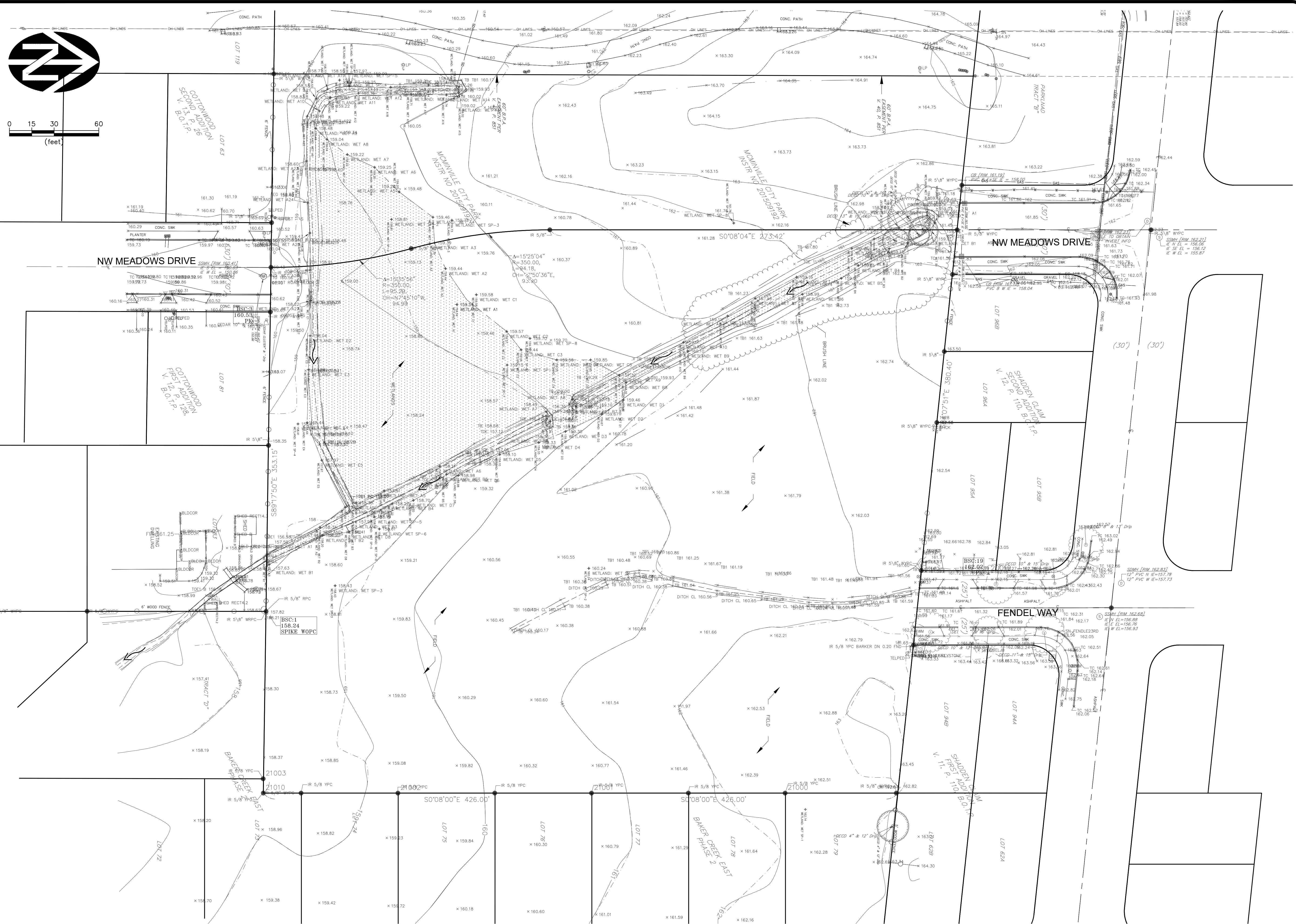
Revised on 06.23.2022
549 of 614

**Elysian Subdivision
McMinnville, Oregon
Stormwater Management Report**

APPENDIX VI

Supplemental Civil Drawings

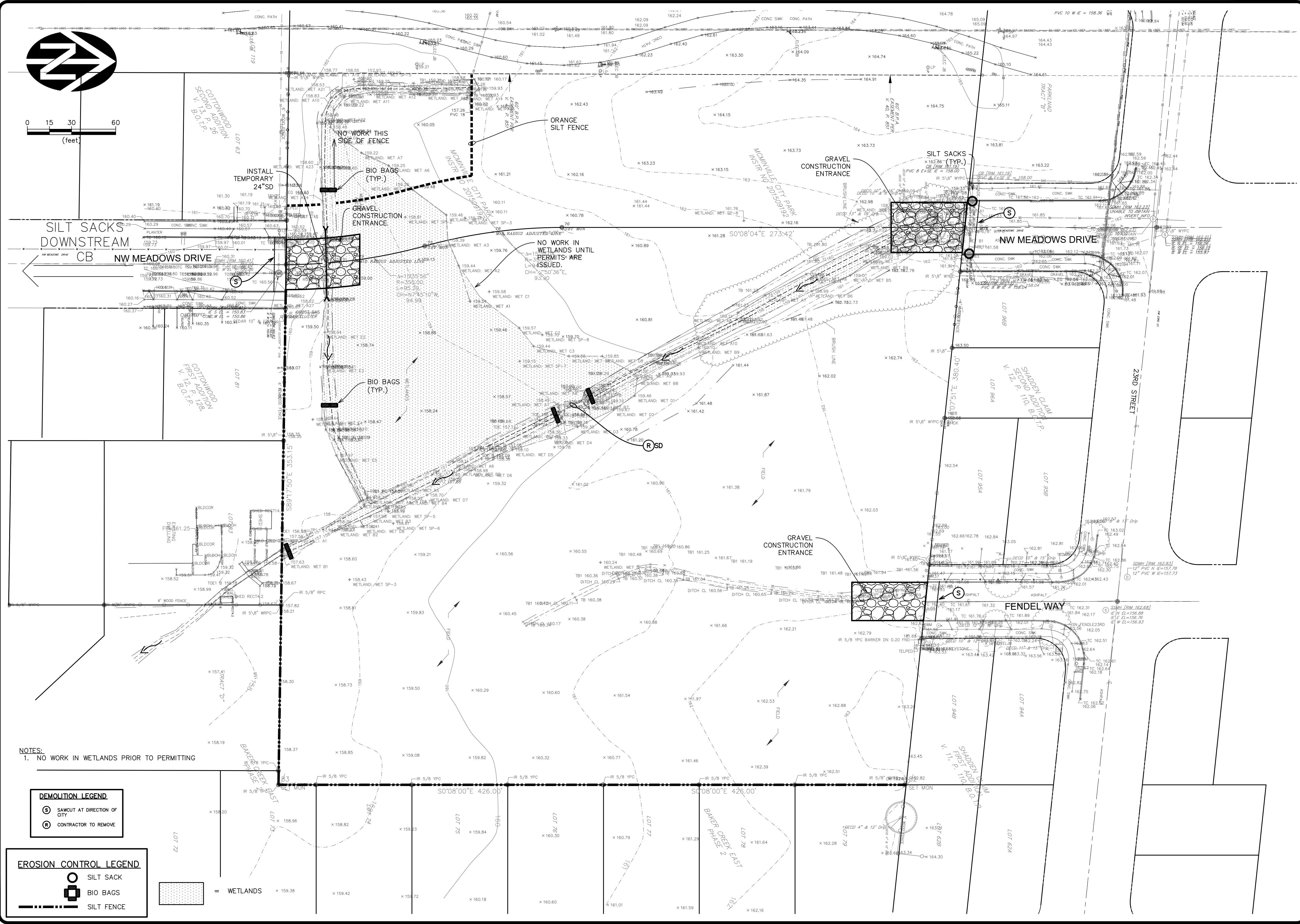
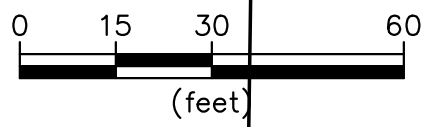
5/5/2022 2:28:05 PM
 E:\DWGSD\Don Jones - Subdivision - 2931.0000\Civil\Plots\CO.1 - EXISTING CONDITIONS PLAN.dwg. (CO.1 EXISTING CONDITIONS PLAN.tbl)



DRAWING		JOB NUMBER	
CO.1		2931.0000.0	
VJ-2 DEVELOPMENT		ELYSIAN SUBDIVISION	
EXISTING CONDITIONS PLAN		DRAWING	
WESTTECH ENGINEERING, INC.		CONSULTING ENGINEERS AND PLANNERS	
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302		Phone: (503) 585-2474 Fax: (503) 585-3966	
E-mail: westtech@westtech-eng.com		WESTTECH ENGINEERING, INC.	
REGISTERED PROFESSIONAL ENGINEER		REGISTERED PROFESSIONAL ENGINEER	
WILLIAM T. WELLS		WILLIAM T. WELLS	
NO. 11101		NO. 11101	
DATE: 6/20/2022		DATE: 6/20/2022	
REVISIONS		REVISIONS	
NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALE, ACCURACY IS NOT GUARANTEED

DSN: JW
 DRN: JH
 CKD: JW
 DATE: 6/20/2022



NOTES:
1. NO WORK IN WETLANDS PRIOR TO PERMITTING

DEMOLITION LEGEND

- (S) SANICUT AT DIRECTION OF CITY
- (R) CONTRACTOR TO REMOVE

EROSION CONTROL LEGEND

- (Symbol: Circle with cross-hatch) SILT SACK
- (Symbol: Square with cross-hatch) BIO BAGS
- (Symbol: Dashed line) SILT FENCE
- (Symbol: Stippled area) WETLANDS

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON SCALE, ACCURACY UNABLE TO OBTAIN. REVERT INFO.

DSN. JW
DRN. JH
CKD. JW

DATE: 06/20/2022

REVIEW REVIEW

REGISTERED PROFESSIONAL ENGINEER
WESTTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS
11011 N. W. 110th St., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westtech@westtech-eng.com

WESTTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS

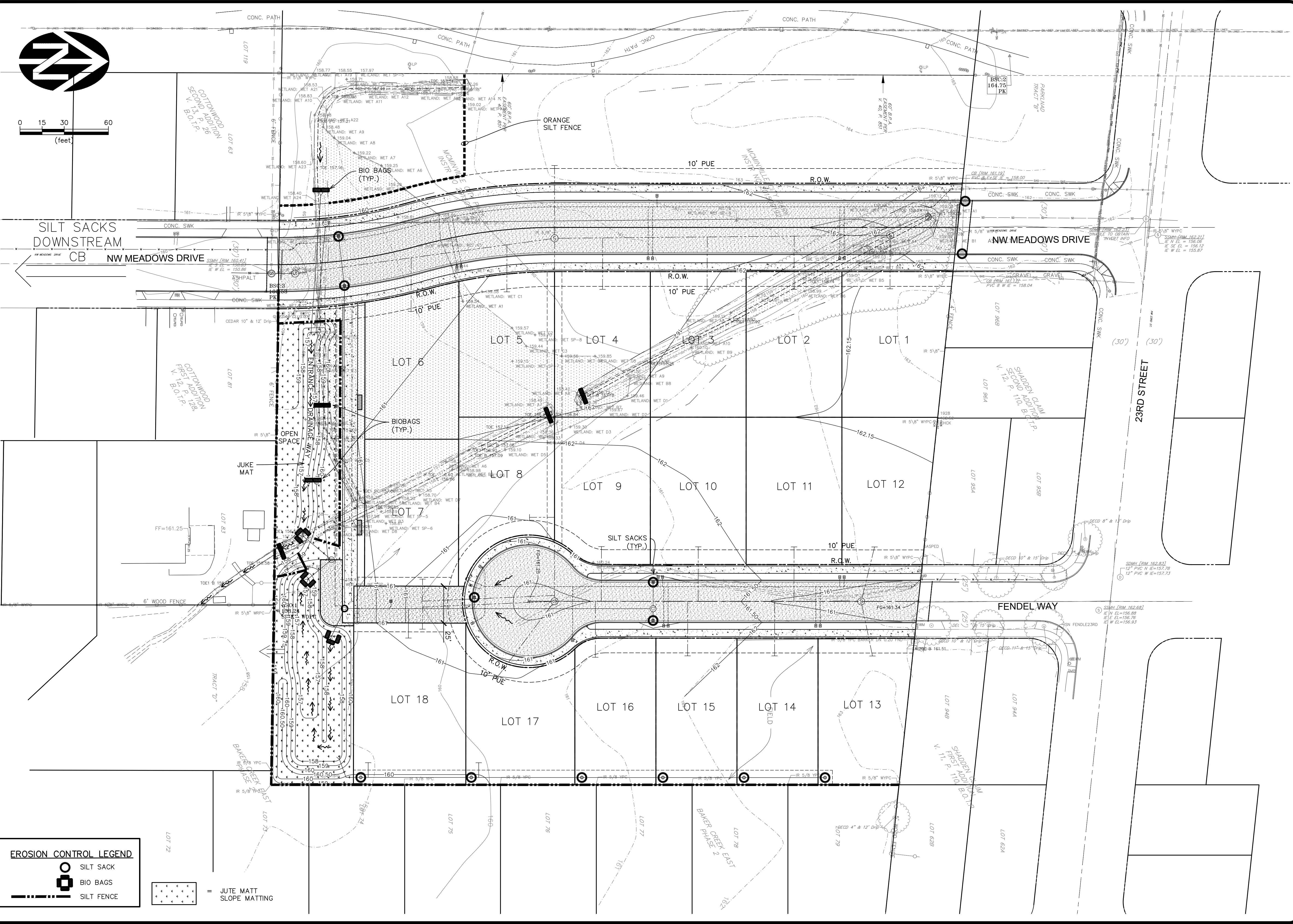
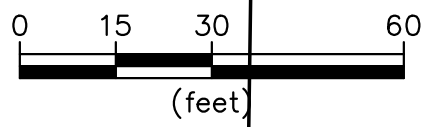
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION

PRE-DEVELOPED EROSION CONTROL PLAN

DRAWING
C1.0

JOB NUMBER
2931.0000.0



EROSION CONTROL LEGEND

	SILT SACK
	BIO BAGS
	SILT FENCE
	JUTE MATT SLOPE MATTING

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON SCALES ACCURACLY

DATE: 06/20/2022

DSN: JW
DRN: JH
CKD: JW



WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION

POST EROSION CONTROL PLAN

DRAWING
C1.1

JOB NUMBER
2931.0000.0

DEQ EROSION CONTROL STANDARD NOTES:

- Hold a pre-construction meeting of project construction personnel that includes the inspector to discuss erosion and sediment control measures and construction limits. (Schedule A.8.c.i.(3))
- All inspections must be made in accordance with DEQ 1200-C permit requirements. (Schedule A.12.b and Schedule B.1)
- Inspection logs must be kept in accordance with DEQ's 1200-C permit requirements. (Schedule B.1.c and B.2)
- Retain a copy of the ESCP and all revisions on site and make it available on request to DEQ, Agent, or the local municipality. During inactive periods of greater than seven (7) consecutive calendar days, the above records must be retained by the permit registrant but do not need to be at the construction site. (Schedule B.2.c)
- All permit registrants must implement the ESCP. Failure to implement any of the control measures or practices described in the ESCP is a violation of the permit. (Schedule A 8.a)
- The ESCP must be accurate and reflect site conditions. (Schedule A.12.c.i)
- Submission of all ESCP revisions is not required. Submittal of the ESCP revisions is only under specific conditions. Submit all necessary revision to DEQ or Agent within 10 days. (Schedule A.12.c.iv. and v)
- Phase clearing and grading to the maximum extent practical to prevent exposed inactive areas from becoming a source of erosion. (Schedule A.7.a.iii)
- Identify, mark, and protect (by construction fencing or other means) critical riparian areas and vegetation including important trees and associated rooting zones, and vegetation areas to be preserved. Identify vegetative buffer zones between the site and sensitive areas (e.g., wetlands), and other areas to be preserved, especially in perimeter areas. (Schedule A.8.c.i.(1) and (2))
- Preserve existing vegetation when practical and re-vegetate open areas. Re-vegetate open areas when practicable before and after grading or construction. Identify the type of vegetative seed mix used. (Schedule A.7.a.v)
- Maintain and delineate any existing natural buffer within the 50-foot of waters of the state. (Schedule A.7.b.i. and (2)(a)(b))
- Install perimeter sediment control, including storm drain inlet protection as well as all sediment basins, traps, and barriers prior to land disturbance. (Schedule A.8.c.i.(5))
- Control both peak flow rates and total stormwater volume, to minimize erosion at outlets and downstream channels and streambanks. (Schedule A.7.c)
- Control sediment as needed along the site perimeter and at all operational internal storm drain inlets at all times during construction, both internally and at the site boundary. (Schedule A.7.d.i)
- Establish concrete truck and other concrete equipment washout areas before beginning concrete work. (Schedule A.8.c.i.(6))
- Apply temporary and/or permanent soil stabilization measures immediately on all disturbed areas as grading progresses. Temporary or permanent stabilizations measures are not required for areas that are intended to be left unvegetated, such as dirt access roads or utility pole pads. (Schedule A.8.c.ii.(3))
- Establish material and waste storage areas, and other non-stormwater controls. (Schedule A.8.c.i.(7))
- Prevent tracking of sediment onto public or private roads using BMPs such as: construction entrance, gravelled (or paved) exits and parking areas, gravel all unpaved roads located onsite, or use an exit tire wash. These BMPs must be in place prior to land-disturbing activities. (Schedule A 7.d.ii and A.8.c.i.(4))
- When trucking saturated soils from the site, either use water-tight trucks or drain loads on site. (Schedule A.7.d.ii.(5))
- Control prohibited discharges from leaving the construction site, i.e., concrete wash-out, wastewater from cleanout of stucco, paint and curing compounds. (Schedule A.6)
- Use BMPs to prevent or minimize stormwater exposure to pollutants from spills; vehicle and equipment fueling, maintenance, and storage; other cleaning and maintenance activities; and waste handling activities. These pollutants include fuel, hydraulic fluid, and other oils from vehicles and machinery, as well as debris, fertilizer, pesticides and herbicides, paints, solvents, curing compounds and adhesives from construction operations. (Schedule A.7.e.i.(2))
- Implement the following BMPs when applicable: written spill prevention and response procedures, employee training on spill prevention and proper disposal procedures, spill kits in all vehicles, regular maintenance schedule for vehicles and machinery, material delivery and storage controls, training and signage, and covered storage areas for waste and supplies. (Schedule A 7.e.iii.)
- Use water, soil-binding agent or other dust control technique as needed to avoid wind-blown soil. (Schedule A 7.a.iv)
- The application rate of fertilizers used to reestablish vegetation must follow manufacturer's recommendations to minimize nutrient releases to surface waters. Exercise caution when using time-release fertilizers within any waterway riparian zone. (Schedule A.9.b.iii)
- If an active treatment system (for example, electro-coagulation, flocculation, filtration, etc.) for sediment or other pollutant removal is employed, submit an operation and maintenance plan (including system schematic, location of system, location of inlet, location of discharge, discharge dispersion device design, and a sampling plan and frequency) before operating the treatment system. Obtain plan approval before operating the treatment system. Operate and maintain the treatment system according to manufacturer's specifications. (Schedule A.9.d)
- Temporarily stabilize soils at the end of the shift before holidays and weekends, if needed. The registrant is responsible for ensuring that soils are stable during rain events at all times of the year. (Schedule A 7.b)
- As needed based on weather conditions, at the end of each workday soil stockpiles must be stabilized or covered, or other BMPs must be implemented to prevent discharges to surface waters or conveyance systems leading to surface waters. (Schedule A 7.e.ii.(2))
- Construction activities must avoid or minimize excavation and bare ground activities during wet weather. (Schedule A.7.a.i)
- Sediment fence: remove trapped sediment before it reaches one third of the above ground fence height and before fence removal. (Schedule A.9.c.i)
- Other sediment barriers (such as biobags): remove sediment before it reaches two inches depth above ground height and before BMP removal. (Schedule A.9.c.i)
- Catch basins: clean before retention capacity has been reduced by fifty percent. Sediment basins and sediment traps: remove trapped sediments before design capacity has been reduced by fifty percent and at completion of project. (Schedule A.9.c.iii& iv)
- Within 24 hours, significant sediment that has left the construction site, must be remediated. Investigate the cause of the sediment release and implement steps to prevent a recurrence of the discharge within the same 24 hours. Any in-stream clean-up of sediment shall be performed according to the Oregon Division of State Lands required timeframe. (Schedule A.9.b.i)
- The intentional washing of sediment into storm sewers or drainage ways must not occur. Vacuuming or dry sweeping and material pickup must be used to cleanup released sediments. (Schedule A.9.b.ii)
- The entire site must be temporarily stabilized using vegetation or a heavy mulch layer, temporary seeding, or other method should all construction activities cease for 30 days or more. (Schedule A.7.f.i)
- Provide temporary stabilization for that portion of the site where construction activities cease for 14 days or more with a covering of blown straw and a tackifier, loose straw, or an adequate covering of compost mulch until work resumes on that portion of the site. (Schedule A.7.f.ii)
- Do not remove temporary sediment control practices until permanent vegetation or other cover of exposed areas is established. Once construction is complete and the site is stabilized, all temporary erosion controls and retained soils must be removed and disposed of properly, unless doing so conflicts with local requirements. (Schedule A.8.c.iii(1) and D.3.c.ii and iii)

Rev. 12/15/15 By: Krista Ratliff

YEAR:	'20	'20	'20	'20	'20	'20	'20	'21	'21	'21	'21	'21
MONTH:	06	07	08	09	10	11	12	01	02	03	04	05
CLEARING	X	X	X									
EXCAVATION	X	X	X									
GRADING	X	X	X	X	X							
CONSTRUCTION	X	X	X	X	X	X	X	X	X	X	X	X
SEDIMENT CONTROLS:												
Silt Fencing	X	X	X	X	X	X	X	X	X	X	X	X
Sediment Traps	X	X	X	X	X	X	X	X	X	X	X	X
Sediment Basins	X	X	X	X	X	X	X	X	X	X	X	X
Storm Inlet Protection	X	X	X	X	X	X	X	X	X	X	X	X
Drainage Swales												
Check Dams												
Contour Furrows												
Terracing												
Pipe Slope Drains												
Rock Outlet Protection												
Gravel Construction Entrance												
Grass-lined Channel (Turf Reinforcement Mats)												
Protection of trees with construction fences												
Temporary Seeding and Planting												
Permanent Seeding and Planting					X	X	X	X	X	X	X	X
Other:												

CONTROL MEASURE	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5
Silt Fencing	X	X	X	X	
Construction Entrance					
Sediment Traps	X	X	X	X	
Storm Inlet Protection			X	X	
Concrete Washout					
Rock Outlet Protection					
Permanent Seeding and Planting					X
Phase 1: Prior to Ground Disturbance Phase 2: After Completion of Rough Grading Phase 3: After Installation of Storm Facilities Phase 4: After Paving & Construction Phase 5: After Project Completion and Cleanup					

INSPECTION FREQUENCY FOR BMP

Site Condition	Minimum Frequency
1. Active period	Daily when stormwater runoff, including runoff from snowmelt, is occurring. At least once every 14 days, regardless of whether stormwater runoff is occurring.
2. Prior to the site becoming inactive or in anticipation of site inaccessibility.	Once to ensure that erosion and sediment control measures are in working order. Any necessary maintenance and repair must be made prior to leaving the site.
3. Inactive periods greater than seven (14) consecutive calendar days	Once every month.
4. Periods during which the site is inaccessible due to inclement weather	If practical, inspections must occur daily at a relevant and accessible discharge point or downstream location.
5. Periods during which discharge is unlikely due to frozen conditions	Monthly. Resume monitoring immediately upon melt, or when weather conditions make discharge likely.

BMP Rationale

A comprehensive list of available Best Management Practices (BMP) options based on DEQ's 1200-C Permit Application and ESCP Guidance Document has been reviewed to complete this Erosion and Sediment Control Plan. Some of the above listed BMPs were not chosen because they were determined to not effectively manage erosion prevention and sediment control for this project based on specific site conditions, including soil conditions, topographic constraints, accessibility to the site, and other related conditions. As the project progresses and there is a need to revise the ESCP, an Action Plan will be submitted.

SOIL TYPE(S): PER MARION CO. SOIL SURVEY THE SITE SOILS INCLUDE, "WOODBURN SILT LOAM, 0 TO 3 PERCENT SLOPES"
 EROSION HAZARD: PER MARION CO. SOIL SURVEY EROSION HAZARD RANGES FROM "SLIGHT".
 SITE AREA: 3.79 AC
 DISTURBANCE AREA: 4.10 AC
 LOCAL RAIN GAGE: MCMINNVILLE MUNICIPAL AIRPORT OR, US
 LAT/LONG 45.194, -123.1368

SUPPLEMENTAL WESTECH NOTES:

- Erosion control measures shall be maintained in such a manner as to ensure that sediment and sediment-laden water does not enter the drainage system, roadways, or violate applicable water quality standards.
- The erosion control construction, maintenance, replacement and upgrading of the erosion control facilities is the responsibility of the Contractor until all construction is completed and approved, and permanent erosion control (i.e. vegetation/landscaping) is established on all disturbed areas.
- All recommended erosion control procedures are dependent on construction methods, staging, site conditions, weather and scheduling. During the construction period, erosion control facilities shall be upgraded as necessary due to unexpected storm events and to ensure that sediment and sediment laden water does not leave the site.
- The Contractor is responsible for control of sediment transport within project limits. If an installed erosion control system does not adequately contain sediment on site, then the erosion control measures shall be adjusted or supplemented by the Contractor as necessary to ensure that sediment laden water does not leave the site. Additional measures shall be provided as required to ensure that all paved areas are kept clean for the duration of the project. Additional interim measures will include, at a minimum, installation of silt fences in accordance with the details shown on the drawings. These measures shall be installed along all exposed embankments and cut slopes to prevent sediment transport.
- All existing and newly constructed storm inlets and drains shall be protected until pavement surfaces are completed and/or vegetation is established.
- Erosion control facilities and sediment fences on active sites shall be inspected by the Contractor at least daily during any period with measurable precipitation. Any required repairs or maintenance shall be completed immediately. The erosion control facilities on inactive sites shall be inspected and maintained by the Contractor a minimum of once a month or within 24 hours following the start of a storm event.
- All catch basins and conveyance lines shall be cleaned prior to paving. The cleaning operation shall not flush sediment-laden water into the downstream system. The Contractor shall remove all accumulated sediment from all impacted catch basins and storm pipes prior to acceptance by the Owner.
- The Contractor is solely responsible for protection of all adjacent property and downstream facilities from erosion and siltation during project construction. Any damage resulting from such erosion and siltation shall be corrected at the sole expense of the Contractor.
- The Contractor shall provide site watering as necessary to prevent wind erosion of fine-grained soils.
- Unless otherwise indicated on the drawings, all temporary erosion control facilities, including sediment fences, silt sacks, bio-bags, etc. shall be removed by the Contractor within 30 days after permanent landscaping/vegetation is established.
- Sediment fences shall be constructed of continuous filter fabric to avoid use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum 6-inch overlap, and both ends securely fastened to a post.
- Sediment fence shall be installed per drawing details. Sediment fences shall have adequate support to contain all silt and sediment captured.
- The standard strength filter fabric shall be fastened securely to stitched loops installed on the upslope side of the posts, and 6 inches of the fabric shall be extended into the trench. The fabric shall not extend more than 30 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.
- Bio-filter bags shall be clean 100 percent wood product waste. Bags shall be 18-inch x 18-inch x 30-inch, weigh approximately 45 lbs., and be contained in a bag made of 1/2-inch plastic mesh.
- Sediment barriers shall be maintained until the up-slope area has been permanently stabilized. At no time shall more than 10-inches of sediment be allowed to accumulate behind sediment fences. No more than 2 inches of sediment shall be allowed to accumulate behind bio-filter bags. Sediment shall be removed prior to reaching the above stated depths. New sediment barriers shall be installed uphill as required to control sediment transport.
- Stabilized construction entrances shall be installed at the beginning of construction and maintained for the duration of the project. Additional measures may be required to ensure that all paved areas are kept clean for the duration of the project.
- The Contractor shall verify that all trucks are well sealed when transporting saturated soils from the site. Water drippage from trucks transporting saturated soils must be reduced to less than 1 gallon per hour prior to leaving the site.
- The entrance shall be maintained in a condition that will prevent tracking or flow of mud onto the public right-of-way or approved access point. The entrance may require periodic top dressing as conditions demand, and repair and/or cleanout of any structures used to trap sediment.
- All materials spilled, dropped, washed, or tracked from vehicles onto roadways or into storm drains must be removed immediately, and the Contractor shall provide protection of downstream inlets and catch basins to ensure sediment laden water does not enter the storm drain system.
- Temporary grass cover measures must be fully established by October 15th, or other cover measures (ie. erosion control blankets with anchors, 3-inches minimum of straw mulch, 6 mil HDPE plastic sheet, etc.) shall be in place over all disturbed soil areas until April 30th. To establish an adequate grass stand for controlling erosion by October 15th, it is recommended that seeding and mulching occur by September 1st. Straw mulch, if used, shall not leave any bare ground visible through the straw.
- Minimum wet weather slope protection. For slopes steeper than 3H:1V but less than 2H:1V, use Tensor/North American Green Type S150 erosion control blanket. For slopes 2H:1V or steeper, use Tensor/North American Green Type SC150 erosion control blanket. Use a minimum of 2-inches straw mulch or Tensor/North American Green Type S150 for slopes flatter than 3H:1V. Slope protection shall be placed on all disturbed areas immediately after completion of each section of construction activity, until the erosion control seeding has been established. As an option during temporary or seasonal work stoppages, a 6-mil HDPE plastic sheet may be placed on exposed slopes. The plastic sheet shall be provided with an anchor trench at the top and bottom of the slope, and shall be sandbagged on the slopes as required to prevent damage or displacement by wind.
- Permanent erosion control vegetation on all embankments and disturbed areas shall be re-established as soon as construction is completed.
- Soil preparation. Topsoil should be prepared according to landscape plans, if available, or recommendations of grass seed supplier. It is recommended that slopes be textured before seeding by rock walking (ie. driving a crawling tractor up and down the slopes to leave a pattern of cleat imprints parallel to slope contours) or other method to provide stable areas for seeds to rest.
- When used, hydromulch shall be applied with grass seed at a rate of 2000 lbs. per acre between April 30 and June 10, or between September 1 and October 1. On slopes steeper than 10 percent, hydroseed and mulch shall be applied with a bonding agent (tackifier). Application rate and methodology to be in accordance with seed supplier recommendations.
- When used in lieu of hydromulch, dry, loose, weed free straw used as mulch shall be applied at a rate of 4000 lbs. per acre (double the hydromulch application requirement). Anchor straw by working in by hand or with equipment (rollers, cleat trackers, etc.). Mulch shall be spread uniformly immediately following seeding.
- When conditions are not favorable to germination and establishment of the grass seed, the Contractor shall irrigate the seeded and mulched areas as required to establish the grass cover.
- Seeding. Recommended erosion control grass seed mix is as follows. Dwarf grass mix (low height, low maintenance) consisting of dwarf perennial ryegrass (80 % by weight), creeping red fescue (20 % by weight). Application rate shall be 100 lbs. per acre minimum.
- Grass seed shall be fertilized at a rate of 10 lbs. per 1000 S.F. with 16- 16-16 slow release type fertilizer. Development areas within 50 feet of water bodies and wetlands must use a non-phosphorous fertilizer.
- Prior to starting construction contractor shall acquire the services of a DEQ Certified Erosion and Sediment Control Inspector and shall submit an "Action Plan" to DEQ identifying their names, contact information, training and experience as required in Schedule A.6.b.i-ii of the 1200-C Permit
- Contractor shall submit "Notice of Termination" to DEQ to end the 1200-C permit coverage once all soil disturbance activities have been completed and final stabilization of exposed soils has occurred.

NO.	DATE	DESCRIPTION	BY
1			

REVIEW REVIEW

REGISTERED PROFESSIONAL ENGINEER
 WILLIAM T. WEST
 11111 N. W. 11th St., Suite 100, Ft. Lauderdale, FL 33309
 Phone: (561) 585-2474 Fax: (561) 585-3966
 E-mail: westtech@westtech-eng.com

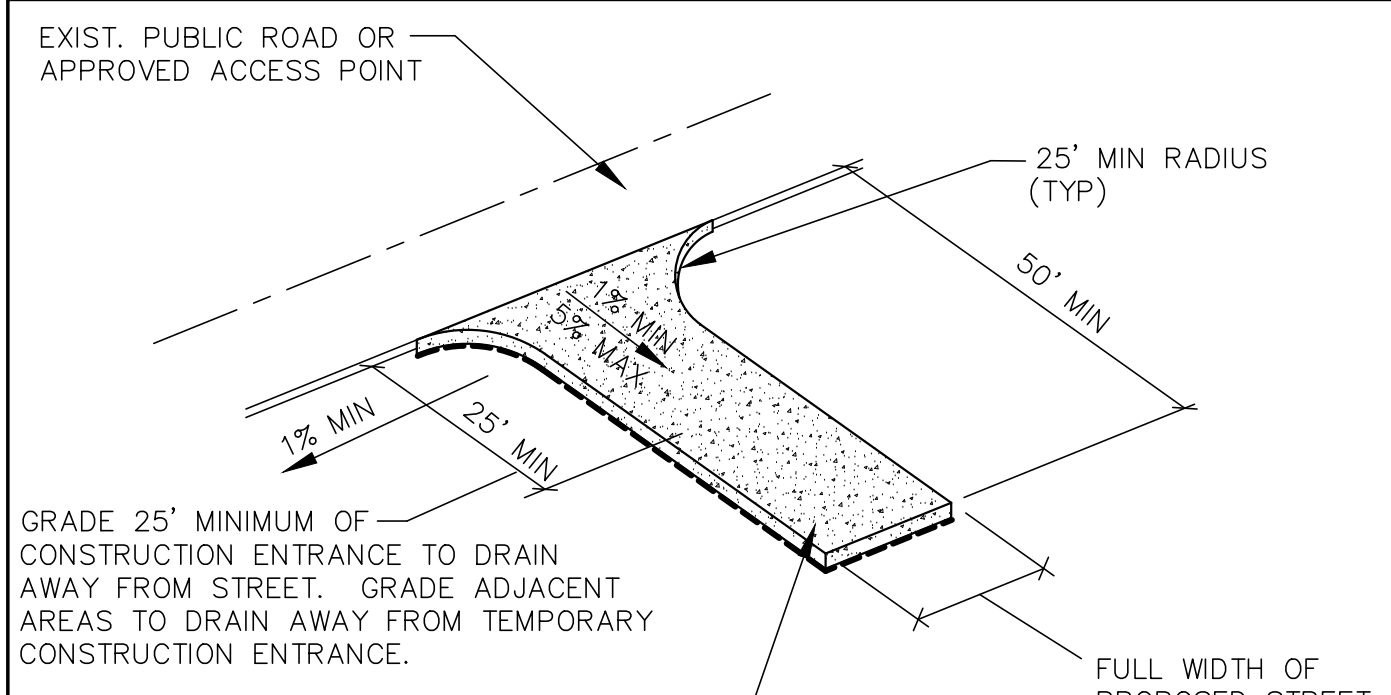
WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

EROSION CONTROL NOTES

DRAWING
C1.2
 JOB NUMBER
2931.0000.0



GRADE 25' MINIMUM OF CONSTRUCTION ENTRANCE TO DRAIN AWAY FROM STREET. GRADE ADJACENT AREAS TO DRAIN AWAY FROM TEMPORARY CONSTRUCTION ENTRANCE.

PLACE 3"-6" GRANULAR MATERIAL OVER 8-OUNCE NON-WOVEN GEOTEXTILE FABRIC AS FOLLOWS:

DRY WEATHER ACCESS
14-INCH MIN. DEPTH OVER COMPACTED SUBGRADE & FABRIC

WET WEATHER ACCESS
24-INCH MIN. DEPTH OVER UNDISTURBED SUBGRADE & FABRIC

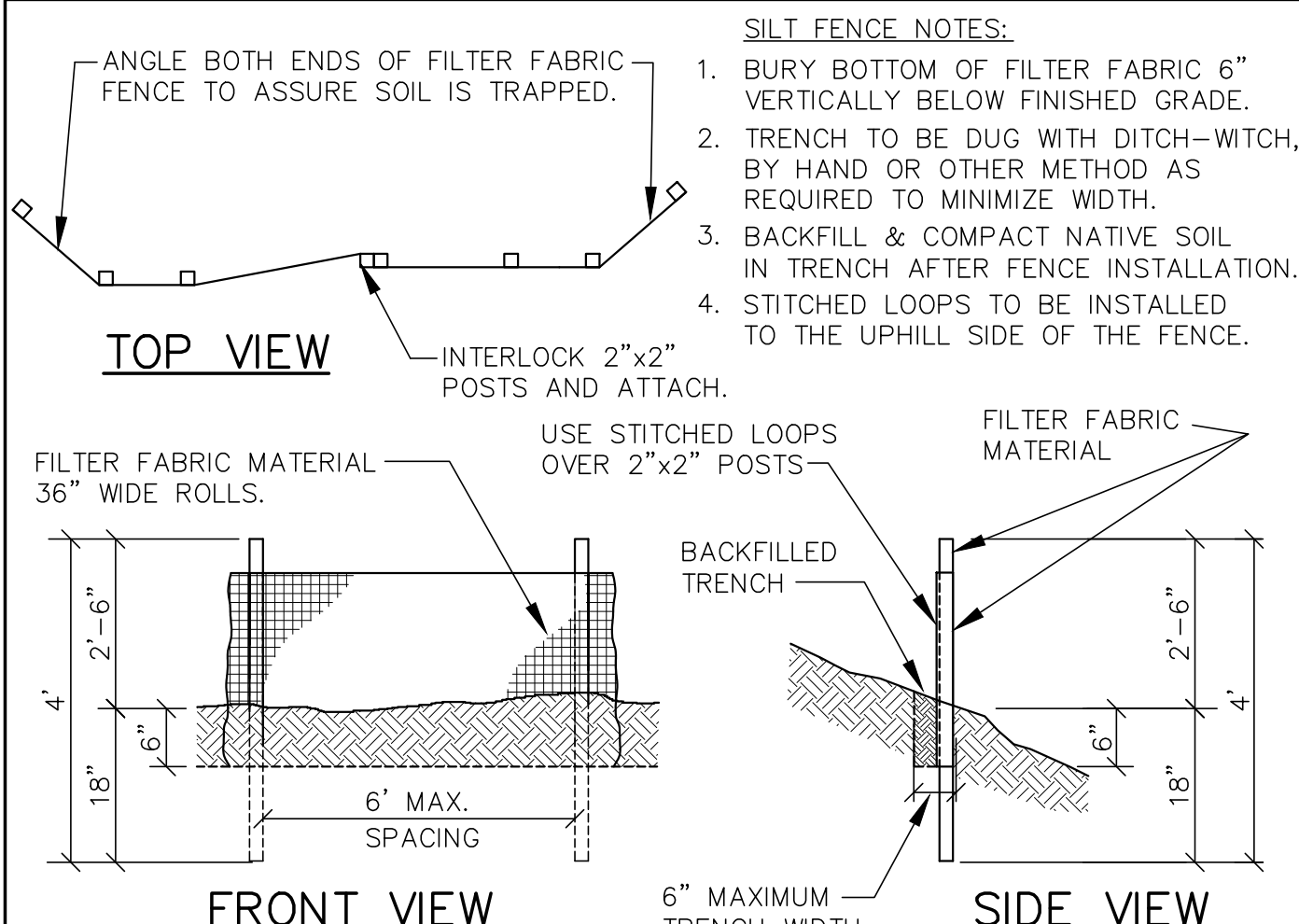
CONSTRUCTION NOTES:

1. THE AREA OF THE CONSTRUCTION ENTRANCE SHALL BE STRIPPED OF ALL TOPSOIL, VEGETATION, ROOTS, AND OTHER NON-COMPACTABLE MATERIAL.
2. SUBGRADE SHALL BE COMPACTED AND PROOFROLLED PRIOR TO PLACEMENT OF GRANULAR MATERIAL. FAILURE TO PASS PROOFROLL WILL REQUIRE USE OF WET WEATHER SECTION.
3. FAILURE OR PUMPING OF THE DRY WEATHER SECTION WILL REQUIRE REMOVAL OF THE GRANULAR MATERIAL AND INSTALLATION OF THE WET WEATHER SECTION.

MAINTENANCE NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 3"-6" INCH STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN-OUT OF STRUCTURES USED TO TRAP SEDIMENT.
2. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
3. ALL TRUCKS TRANSPORTING SATURATED SOILS SHALL BE WELL SEALED. WATER DRIPPAGE FROM TRUCKS MUST BE REDUCED TO 1 GALLON PER HOUR PRIOR TO LEAVING THE SITE.

LAST REVISION DATE:	JO #	STANDARD
MAY 2013		
TEMPORARY CONSTRUCTION ENTRANCE		
(NTS)		
WESTECH ENG.	DETAIL NO.	6100

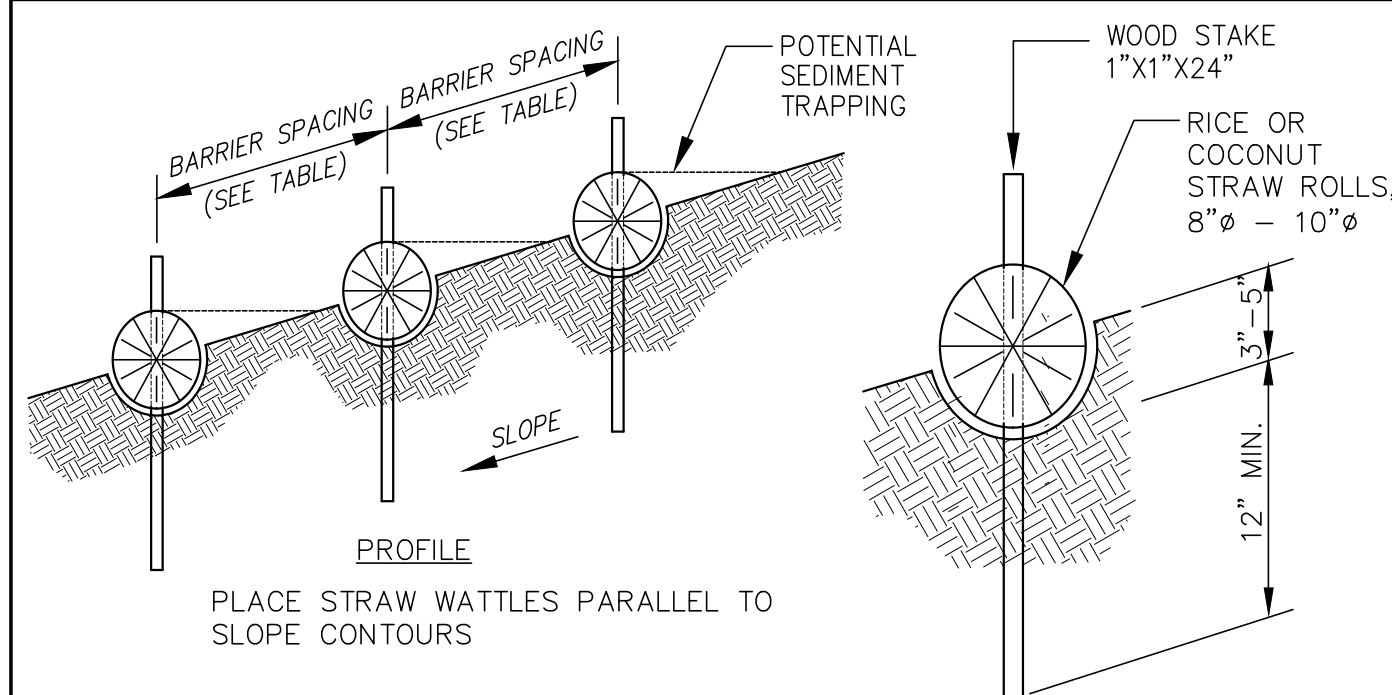


- SILT FENCE NOTES:**
1. BURY BOTTOM OF FILTER FABRIC 6" VERTICALLY BELOW FINISHED GRADE.
 2. TRENCH TO BE DUG WITH DITCH-WITCH, BY HAND OR OTHER METHOD AS REQUIRED TO MINIMIZE WIDTH.
 3. BACKFILL & COMPACT NATIVE SOIL IN TRENCH AFTER FENCE INSTALLATION.
 4. STITCHED LOOPS TO BE INSTALLED TO THE UPHILL SIDE OF THE FENCE.

MAINTENANCE NOTES:

1. SEDIMENT BARRIERS SHALL BE MAINTAINED UNTIL UP-SLOPE AREA IS PERMANENTLY STABILIZED.
2. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE BEHIND SEDIMENT FENCES OR BIOFILTER BAGS.
3. NEW SEDIMENT BARRIERS SHALL BE INSTALLED UPHILL AS REQUIRED TO CONTROL SEDIMENT TRANSPORT.

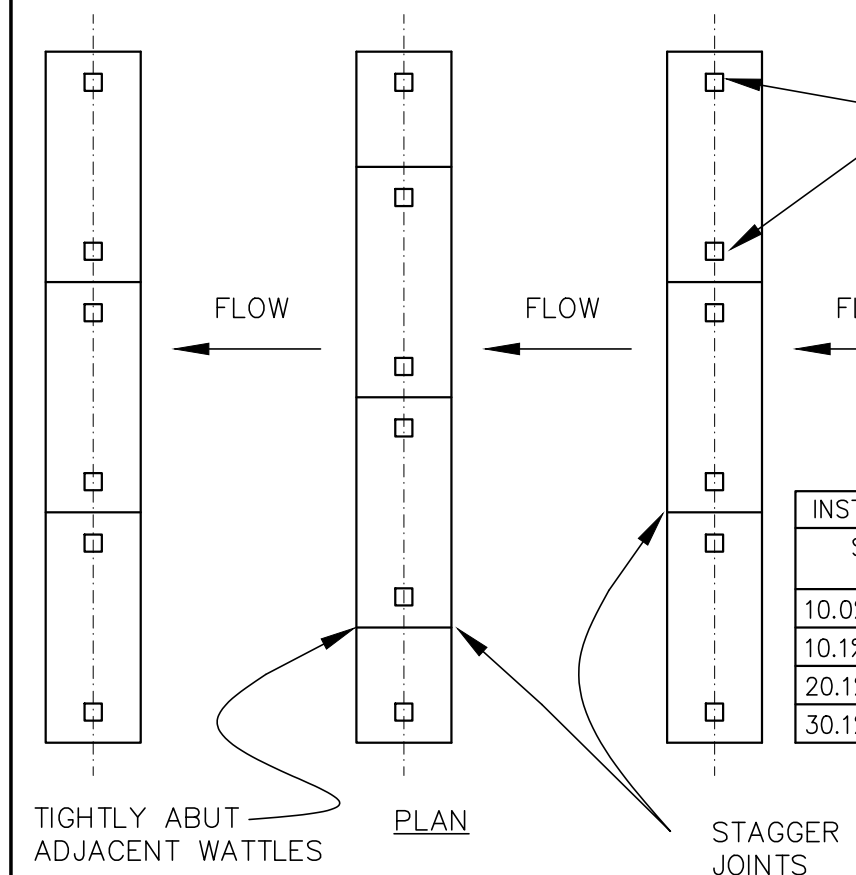
LAST REVISION DATE:	JO #	STANDARD
APRIL 2014		
SEDIMENT BARRIERS		
(NTS)		
WESTECH ENG.	DETAIL NO.	6110



SECTION
STAKE SPACING 4' MAX.

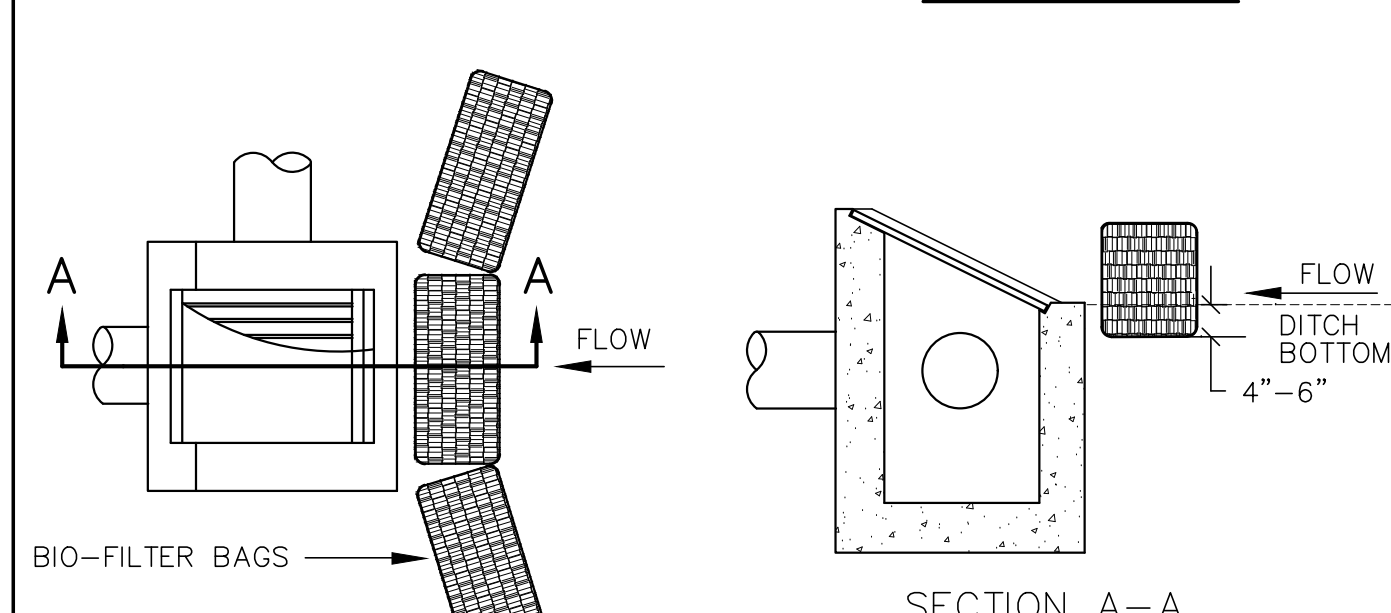
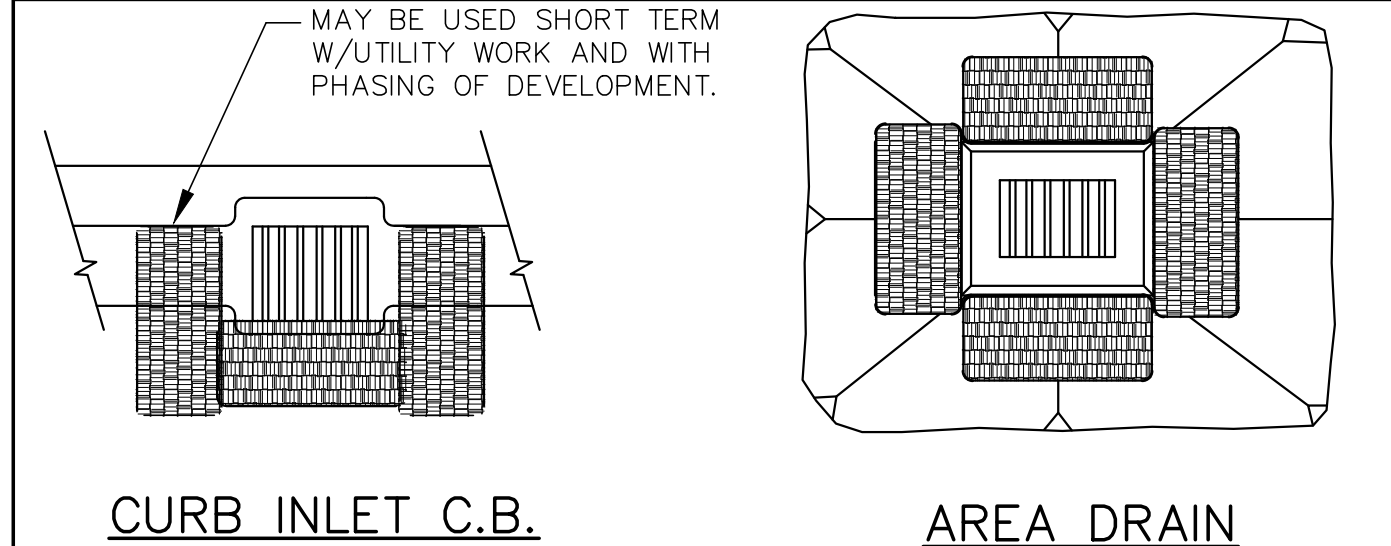
BARRIER SPACING FOR GENERAL APPLICATION
INSTALL PARALLEL TO CONTOURS AS FOLLOWS

SLOPE RATIO	MAXIMUM SPACING ON SLOPE BETWEEN WATTLES
10.0% OR FLATTER	50' O.C.
10.1% TO 20.0%	25' O.C.
20.1% TO 30.0%	10' O.C.
30.1% OR STEEPER	5' O.C.



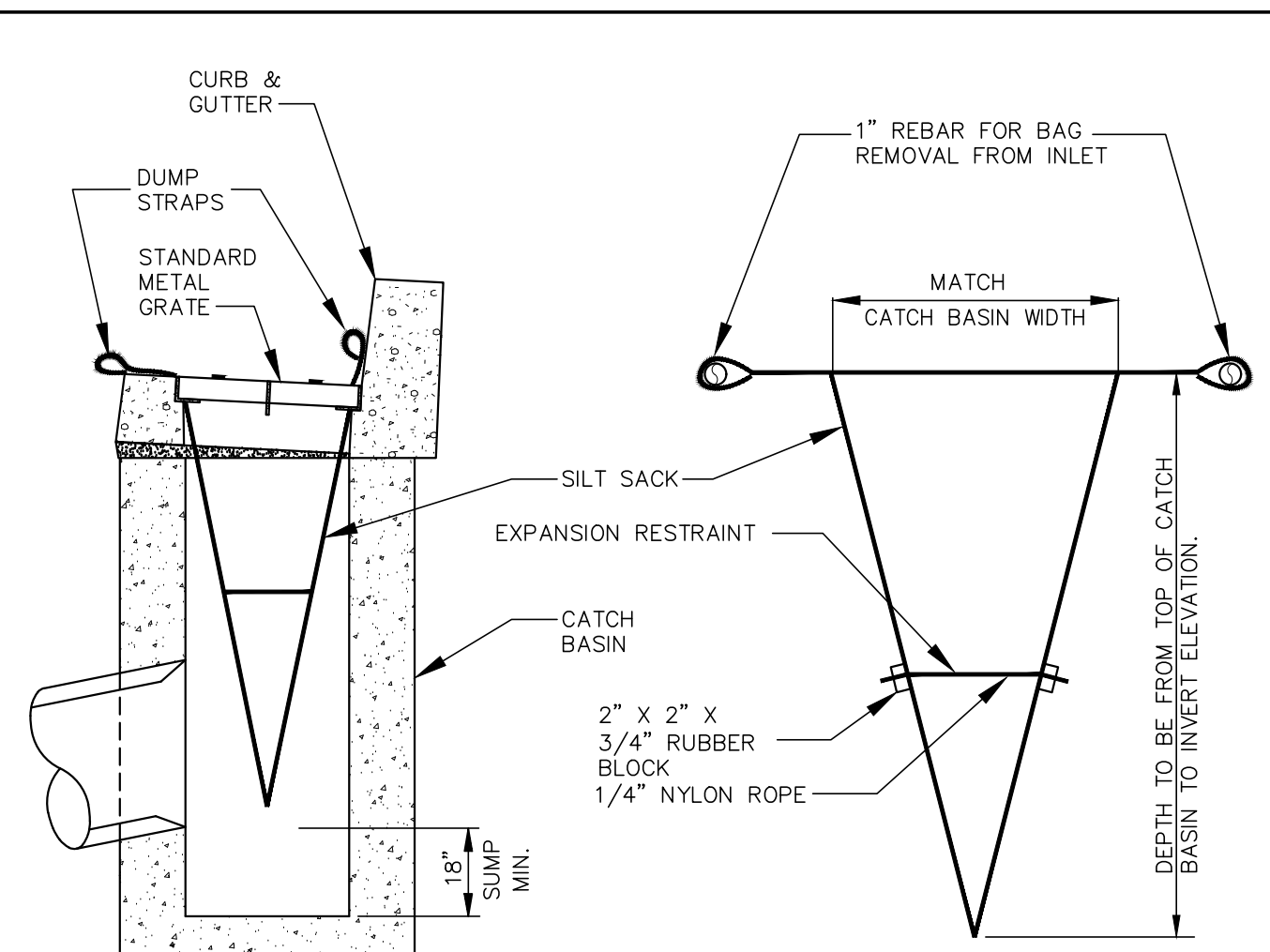
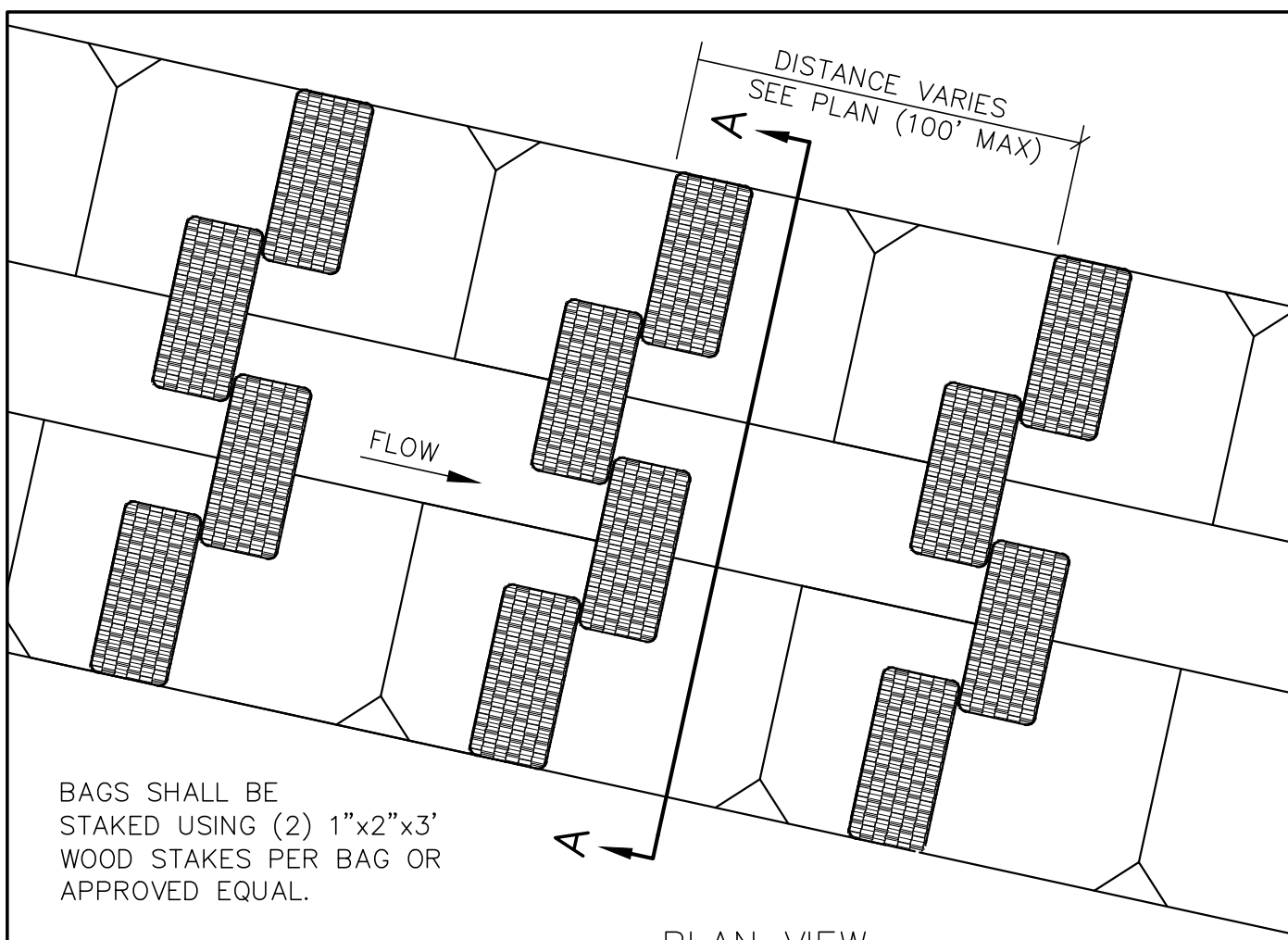
- NOTES:**
1. ALL MATERIAL SHALL CONFORM TO OSSC (ODOT/APWA) SPECIFICATIONS, CURRENT EDITION.
 2. SEDIMENT BARRIERS SHALL BE MAINTAINED UNTIL UP-SLOPE AREA IS PERMANENTLY STABILIZED.
 3. AT NO TIME SHALL SEDIMENT BE ALLOWED TO ACCUMULATE ABOVE THE TOP OF THE STRAW WATTLE.
 4. NEW SEDIMENT BARRIERS SHALL BE INSTALLED UPHILL AS REQUIRED TO CONTROL SEDIMENT TRANSPORT.

LAST REVISION DATE:	JO #	STANDARD
JUNE 2015		
STRAW WATTLE SEDIMENT BARRIER		
(NTS)		
WESTECH ENG.	DETAIL NO.	6120



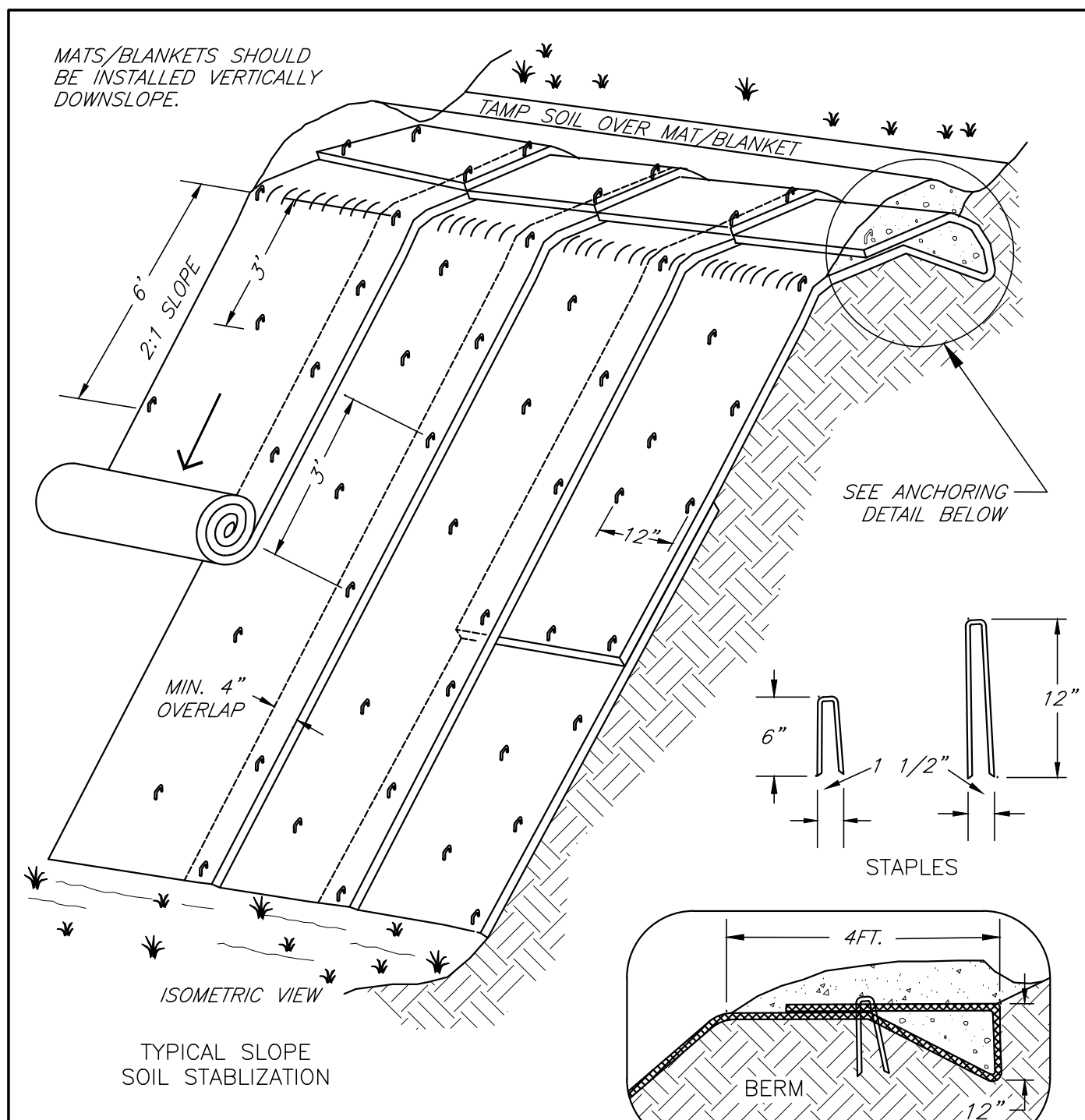
- MAINTENANCE NOTES:**
1. SEDIMENT BARRIERS SHALL BE MAINTAINED UNTIL UP-SLOPE AREA IS PERMANENTLY STABILIZED.
 2. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE BEHIND SEDIMENT FENCES OR BIOFILTER BAGS.
 3. NEW SEDIMENT BARRIERS SHALL BE INSTALLED UPHILL AS REQUIRED TO CONTROL SEDIMENT TRANSPORT.

LAST REVISION DATE:	JO #	STANDARD
APRIL 2014		
INLET SEDIMENT CONTROL		
(NTS)		
WESTECH ENG.	DETAIL NO.	6130



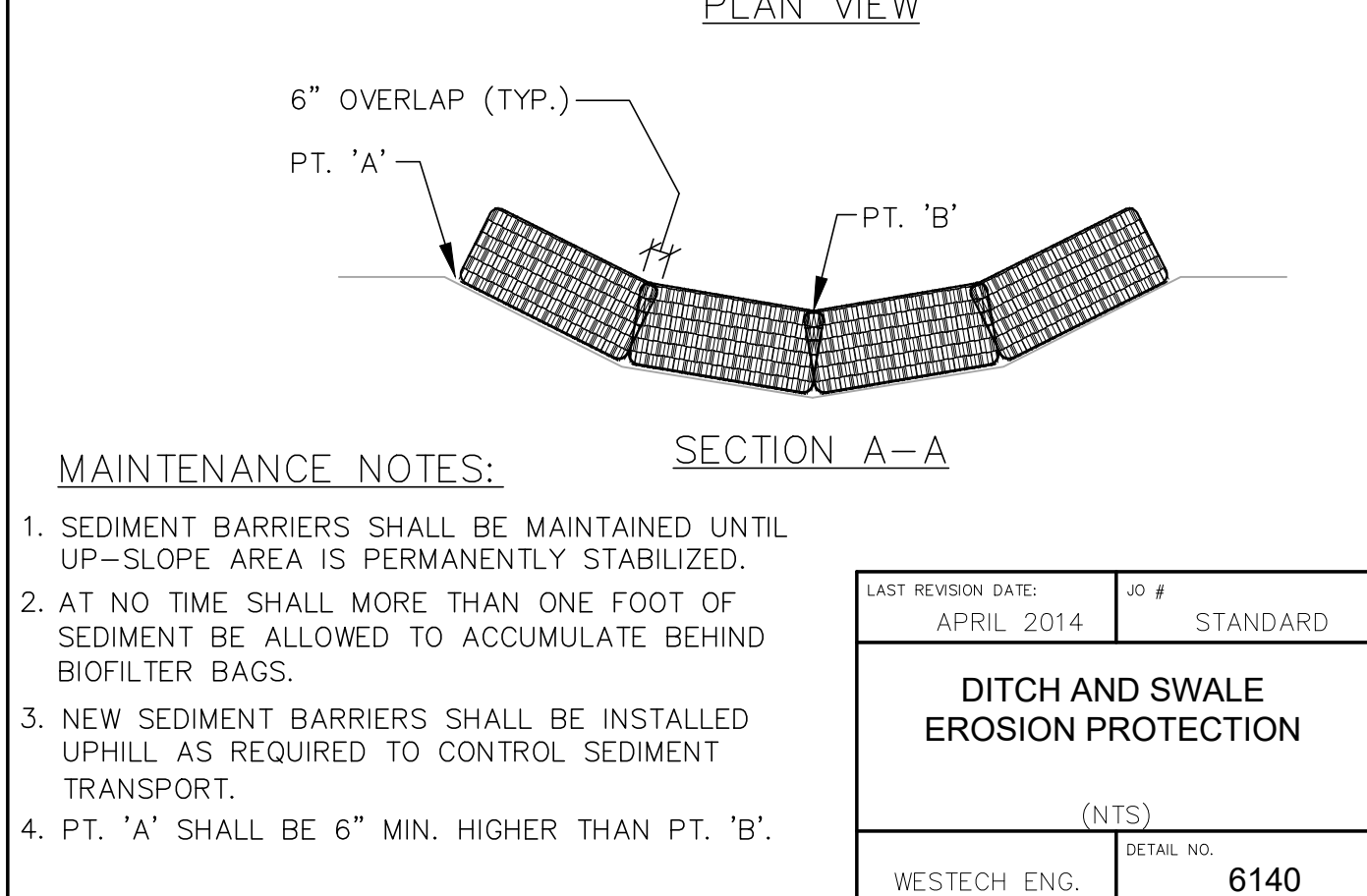
- NOTES:**
1. EMPTY SILT SACK AS NECESSARY.
 2. SILTSACK SEDIMENT CONTROL DEVICE AS MANUFACTURED BY ACF ENVIRONMENTAL AND SUPPLIED BY ACF WEST (503) 771-5115 OR APPROVED EQUAL.

LAST REVISION DATE:	JO #	STANDARD
OCT 2002		
SILTSACK INLET DETAIL		
(NTS)		
WESTECH ENG.	DETAIL NO.	6150



1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL.
4. SEE MANUFACTURER'S SPECIFICATIONS FOR MINIMUM STAKING OR STAPLING LAYOUT PATTERN.
5. STAPLE LENGTH AND QUANTITY VARIES DEPENDING ON SOIL DENSITY. USE 6" STAPLES ON COMPACTED SOILS. USE 12" STAPLES ON LOOSE SOILS.

LAST REVISION DATE:	JO #	STANDARD
OCT. 2019		
EROSION CONTROL MAT/BLANKET INSTALLATION		
(NTS)		
WESTECH ENG.	DETAIL NO.	6180



LAST REVISION DATE:	JO #	STANDARD
APRIL 2014		
DITCH AND SWALE EROSION PROTECTION		
(NTS)		
WESTECH ENG.	DETAIL NO.	6140

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON SCALES ACCURACLY

DSN.	JW	1	NO.	DATE	DESCRIPTION	BY
DRN.	JH					
CKD.	JW					

DATE: 05/20/2008

REVIEW REVIEW

REGISTERED PROFESSIONAL ENGINEER
WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS
WILLIAM T. WEST
12100 W. 121ST AVE., SUITE 100
OVERLAND PARK, MO 66213
PHONE: (816) 875-1210
FAX: (816) 875-1211
WWW.WESTECH-ENG.COM

6/20/2022

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION

EROSION CONTROL DETAILS

DRAWING C1.3

JOB NUMBER
2931.0000.0

Revised on 06.23.2022
555 of 614

LEGEND	
	BUILDING FOOTPRINT

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C11	95.29	350.00	15.60	S7° 45' 10"E	94.99
C12	94.18	350.00	15.42	S7° 50' 36"E	93.90

● = CONTRACTOR TO SET C/L MONUMENTS. (8"x8" WASHINGTON COUNTY RING & COVER OR EQUAL).

NOTES:
1. 5FT SIDE-YARD SETBACK PROPOSED ON ALL LOTS.

LOT SUMMARY

MIN = 5436 SF
MAX = 8363 SF
AVG = 6294 SF

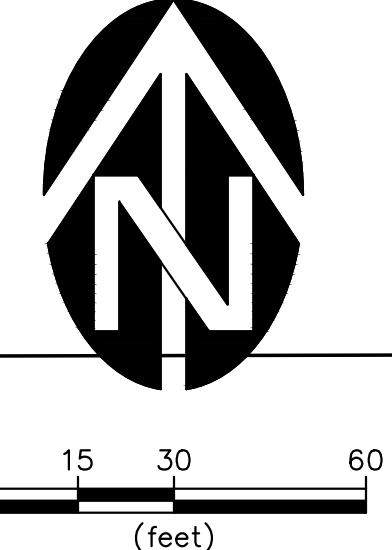
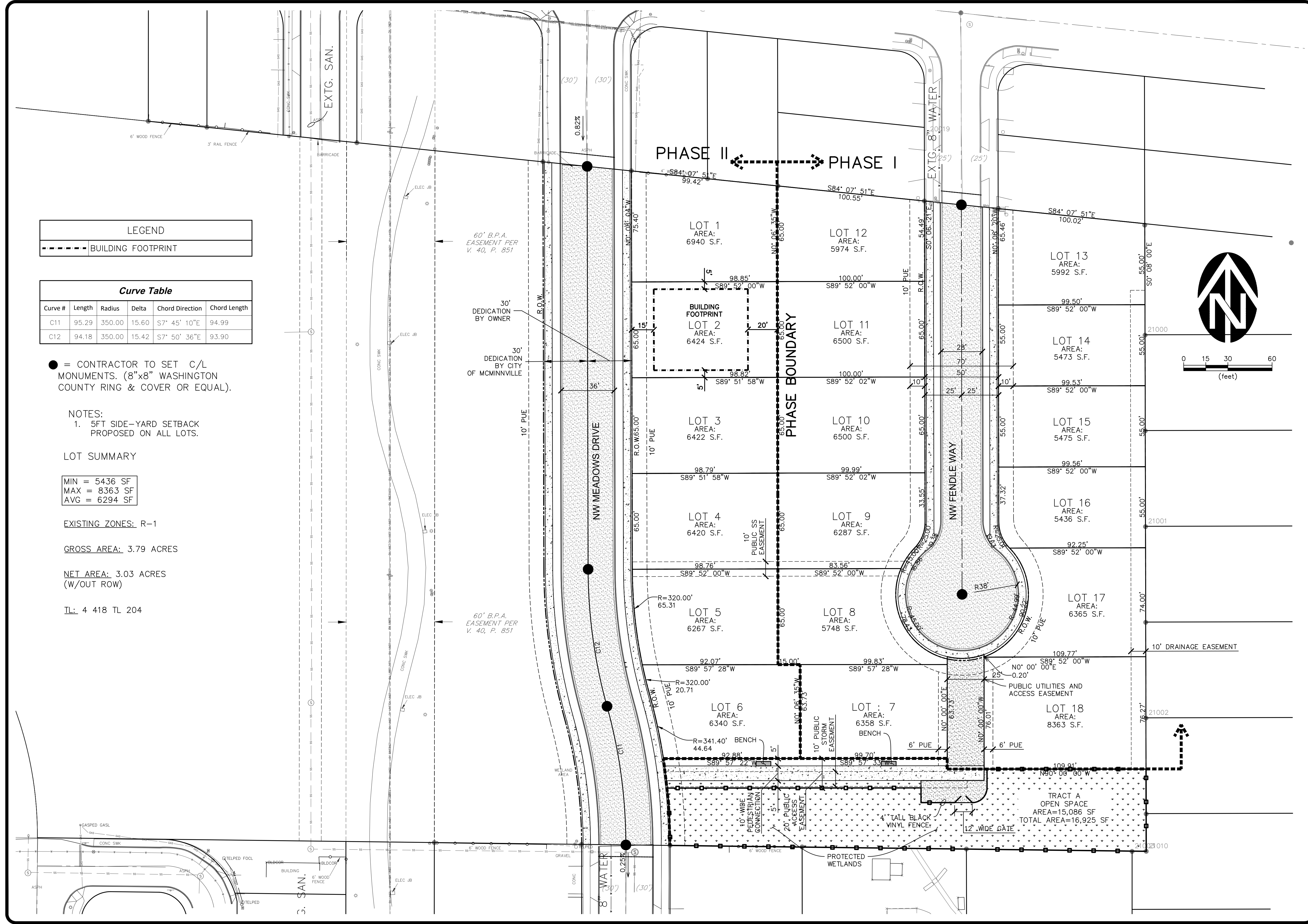
EXISTING ZONES: R-1

GROSS AREA: 3.79 ACRES

NET AREA: 3.03 ACRES (W/OUT ROW)

TL: 4 418 TL 204

PHASE II PHASE I



NO.	DATE	DESCRIPTION	BY
1			

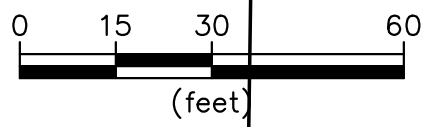
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON SCALES ACCURACLY



WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westech@westech-eng.com

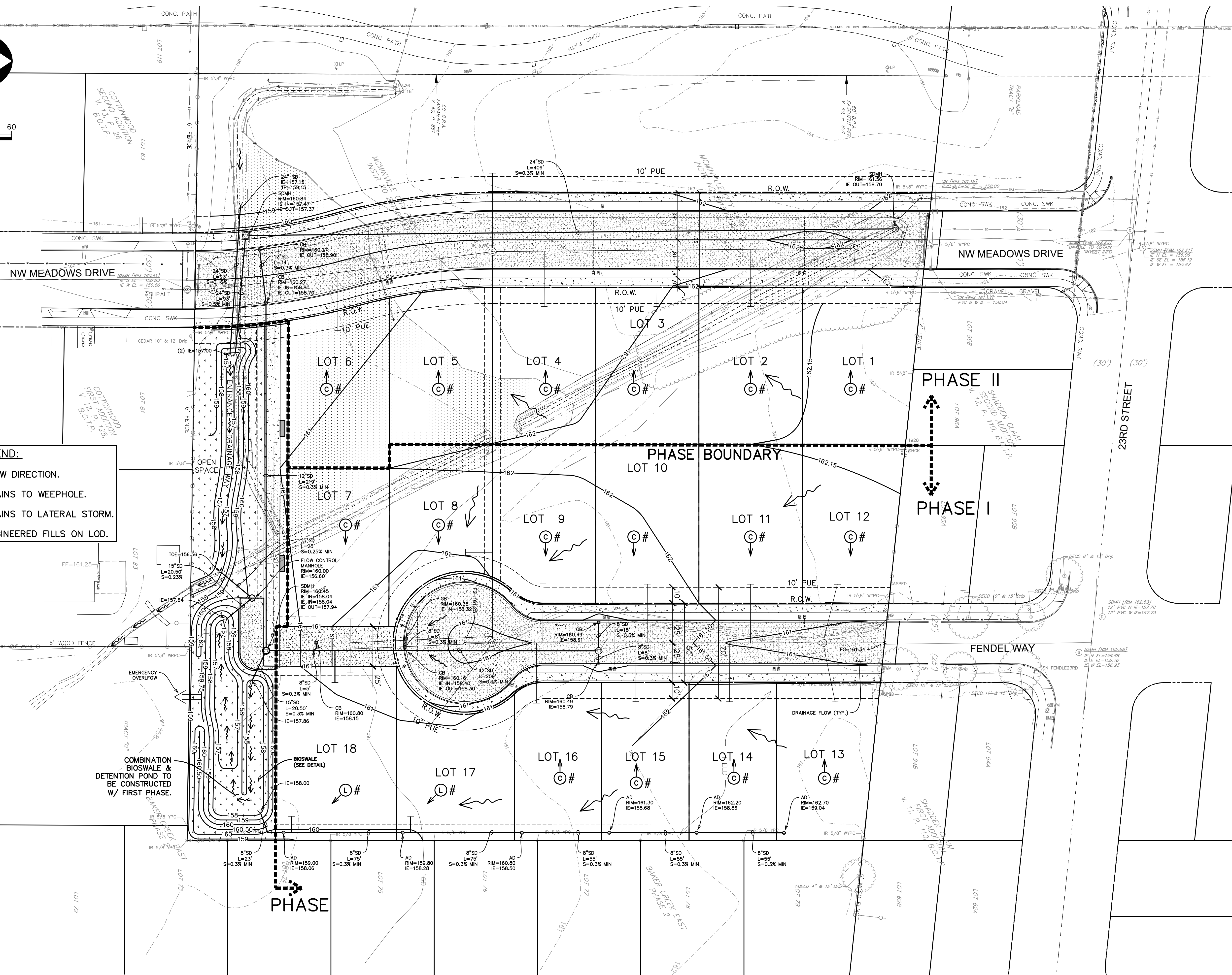
VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION
OVERALL SUBDIVISION PLAN

DRAWING
C2.0
JOB NUMBER
2931.0000.0



GRADING LEGEND:

- = FLOW DIRECTION.
- = DRAINS TO WEEPHOLE.
- = DRAINS TO LATERAL STORM.
- = ENGINEERED FILLS ON LOD.



NO.	DATE	DESCRIPTION	BY
1			

REVIEW REVIEW

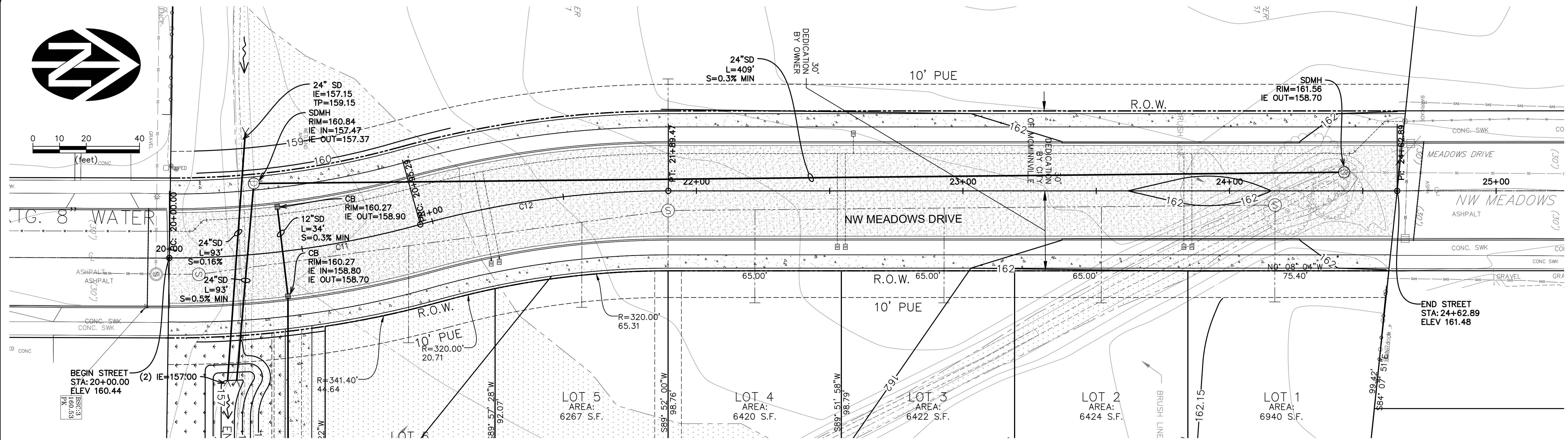
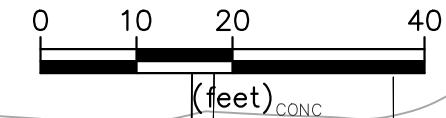
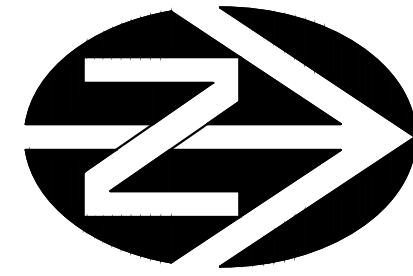
REGISTERED PROFESSIONAL ENGINEER
 WILLIAM T. WELLS
 1101 N. 110th St., Suite 110
 Shoreline, WA 98148
 Phone: (206) 487-1234
 Fax: (206) 487-1234
 E-mail: william@wellsreview.com

WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

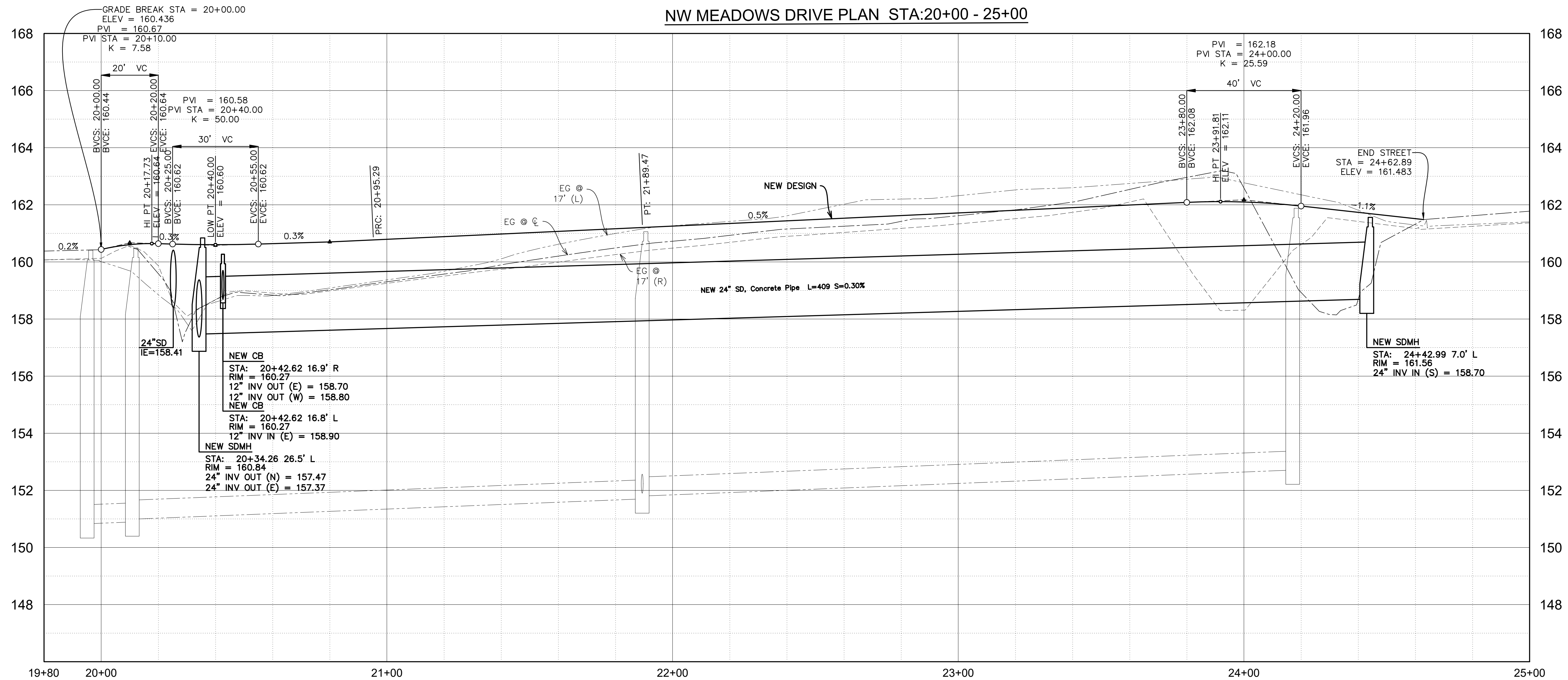
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
OVERALL GRADING AND DRAINAGE PLAN

DRAWING
C3.0
 JOB NUMBER
2931.0000.0



NW MEADOWS DRIVE PLAN STA:20+00 - 25+00



NW MEADOWS DRIVE PROFILE STA:20+00-25+00

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DSN. JW / JH
 DRN. AK / JW
 CKD. JW
 DATE: 06/20/2022



WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

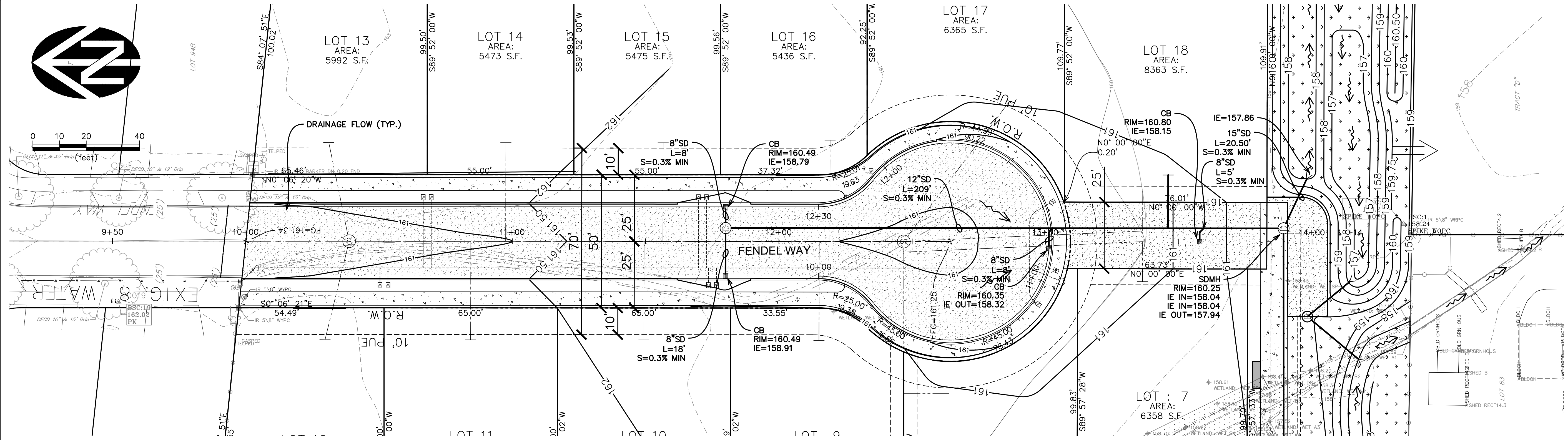
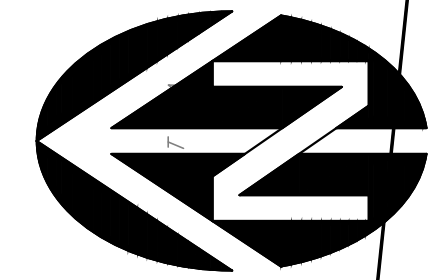
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 565-2474 Fax: (503) 565-3966
 E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

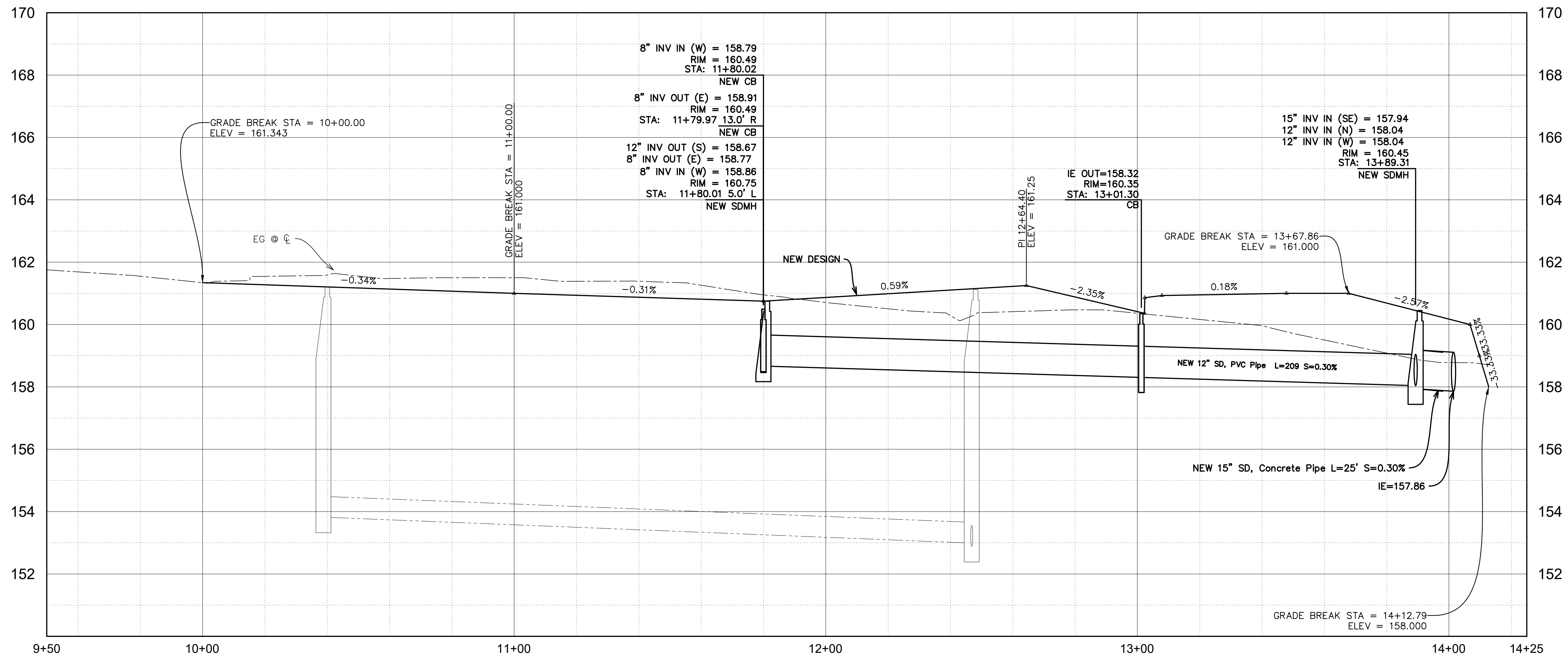
MEADOWS STREET PLAN AND PROFILE

DRAWING
 ST-1

JOB NUMBER
 2931.0000.0



NW MEADOWS DRIVE PLAN STA:10+00 - 14+14.40



NW MEADOWS DRIVE PROFILE STA:10+00-14+14.40

DATE: 06/20/2022	NO. 1	DATE	DESCRIPTION	BY
DATE: 06/20/2022	NO. 1	DATE	DESCRIPTION	BY

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

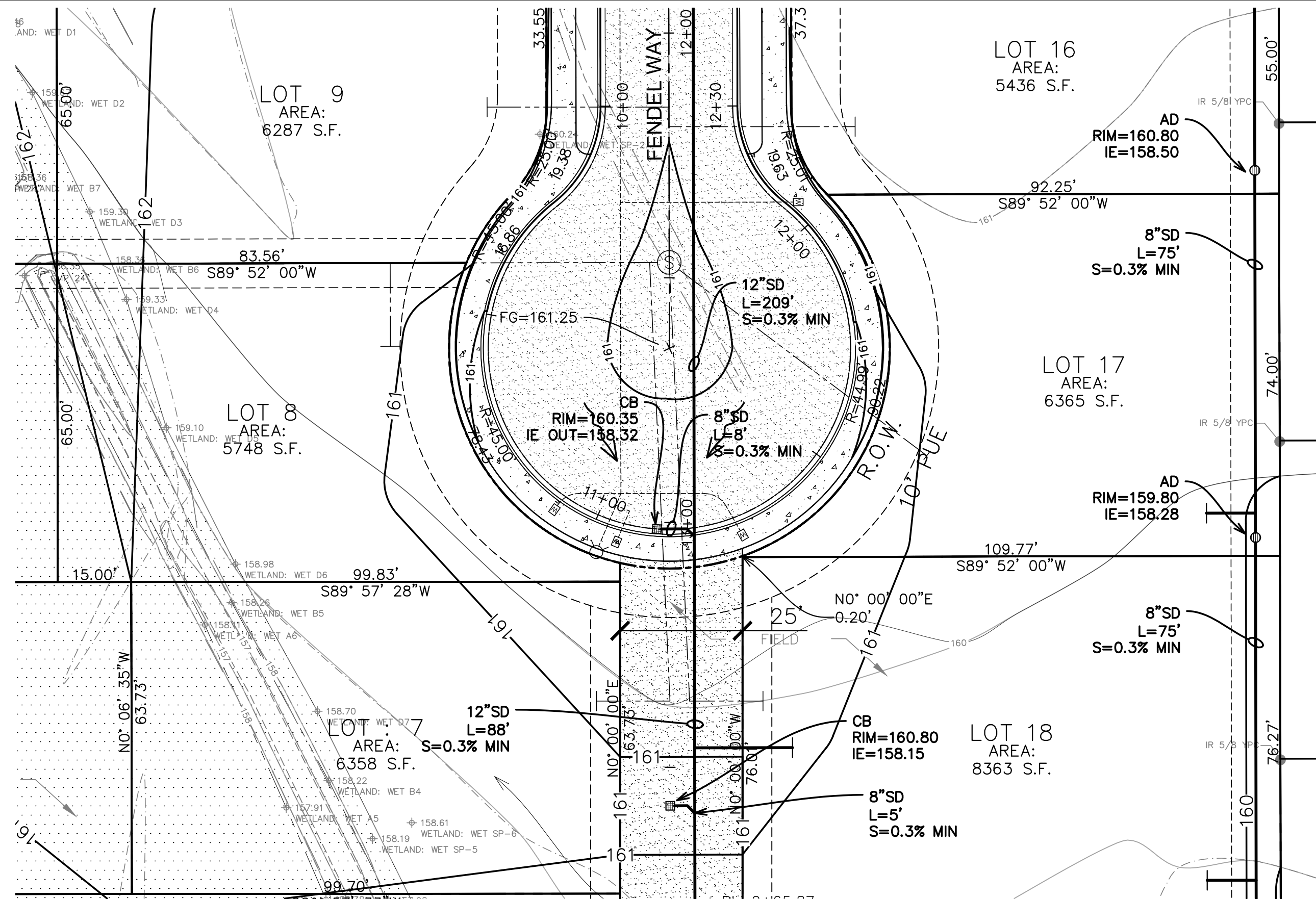
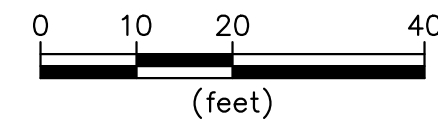
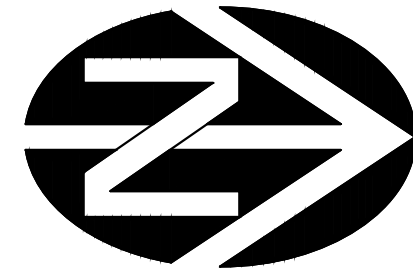
DSN. JH
 DRN. JH
 CKD. JW
 DATE: 06/20/2022

REVIEW REVIEW
 REGISTERED PROFESSIONAL ENGINEER
 WILLIAM T. WELLS
 WETS
 REVIEW: 6/20/2022

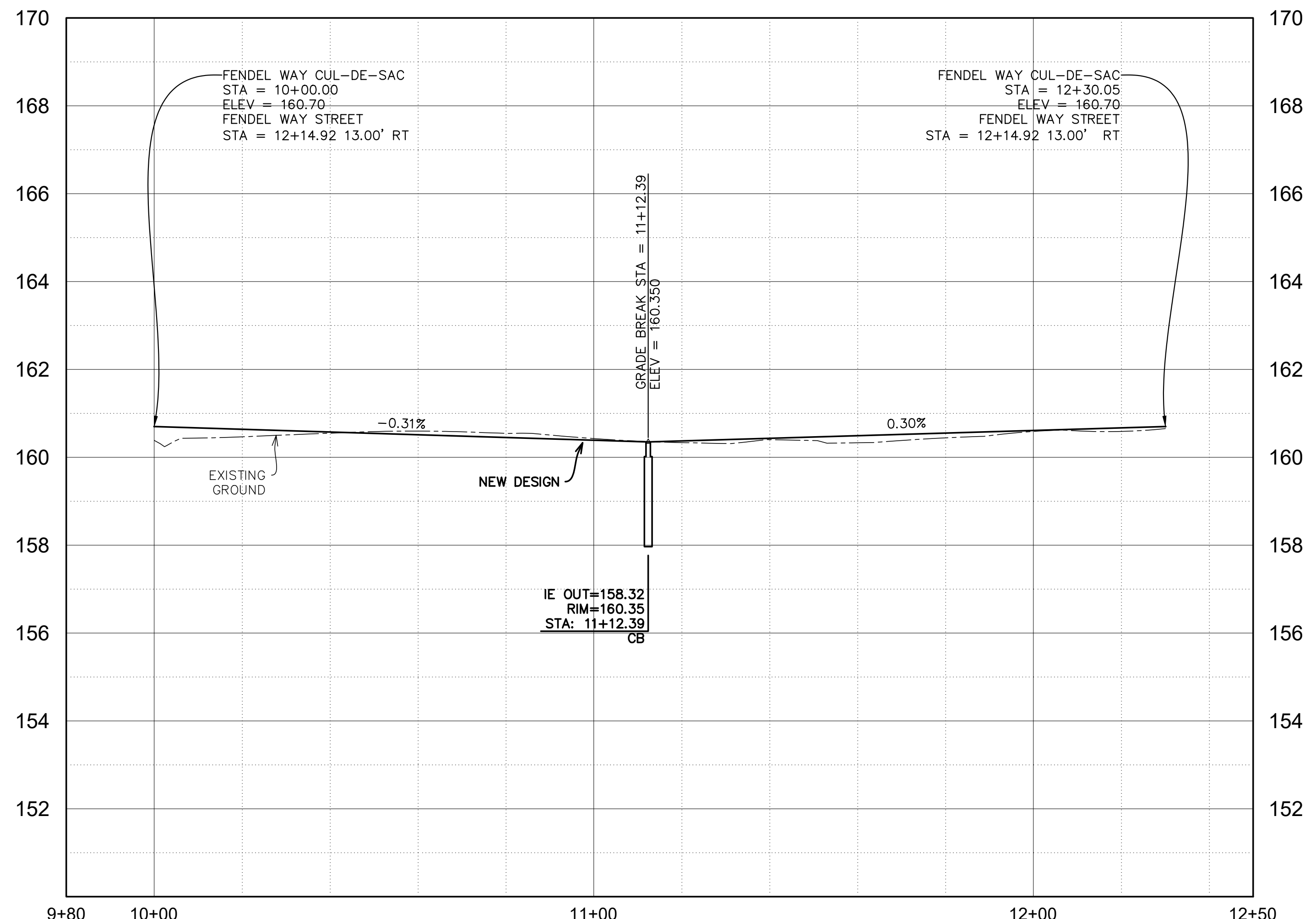
WE
 WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS
 3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
FENDEL WAY PLAN AND PROFILE

DRAWING
ST-2
 JOB NUMBER
 2931.0000.0



FENDEL WAY PLAN STA:10+00 - 12+30.05



FENDEL WAY PROFILE STA:10+00 - 12+30.05

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCORDINGLY

DSN. JW
 DRN. JH
 CKD. JW
 DATE: 05/20/2008

REVIEW REVIEW

REGISTERED PROFESSIONAL ENGINEER
 WILLIAM T. WELLS
 REG. NO. 12,288
 W. OREGON

REVISED: 6/20/2022

WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

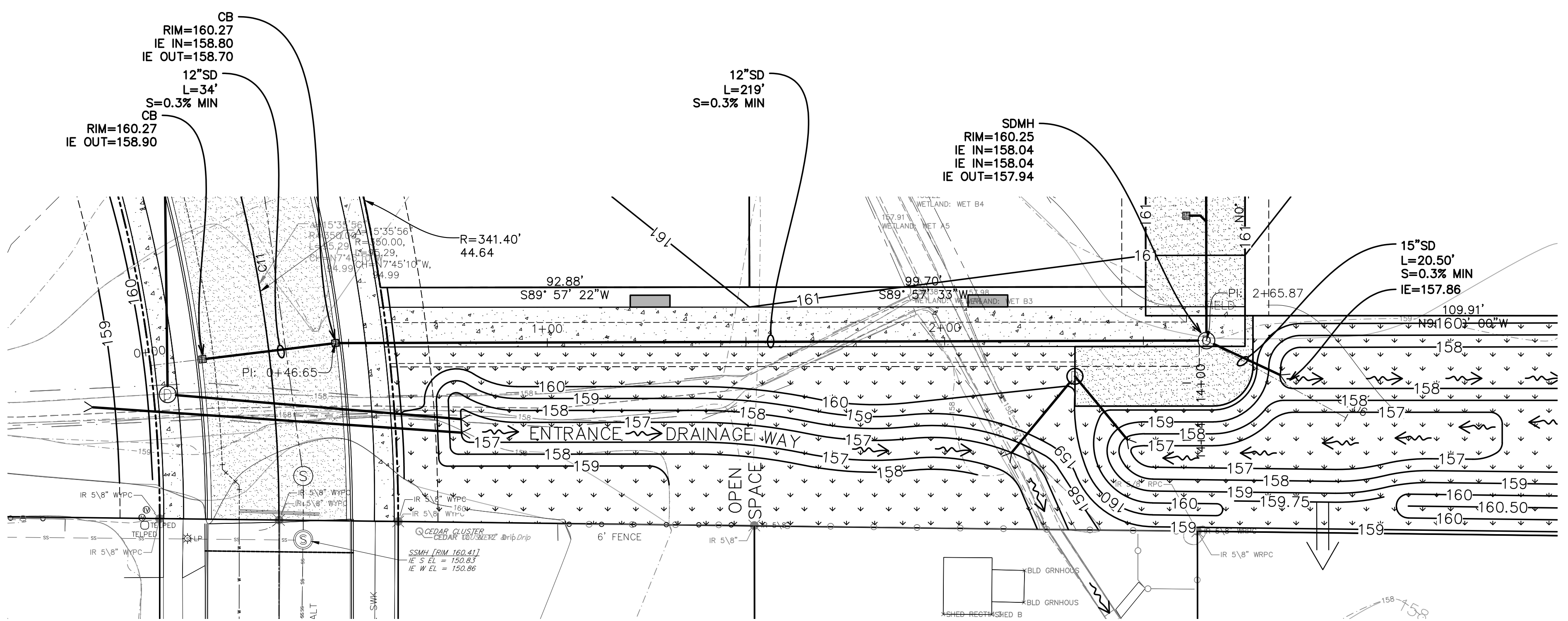
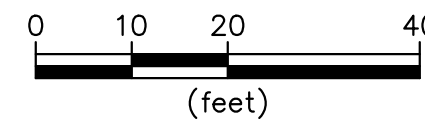
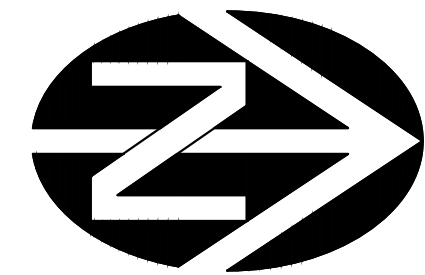
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 565-2474 Fax: (503) 565-3966
 E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

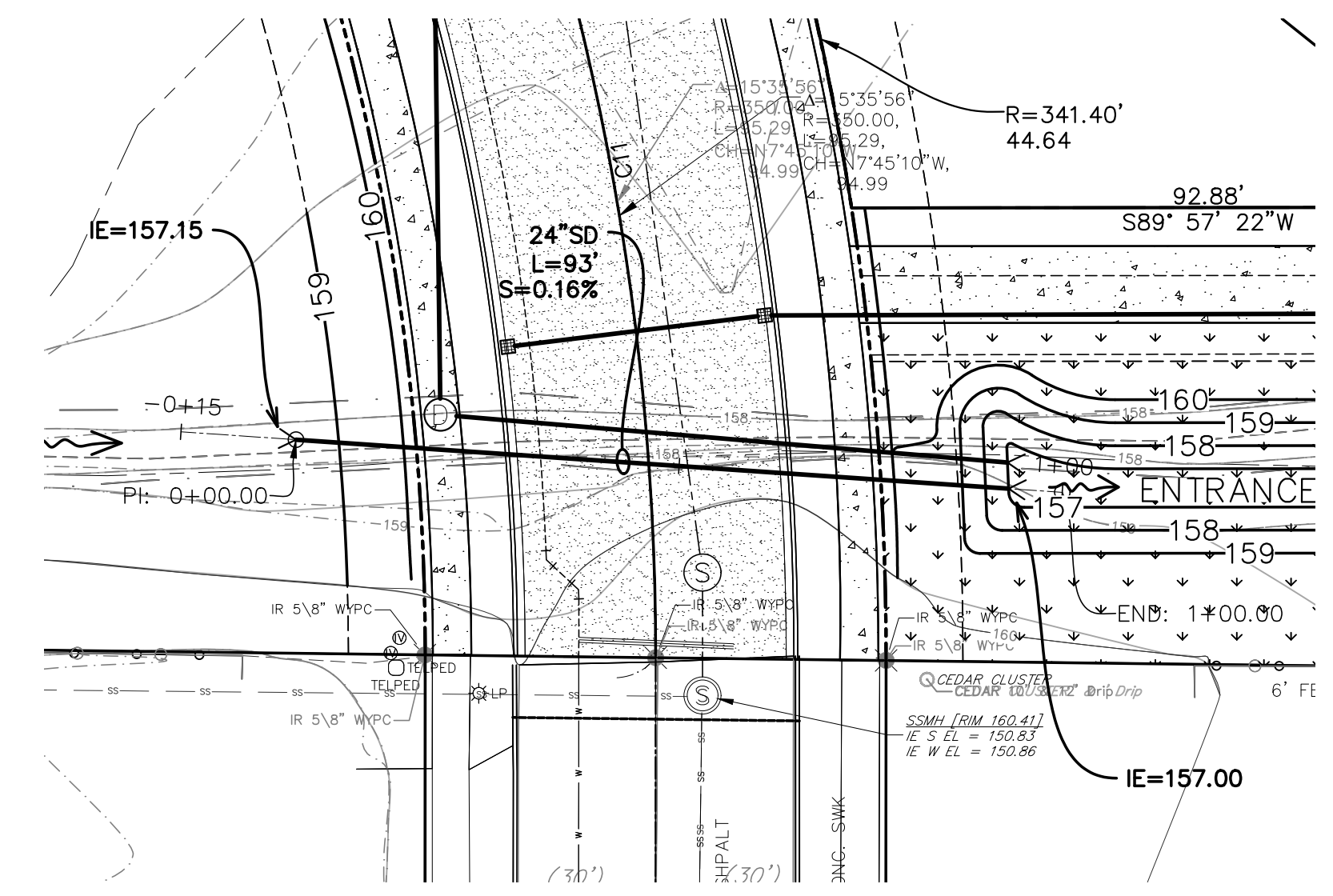
FENDEL WAY CUL-DE-SAC
 PLAN AND PROFILE

DRAWING
 ST-3

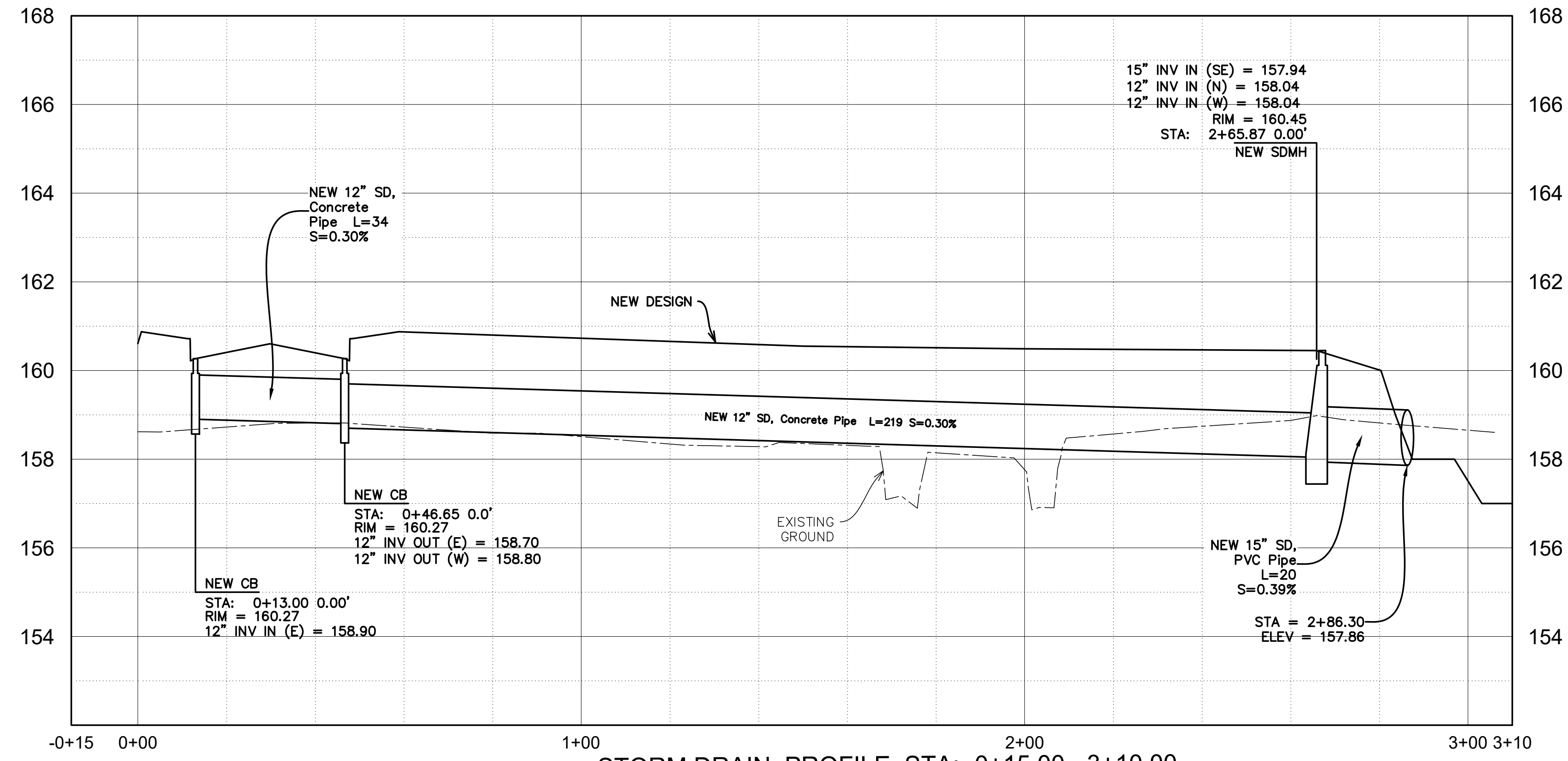
JOB NUMBER
 2931.0000.0



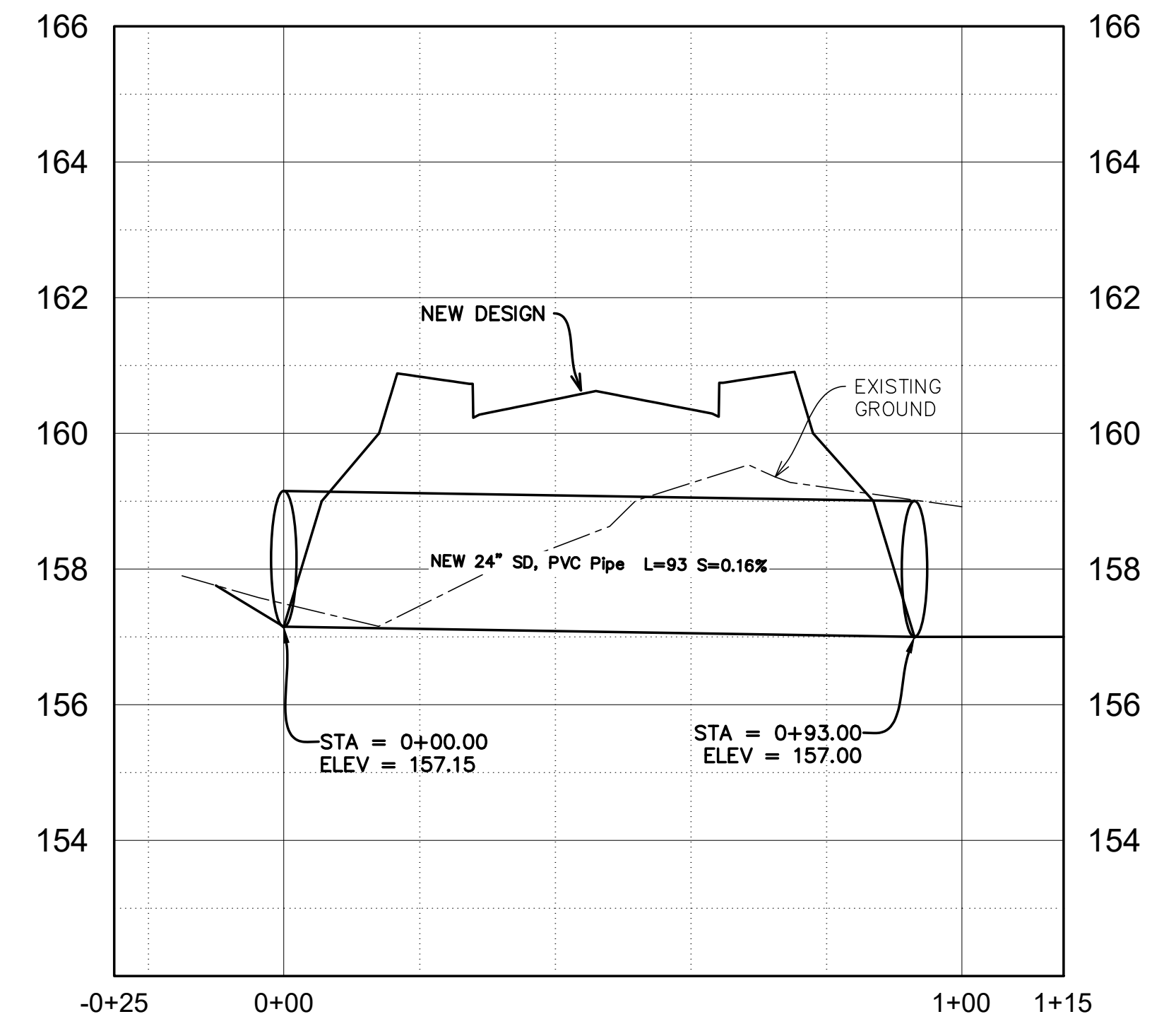
STORM DRAIN PROFILE STA: -0+15.00 - 3+10.00



STORM DRAIN PROFILE STA: -0+25.00 - 1+15.00



STORM DRAIN PROFILE STA: -0+15.00 - 3+10.00



STORM DRAIN PROFILE STA: -0+25.00 - 1+15.00

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DSN. JW
 DRN. JH
 CKD. JW
 DATE: 06/20/2022

REVIEW REVIEW

REGISTERED PROFESSIONAL ENGINEER
 WILLIAM J. WEST
 LICENSE NO. 120000001
 REVIEWED: 6/20/2022

WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

WE

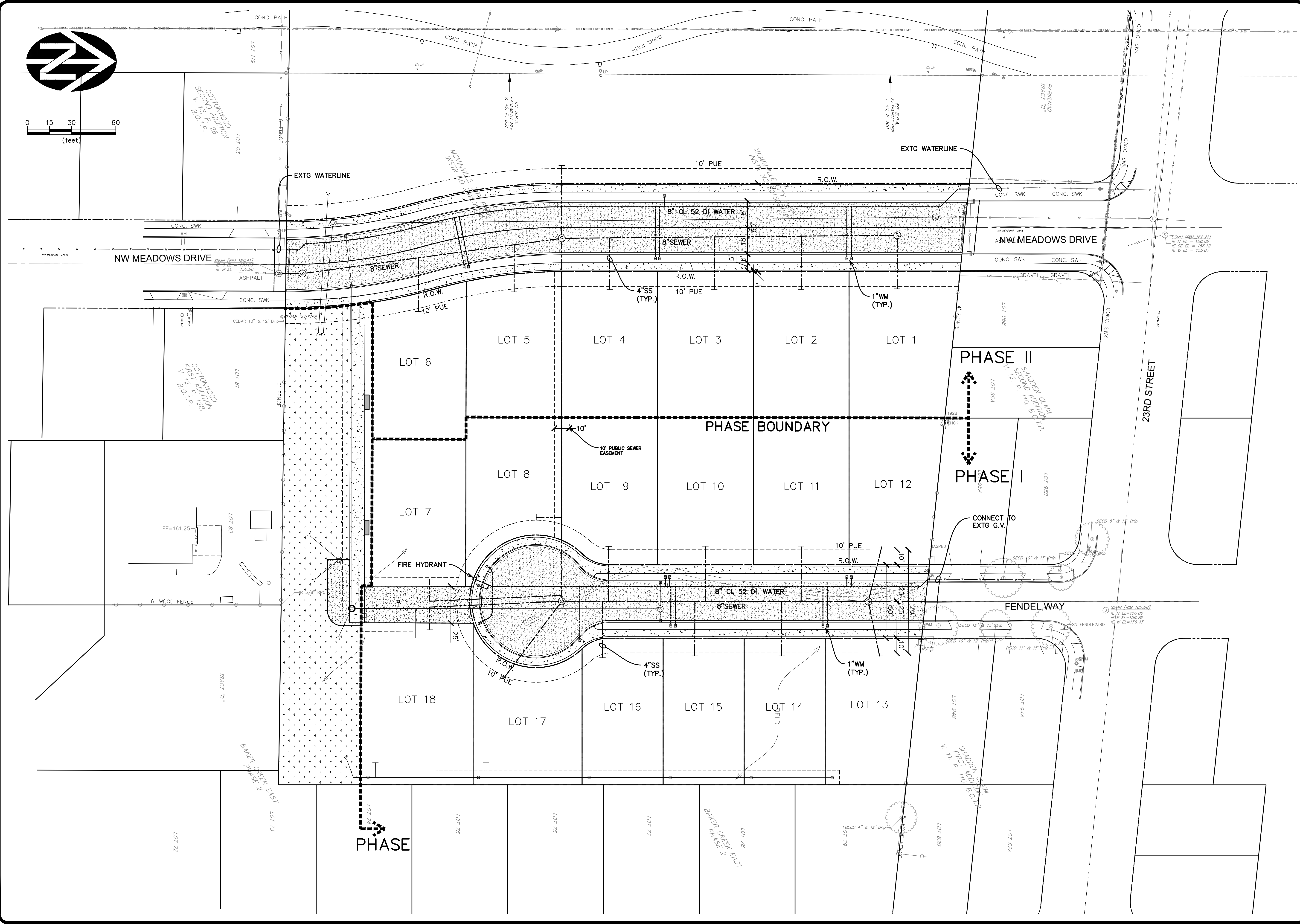
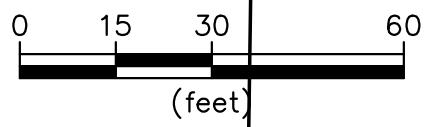
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

STORM DRAIN PLAN & PROFILE

DRAWING
ST-4

JOB NUMBER
2931.0000.0



NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DSN. JW
 DRN. JH
 CKD. JW
 DATE: 06/20/2022



WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

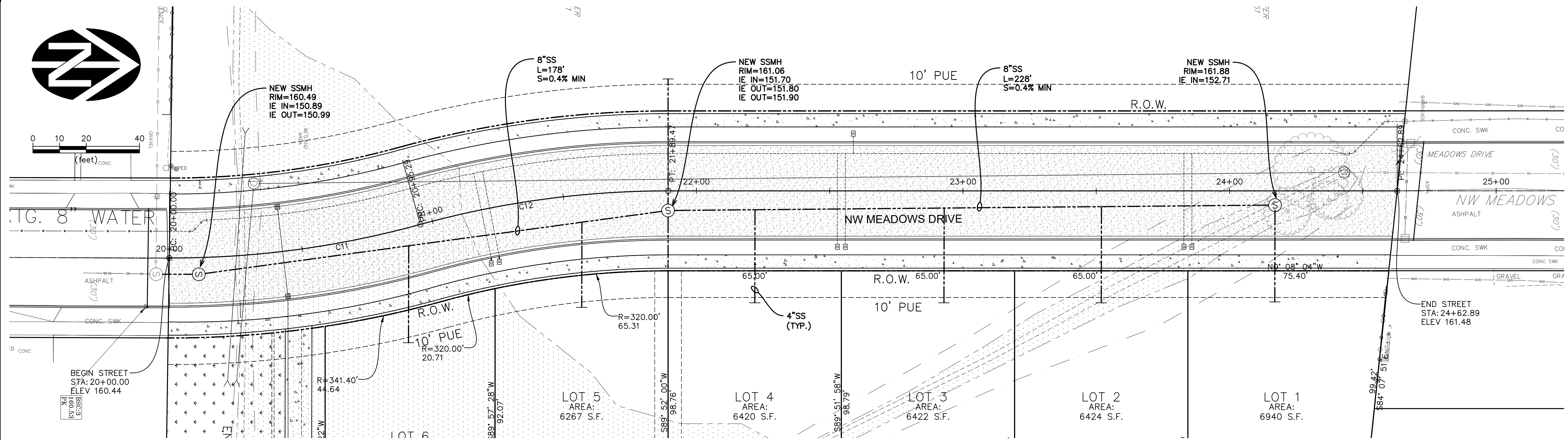
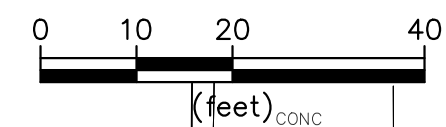
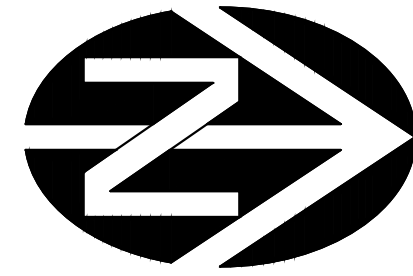
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

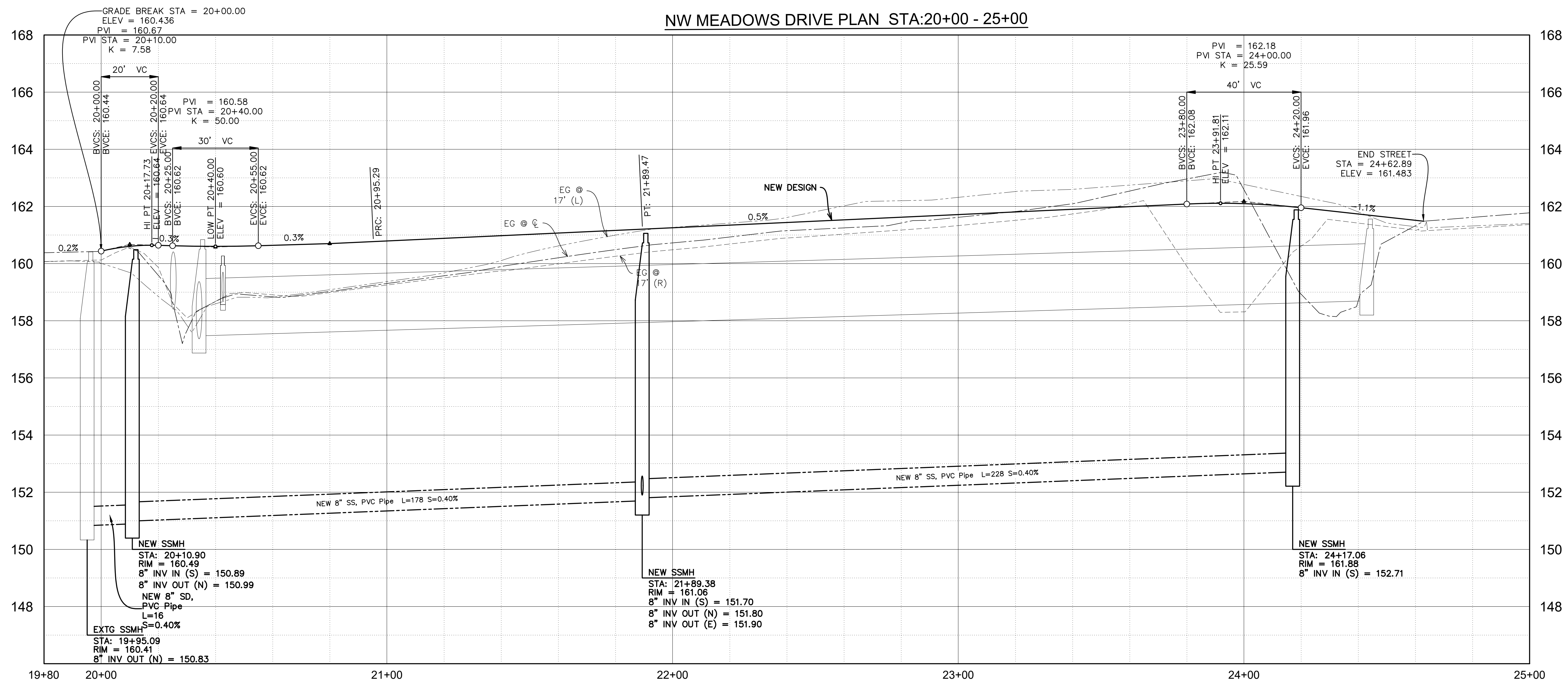
OVERALL UTILITY PLAN

DRAWING
C4.0

JOB NUMBER
2931.0000.0



NW MEADOWS DRIVE PLAN STA:20+00 - 25+00

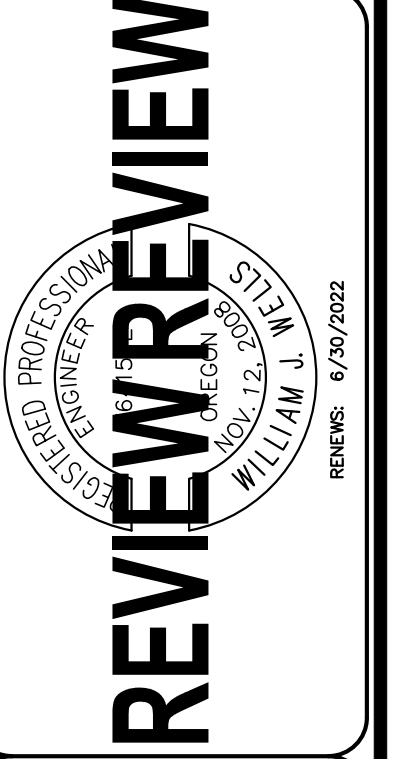


NW MEADOWS DRIVE PROFILE STA:20+00-25+00

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DSN. JW
 DRN. JH
 CKD. JW
 DATE: 07/20/08

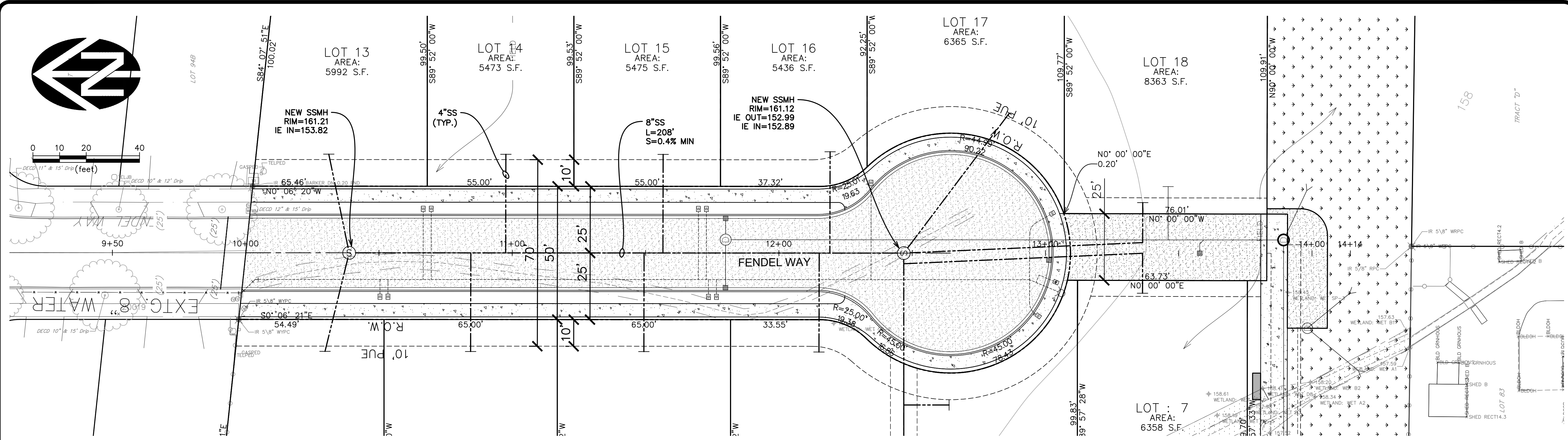


WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

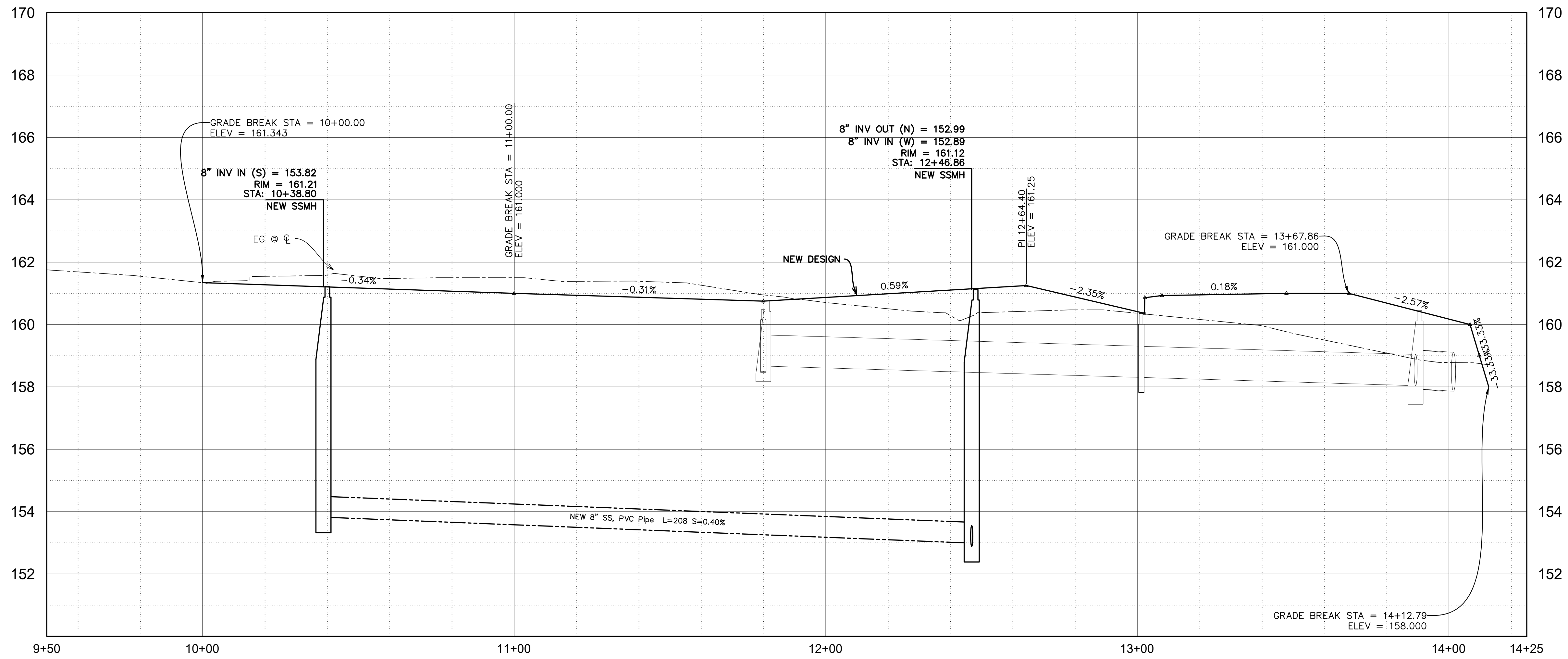
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 565-2474 Fax: (503) 565-3966
 E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
**MEADOWS SANITARY SEWER
 PLAN AND PROFILE**

DRAWING
SS-1
 JOB NUMBER
2931.0000.0



FENDEL WAY PLAN STA:10+00 - 12+64.40



FENDEL WAY PROFILE H:1"=10' V:1"=1'

DATE: 07/20/2008	NO. 1	DATE	DESCRIPTION	BY
CKD. JW				
DRN. JH				
DSN. JW				

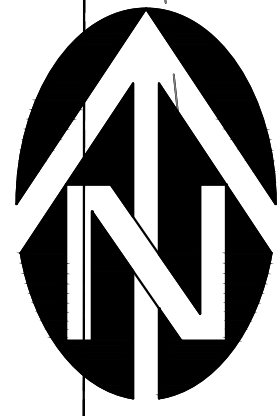
VERIFY SCALE
 THIS IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACIES

REGISTERED PROFESSIONAL ENGINEER
REVIEW REVIEW
 WILLIAM T. WEST
 1004.12.0000
 WES
 REG. NO. 12,000
 REVIEWS: 6/20/2022

WE
 WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS
 3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
**FENDEL WAY SANITARY SEWER
 PLAN AND PROFILE**

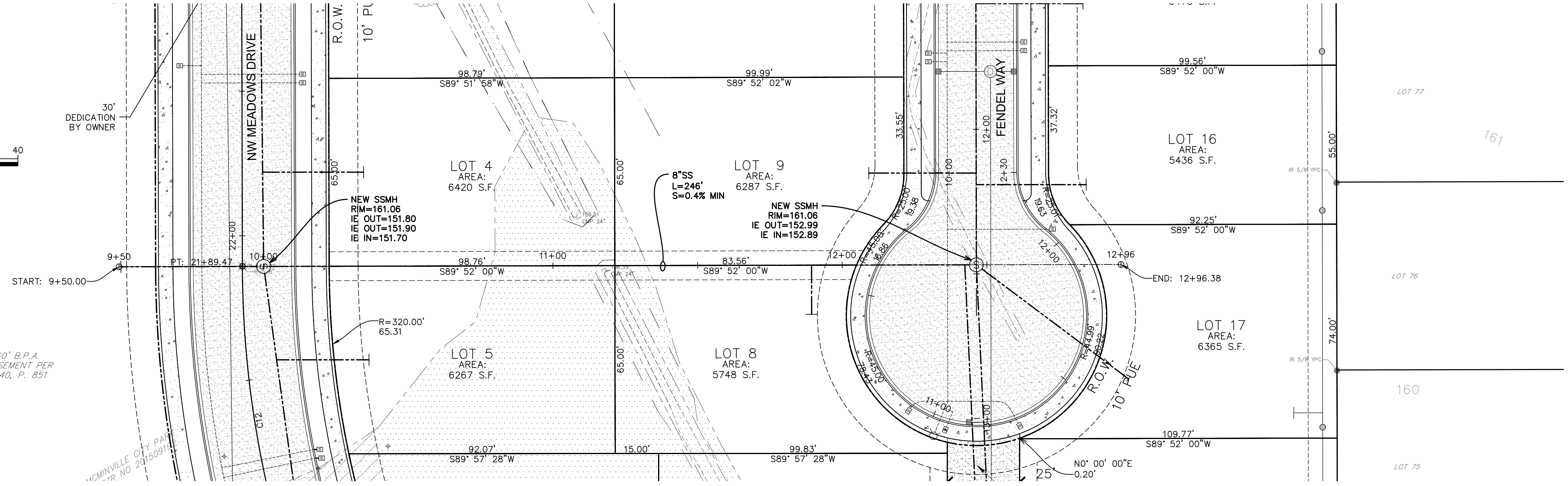
DRAWING
SS-2
 JOB NUMBER
 2931.0000.0



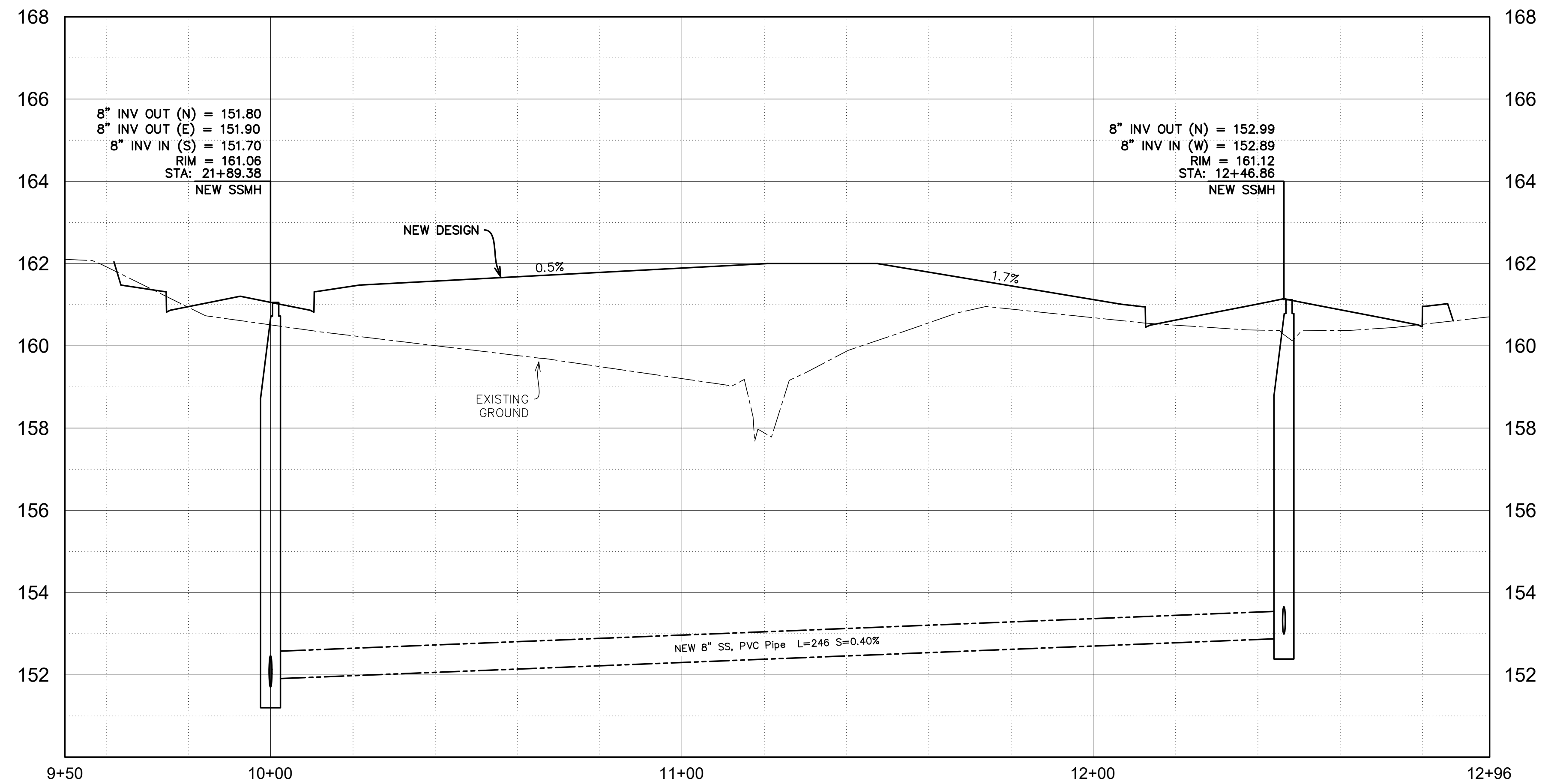
0 10 20 40
(feet)

30'
DEDICATION
BY OWNER

60' B.P.A.
EASEMENT PER
V. 40, P. 851



SANITARY SEWER PLAN STA:10+00 - 12+46.38



SANITARY SEWER PROFILE H:1"=10' V:1"=1'

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
BASE IS ONE INCH ON
ORIGINAL DRAWING
IF NOT ONE INCH ON
SCALE, ACCURACLY

DSN. JW
DRN. JH
CKD. JW
DATE: 07/20/2022



WESTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS

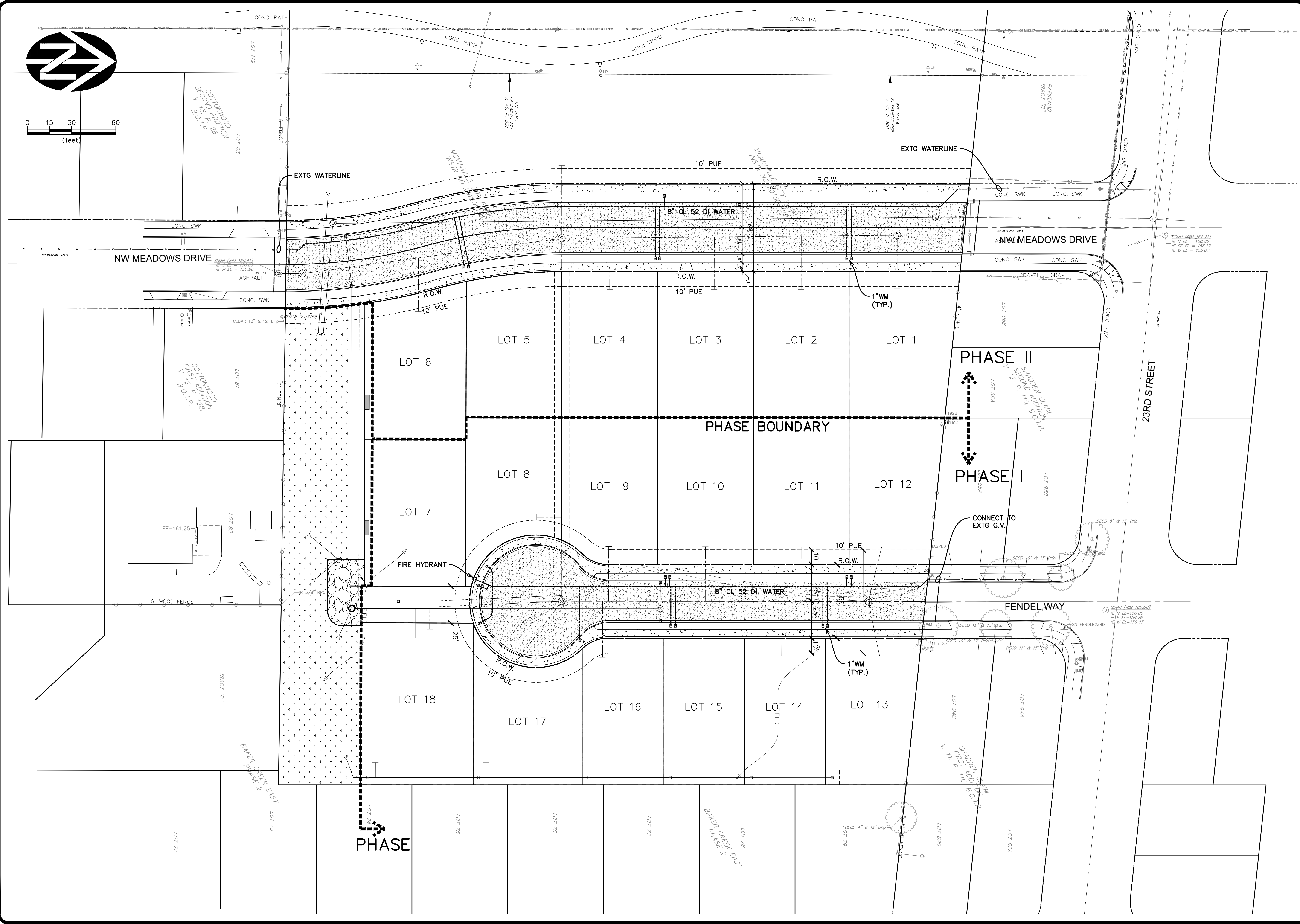
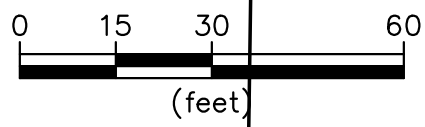
WE

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION
**SANITARY SEWER MEADOWS
DRIVE AND FENDEL WAY**

DRAWING
SS-3

JOB NUMBER
2931.0000.0



NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DSN. JW
 DRN. JH
 CKD. JW

DATE: 06/20/08



WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

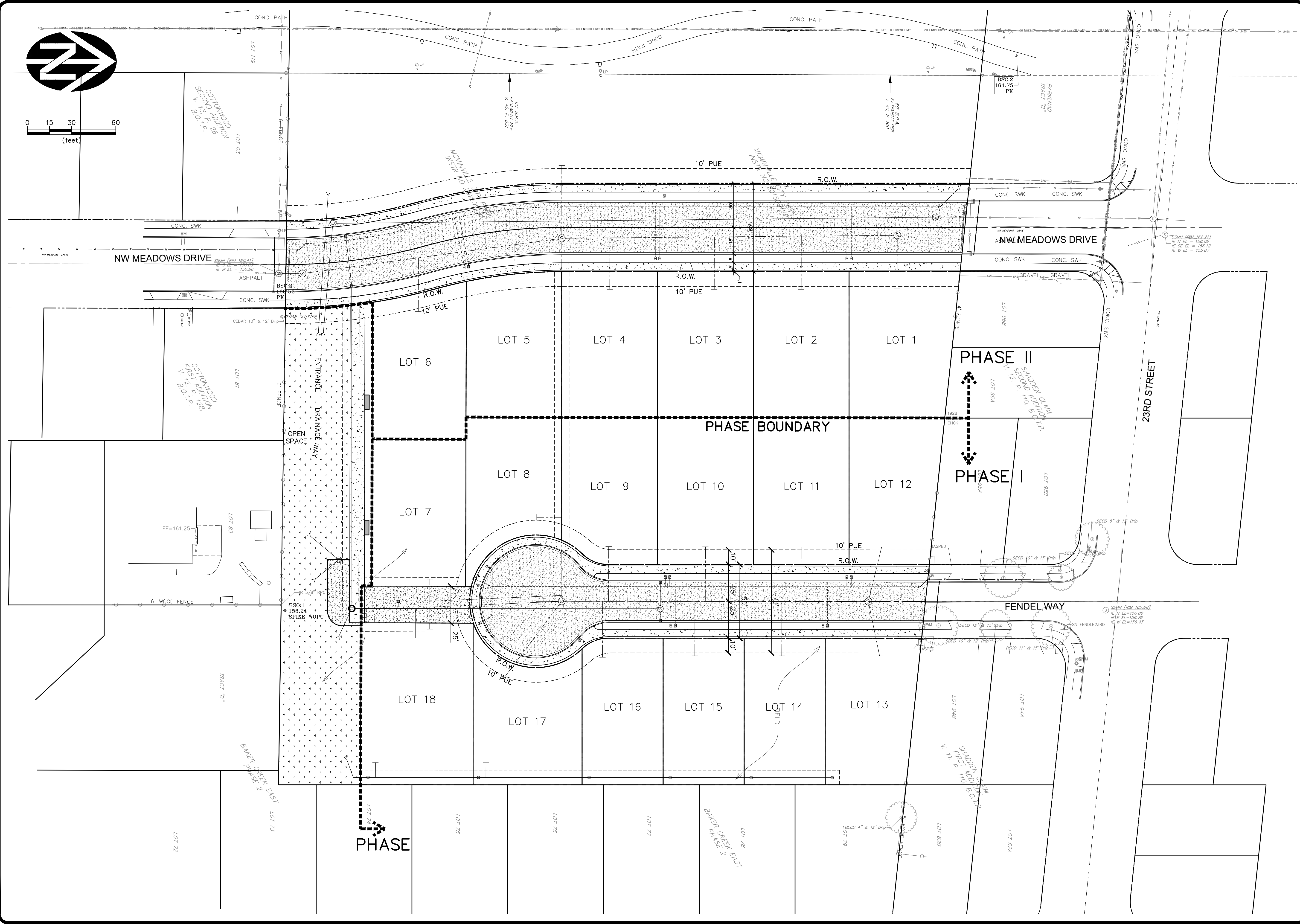
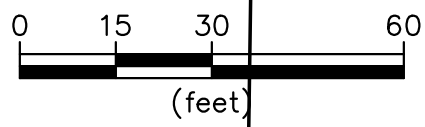
3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION

OVERALL WATER PLAN

DRAWING
W-1

JOB NUMBER
2931.0000.0



NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCURACLY

DSN. JW
 DRN. JW
 CKD. JW
 DATE: 06/20/2020

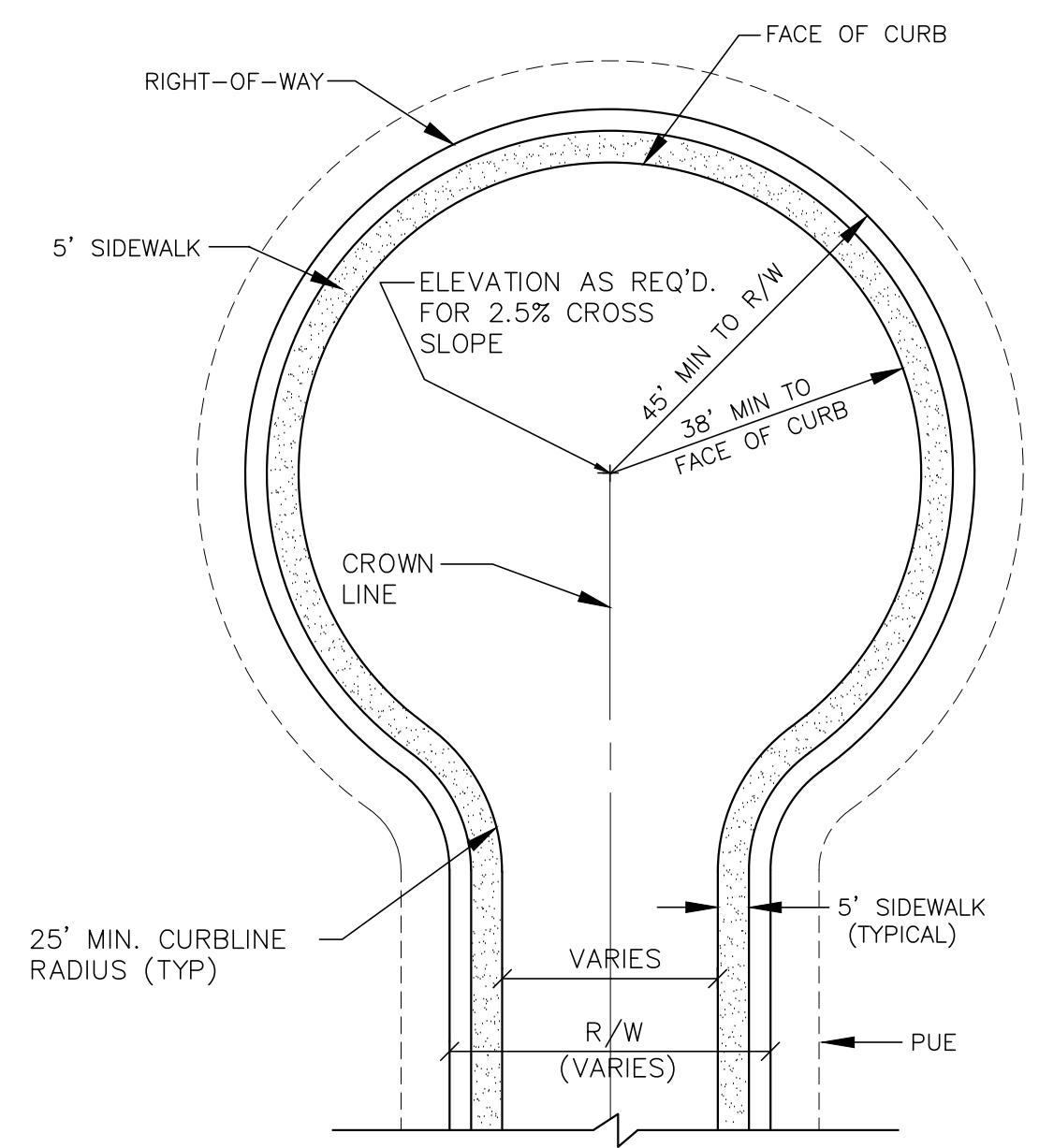


WESTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westech@westech-eng.com

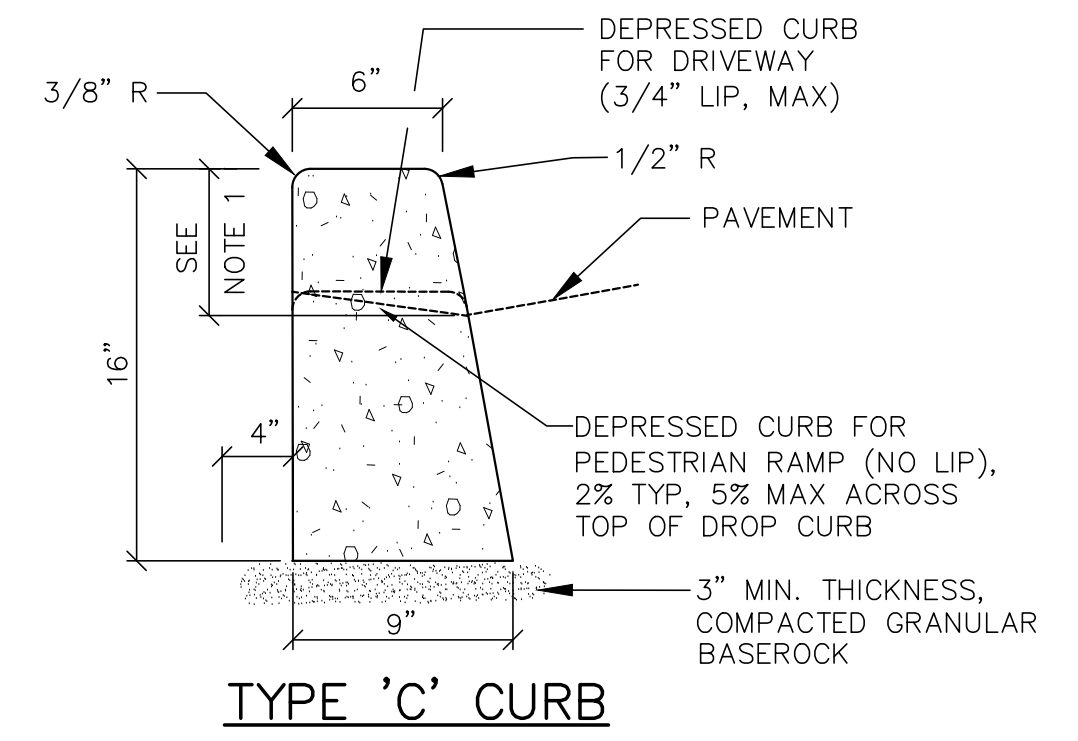
VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
MW & L POWER PLAN

DRAWING
UT-1
 JOB NUMBER
2931.0000.0

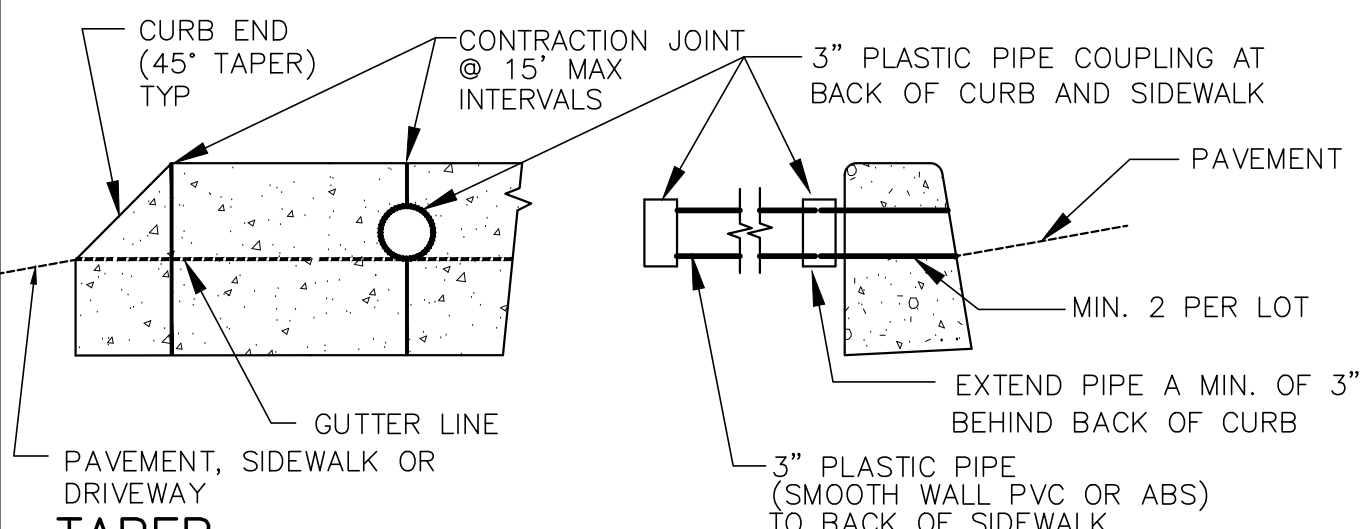


- NOTES:**
- 2.5% MIN. CROSS SLOPE REQUIRED FROM CENTER OF BULB TO GUTTER.
 - MAINTAIN CROWN LINE TO CENTER OF CUL-DE-SAC BULB.

LAST REVISION DATE:	NOV 2013	JO #	STANDARD
STANDARD CUL-DE-SAC			
(NTS)			
WESTTECH ENG.	DETAIL NO.	2050	



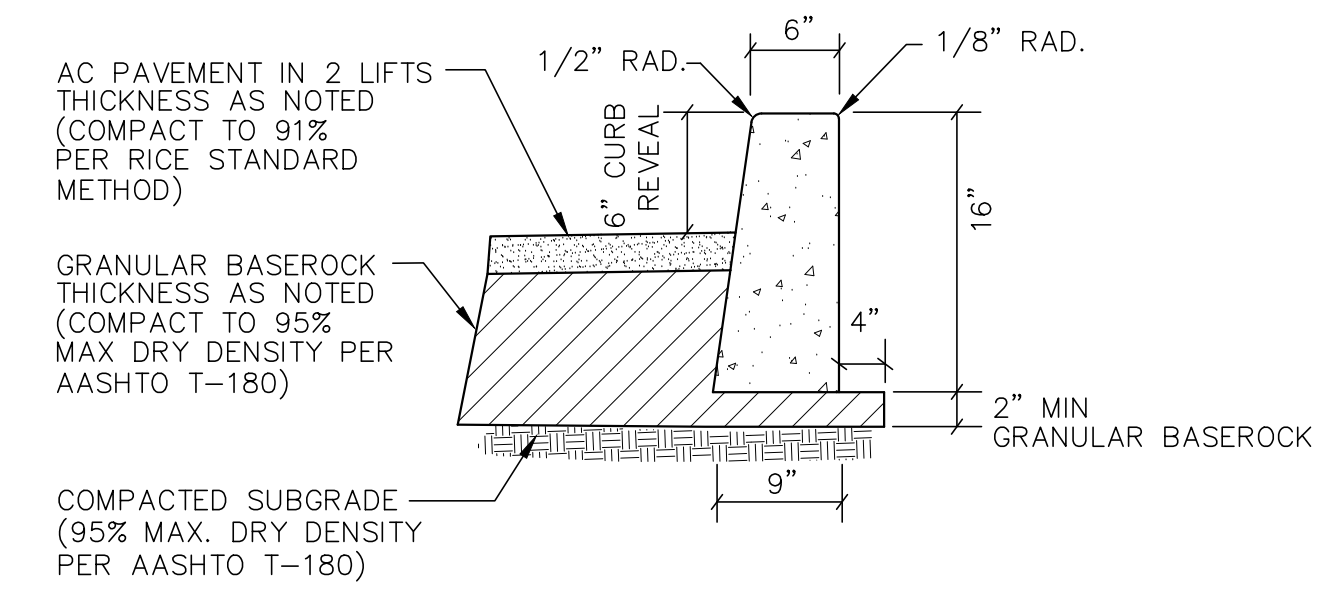
TYPE 'C' CURB



WEEP HOLE THROUGH CURB

- NOTES:**
- 7\"/>

LAST REVISION DATE:	JULY 2017	JO #	STANDARD
STANDARD TYPE 'C' CURB			
(NTS)			
WESTTECH ENG.	DETAIL NO.	2110	

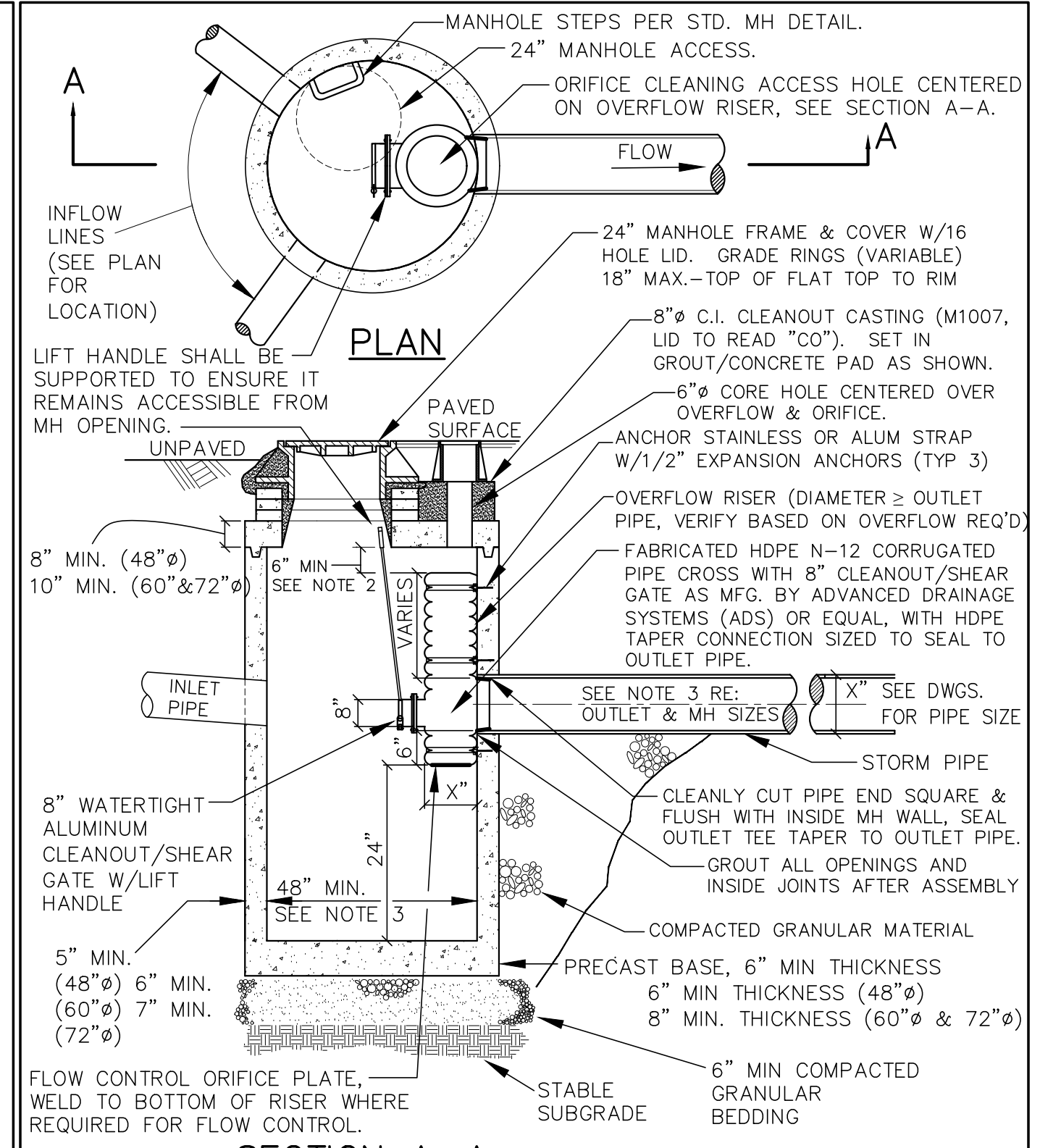


PAVEMENT/TYPE "C" CURB DETAIL

- PAVEMENT & BASEROCK SECTIONS:**
- LIGHT DUTY PAVEMENT**
3\"/>
 - HEAVY DUTY PAVEMENT**
3\"/>

- NOTES:**
- SEE GRADING PLAN FOR LOCATION OF LIGHT AND HEAVY DUTY PAVEMENT.
 - DESIGN SUBGRADES SHALL BE COMPACTED AND PROOF-ROLLED PRIOR TO PLACEMENT OF BASEROCK. IF SUBGRADE PASSES PROOF-ROLL BUT FAILS DENSITY TESTING, MIN. 4.5 OZ NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED ON SUBGRADE PRIOR TO PLACEMENT OF BASEROCK. FAILURE OF PROOF-ROLL WILL REQUIRE OVEREXCAVATION.
 - IF SUBGRADE FAILS THE PROOF-ROLL, SUBGRADE SHALL BE OVEREXCAVATED TO UNDISTURBED SOIL AND BACKFILLED WITH BASEROCK OVER MIN. 8.0-OZ. NON-WOVEN FABRIC AS REQUIRED TO ALLOW COMPACTION OF UPPER (DESIGN) BASEROCK SECTION AND TO MAINTAIN STRUCTURAL INTEGRITY OF NATIVE SUBGRADE SOILS. TYPICAL MIN. OVEREXCAVATION REQUIRED IS 12-INCHES. NO RUBBER TIERED EQUIPMENT ALLOWED ON SUBGRADE FOLLOWING OVEREXCAVATION.
 - SUBGRADE TO BE PROOFROLLED IMMEDIATELY PRIOR TO PLACING BASEROCK. BASEROCK TO BE PROOFROLLED IMMEDIATELY PRIOR TO PAVING.
 - CONTRACTION JOINTS SHALL BE PLACED AT 15' MIN. INTERVALS AND SHALL EXTEND AT LEAST 50% THROUGH THE CURB SECTION.
 - ALL CONCRETE SHALL BE 3300 PSI @ 28 DAYS.
 - CURBS TO CURE A MINIMUM OF 7 DAYS PRIOR TO PLACING FINAL BASEROCK AND PAVING. USE TYPE 1 OR 1-D CLEAR CURING COMPOUND.

LAST REVISION DATE:	DEC 1999	JO #	X
PAVEMENT AND TYPE 'C' CURB DETAIL			
(NTS)			
WESTTECH ENG.	DETAIL NO.	2390	



SECTION A-A

- NOTES:**
- PRECAST SECTIONS SHALL CONFORM TO ASTM C-478.
 - DISTANCE FROM TOP OF OVERFLOW TO MH RIM SHALL BE BASED ON OVERFLOW CAPACITY CALC'S BY DESIGN ENGINEER (ASSUME ORIFICE CONTROL).
 - 60\"/>
 - ORIFICE CLEANING ACCESS TO BE 6\"/>

LAST REVISION DATE:	AUG 2014	STANDARD
POLLUTION/FLOW CONTROL MANHOLE W/OVERFLOW		
(NTS)		
WESTTECH ENG.	DETAIL NO.	3200

NO.	DATE	DESCRIPTION	BY
1			

VERIFY SCALE	1"
BAR IS ONE INCH ON ORIGINAL DRAWING	
IF NOT ONE INCH ON SCALES ACCURACLY	
DSN.	JW
DRN.	IH
CKD.	JW
DATE:	06/20/2008

REGISTERED PROFESSIONAL ENGINEER

REVIEW REVIEW

WILLIAM T. WELLS
REG. NO. 12,083
STATE OF OREGON

REVIEWS: 6/20/2022

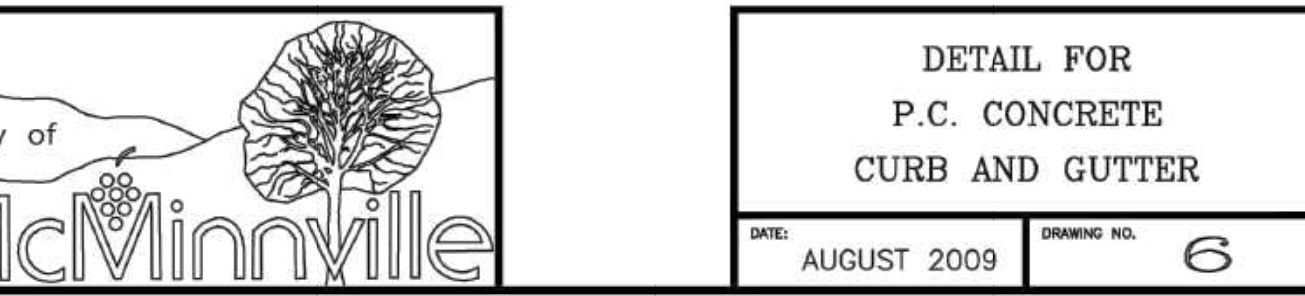
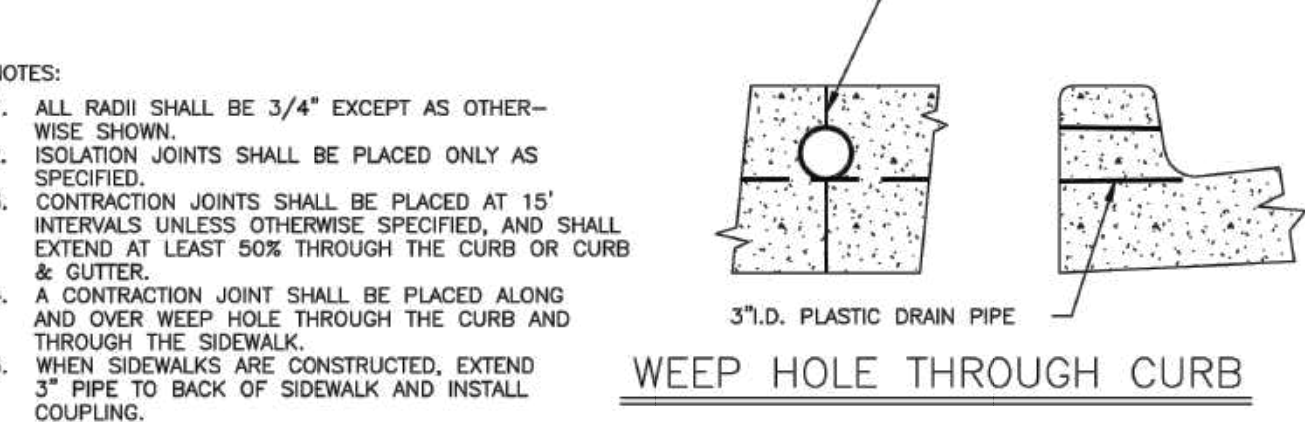
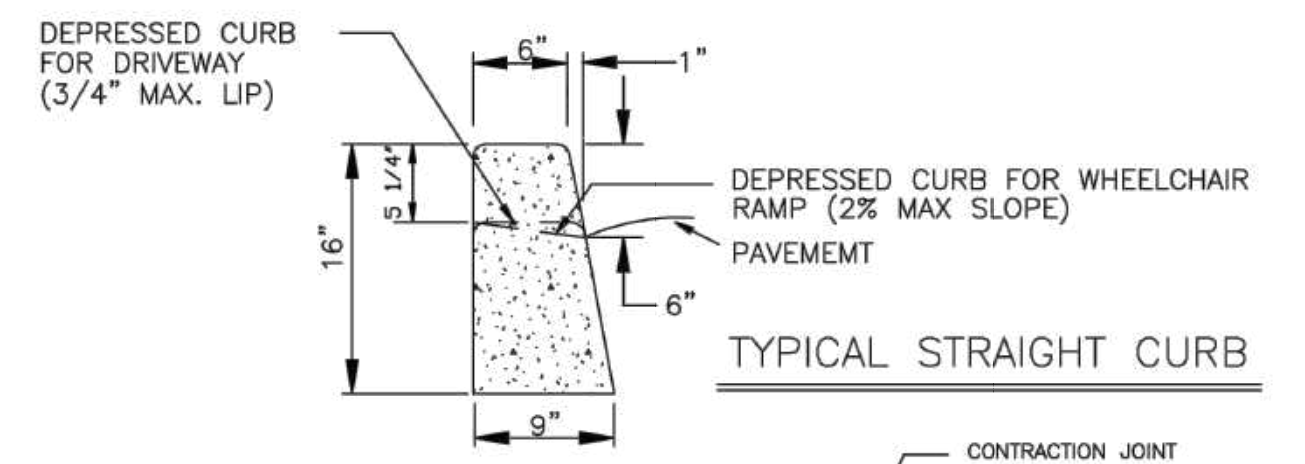
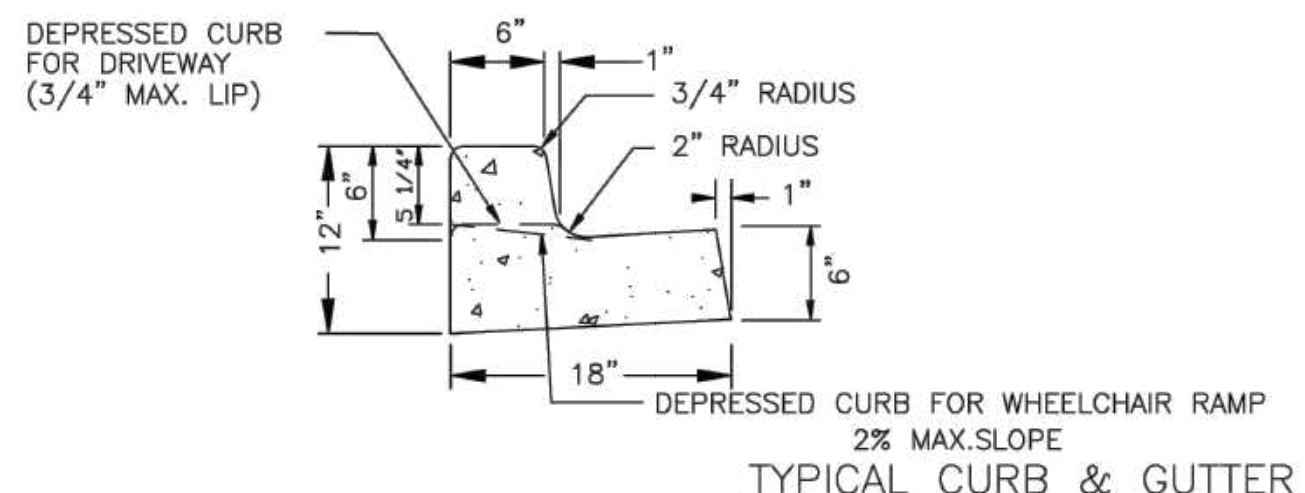
WESTTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS

WE

3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3966
E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION
DETAILS

DRAWING
C6.0
JOB NUMBER
2931.0000.0

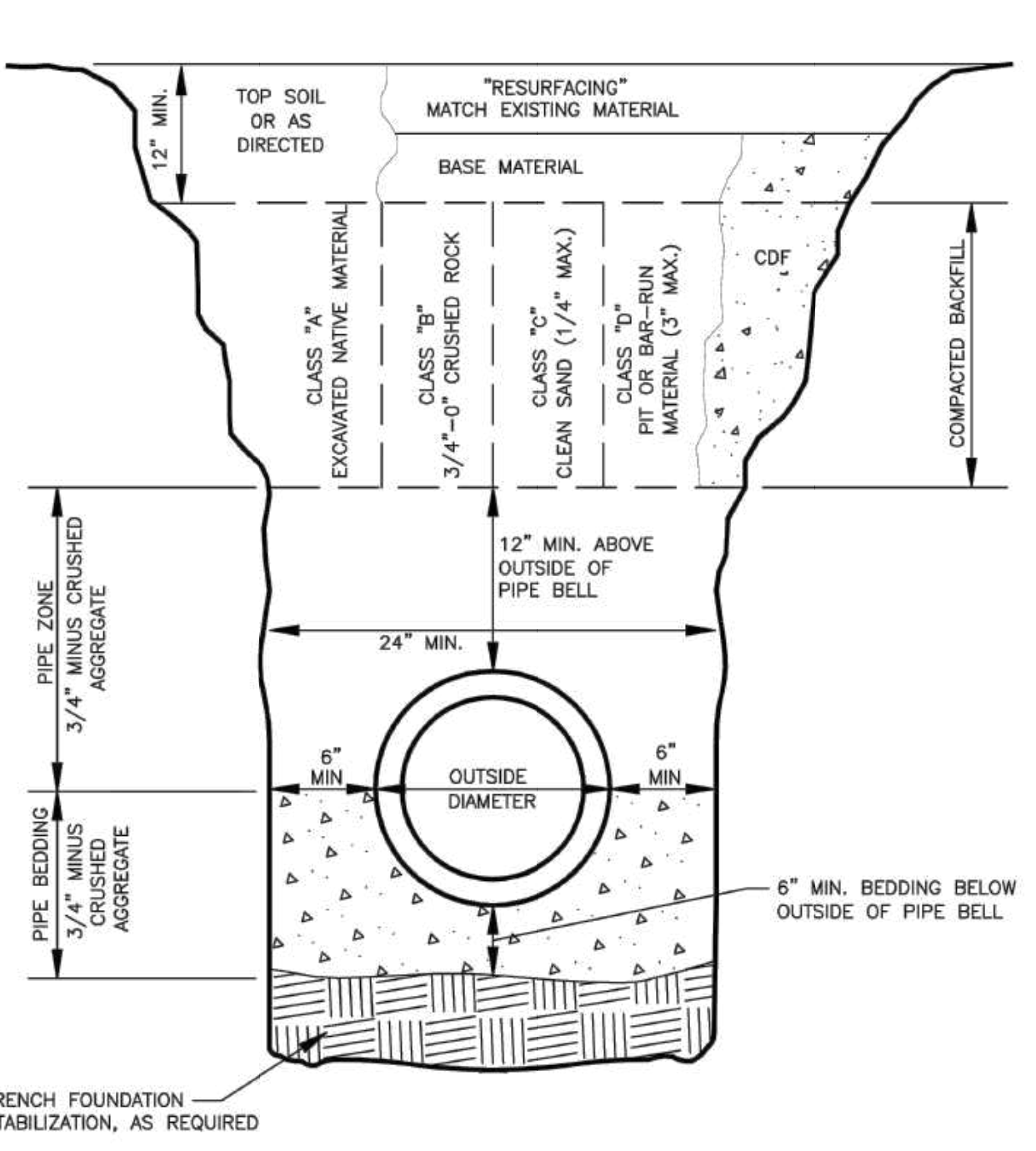


NOTES:
 1. ALL RADII SHALL BE 3/4" EXCEPT AS OTHERWISE SHOWN.
 2. ISOLATION JOINTS SHALL BE PLACED ONLY AS SPECIFIED.
 3. CONTRACTION JOINTS SHALL BE PLACED AT 15' INTERVALS UNLESS OTHERWISE SPECIFIED, AND SHALL EXTEND AT LEAST 50% THROUGH THE CURB OR CURB & GUTTER.
 4. A CONTRACTION JOINT SHALL BE PLACED ALONG AND OVER WEEP HOLE THROUGH THE CURB AND THROUGH THE SIDEWALK.
 5. WHEN SIDEWALKS ARE CONSTRUCTED, EXTEND 3" PIPE TO BACK OF SIDEWALK AND INSTALL COUPLING.

City of
McMinnville

DETAIL FOR
 P.C. CONCRETE
 CURB AND GUTTER

DATE: AUGUST 2009 DRAWING NO. 6

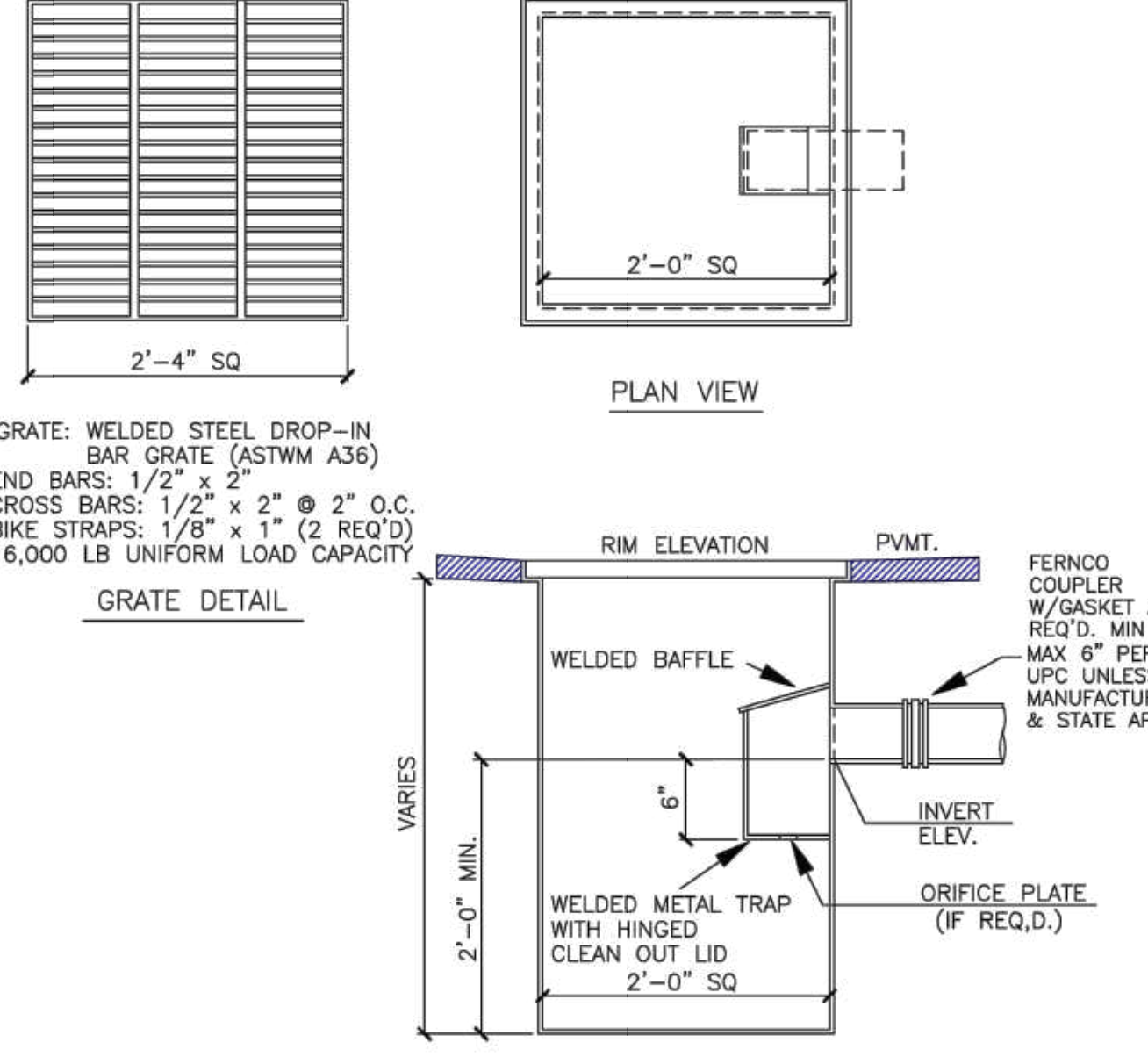


NOTE:
 SURFACING OF PAVED AREAS SHALL COMPLY WITH STREET CUT STANDARD DWG. NO. B.

City of
McMinnville

DETAIL FOR
 TRENCH BACKFILL
 BEDDING & PIPE ZONE

DATE: AUGUST 2009 DRAWING NO. 9

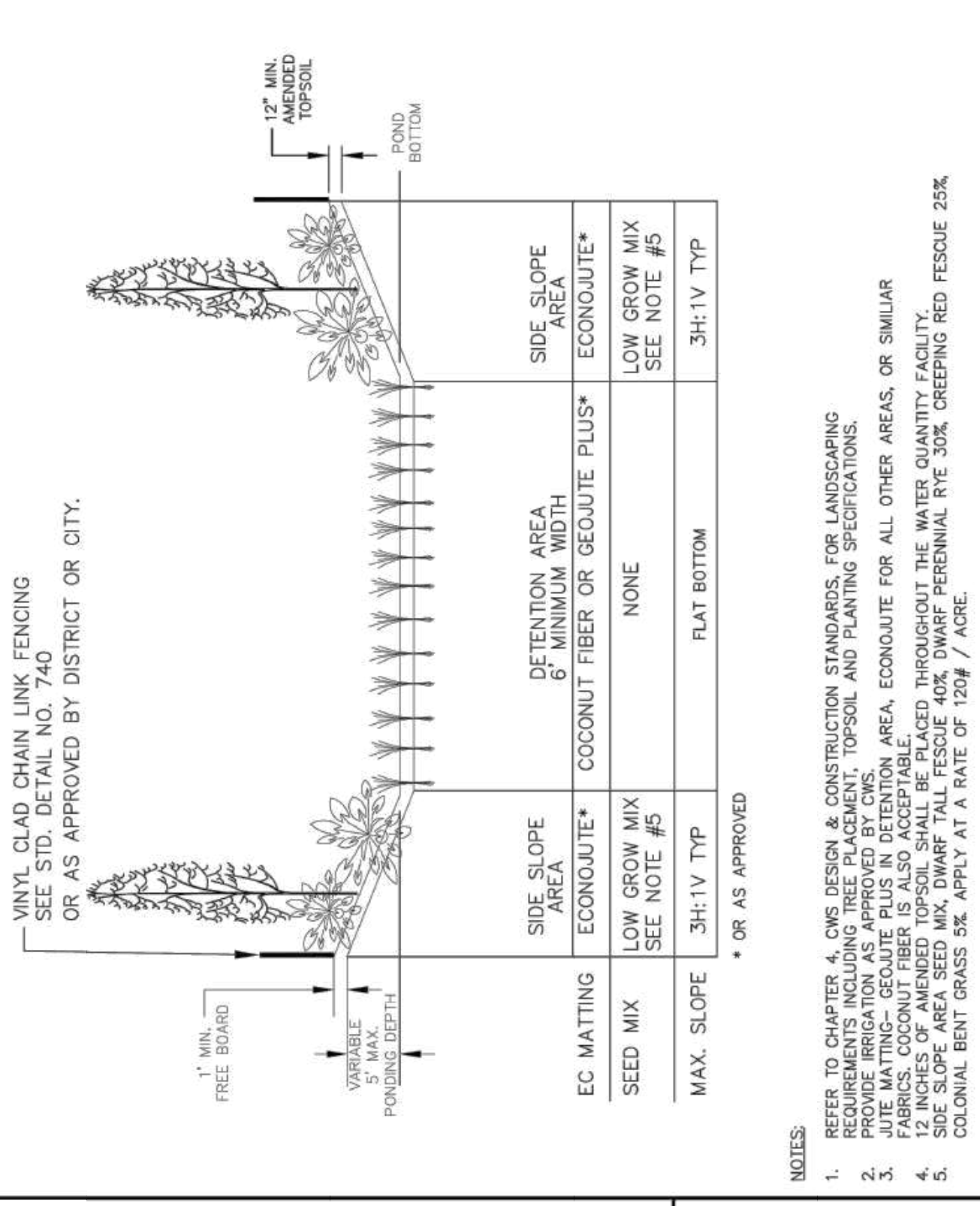


NOTES:
 1) SEE CONSTRUCTION DWGS FOR PIPE SIZE, LOCATION AND INVERT ELEVATION.
 2) FOR JUNCTION BOX, REPLACE GRATE WITH 3/4" STEEL PLATE. DRILL ONE 1" LIFTING HOLE, CENTERED IN ONE END OF THE PLATE. WELD SHIMS TO RIM AS REQUIRED TO RAISE PLATE TO RIM ELEVATION.
 3) OUTLET: SIZE AS REQ'D. FOR INDICATED PIPE SIZE.

City of
McMinnville

DETAIL FOR
 PARKING LOT CATCH BASIN
 (LYNCH STYLE)

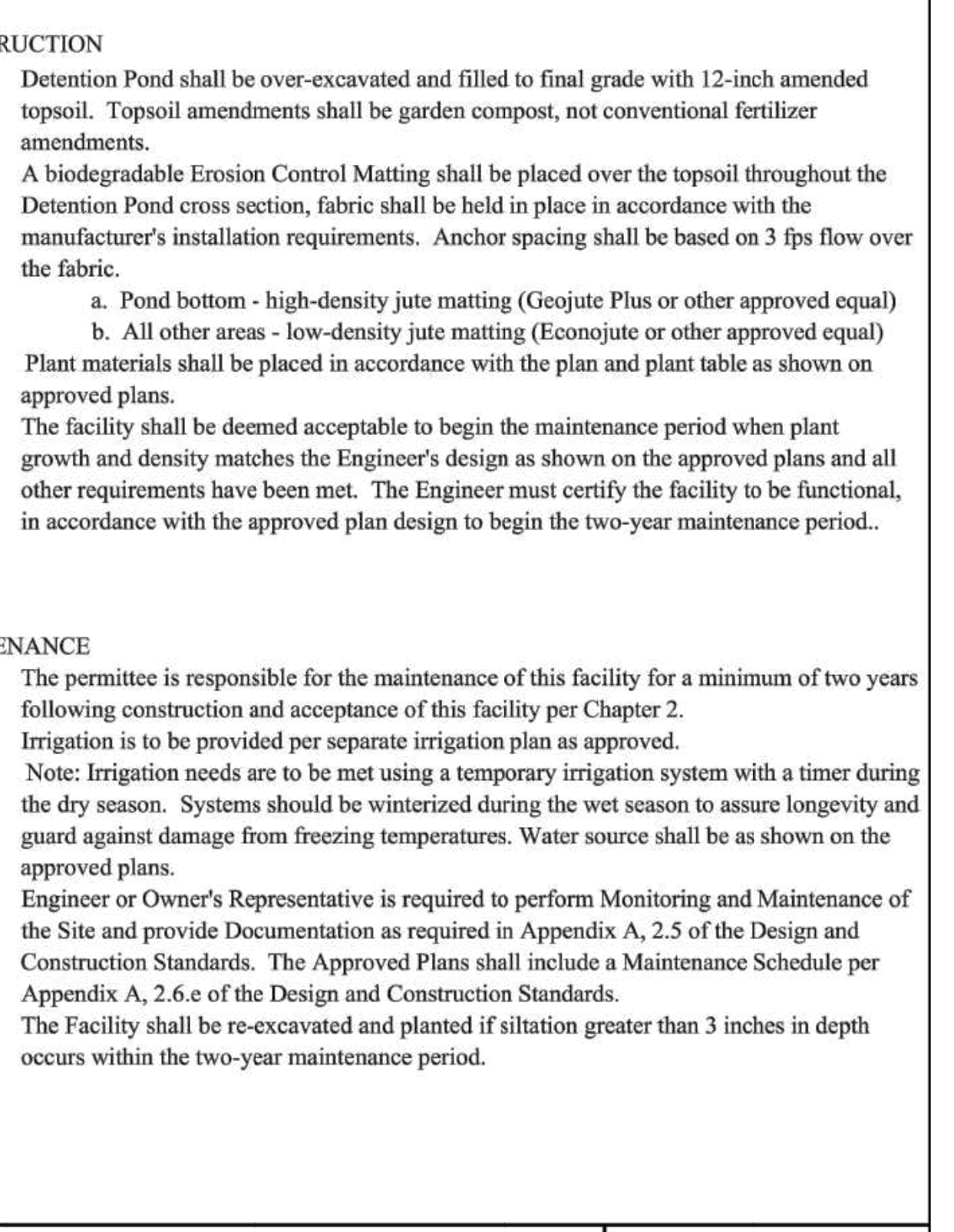
DATE: AUGUST 2009 DRAWING NO. 27



City of
McMinnville

DETAIL FOR
 DETENTION POND
 CONSTRUCTION & MAINTENANCE NOTES

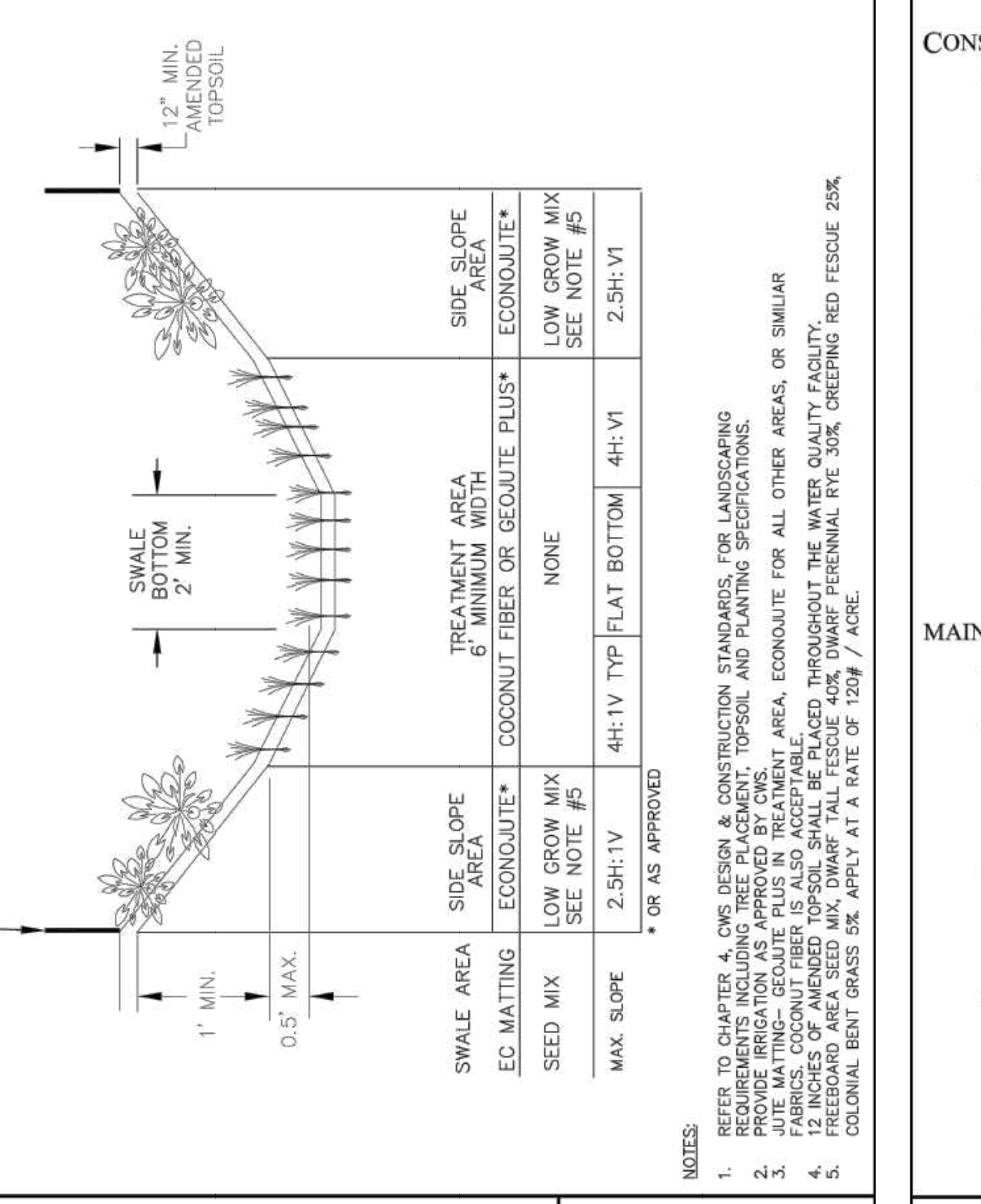
DATE: AUGUST 2009 DRAWING NO. 701



City of
McMinnville

DETAIL FOR
 WATER QUALITY SWALE
 CONSTRUCTION & MAINTENANCE NOTES

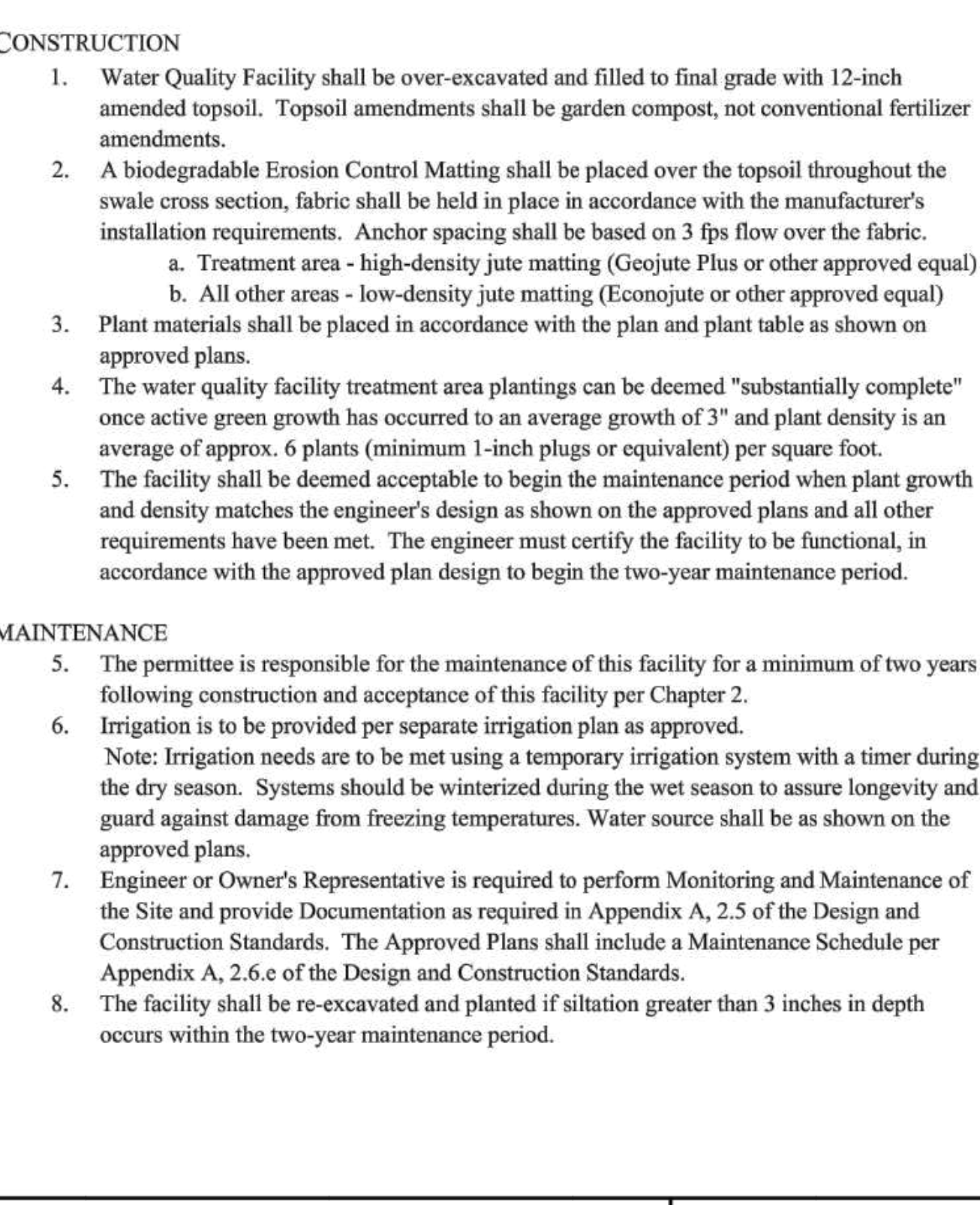
DATE: AUGUST 2009 DRAWING NO. 705



City of
McMinnville

DETAIL FOR
 WATER QUALITY SWALE
 CONSTRUCTION & MAINTENANCE NOTES

DATE: AUGUST 2009 DRAWING NO. 706



City of
McMinnville

DETAIL FOR
 WATER QUALITY SWALE
 CONSTRUCTION & MAINTENANCE NOTES

DATE: AUGUST 2009 DRAWING NO. 706

NO.	DATE	DESCRIPTION	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON SCALES ACCORDINGLY

REGISTERED PROFESSIONAL ENGINEER
REVIEW
 WILLIAM T. WELLS
 1210 N. W. 12th St.
 Ft. Lauderdale, FL 33304
 DATE: 08/20/09

WESTTECH ENGINEERING, INC.
 CONSULTING ENGINEERS AND PLANNERS
WE
 3841 Fairview Industrial Dr. S.E., Suite 100, Salem, OR 97302
 Phone: (503) 585-2474 Fax: (503) 585-3966
 E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
 ELYSIAN SUBDIVISION
 DETAILS

DRAWING
C6.1
 JOB NUMBER
 2931.0000.0



City of McMinnville

ENGINEERING

M E M O R A N D U M

DATE: March 10, 2022

TO: Heather Richards, Planning Director
Monica Bilodeau, Senior Planner

FROM: Jeff Gooden, Engineering Technician

SUBJECT: **S 1-21**
Elysian Subdivision Phase I & II

Here are our comments and suggested conditions of approval regarding the above listed application:

S 1-21 COMMENTS:

TRANSPORTATION

The proposed subdivision is located adjacent to and NW 23rd St, just east of the Jay Pearson Neighborhood Park. The preliminary plans for S 1-21 indicate that the developer will connect NW Meadows Dr between NW 23rd St and NW Snowberry Ct as well as construct a cul-de-sac to complete NW Fendle Way. Additionally the developer is proposing to construct a pedestrian pathway to connect NW Meadows St and NW Fendle Way. There will also be a paved access to the proposed detention pond.

Due to existing conditions on NW Meadows Dr a variance will be granted to the 60' right-of-way (ROW) and street width. NW Meadows Dr will be constructed as a Minor Collector with a width of 36' from curb to curb a 6' planter and a 5' sidewalk 1' from property line, with a 10' public utility easement on both sides of the road.

As proposed NW Fendle Way will be constructed to the Local Residential street standard with a 50' right-of-way, a 28' wide street curb to curb, a 5' planter strip, and 5' sidewalk. The sidewalk shall be curb tight through the bulb of the cul-de-sac with the ROW extending 5' behind the sidewalk to place water utilities behind the sidewalk in the cul-de-sac, with a 10' public utility easement behind the right-of-way on all sides of the street.

Suggested conditions of approval related to transportation include:

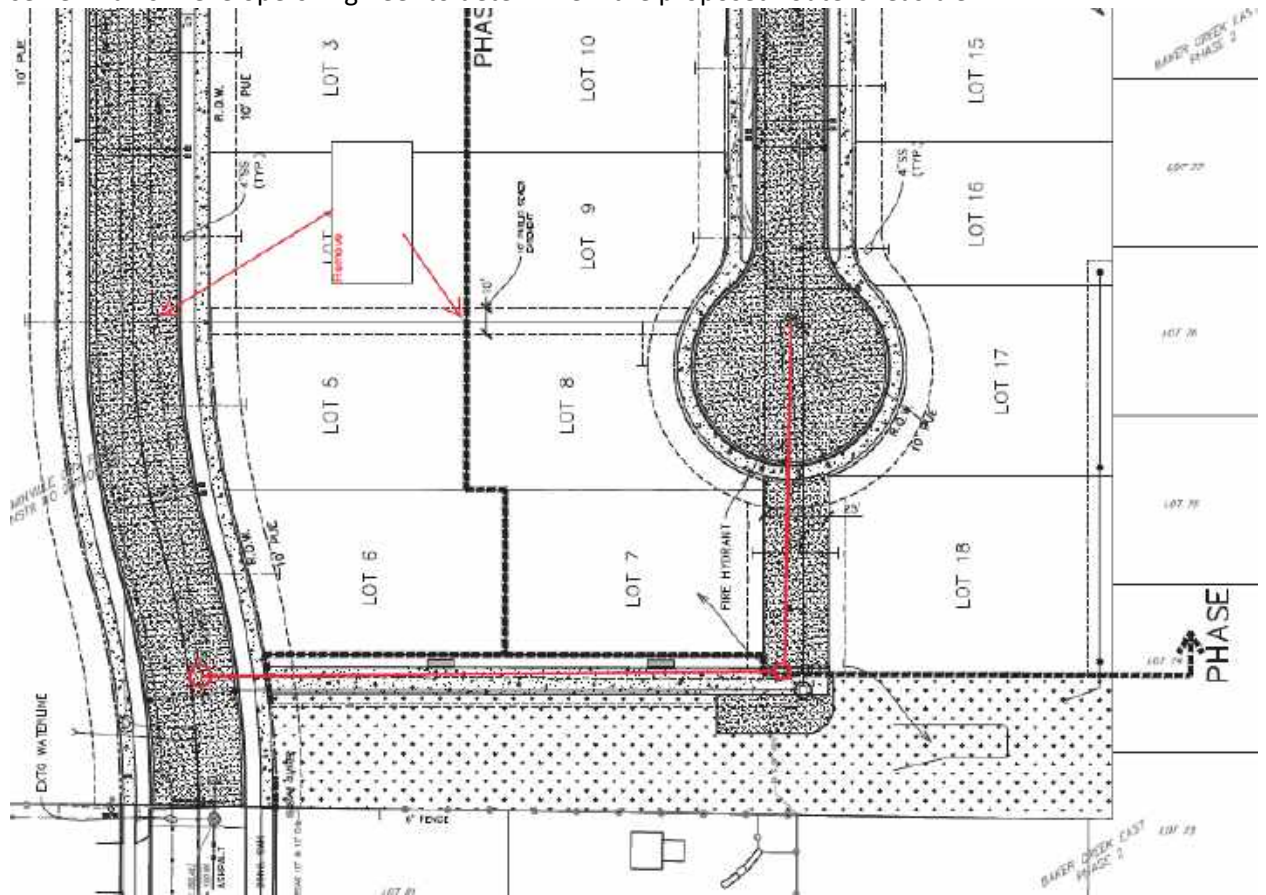
1. The final plat shall reflect that access to the detention pond will be granted to the City for maintenance of the structures.
2. The final plat shall reflect that Tract A will be private.
3. The final plat shall reflect that the pedestrian pathway within tract A will be private. The tract shall have private maintenance agreements which must be approved by the City prior to the City's approval of the final plat.
4. The final plat shall reflect that the sanitary line between Fendle Way and Meadows Dr shall be public
5. The interior streets shall be improved with a 28-foot wide paved section, 5-foot wide curbside planting strips, and five-foot-wide sidewalks placed one foot from the property line within a 50-foot right-of-way, as required by the McMinnville Land Division Ordinance for local residential streets.
6. On-street parking will not be permitted within a 30-foot distance of street intersections measured from the terminus of the curb returns.
7. The City Public Works Department will install, at the applicant's expense, the necessary street signage (including stop signs, no parking signage, and street name signage), curb painting, and striping (including stop bars) associated with the development. The applicant shall reimburse the City for the signage and markings prior to the City's approval of the final plat.
8. The applicant shall submit cross sections for the public street system to be constructed. Cross sections shall depict utility location, street improvement elevation and grade, park strips, sidewalk location, and sidewalk elevation and grade. Said cross sections shall be submitted to the City Engineer for review and approval prior to submittal of the final plat. All such submittals must comply with the requirements of 13A of the Land Division Ordinance and must meet with the approval of the City Engineer.
9. Street grades and profiles shall be designed and constructed to meet the adopted Land Division Ordinance standards and the requirements contained in the Public Right-of-Way Accessibility Guidelines (PROWAG). Additionally, corner curb ramps shall be constructed to meet PROWAG requirements.
10. That the street improvements shall have the City's typical "teepee" section.
11. The applicant shall coordinate the location of clustered mailboxes with the Postmaster, and the location of any clustered mailboxes shall meet the accessibility requirements of PROWAG and the State of Oregon Structural Specialty Code.

SANITARY SEWER

Suggested conditions of approval related to sanitary sewer service include:

1. A detailed, engineered sanitary sewage collection plan, which incorporates the requirements of the City's adopted Conveyance System Master Plan, must be submitted to and approved by the City Engineering Department. Any utility easements needed to comply with the approved sanitary sewage plan must be reflected on the final plat.

2. The City is proposing an alternate route for the sewer main as it prefers to avoid side lot sanitary sewer mains. Developers Engineer to determine if the proposed route is feasible.



STORM DRAINAGE

Suggested conditions of approval related to storm drainage include:

1. That a detailed, engineered storm drainage plan, which satisfies the requirements of the City's Storm Drainage Master Plan, and that demonstrates that the existing downstream storm drainage system has adequate capacity, must be submitted to and approved by the City Engineering Department. Any utility easements needed to comply with the approved plan must be reflected on the final plat.
2. No additional storm drainage runoff shall be conveyed onto any adjacent property without the appropriate public and/or private storm drainage easements. Copies of recorded private easements must be provided to the City prior to the City's approval of the final plat. Any offsite public easements must be dedicated to and accepted by the City prior to the City's approval of the final plat. The HOA will be responsible for the maintenance for the wetland plantings and fencing.

MISCELLANEOUS

Additional suggested conditions of approval include:

1. The final plat shall include 10-foot public utility easements along both sides of all public rights-of-way for the placement and maintenance of required utilities.
2. The final plat shall include use, ownership, and maintenance rights and responsibilities for all easements and tracts.
3. The applicant shall secure from the Oregon Department of Environmental Quality (DEQ) any applicable storm runoff and site development permits prior to construction of the required site improvements. Evidence of such permits shall be submitted to the City Engineer.
4. The applicant shall secure all required state and federal permits, including, if applicable, those related to construction of the storm drain outfalls, the federal Endangered Species Act, Federal Emergency Management Act, and those required by the Oregon Division of State Lands, and U.S. Army Corp of Engineers. Copies of the approved permits shall be submitted to the City.
5. That the applicant submit evidence that all fill placed in the areas where building sites are expected is engineered. Evidence shall meet with the approval of the City Building Division and the City Engineering Department.
6. That the required public improvements shall be installed to the satisfaction of the responsible agency prior to the City's approval of the final plat. Prior to the construction of the required public improvements, the applicant shall enter into a Construction Permit Agreement with the City Engineering Department, and pay the associated fees.
7. That the applicant shall submit a draft copy of the subdivision plat to the City Engineer for review and comment which shall include any necessary cross easements for access to serve all the proposed parcels, and cross easements for utilities which are not contained within the lot they are serving, including those for water, sanitary sewer, storm sewer, electric, natural gas, cable, and telephone. A current title report for the subject property shall be submitted with the draft plat. Two copies of the final subdivision plat mylars shall be submitted to the City Engineer for the appropriate City signatures. The signed plat mylars will be released to the applicant for delivery to McMinnville Water and Light and the County for appropriate signatures and for recording.
8. The City will not maintain the proposed enhanced wetland facility or proposed bioswale along the south boundary of the subject property. The City will maintain the structures (inlets, outfalls, WQ manholes, flow control MH's, etc).
9. All of Tract A, including the proposed wetland and associated pedestrian path should remain private.
10. The access to the storm pond will have a driveway approach with an 8" section of concrete or 6" section with #4 rebar and be PROWAG compliant. The access will be paved to city standards with 10" of 1 ½" – 0 crushed rock under 2" of ¾" – 0 crushed rock and a 3" level 2 WMAC paved section to accommodate maintenance vehicles.

Amanda Winter

From: Amy M. Gonzales <amg@mc-power.com>
Sent: Monday, February 28, 2022 4:42 PM
To: Amanda Winter
Subject: RE: Planned Development, Zone Change & Subdivision (PD 1-21, ZC 1-22 & S 1-21)
Attachments: We sent you safe versions of your files; Exhibit 1 Drainage Plan.pdf; Overall Utility Plan-Power Comments.pdf

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

This message originated outside of the City of McMinnville.

Amanda,

Comments from McMinnville Water & Light and attachments for reference.

Water: Developer needs to submit a Subdivision Design Application form to McMinnville Water and Light. The project will require the developer to enter into a Line Extension Agreement (contract) with McMinnville Water and Light (MW&L). The public water system will need to be designed by the Developer's engineer and reviewed/approved by MW&L.

Power: Developer needs to submit a Subdivision Design Application form to McMinnville Water and Light. The project will require the developer to enter into a Line Extension Agreement (contract) with McMinnville Water and Light. The portion of the PUE included in the Drainage Improvements abutting NW Meadows needs to be constructed with an elevation and profile that ensures utilities can be extended through it in a typical manner.

Thank you,

Amy Gonzales
Engineering & Operations Assistant
McMinnville Water & Light
(503) 472-6919 ext 5
amg@mc-power.com

From: Amanda Winter <Amanda.Winter@mcminnvilleoregon.gov>
Sent: Friday, February 25, 2022 3:32 PM
To: Amanda Guile-Hinman <Amanda.Guile@mcminnvilleoregon.gov>; andrew.schurter@nwnatural.com; Anne Pagano <Anne.Pagano@mcminnvilleoregon.gov>; bskinner@msd.k12.or.us; Calo, Peter <Peter_Calo@comcast.com>; Dave Larmouth <dlarmouth@recology.com>; Kopp, Kevin (Tigard) <Kevin_Kopp@comcast.com>; David Renshaw <David.Renshaw@mcminnvilleoregon.gov>; Deborah McDermott <Deborah.McDermott@mcminnvilleoregon.gov>; E&O Engineering Mailbox <Engineering@mc-power.com>; Heather Richards <Heather.Richards@mcminnvilleoregon.gov>; Jeff Towery <Jeff.Towery@mcminnvilleoregon.gov>; jevra.brown@state.or.us; Ken Friday <fridayk@co.yamhill.or.us>; Leland Koester <Leland.Koester@mcminnvilleoregon.gov>; Matt Scales <Matt.Scales@mcminnvilleoregon.gov>; Samuel Justice <SRJ@mc-power.com>; odoctr2planmgr@odot.state.or.us; scott.albert@ziply.com; Stuart Ramsing

<Stuart.Ramsing@mcminnvilleoregon.gov>; Susan Muir <Susan.Muir@mcminnvilleoregon.gov>; Jen Hawkins <JenH@mc-power.com>; Amy M. Gonzales <amg@mc-power.com>; Monica Bilodeau <Monica.Bilodeau@mcminnvilleoregon.gov>

Subject: Planned Development, Zone Change & Subdivision (PD 1-21, ZC 1-22 & S 1-21)

Good afternoon all,

The material provided (see description below and attachment) has been referred to you for your information, study, and official comments for the record. Your recommendations and suggestions will be used to guide the McMinnville Planning Director when reviewing this proposal. If you wish to have your comments on the attached material considered by the Commission, please email your response back to our office by **March 11, 2022**. These matters have been tentatively scheduled to be consider by the Planning Commission on **April 7, 2022** at 6:30 p.m., via Zoom.

The following information is the project description regarding PD 1-21, ZC 1-22 & S 1-21:

The applicant is requesting a phased 18 lot Subdivision, Planned Development, and Zone Change located on the 3.79 acre parcel at Meadows Drive and Fendle Way just south of 23rd Street (R4418 00204).

The proposal would include adjusting the side yard setbacks from 7.5 to 5 feet and a Zone Change from (R-1 to R-3), which will allow an average lot size to be reduced from 9000 SF to 6000 SF.

Meadows drive is proposed to be connected along the western side of the subdivision, and Fendle Way will be extended and terminated into a cul-de-sac within the proposed subdivision.

They are also proposing a 16,925 SF open space tract along the southern property line which will contain stormwater facility and adjacent will be a 20 foot wide pedestrian access easement and 10 foot wide paved connection from Fendle to Meadows Drive. Please see attached narrative and Plans.

Your prompt reply will help to facilitate the processing of this application and will insure consideration of your recommendations.

If you have any questions regarding this application, the Planner assigned to this project is Monica Bilodeau, you can reach out to them directly at Monica.Bilodeau@mcminnvilleoregon.gov or (503) 474-4153.

If you are having trouble viewing the attachment, please email me directly or call our office at (503) 434-7311.

Please note that any written comments/correspondence returned (emails/letters) regarding this request become part of the public record.

Thank you,

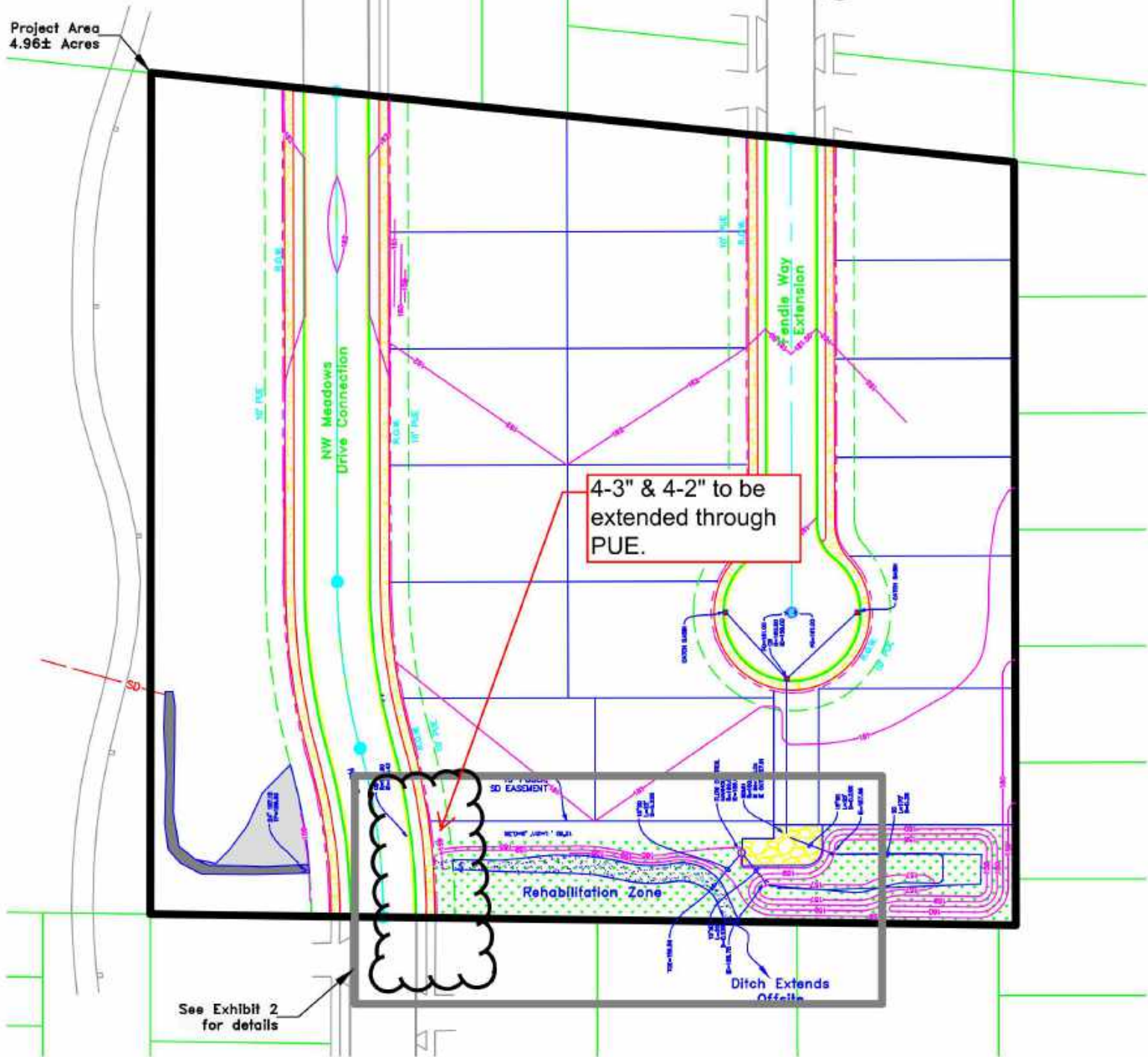


Amanda Winter
Planning Analyst
(503) 434-7311

231 NE Fifth Street McMinnville, OR 97128
www.mcminnvilleoregon.gov

LEGEND	
	Avoided Wetland A / Excavated Ditch
	Proposed 1-Foot Contour
	Proposed Stormwater Infrastructure
	Existing Taxlot Boundary
	Proposed Taxlot Boundary
	Relocated / Enhanced Ditch 2

Project Area
4.96± Acres



4-3" & 4-2" to be extended through PUE.

Rehabilitation Zone

Ditch Extends Offsite

See Exhibit 2 for details

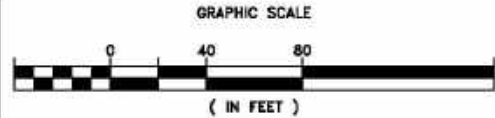
NOTE: Approximately 180 linear feet (LF) of excavated North Fork Cozine Creek east of the proposed NW Meadows Drive connection would be rehabilitated and placed within dedicated community open spaces along the southern project boundary. Identified stormwater infrastructure facilities and the rehabilitation zone would be constructed during Phase I of subdivision construction (anticipated for summer 2021).

Source: Adapted from Westech Engineering, Inc. civil files.

Terra Science, Inc.
Soil, Water, & Wetland Consultants

REVISED DRAINAGE REHABILITATION PLAN
FOR THE ELYSIAN IN-FILL SUBDIVISION PROJECT
(DSL App. 62609-RF & USACE NWP 2020-374)
City of McMinnville, Yamhill County, Oregon

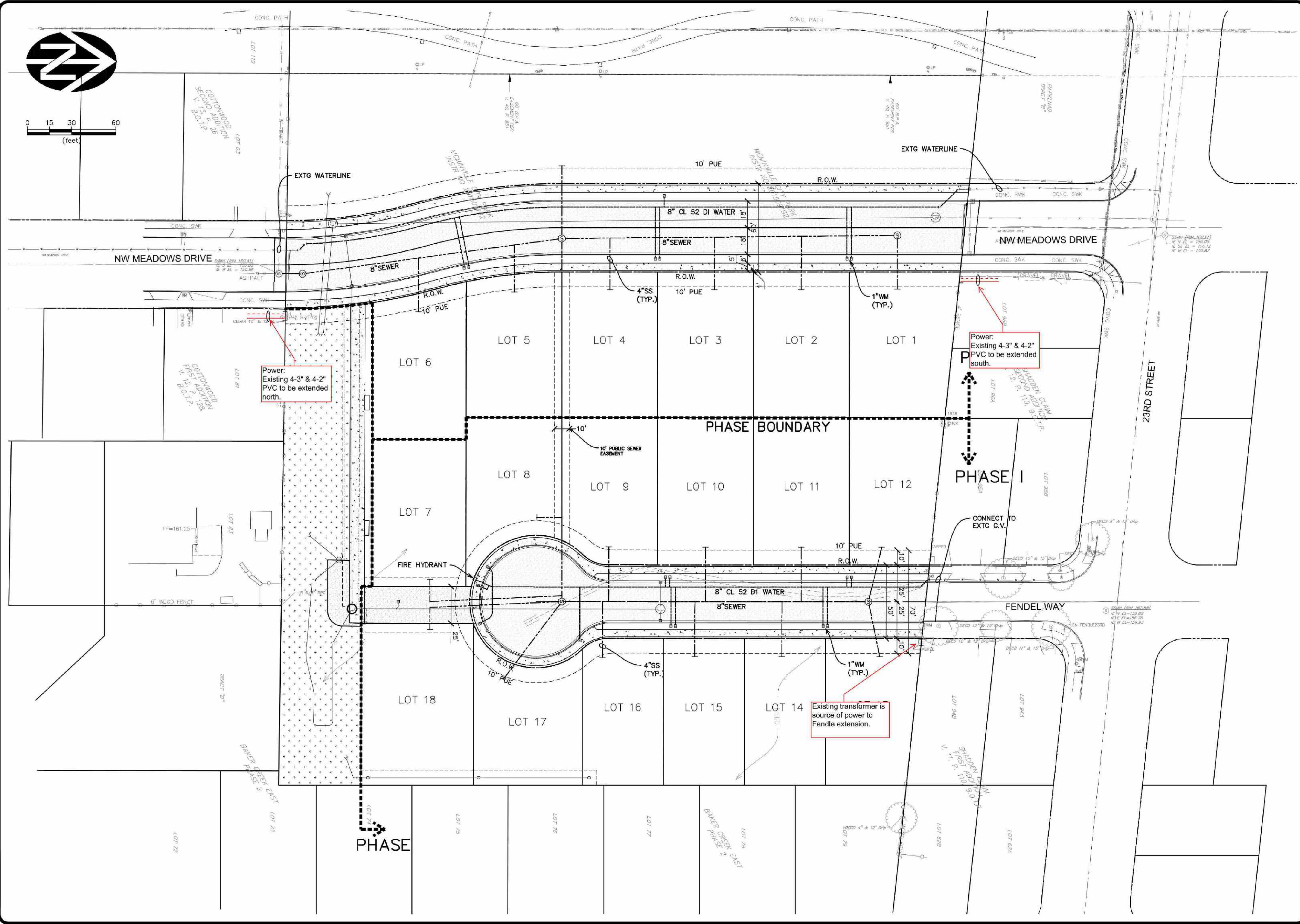
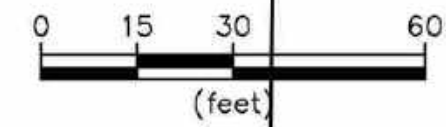
CONCEPTUAL
DEVELOPMENT



December 2020

Revised on 06.23.2022
576 of 614

EXHIBIT 1



Power:
Existing 4-3" & 4-2"
PVC to be extended
north.

Power:
Existing 4-3" & 4-2"
PVC to be extended
south.

Existing transformer is
source of power to
Fendle extension.

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING	1"
IF NOT ONE INCH ON SCALE, ACCURACY NOT GUARANTEED	0
DSN.	JW
DRN.	JH
CKD.	JW
DATE:	06/22/2008
NO.	1
DATE	
DESCRIPTION	
REVISIONS	
BY	



WESTTECH ENGINEERING, INC.
CONSULTING ENGINEERS AND PLANNERS

WE

3841 Fairview Industrial Dr. S.E., Suite 100, Selem, OR 97302
Phone: (503) 585-2474 Fax: (503) 585-3988
E-mail: westtech@westtech-eng.com

VJ-2 DEVELOPMENT
ELYSIAN SUBDIVISION

OVERALL UTILITY PLAN

DRAWING
C4.0

JOB NUMBER
2931.0000.0

Amanda Winter

From: Calo, Peter <Peter_Calo@comcast.com>
Sent: Monday, February 28, 2022 12:02 PM
To: Amanda Winter
Cc: Kopp, Kevin (Tigard)
Subject: RE: Planned Development, Zone Change & Subdivision (PD 1-21, ZC 1-22 & S 1-21)

This message originated outside of the City of McMinnville.

Amanda,
Comcast does not have any comments at this time other than.

The Private Developer can contact Comcast for services and cabling when they have their power trenching plan ready. Any moving of Comcast facilities in conjunction with this development will be at the Developers cost.

Pete Calo
Manager 1, Planning & Design
Seattle /Oregon/SW Washington Markets
O (503) 596-3920
C (503) 213-0425

From: Amanda Winter <Amanda.Winter@mcminnvilleoregon.gov>
Sent: Friday, February 25, 2022 3:32 PM
To: Amanda Guile-Hinman <Amanda.Guile@mcminnvilleoregon.gov>; andrew.schurter@nwnatural.com; Anne Pagano <Anne.Pagano@mcminnvilleoregon.gov>; bskinner@msd.k12.or.us; Calo, Peter <Peter_Calo@comcast.com>; Dave Larmouth <dlarmouth@recology.com>; Kopp, Kevin (Tigard) <Kevin_Kopp@cable.comcast.com>; David Renshaw <David.Renshaw@mcminnvilleoregon.gov>; Deborah McDermott <Deborah.McDermott@mcminnvilleoregon.gov>; E&O Engineering Mailbox <engineering@mc-power.com>; Heather Richards <Heather.Richards@mcminnvilleoregon.gov>; Jeff Towery <Jeff.Towery@mcminnvilleoregon.gov>; jevra.brown@state.or.us; Ken Friday <fridayk@co.yamhill.or.us>; Leland Koester <Leland.Koester@mcminnvilleoregon.gov>; Matt Scales <Matt.Scales@mcminnvilleoregon.gov>; SRJ@mc-power.com; odotr2planmgr@odot.state.or.us; scott.albert@ziplay.com; Stuart Ramsing <Stuart.Ramsing@mcminnvilleoregon.gov>; Susan Muir <Susan.Muir@mcminnvilleoregon.gov>; JenH@mc-power.com; amg@mc-power.com; Monica Bilodeau <Monica.Bilodeau@mcminnvilleoregon.gov>
Subject: [EXTERNAL] Planned Development, Zone Change & Subdivision (PD 1-21, ZC 1-22 & S 1-21)

Good afternoon all,

The material provided (see description below and attachment) has been referred to you for your information, study, and official comments for the record. Your recommendations and suggestions will be used to guide the McMinnville Planning Director when reviewing this proposal. If you wish to have your comments on the attached material considered by the Commission, please email your response back to our office by **March 11, 2022**. These matters have been tentatively scheduled to be considered by the Planning Commission on **April 7, 2022** at 6:30 p.m., via Zoom.

The following information is the project description regarding PD 1-21, ZC 1-22 & S 1-21:

The applicant is requesting a phased 18 lot Subdivision, Planned Development, and Zone Change located on the 3.79 acre parcel at Meadows Drive and Fendle Way just south of 23rd Street (R4418 00204).

The proposal would include adjusting the side yard setbacks from 7.5 to 5 feet and a Zone Change from (R-1 to R-3), which will allow an average lot size to be reduced from 9000 SF to 6000 SF.

Meadows drive is proposed to be connected along the western side of the subdivision, and Fendle Way will be extended and terminated into a cul-de-sac within the proposed subdivision.

They are also proposing a 16,925 SF open space tract along the southern property line which will contain stormwater facility and adjacent will be a 20 foot wide pedestrian access easement and 10 foot wide paved connection from Fendle to Meadows Drive. Please see attached narrative and Plans.

Your prompt reply will help to facilitate the processing of this application and will insure consideration of your recommendations.

If you have any questions regarding this application, the Planner assigned to this project is Monica Bilodeau, you can reach out to them directly at Monica.Bilodeau@mcminnvilleoregon.gov or (503) 474-4153.

If you are having trouble viewing the attachment, please email me directly or call our office at (503) 434-7311.

Please note that any written comments/correspondence returned (emails/letters) regarding this request become part of the public record.

Thank you,



Amanda Winter
Planning Analyst
(503) 434-7311

231 NE Fifth Street McMinnville, OR 97128
www.mcminnvilleoregon.gov



City of McMinnville
Planning Department
231 NE Fifth Street
McMinnville, OR 97128
(503) 434-7311
www.mcminnvilleoregon.gov

MINUTES

May 19, 2022
Planning Commission
Work Session Meeting

6:30 pm
Hybrid Meeting
McMinnville, Oregon

Members Present: Robert Banagay, Lori Schanche, Gary Langenwalter, Brian Randall, Beth Rankin, Dan Tucholsky, Sidonie Winfield, Matt Deppe, and Sylla McClellan

Members Absent:

Staff Present: Heather Richards – Planning Director, Monica Bilodeau – Senior Planner, and Amanda Guile-Hinman – City Attorney

- **Call to Order**

Chair Winfield called the meeting to order at 6:30 p.m.

- 1. **Citizen Comments**

None

- 2. **Minutes**

- 3. **April 1, 2021**
- 4. **January 20, 2022**
- 5. **February 17, 2022**

Commissioner Banagay moved to approve the April 1, 2021, January 20 and February 17, 2022 minutes. The motion was seconded by Commissioner Schanche and passed unanimously.

- **Public Hearing:**

- 4. **Quasi-Judicial Hearing: Zone Change (ZC 1-22), Planned Development (PD 1-21), and Subdivision Tentative Plan (S 1-21)**

Request: Proposed Zone Change from R-1 to R-3, Planned Development, and 18-lot Subdivision Tentative Plan for a 3.79- acre parcel.

Location: The subject site is located on Meadows Drive, more specifically described as Tax Lot 204, Section 18, T.4S., R 4 W., W.M.

Applicant: Westech Engineering, c/o Josh Wells representing property owner VJ2 Developers c/o Don Jones

Chair Winfield said the Planning Commission heard public testimony on this item on April 21, 2022 and closed the hearing. They were reopening the hearing due to a noticing error.

Disclosures: Chair Winfield reopened the public hearing and asked if there was any objection to the jurisdiction of the Commission to hear this matter. There was none. She asked if any Commissioner wished to make a disclosure or abstain from participating or voting on this application. There was none. Chair Winfield asked if any Commissioner needed to declare any contact prior to the hearing with the applicant or any party involved in the hearing or any other source of information outside of staff regarding the subject of this hearing. There was none.

Staff Presentation: Senior Planner Bilodeau reviewed the subject site, project summary, and continued items. Staff was directed to revise the conditions and bring back the Stormwater Report. Staff was informed after the hearing that the Zoom link provided on the neighborhood mailing was incorrect. Staff requested the Commission reopen the public testimony to allow any additional testimony. She summarized the revised conditions and the concerns raised about stormwater. The applicant had to conform with McMinnville's Stormwater Master Plan and State DEQ stormwater regulations which ensured all water was directed to storm detention and City facilities. There were also some concerns about transportation. She discussed the traffic calming program that could be used for the Meadows Drive connection if more traffic resulted from the connection. Staff recommended approval, subject to the conditions specified in the decision documents.

Project Engineer Gooden discussed the review of the application's compliance with the Stormwater Master Plan. They were satisfied that it met all of the requirements.

Commission Questions: Commissioner Langenwaller asked about Condition 5b that required black fencing. Senior Planner Bilodeau said it was commonly used in stormwater facilities to blend in. It matched the adjacent areas and kept consistency in the neighborhood.

Commissioner Tucholsky asked if the consultant that reviewed the Stormwater Report visited the site. Project Engineer Gooden said they did not. The review was to the requirements from DEQ and the Stormwater Master Plan.

Commissioner Tucholsky asked if the original plan had been revised. Project Engineer Gooden said the consultant did make comments and there were some revisions. Those revisions satisfied the requirements.

Applicant's Testimony: Josh Wells, representing the applicant, explained the process the consultant used to review the Stormwater Report as well as the stormwater plan for the site. The lots would not drain onto someone else's property. He gave an update on the wetland fill permit process. The Meadows Drive connection met City code and the TSP. A gate would not be allowed across it.

Questions: Commissioner Tucholsky asked about the drainage on lot 13. Mr. Wells explained it was at the lowest elevation on the lot.

Commissioner Schanche asked if the sidewalk went all around the cul-de-sac. Mr. Wells said yes, it did.

Public Testimony:

Proponents: None

Opponents: Charlene Doland??, McMinnville resident, said there was already a water issue in this area where the backyards were swamps. The last FEMA update was done in 2010 and since then there had been a lot of development. She was concerned it was out of date. It should be updated to reflect the current possibilities of flooding.

Preston Povasco??, McMinnville resident, was concerned about reactive traffic control as opposed to proactive. His backyard was always saturated and he hoped this development would have an advantageous effect on the surrounding properties. He would like to see evidence of that documented. He suggested putting in a traffic gate when the new school was built in this area. He also thought a stop sign should be installed somewhere between Cottonwood and 23rd.

Rebuttal: Mr. Wells said regarding the drainage that went towards the east, when they built the stormdrain for this development, at least half of it would no longer go to the neighboring properties. This development would not make the runoff worse. That fact could be included in the Stormwater Report. Traffic gates should be brought up when the TSP was updated.

Chair Winfield closed the public hearing.

The applicant waived the 7 day period for submitting final written arguments in support of the application.

Deliberation: Commissioner Rankin asked why the zone change was required. Planning Director Richards said it was the request of the applicant.

Commissioner Rankin thought a multi-family structure would fit in better with the neighborhood as opposed to a narrow lot development. Planning Director Richards said the applicant still had the opportunity to do any missing middle housing products on the lots. The City could not tell them what to build. Senior Planner Bilodeau thought there was sufficient width for the lots that the narrow lots would not be necessary.

Based on the findings of fact, conclusionary findings for approval, materials submitted by the applicant, and evidence in the record, Commissioner Langenwaller MOVED to RECOMMEND the City Council APPROVE ZC 1-22, PD 1-21, and S 1-21 subject to the conditions of approval; SECONDED by Commissioner McClellan. The motion PASSED unanimously.

Planning Director Richards said they were working on updating the FEMA maps.

A. Quasi-Judicial Hearing: Comprehensive Plan Map Amendment (CPA 1-20) and Zone Change (ZC 1-20)

Applicant has requested a continuance to June 16, 2022

Request: An application for a Comprehensive Plan Map Amendment from Residential to Commercial and a Zone Change from County EF-80 to City C-3 (General Commercial) for approximately 1.2 acres of a 50.15-acre property..

The 50.15 acre parcel is within McMinnville's Urban Growth Boundary (UGB), and it is split by City limits, with approximately 9.5 acres inside City limits and approximately 40.5 acres outside City limits. The proposed map amendment would apply to the northerly 1.2-acre portion of the 9.5 acres within City limits.

The 9.5-acre portion of the property inside City limits has a combination of Comprehensive Plan Map designations and zoning designations: Commercial/C-3 on the front (approximately 7.3 acres), Residential/County EF-80 on the rear (approximately 1.2 acres), and a portion of Floodplain/F-P along the east and north boundaries (approximately 1 acre).

The proposed amendment would change the 1.2 acres from Residential/County EF-80 to Commercial/C-3, so all of the nonfloodplain portion inside City limits would then be Commercial/C-3.

The unincorporated portion of the property within the UGB and outside City limits is approximately 40.5 acres. It is within the Floodplain Comprehensive Plan Map designation. It has County EF-80 zoning, with the entirety also being within the County’s Floodplain Overlay Districts. The proposal would not change the Comprehensive Plan designation or county zoning of this unincorporated portion of the parcel.

Location: The subject site is located at 3225 NE Highway 99 West, more specifically described at Tax Lot 1500, Section 10, T.4S., R 4 W., W.M.

Application: Cascade Steel Rolling Mills, c/o Jennifer Hudson representing property owner White Top Properties LLC

Commissioner McClellan MOVED to CONTINUE the hearing for CPA 1-20/ZC 1-20 to June 16, 2022. The motion was seconded by Commissioner Schanche and PASSED unanimously.

B. Commissioner Comments

None

C. Staff Comments

Planning Director Richards gave calendar updates.

D. Adjournment

Chair Winfield adjourned the meeting at 7:39 p.m.

Heather Richards
Secretary

ORDINANCE NO. 5116

AN ORDINANCE APPROVING A ZONE CHANGE FROM R-1 TO R-3, PLANNED DEVELOPMENT OVERLAY, AND 18 LOT SUBDIVISION, KNOWN AS THE ELYSIAN SUBDIVISION

RECITALS:

WHEREAS, the Planning Department received application ZC 1-22 (Zone Change), PD 1-21 (Planned Development), S 1-21 (Subdivision) from Don Jones property owner, requesting approval of a zone change from R-1 to R-3, planned development overlay, and 18-lot subdivision for the subject property; and

WHEREAS, the subject site is 3.79 acres, located generally east of Meadows Drive and south of 23rd Street and Fendle Way (R4418 00204); and

WHEREAS, a public hearing before the McMinnville Planning Commission was held on April 21, 2022 and continued to May 19, 2022 after due notice had been provided in the local newspaper on April 15, 2022 and May 13, 2022, and written notice had been mailed to property owners within 300 feet of the affected property; and

WHEREAS, at said public hearing, the application materials and a staff report were presented, and applicant and public testimony was received.

WHEREAS, the Planning Commission, being fully informed about said request, found that the requested Zone Change, Planned Development, and Subdivision conformed to the applicable Comprehensive Plan goals and policies and review criteria based on the material submitted by the applicant and the findings of fact and conclusionary findings for approval contained in Exhibit A; and

WHEREAS, the Planning Commission, by a vote of 8-0, recommended approval of said Zone Change, Planned Development, and Subdivision to the Council; and

WHEREAS, the City Council having received the Planning Commission recommendation and staff report, and having deliberated;

NOW, THEREFORE, THE COMMON COUNCIL FOR THE CITY OF MCMINNVILLE ORDAINS AS FOLLOWS:

1. That the Council adopts the Decision, Conditions, Findings of Fact and Conclusionary Findings as documented in Exhibit A approving ZC 1-22, PD 1-21, S 1-21 and
2. The Elysian Subdivision plan shall be placed on file with the Planning Department and become a part of this planned development zone and binding on the developer. The developer will be responsible for requesting approval of the Planning Commission for any major change in the details of the adopted site plan. Minor changes to the details of the adopted plan may be approved by the Planning Director. It shall be the Planning Director’s decision as to what constitutes a major or minor change. An appeal from a ruling by the Planning Director may be made only to the Planning Commission. Review of the Planning

Director’s decision by the Planning Commission may be initiated at the request of any one of the Commissioners.

3. The following standards shall be recorded with the planned development overlay.

Planned Development Overlay	Proposed Standards
Average Lot Size	6,000 sf
Minimum Lot Width	50 ft.
Minimum Setbacks	
- Front	15 ft.
- Street side	15 ft.
- Side	5 ft.
- Rear	20 ft.
- Garage	20 ft.
Maximum Height	35 ft.
Maximum Lot Coverage	80%
Minimum Landscape Area	20%

4. The majority of delineated wetland be preserved, and a minimum of two (2) wetland viewing areas that are accessible with seating be provided adjacent to the wetlands adjacent to the common open space Tract A. The developer and the Homeowner’s Association shall enter into a Revocable License Agreement with the City to establish and maintain wetland viewing areas in the public access easement that are accessible, meet city specifications and are maintained by the developer and Homeowner’s Association.
5. The City of McMinnville shall require evidence of compliance with all applicable local, state, and federal standards and regulations for wetland mitigation.
6. The following public amenities shall be included in the 20 foot public access easement connecting Fendle Way to Meadows Drive as approved by the Planning Director.:
 - a. Two benches as shown, or other public amenities such as art or stormwater and wetland educational components,
 - b. Split rail open black fencing or other fencing style aesthetically pleasing
 - c. Any exposed irrigation lines shall be black or camouflaged from the public view.
 - d. Walkway lighting shielded down as not to impact adjacent residents.
7. A direct Pedestrian connection to the Jay Pearson Park and the trail corridor is required. This connection shall connect Meadows Drive west to the existing trail corridor along the projects frontage. Approval by the Directors of Planning and Parks and Recreation is required prior to construction.
8. That this Ordinance shall take effect 30 days after its passage by the City Council.

Passed by the McMinnville City Council this 28th day of June 2022, by the following votes:

Ayes: _____

Nays: _____

MAYOR

Approved as to form:

Attest:

City Attorney

City Recorder

EXHIBITS:

- A. Decision Document for Dockets ZC 1-22, PD 1-21, S-21



City of McMinnville
Planning Department
231 NE Fifth Street
McMinnville, OR 97128
(503) 434-7311

www.mcminnvilleoregon.gov

DECISION, CONDITIONS, FINDINGS OF FACT AND CONCLUSIONARY FINDINGS FOR THE APPROVAL OF A ZONE CHANGE FROM R-1 TO R-3, PLANNED DEVELOPMENT OVERLAY, AND 18 LOT SUBDIVISION, KNOWN AS THE ELYSIAN SUBDIVISION.

DOCKET: ZC 1-22 (Zone Change), PD 1-21 (Planned Development), S 1-21 (Subdivision)

REQUEST: Application for a zone change from R-1 to R-3, planned development overlay, and 18-lot subdivision.

LOCATION: The subject site is 3.79 acres, located generally east of Meadows Drive and south of 23rd Street and Fendle Way (R4418 00204)

ZONING: R-1

APPLICANT: Don Jones, VJ-2 Development, Inc

STAFF: Monica Bilodeau, Senior Planner

DATE DEEMED COMPLETE: February 25, 2022

HEARINGS BODY & ACTION: The McMinnville Planning Commission makes a recommendation to the City Council, and the City Council makes the final decision, per MMC 17.72.070

HEARING DATE & LOCATION: April 21, 2022, Civic Hall, 200 NE 2nd Street, McMinnville, Oregon. Continued to May 19, 2022.

DECISION MAKING BODY & ACTION: The McMinnville City Council makes the final decision, per MMC 17.72.070

DECISION DATE & LOCATION: June 28, 2022, Civic Hall, 200 NE 2nd Street, McMinnville, Oregon.

PROCEDURE: The application is processed in accordance with the procedures in Section 17.72.120 of the Zoning Ordinance. The application is reviewed by the Planning Commission in accordance with the quasi-judicial public hearing procedures specified in Section 17.72.130 of the Zoning Ordinance. The City's final decision is subject to the 120 day processing timeline, including resolution of any local appeal. On June 2, 2022, the applicant request that the processing timeline for a decision be extended to 150 days – July 25, 2022.

SECTION I. APPLICATION SUMMARY:

Subject Property & Request

The proposal is an application for a Zone Change (ZC 1-22) to rezone the property from R-1 to R-3, Planned Development (PD 1-21), and phased 18-lot subdivision (S 1-21) for the property. The zone change will allow the lot size to be reduced from 9,000 square feet to 6,000 square feet. The planned development overlay would allow for the side setbacks to be reduced from seven and a half feet to five feet, all other setbacks would conform to the R-3 standards.

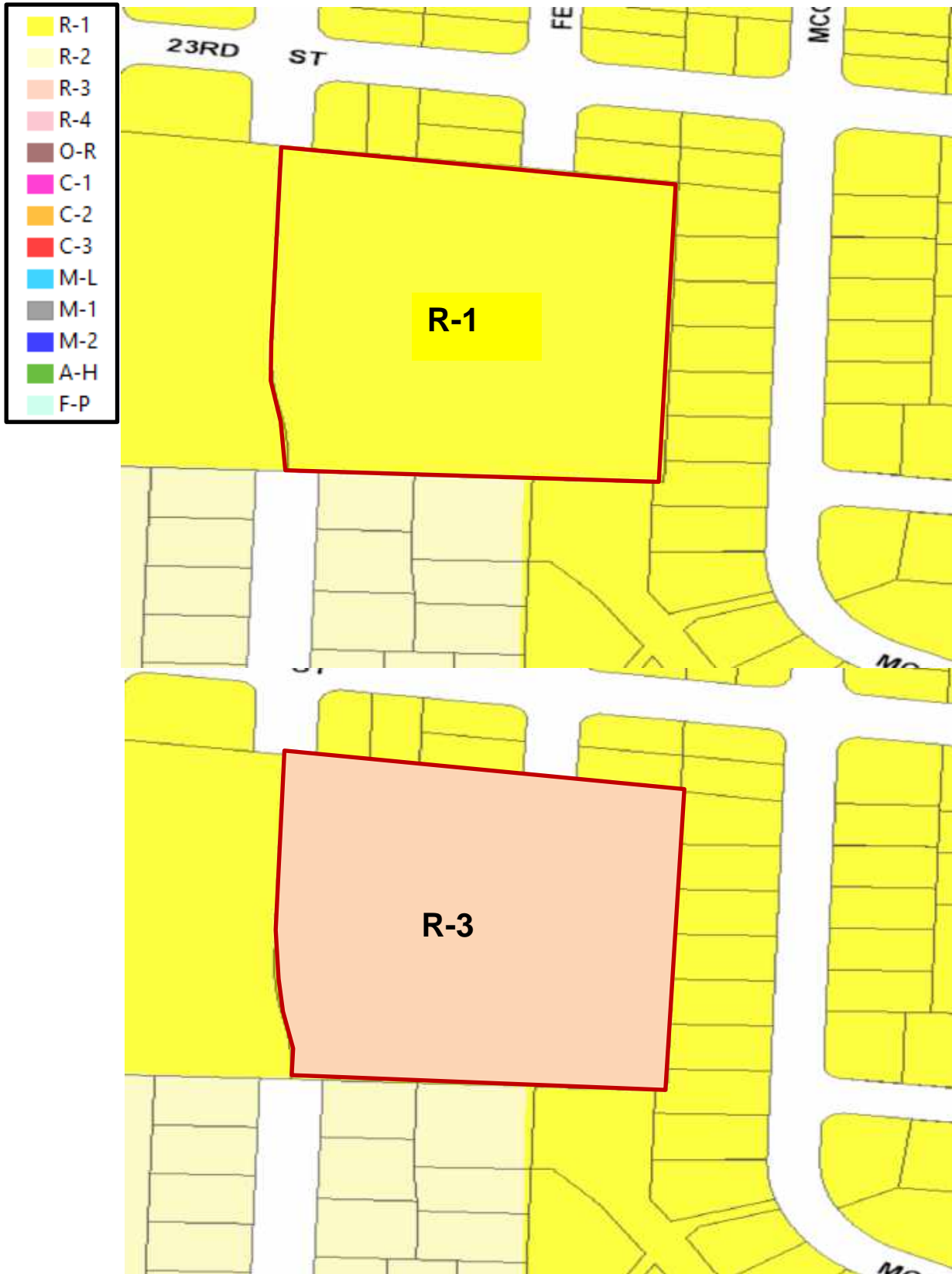
The subject property is a 3.79 acre parcel located generally east of Meadows Drive and south of 23rd Street and Fendle Way. The proposed subdivision will extend Meadows drive, creating a finished through street, and Fendle Way is proposed to be continued into the subdivision and terminated with a cul-de-sac. There is also a 16,925 SF open space tract along the southern property line which will contain stormwater facility and adjacent will be a 20-foot wide pedestrian access easement and 10 foot wide paved connection from Fendle to Meadows Drive. **See Exhibit 1 and 3.**

The subject property and properties to the north, east, and west, are zoned R-1, and property to the south is zoned R-2. Although the actual sizes of adjacent lots in the R-1 zone range from 4,600 to 6,400 square feet. The average lots proposed in this subdivision range between 5,436 at the smallest and 8,363 square feet at the largest. The proposed lot sizes are similar to the adjacent lots. **See Exhibit 2.** The predominant surrounding uses are single-family homes and duplexes to the north, single-family homes to the east and south, and Jay Pearson Neighborhood Park to the west. The subject property is currently vacant with a natural drainageway generally running north to south on the property. Most lots would access off the proposed extension of Fendle Way, and six of the lots would access directly off of Meadows Drive.

Exhibit 1. Vicinity Map & Aerial Photo



Exhibit 2. Current and proposed Zoning



such extension must be filed in writing with the Planning Department a minimum of 30 days prior to the expiration date of this approval.

Planned Development Overlay Requirements

9. The Elysian Subdivision plan shall be placed on file with the Planning Department and become a part of this planned development zone and binding on the developer. The developer will be responsible for requesting approval of the Planning Commission for any major change in the details of the adopted site plan. Minor changes to the details of the adopted plan may be approved by the Planning Director. It shall be the Planning Director’s decision as to what constitutes a major or minor change. An appeal from a ruling by the Planning Director may be made only to the Planning Commission. Review of the Planning Director’s decision by the Planning Commission may be initiated at the request of any one of the Commissioners.

10. The following standards shall be recorded with the planned development overlay.

Planned Development Overlay	Proposed Standards
Average Lot Size	6,000 sf
Minimum Lot Width	50 ft.
Minimum Setbacks	
- Front	15 ft.
- Street side	15 ft.
- Side	5 ft.
- Rear	20 ft.
- Garage	20 ft.
Maximum Height	35 ft.
Maximum Lot Coverage	80%
Minimum Landscape Area	20%

11. The majority of delineated wetland be preserved, and a minimum of two (2) wetland viewing areas that are accessible with seating be provided adjacent to the wetlands adjacent to the common open space Tract A. The developer and the Homeowner’s Association shall enter into a Revocable License Agreement with the City to establish and maintain wetland viewing areas in the public access easement that are accessible, meet city specifications and are maintained by the developer and Homeowner’s Association.

12. The City of McMinnville shall require evidence of compliance with all applicable local, state, and federal standards and regulations for wetland mitigation.

13. The following public amenities shall be included in the 20 foot public access easement connecting Fendle Way to Meadows Drive as approved by the Planning Director.:
 - a. Two benches as shown, or other public amenities such as art or stormwater and wetland educational components,
 - b. Split rail open black fencing or other fencing style aesthetically pleasing
 - c. Any exposed irrigation lines shall be black or camouflaged from the public view.
 - d. Walkway lighting shielded down as not to impact adjacent residents.

14. A direct Pedestrian connection to the Jay Pearson Park and the trail corridor is required. This connection shall connect Meadows Drive west to the existing trail corridor along the projects frontage. Approval by the Directors of Planning and Parks and Recreation is required prior to construction.

Subdivision Conditions

PRIOR TO COMMENCING SITE IMPROVEMENTS

15. The Applicant must submit plans showing the following required street improvements to Engineering for review and approval:

NW Meadows Drive (Minor Collector)

- 60' right-of-way dedication
- 36' paved width
- 0.5' curb
- 6' planter strip
- 5' sidewalk 1' from property line
- 10' public utility easement across road frontage, outside of right-of-way (on both sides of road.)

NW Fendle Way (Local Residential)

- 50' right-of-way dedication
- 28' paved width
- 0.5' curb
- 5' planter strip
- 5' sidewalk 1' from property line
- 10' public utility easement across road frontage, outside of right-of-way (on both sides of road.)
- The sidewalk shall be curb tight through the bulb of the cul-de-sac with the ROW extending 5' behind the sidewalk to place water utilities behind the sidewalk in the cul-de-sac.

16. The access to the storm pond will have a driveway approach with an 8" section of concrete or 6" section with #4 rebar and be PROWAG compliant. The access will be paved to city standards with 10" of 1 ½" – 0 crushed rock under 2" of ¾" – 0 crushed rock and a 3" level 2 WMAC paved section to accommodate maintenance vehicles.
17. The pedestrian access off the end of Fendle Way shall be an improved 10-foot-wide concrete sidewalk connecting to the sidewalk on Meadows Drive. The pedestrian access will be located within a 20 foot wide continuous public access easement.
18. Within the 20 foot public access easement it shall include public amenities such as two benches as shown, walkway lighting, split rail fencing, and upgraded landscaping, or other amenities as approved by the Planning Director.
19. Prior to site work the Developer shall work with Planning and Parks and Recreation staff to site and design a direct Pedestrian connection to the Jay Pearson Park and trail corridor.
20. On-street parking will not be permitted within a 30-foot distance of street intersections measured from the terminus of the curb returns.

21. The City Public Works Department will install, at the applicant's expense, the necessary street signage (including stop signs, no parking signage, and street name signage), curb painting, and striping (including stop bars) associated with the development. The applicant shall reimburse the City for the signage and markings prior to the City's approval of the final plat.
22. The applicant shall submit cross sections for the public street system to be constructed. Cross sections shall depict utility location, street improvement elevation and grade, park strips, sidewalk location, and sidewalk elevation and grade. Said cross sections shall be submitted to the City Engineer for review and approval prior to submittal of the final plat. All such submittals must comply with the requirements of 13A of the Land Division Ordinance and must meet with the approval of the City Engineer.
23. Street grades and profiles shall be designed and constructed to meet the adopted Land Division Ordinance standards and the requirements contained in the Public Right-of-Way Accessibility Guidelines (PROWAG). Additionally, corner curb ramps shall be constructed to meet PROWAG requirements.
24. That the street improvements shall have the City's typical "teepee" section.
25. The applicant shall secure from the Oregon Department of Environmental Quality (DEQ) any applicable storm runoff and site development permits prior to construction of the required site improvements. Evidence of such permits shall be submitted to the City Engineer.
26. The applicant shall secure all required state and federal permits, including, if applicable, those related to construction of the storm drain outfalls, the federal Endangered Species Act, Federal Emergency Management Act, and those required by the Oregon Division of State Lands, and U.S. Army Corp of Engineers. Copies of the approved permits shall be submitted to the City.
27. That the applicant submit evidence that all fill placed in the areas where building sites are expected is engineered. Evidence shall meet with the approval of the City Building Division and the City Engineering Division.

SANITARY SEWER

28. A detailed, engineered sanitary sewage collection plan, which incorporates the requirements of the City's adopted Conveyance System Master Plan, must be submitted to and approved by the City Engineering Department. Any utility easements needed to comply with the approved sanitary sewage plan must be reflected on the final plat.
29. The City is proposing an alternate route for the sewer main as it prefers to avoid side lot sanitary sewer mains. Developers Engineer to determine if the proposed route is feasible.

33. Prior to final plat the restrictive Covenants, Conditions, and Restrictions (CC&Rs) shall be prepared for the development and approved by the Planning Director.
34. The final plat shall reflect that access to the detention pond will be granted to the City for maintenance of the structures.
35. The final plat shall reflect that Tract A will be private.
36. The final plat shall reflect that the pedestrian pathway within tract A will be privately maintained but have a public access easement over its entirety.. The tract shall have private maintenance agreements which must be approved by the City prior to the City's approval of the final plat.
37. The final plat shall reflect that the sanitary line between Fendle Way and Meadows Dr shall be public.
38. Street names shall be submitted to the Planning Director for review and approval prior to submittal of the final plat.
39. The final plat shall include 10-foot public utility easements along both sides of all public rights-of-way for the placement and maintenance of required utilities.
40. The final plat shall include use, ownership, and maintenance rights and responsibilities for all easements and tracts.
41. The final plat shall include a public access easement from the terminus of Fendle Way to Meadows Drive.
42. The required public improvements shall be installed to the satisfaction of the responsible agency prior to the City's approval of the final plat. Prior to the construction of the required public improvements, the applicant shall enter into a Construction Permit Agreement with the City Engineering Department, and pay the associated fees.
43. Prior to final plat the applicant shall submit a draft copy of the subdivision plat to the City Engineer for review and comment which shall include any necessary cross easements for access to serve all the proposed parcels, and cross easements for utilities which are not contained within the lot they are serving, including those for water, sanitary sewer, storm sewer, electric, natural gas, cable, and telephone. A current title report for the subject property shall be submitted with the draft plat. Two copies of the final subdivision plat mylars shall be submitted to the City Engineer for the appropriate City signatures. The signed plat mylars will be released to the applicant for delivery to McMinnville Water and Light and the County for appropriate signatures and for recording.
44. The City will not maintain the proposed enhanced wetland facility or proposed bioswale along the south boundary of the subject property. The City will maintain the structures (inlets, outfalls, WQ manholes, flow control MH's, etc).
45. All of Tract A, including the proposed wetland and associated pedestrian path should remain private.
46. Prior to final plat the applicant shall submit an application for a street tree plan and landscaping for Tract A and the pedestrian path to the Landscape Review Committee for review and approval prior to final plat submittal in accordance with Section 17.58. 100 of the Zoning Ordinance. The plan shall provide sufficient detail about location of utility services to

the lots, locations of street lights, pedestals, and meter boxes, to evaluate the suitability of proposed street tree planting locations.

47. Prior to final plat all street trees shall be installed or security in place. All trees shall be a two-inch minimum caliper, exhibit size and growing characteristics appropriate for the particular planting strip, and be spaced as appropriate for the selected species and as may be required for the location of above ground utility vaults, transformers, light poles, and hydrants.
48. Submit a Subdivision Design Application form to McMinnville Water and Light. The project will require the developer to enter into a Line Extension Agreement (contract) with McMinnville Water and Light (MW&L). The public water system will need to be designed by the Developer's engineer and reviewed/approved by MW&L.
49. Submit a Subdivision Design Application form to McMinnville Water and Light. The project will require the developer to enter into a Line Extension Agreement (contract) with McMinnville Water and Light. The portion of the PUE included in the Drainage Improvements abutting NW Meadows needs to be constructed with an elevation and profile that ensures utilities can be extended through it in a typical manner.

PRIOR TO ISSUANCE OF BUILDING PERMITS

50. The applicant shall coordinate the location of clustered mailboxes with the Postmaster, and the location of any clustered mailboxes shall meet the accessibility requirements of PROWAG and the State of Oregon Structural Specialty Code.
51. The applicant shall install fire hydrants to serve this development as may be required by the McMinnville Fire Department. Also, if fire hydrants are required, they shall be in working order prior to the issuance of building permits.
52. On-street parking will be restricted at all street intersections, in conformance with the requirements of the City's Land Development Ordinance.
53. The applicant shall provide a minimum of twenty-five percent (25%) of the single-family lots for sale to the general public. The applicant shall provide information detailing the number of lots that will be made available for individual sale to builders for review and approval by the Planning Director prior to recording of the final plat. Upon approval, the referenced lots will be made available for sale to the general public for a minimum of one hundred eighty (180) days.
54. Prior to issuance of building permits all applicable SDCs, including Parks SDCs shall be paid.
55. Prior to issuance of building permits Housing Variety shall be ensured. The neighborhood shall have a variety of building forms and architectural variety to avoid monoculture design.
56. If a security was provided prior to final plat for installation of street trees, the applicant shall complete installation of street trees, per the timing described in Subsection (B) below. The applicant shall plant street trees within curbside planting strips in accordance with the approved street tree plan. All street trees shall be of good quality and shall conform to American Standard for Nursery Stock (ANSI Z60.1). The Planning Director reserves the right to reject any plant material which does not meet this standard.
 - A. Trees shall be provided with root barrier protection in order to minimize infrastructure and tree root conflicts. The barrier shall be placed on the building side of the tree and the curb side of the tree. The root barrier protection shall be placed in 10-foot lengths,

centered on the tree, and to a depth of eighteen (18) inches. In addition, all trees shall be provided with deep watering tubes to promote deep root growth.

- B. Each year the applicant shall install street trees, from November 1 to March 1, adjacent to those properties on which a structure has been constructed and received final occupancy. This planting schedule shall continue until all platted lots have been planted with street trees.
- C. It shall be the applicant's responsibility to relocate trees as may be necessary to accommodate individual building plans. The applicant shall also be responsible for the maintenance of the street trees, and for the replacement of any trees which may die, for one year from the date of planting

57. Any improvements which were secured prior to final plat approval shall be completed in accordance with the construction permit agreement.

SECTION III. COMMENTS:

Agency Comments

This matter was referred to the following public agencies for comment: McMinnville Fire Department, Police Department, Parks and Recreation Department, Engineering and Building Departments, City Manager, and City Attorney, McMinnville School District No. 40, McMinnville Water and Light, Yamhill County Public Works, Yamhill County Planning Department, Recology Western Oregon, Frontier Communications, Comcast, Northwest Natural Gas. Comments were received from the Engineering Department, McMinnville Water and Light, Comcast and the Oregon Department of State Lands

Public Comments

Notice of this request was mailed to property owners located within 300 feet of the subject site. Notice of the public hearing was also provided in the News Register on Friday April 1, 2022. The Planning Commission hosted a public hearing on April 21, 2022, and May 19, 2022. Although oral testimony was provided at both public hearing dates, no written testimony was received.

SECTION IV. FINDINGS OF FACT

1. The applicant held a neighborhood meeting in accordance with Section 17.72.095 of the Zoning Ordinance on July 20, 2021.
2. The application was submitted on September 1, 2021
3. The application was deemed complete on February 25, 2022.
4. Notice of the application was referred to the following public agencies for comment in accordance with Section 17.72.120 of the Zoning Ordinance: McMinnville Fire Department, Police Department, Parks and Recreation Department, Engineering and Building Departments, City Manager, and City Attorney, McMinnville School District No. 40, McMinnville Water and Light, Yamhill County Public Works, Yamhill County Planning Department, Recology Western Oregon, Frontier Communications, Comcast, Northwest Natural Gas. Notice was also provided to the Oregon Department of State Lands.

Comments received from agencies are addressed in the Decision Document. The letter from the Department of State Lands (DSL) was submitted as part of the application by the applicant, and DSL copied the City on the letter.

5. Notice of the application and the April 21, 2022 Planning Commission public hearing was mailed to property owners within 300 feet of the subject property in accordance with Section 17.72.120 of the Zoning Ordinance.
6. Notice of the application and the April 21, 2022 Planning Commission public hearing was published in the News Register on Friday, April 1, 2021, in accordance with Section 17.72.120 of the Zoning Ordinance.

No public testimony was submitted to the Planning Department prior to the Planning Commission public hearing.
7. On April 21, 2022 the Planning Commission held a duly noticed public hearing to consider the request.
8. On April 22, 2022, the City received notification that the zoom meeting link in the first property owner notice did not work. The city emailed out a second property owner notice on April 27, 2022 with a new zoom meeting link for the Planning Commission meeting on May 19, 2022, and requested that the Planning Commission open up the public hearing again.
9. No public testimony was submitted to the Planning Department prior to the Planning Commission public hearing on May 19, 2022.
10. On May 19, 2022, the Planning Commission held a duly noticed public hearing to consider the request.
11. On May 19, 2022, the Planning Commission closed the public hearing and deliberated, voting to recommend approval of Dockets ZC 1-22, PD 1-21 and S 1-21 to the City Council.
12. On June 2, 2022, the applicant provided a letter to the City requesting a thirty-day extension of the application deadline for consideration.
13. On June 28, the City Council considered the Planning Commission's recommendation and voted to adopt Ordinance No.

SECTION V. SUMMARY OF APPLICABLE REVIEW CRITERIA

The following summarizes the review criteria applicable to this decision, in the order in which they are addressed:

Applicable Review Criteria

17.18 Residential Zones

17.51 Planned Development Overlay

17.53 Land Divisions Standards

17.74 Review Criteria

Comprehensive Plan

Great Neighborhood Principles

SECTION VI. CONCLUSIONARY FINDINGS:

The following subsections address only the approval criteria applicable to this decision.

Chapter 17.18. R-3 Two-Family Residential Zone

17.18.010. Permitted Uses.

17.18.030. Lot Size.

17.18.040. Yard Requirements.

17.18.060. Density Requirements

FINDING: SATISFIED WITH CONDITIONS. The applicant's proposed tentative plan demonstrates compliance with the applicable standards of the sections listed above.

17.18.010. Permitted Uses. The proposed use of the lots is 18 detached dwellings. These are permitted uses in the R-3 zone.

17.18.030. Lot Size. The minimum lot size for the R-3 zone is 6,000 square feet. Lots proposed range from 5,436 at the smallest and 8,363 square feet at the largest. The average being 6,294 SF.

17.18.040. Yard Requirements. With the proposed lot sizes and shapes, there is no foreseeable difficulty in meeting setback requirements.

17.18.060. Density Requirements. Based on the proposed uses and lot sizes, the proposal complies with the applicable density requirements of this section.

17.51 PLANNED DEVELOPMENT OVERLAY

17.51.020 Standards and requirements. The following standards and requirements shall govern the application of a planned development in a zone in which it is permitted:

- A. The principal use of land in a planned development shall reflect the type of use indicated on the comprehensive plan or zoning map for the area. Accessory uses within the development may include uses permitted in any zone, except uses permitted only in the M-2 zone are excluded from all other zones. Accessory uses shall not occupy more than twenty-five percent of the lot area of the principal use;**
- B. Density for residential planned development shall be determined by the underlying zone designations. (Ord. 4128 (part), 1981; Ord. 3380 (part), 1968).**

FINDING: SATISFIED. The subject property has a residential designation on the comprehensive plan. The proposed development is a residential development; therefore this objective has been met. The proposed development with concurrent zone change to R-3, subdivision and Planned Development, the proposed lot size ranges in size from 5,436 SF to 8,363 SF, and lot density of 4.8 dwelling units/acre. Therefore, these standards are met.

17.51.030 Procedure

- C. The Commission shall consider the preliminary development plan at a meeting at which time the findings of persons reviewing the proposal shall also be considered. In reviewing the plan, the Commission shall need to determine that:**
 - 1. There are special physical conditions or objectives of a development which the proposal will satisfy to warrant a departure from the standard regulation requirements;**

The special physical conditions of the site include the infill nature of the development (surrounded by residential development with a neighborhood park to the west) and the manmade drainages onsite limit the configurations of development. In addition, the manmade wetlands under the Meadows Drive

connection and along the phase line are proposed to be filled. However, the applicant is proposing to enhance the manmade wetland ditch along the south property line to ensure proper drainage and provide enhanced physical conditions of the site.

The objective by the applicant is to provide a diversity of lot sizes and setback flexibility that will contribute to variety in the development pattern of the community housing, and varied housing sizes and styles. The applicant is also proposing a concurrent zone change from R-1 to R-3 to provide lot sizes ranging from rezoning from 5436 SF to 8363 SF and reduced side yard setbacks from 7ft to 5ft, which would not be allowed without a Planned Development Overlay and/or Zone Change. The applicant is proposing to sell the lots to several different builders to further provide variety in housing types and styles to home consumers in McMinnville. The reduced side yard setback provides the builders more flexibility in housing types and styles. The planned development overlay will establish the lot sizes and setbacks for all future development on this site.

2. Resulting development will not be inconsistent with the Comprehensive Plan objectives of the area;

The application is consistent with the Comprehensive Plan. Comprehensive findings are found below.

3. The development shall be designed so as to provide for adequate access to and efficient provision of services to adjoining parcels;

The proposed development is an infill development. The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. In addition, a 10ft wide concrete multiuse path is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. Therefore, access to the existing surrounding streets will provide efficient access to services to adjoining parcels.

4. The plan can be completed within a reasonable period of time;

The applicant is proposing to construct the improvements in the summer of 2022 for lots to be sold in the fall and winter of 2022. This development is typical in the industry. Therefore, this objective has been met.

5. The streets are adequate to support the anticipated traffic, and the development will not overload the streets outside the planned area;

The proposed development is an infill development. The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. In addition, a 10ft wide concrete multiuse path. The density of units is consistent with the City's TSP and therefore will not overload the streets outside the planned area.

6. Proposed utility and drainage facilities are adequate for the population densities and type of development proposed;

As shown the civil plans, the applicant is proposing to extend existing sewer and water systems to service the development. The proposed density (4.8 units/acre) is less than the 6 units/acre utilized in the City Sanitary Sewer Conveyance System Master Plan to size the sewer mains. The applicant is proposing to provide stormwater detention in accordance with the City's Storm Drainage Master Plan, which accounts for lot density. All utility design will be in accordance with City standards. Therefore, this standard is met.

7. The noise, air, and water pollutants caused by the development do not have an adverse effect upon surrounding areas, public utilities, or the city as a whole;

The proposed development will not create a land use that will cause noise incompatibility with surrounding uses. The proposed development will not facilitate any use generating major air emissions beyond what is expected for residential development. The proposed development plans to capture, detain and treat stormwater runoff in a combination swale and detention facility, therefore typical stormwater pollutants and will not have an adverse effect on surrounding areas. The public utilities are all sized to be consistent with the City's Sewer Conveyance and Storm Drainage Master Plans, and therefore will not have an adverse effect on public utilities or the City as a whole.

FINDING: SATISFIED. As demonstrated by the findings above the proposed development is consistent with the existing land use pattern in the area and final connection piece NW Meadows Road. The density of units is consistent with the City's TSP and therefore will not overload the streets outside the planned area. Overall, the development is compatible with the surrounding uses.

17.53 LAND DIVISION STANDARDS

Approval of Streets and Ways

17.53.100. Creation of Streets.

17.53.101. Streets.

17.53.103. Blocks.

17.53.105. Lots.

17.53.110. Lot Grading.

17.53.120. Building Lines.

17.53.130. Large Lot Subdivision.

17.53.140. Left-Over Land.

FINDING: SATISFIED WITH CONDITIONS. The applicant's proposed tentative plan demonstrates compliance with the applicable standards of the sections listed above, subject to conditions of approval.

17.53.100. Creation of Streets. All streets within the subdivision are proposed as public streets, to be dedicated on the plat, except that access to Lot 7 and Lot 18 will be via private street at the terminus of the Fendle Way cul-de-sac.

17.53.101. Streets.

- A. General** The proposal complies with the street standards of 17.53.101. The street layout provides for the continuation of the alignment of Meadows Drive and Fendle Way with no offset intersections.
- B. Right-of-Way and street widths.** The proposed new streets right-of-way widths and street width are in conformance with the widths specified in the City's Complete Street Design Standards for a minor collector and local residential streets.
- C. Reserve strips.** No reserve strips are proposed.
- D. Alignment.** The proposed new streets are in alignment with existing streets.
- E. Future extension of streets.** Surrounding properties are developed, so there isn't a need for street plugs for future street extensions.
- F. Intersection angles.** No intersections are proposed.
- G. Existing Streets.** The proposed street will be designed to match the existing streets.
- H. Half streets.** No half streets are proposed.

- I. **Cul-de-sacs**. A cul-de-sac is proposed at the end of Fendle Way. The length does not exceed 400 feet and only serves 16 lots including the two lots off the end of cul-de-sac that are accessed by private street.
- J. **Eyebrows**. No eyebrows are proposed.
- K. **Street Names**. No new street names are proposed.
- L. **Grades and curves**. No excessive grades are required for the proposed street.
- M. **Streets adjacent to railroad**. There are no proposed streets adjacent to railroads, no frontage roads, and no alleys.
- N. **Frontage roads**. No frontage roads are proposed or required with the proposed layout.
- O. **Alleys**. No alleys proposed.
- P. **Private way/drive**. As a condition of approval, the proposed private drive will need to be constructed to the same structural standards that would apply to a public street, and a storm drainage plan will be required.
- Q. **Bikeways**. Meadows drive is a minor collector and bikeways are designed to share the roadway with cars.
- R. **Residential Collector Spacing**. Not applicable.
- S. **Sidewalks**. Sidewalks are consistent with 17.53.101(S) and (T) and the Complete Street Design Standards, except that cul-de-sac will be curbsight without a 5' planter strip.
- T. **Park strips**. Five foot planter strips are proposed along all proposed streets, except around the cul-de-sac bulb.
- U. **Gates**. No gates are proposed within the public right-of-way or for the private way serving Lot 7 and 18.

17.53.103. Blocks. Due to the existing development, street patterns, and drainage resource onside the block length and perimeter standards will be met with the use of a pedestrian connection. With that is will not exceed the 400 foot block length and 1,600 foot block perimeter. Measuring from the street centerline the perimeter is approximately 1,490 feet. This is authorized when “topography or location of adjoining streets justifies an exception.”

17.53.105. Lots. The proposed lots are suitable shapes for development, generally rectangular with side lot lines perpendicular to the right-of-way. Lots are not excessively deep, and lot depth doesn't exceed two times the width on lots. There will be six lots that will access Meadows drive a minor collector. Consistent with the community meadows drive has been designed and intended to have homes front and have driveway access off this street. There are no through lots are proposed, and no flag lots are proposed.

17.53.110. Lot Grading. No excessive slopes are proposed. Grading and fill associated with the proposal, including piping of the open drainageway will be subject to review by the appropriate departments and permitting agencies as a condition of approval.

17.53.120. Building Lines. Special building setback lines are proposed with the planned development overlay.

17.53.130 Large Lot Subdivision is not applicable because this is not a large lot subdivision.

17.53.140 Left-Over Land is not applicable because the proposed subdivision doesn't result in left-over land.

Improvements

17.53.150. Improvement Procedures.

17.53.151. Specifications for Improvements.

17.53.153. Improvement Requirements.

17.53.150. Improvement Procedures. The applicant will be required to comply with the improvement procedures as a condition of approval.

17.53.151. Specifications for Improvements. As a condition of approval, the applicant will be required to provide civil drawings that comply with all City specifications.

17.53.153. Improvement Requirements. The applicant's proposal includes improvements necessary to serve lots consistent with the requirements of this section. As a condition of approval, the applicant will be required to provide civil drawings that comply with all City specifications of this section.

FINDING: SATISFIED WITH CONDITIONS. The applicant's proposed tentative plan demonstrates compliance with the applicable standards of the sections listed above.

17.74 REVIEW CRITERIA

17.74.020. Comprehensive Plan Map Amendment and Zone Change - Review Criteria.

An amendment to the official zoning map may be authorized, provided that the proposal satisfies all relevant requirements of this ordinance, and also provided that the applicant demonstrates the following:

- A. The proposed amendment is consistent with the goals and policies of the Comprehensive Plan;

FINDING: SATISFIED. See responses to applicable Comprehensive Plan policies below.

- B. The proposed amendment is orderly and timely, considering the pattern of development in the area, surrounding land uses, and any changes which may have occurred in the neighborhood or community to warrant the proposed amendment;

FINDING: SATISFIED. The proposed development is located in an area with available services, with a mix of zoning and residential development, in proximity to shopping, services, parks, and transit. The city's Buildable Land Inventory identifies a deficit of residential land.

- C. Utilities and services can be efficiently provided to serve the proposed uses or other potential uses in the proposed zoning district.

FINDING: SATISFIED. The proposed development is located in an area with available services to serve the property.

When the proposed amendment concerns needed housing (as defined in the McMinnville Comprehensive Plan and state statute), criterion "B" shall not apply to the rezoning of land designated for residential use on the plan map.

FINDING: SATISFIED. Criterion B is satisfied; however, the proposed amendment relates to needed housing, so this application is not required to meet Criterion B.

In addition, the housing policies of the McMinnville Comprehensive Plan shall be given added emphasis and the other policies contained in the plan shall not be used to: (1) exclude needed housing; (2) unnecessarily decrease densities; or (3) allow special conditions to be attached which would have the effect of discouraging needed housing through unreasonable cost or delay.

FINDING: Satisfied. As addressed below, the housing policies of the Comprehensive Plan are addressed, and the effect of this decision doesn't exclude needed housing, decrease densities, or discourage needed housing through unreasonable cost or delay.

Comprehensive Plan Volume II:

The following Goals, Policies, and Proposals from Volume II of the Comprehensive Plan provide criteria applicable to this request:

The implementation of most goals, policies, and proposals are accomplished through the provisions, procedures, and standards in the city codes and master plans, which are sufficient to adequately address applicable goals, policies, and proposals as they apply to a development proposal at the time of application.

GOAL V 1: TO PROMOTE DEVELOPMENT OF AFFORDABLE, QUALITY HOUSING FOR ALL CITY RESIDENTS.

58.00 City land development ordinances shall provide opportunities for development of a variety of housing types and densities.

FINDING: SATISFIED. The proposed development lots sizes will vary, rezoning from R-1 to R-3 will create lot sizes in the range of 5436 SF to 8363 SF, which would not be allowed under current zoning. In addition, the R-3 zone allows dual family living in addition to single dwellings. This coupled with HB 2001, which allows multi-dwelling development on residential zoned property creates the option for numerous housing types for diverse incomes spanning different generations.

GOAL V 2: TO PROMOTE A RESIDENTIAL DEVELOPMENT PATTERN THAT IS LAND INTENSIVE AND ENERGY-EFFICIENT, THAT PROVIDES FOR AN URBAN LEVEL OF PUBLIC AND PRIVATE SERVICES, AND THAT ALLOWS UNIQUE AND INNOVATIVE DEVELOPMENT TECHNIQUES TO BE EMPLOYED IN RESIDENTIAL DESIGNS.

71.09 **Medium and High-Density Residential (R-3 and R-4) - The majority of residential lands in McMinnville are planned to develop at medium density range (4 – 8 dwelling units per net acre). Medium density residential development uses include small lot single-family detached uses, single family attached units, duplexes and triplexes, and townhouses. High density residential development (8 – 30 dwelling units per net acre) uses typically include townhouses, condominiums, and apartments:**

- 1. Areas that are not committed to low density development;**
- 2. Areas that have direct access from collector or arterial streets;**

3. **Areas that are not subject to development limitations such as topography, flooding, or poor drainage;**
4. **Areas where the existing facilities have the capacity for additional development;**
5. **Areas within one-quarter mile of existing or planned public transportation; and**
6. **Areas that can be buffered from low density residential areas in order to maximize the privacy of established low density residential areas**

FINDING: SATISFIED. The proposed development is located in an area with available services, with a mix of zoning and residential development, in proximity to shopping, services, parks, and transit as documented in the application submittal. The proposed density is at 4.8 dwelling units/acre with the proposed R-1 to R-3 zone change, therefore this is at the low end of the medium density range which is consistent with the standard.

The site is relatively flat and is not located within a mapped flood plain. The applicant is proposing to enhance the wetlands onsite and provide drainage improvements.

There is public transportation located along Baker Creek Road. The proposed project is 755 ft from Baker Creek Road with is within ¼ mile of the existing public transportation.

71.10 The following factors should be used to define appropriate density ranges allowed through zoning in the medium density residential areas:

1. **The density of development in areas historically zoned for medium and high density development;**
2. **The topography and natural features of the area and the degree of possible buffering from established low density residential areas;**
3. **The capacity of the services;**
4. **The distance to existing or planned public transit;**
5. **The distance to neighborhood or general commercial centers; and**
6. **The distance from public open space. (Ord. 4796, October 14, 2003)**

FINDING: SATISFIED. The proposed development is located in an area with available services, with a mix of zoning and residential development, in proximity to shopping, services, parks, and transit. The location allows for a development plan that can be designed to be compatible with nearby development and densities.

Planned Development Policies:

- 72.00 Planned developments shall be encouraged as a favored form of residential development as long as social, economic, and environmental savings will accrue to the residents of the development and the city.**
- 73.00 Planned residential developments which offer a variety and mix of housing types and prices shall be encouraged.**
- 74.00 Distinctive natural, topographic, and aesthetic features within planned developments shall be retained in all development designs.**
- 75.00 Common open space in residential planned developments shall be designed to directly benefit the future residents of the developments. When the open space is not dedicated to or accepted by the City, a mechanism such as a homeowners association, assessment district, or escrow fund will be required to maintain the common area.**

- 76.00 Parks, recreation facilities, and community centers within planned developments shall be located in areas readily accessible to all occupants.**
- 77.00 The internal traffic system in planned developments shall be designed to promote safe and efficient traffic flow and give full consideration to providing pedestrian and bicycle pathways.**
- 78.00 Traffic systems within planned developments shall be designed to be compatible with the circulation patterns of adjoining properties.**

FINDING: SATISFIED WITH CONDITIONS. The proposal will provide for single family residential homes on individual lots of various sizes, ranging from 5,436 SF to 8,363 SF. It will provide for homes that will be affordable to the residents of the City with moderate incomes.

As shown on the survey there are a couple of man made drainage ditches that were intended to be temporary with the Shadden Claim development to the north. There are two ditches, one that drains the park and the other that drains Meadows Drive. These ditches are considered wetlands by the most recent standards. The drainage ditch under Meadows Drive will be filled and widen and enhance the existing drainage ditch/wetlands that drains the park and flows along the southern property boundary. This ditch is proposed to be retained and enhanced.

The dedicated open space is proposed to be owned by a homeowners association and will thereby benefit the future residents of the development. The open space and associated multiuse path with benches is connected to all lots of the proposed development by a sidewalk in accordance with ADA standards and therefore is readily accessible to all applicants.

The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south. Per the TSP a local street and minor collectors have shared street access with bikes and vehicle's. In addition, a 10ft wide concrete multiuse path is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park.

Residential Design Policies:

- 79.00 The density allowed for residential developments shall be contingent on the zoning classification, the topographical features of the property, and the capacities and availability of public services including but not limited to sewer and water. Where densities are determined to be less than that allowed under the zoning classification, the allowed density shall be set through adopted clear and objective code standards enumerating the reason for the limitations, or shall be applied to the specific area through a planned development overlay. Densities greater than those allowed by the zoning classification may be allowed through the planned development process or where specifically provided in the zoning ordinance or by plan policy. (Ord. 4796, October 14, 2003)**
- 80.00 In proposed residential developments, distinctive or unique natural features such as wooded areas, isolated preservable trees, and drainage swales shall be preserved wherever feasible.**

- 81.00 Residential designs which incorporate pedestrian and bikeway paths to connect with activity areas such as schools, commercial facilities, parks, and other residential areas, shall be encouraged.
- 82.00 The layout of streets in residential areas shall be designed in a manner that preserves the development potential of adjacent properties if such properties are recognized for development on the McMinnville Comprehensive Plan Map.
- 83.00 The City of McMinnville shall review the design of residential developments to insure site orientation that preserves the potential for future utilization of solar energy.

FINDING: SATISFIED. The proposed development is consistent with the density authorized by the zoning, topography, and availability of services.

There is a man made drainage ditch that was intended to be temporary with the Shadden Claim development to the north. The two ditches, one that drains the park and the other that drains Meadows Drive. These ditches are considered wetlands by the most recent standards. The proposal intends to fill the drainage ditch under Meadows Drive and widen and enhance the existing drainage ditch/wetlands that drains the park and flows along the southern property boundary. This ditch is proposed to be retained and enhanced located in Tract A.

The proposed development will provide necessary street improvements including the provision of curbs, gutter, sidewalks and planter strips on all of the streets within the proposed development. The necessary connection for pedestrians in this area to the school property, park, commercial area and the private open spaces has been met.

The lots have been as designed for detached dwelling units, therefore they can have windows on all four sides of each building allowing for solar passive gains. Upon development of the lots the contactor could install solar panel on structures.

Urban Policies:

- 99.00 An adequate level of urban services shall be provided prior to or concurrent with all proposed residential development, as specified in the acknowledged Public Facilities Plan. Services shall include, but not be limited to:
 1. Sanitary sewer collection and disposal lines. Adequate municipal waste treatment plant capacities must be available.
 2. Storm sewer and drainage facilities (as required).
 3. Streets within the development and providing access to the development, improved to city standards (as required).
 4. Municipal water distribution facilities and adequate water supplies (as determined by City Water and Light). (as amended by Ord. 4796, October 14, 2003)

FINDING: SATISFIED WITH CONDITIONS. As conditioned all public improvements will be constructed or bonded for prior to final plat.

Lot Sales Policy:

- 99.10 The City of McMinnville recognizes the value to the City of encouraging the sale of lots to persons who desire to build their own homes. Therefore, the City Planning staff shall develop a formula to be applied to medium and large size subdivisions, that will require

a reasonable proportion of lots be set aside for owner-developer purchase for a reasonable amount of time which shall be made a part of the subdivision ordinance.

FINDING: SATISFIED WITH CONDITION. This requirement is addressed with a condition of approval requiring the applicant to make lots available for sale.

GOAL VI 1: TO ENCOURAGE DEVELOPMENT OF A TRANSPORTATION SYSTEM THAT PROVIDES FOR THE COORDINATED MOVEMENT OF PEOPLE AND FREIGHT IN A SAFE AND EFFICIENT MANNER.

Streets

118.00 The City of McMinnville shall encourage development of roads that include the following design factors:

5. Connectivity of local residential streets shall be encouraged. Residential cul-de-sac streets shall be discouraged where opportunities for through streets exist

121.00 The City of McMinnville shall discourage the direct access of small-scale residential developments onto major or minor arterial streets and major collector streets.

FINDING: SATISFIED. The proposed development is an infill development. The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south.

Parking

126.00 The City of McMinnville shall continue to require adequate off-street parking and loading facilities for future developments and land use changes.

FINDING: SATISFIED. The lots are large enough to accommodate off-street parking. The required two off-street parking spaces will be confirmed at building permit application for each residential home proposed.

Connectivity and Circulation

132.26.05 New street connections, complete with appropriately planned pedestrian and bicycle features, shall be incorporated in all new developments consistent with the Local Street Connectivity map. (Ord. 4922, February 23, 2010)

FINDING: SATISFIED WITH CONDITIONS. A 10ft wide concrete multiuse path is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. Additionally the project will be conditioned to improve a direct connection to the Jay Pearson park, from Meadows drive west to the multi-use trail. Therefore, access to the existing surrounding streets will provide efficient pedestrian and bike access to adjoining parcels.

Circulation

- 132.41.05 Cul-de-sac streets in new development should only be allowed when connecting neighborhood streets are not feasible due to existing land uses, topography, or other natural and physical constraints. (Ord. 4922, February 23, 2010)
- 132.41.30 Promote Street Connectivity – The City shall require street systems in subdivisions and development that promote street connectivity between neighborhoods. (Ord. 4922, February 23, 2010)

FINDING: SATISFIED WITH CONDITIONS. The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. Due to the existing wetland constraints a through street for Fendle Drive is not feasible. In addition, the applicant is proposing to connect Meadows Drive (a minor collector) and match the existing street width of the existing portion, north and south.

GREAT NEIGHBORHOOD PRINCIPLES

- 187.10 The City of McMinnville shall establish Great Neighborhood Principles to guide the land use patterns, design, and development of the places that McMinnville citizens live, work, and play. The Great Neighborhood Principles will ensure that all developed places include characteristics and elements that create a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood with enduring value, whether that place is a completely new development or a redevelopment or infill project within an existing built area.
- 187.20 The Great Neighborhood Principles shall encompass a wide range of characteristics and elements, but those characteristics and elements will not function independently. The Great Neighborhood Principles shall be applied together as an integrated and assembled approach to neighborhood design and development to create a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood, and to create a neighborhood that supports today’s technology and infrastructure, and can accommodate future technology and infrastructure.
- 187.30 The Great Neighborhood Principles shall be applied in all areas of the city to ensure equitable access to a livable, egalitarian, healthy, social, inclusive, safe, and vibrant neighborhood for all McMinnville citizens.
- 187.40 The Great Neighborhood Principles shall guide long range planning efforts including, but not limited to, master plans, small area plans, and annexation requests. The Great Neighborhood Principles shall also guide applicable current land use and development applications.

FINDING: SATISFIED. The applicant’s proposal is subject to the great neighborhood principles and findings for each are found below.

- 187.50 The McMinnville Great Neighborhood Principles are provided below. Each Great Neighborhood Principle is identified by number below (numbers 1 – 13), and is followed by more specific direction on how to achieve each individual principle.

- 1.Natural Feature Preservation. Great Neighborhoods are sensitive to the natural conditions and features of the land.
 - a. Neighborhoods shall be designed to preserve significant natural features including, but not limited to, watercourses, sensitive lands, steep slopes, wetlands, wooded areas, and landmark trees.

FINDING: SATISFIED. The proposed subdivision is proposing to relocate the man-made ditches and wetlands associated with the construction of the Shadden Claim development. A portion of the existing man-made wetlands will be preserved and enhanced along the southern section of the development (refer to the Drainage Rehabilitation Plan). The existing man-made ditch and associated wetlands are proposed to be filled in order to connect Meadows Drive and provide lots along the street to border the neighborhood park, while the wetlands along the southern boundary of the subject property are proposed to be enhanced. The enhanced drainage ditch allows drainage from the parks property to the west to match the existing flow path to the east, connecting to the existing ditch. The existing ditch/wetlands will be enhanced with landscaping as shown the wetland-fill landscape restoration plan (refer to the Drainage Rehabilitation Plan).

2.Scenic Views. Great Neighborhoods preserve scenic views in areas that everyone can access.

- a. Public and private open spaces and streets shall be located and oriented to capture and preserve scenic views, including, but not limited to, views of significant natural features, landscapes, vistas, skylines, and other important features.**

FINDING: SATISFIED. The proposed subdivision is located near a park and provides approximately 15,086 square feet of open space to preserve the scenic views that currently exist. The proposed development will also construct a multiuse path to connect NW Fendle Way and Meadows Drive which will include two benches. This will allow residents a space to view the wetland area and adjacent park to the west.

3.Parks and Open Spaces. Great Neighborhoods have open and recreational spaces to walk, play, gather, and commune as a neighborhood.

- a. Parks, trails, and open spaces shall be provided at a size and scale that is variable based on the size of the proposed development and the number of dwelling units.**
- b. Central parks and plazas shall be used to create public gathering spaces where appropriate.**
- c. Neighborhood and community parks shall be developed in appropriate locations consistent with the policies in the Parks Master Plan.**

FINDING: SATISFIED AS CONDITIONED. The proposed subdivision is located across the street from the Jay Pearson Neighborhood Park. A public access is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. Additionally, the project will be conditioned to improve a direct connection to the Jay Pearson park, from Meadows drive west to the multi-use trail.

4. Pedestrian Friendly. Great Neighborhoods are pedestrian friendly for people of all ages and abilities.

- a. Neighborhoods shall include a pedestrian network that provides for a safe and enjoyable pedestrian experience, and that encourages walking for a variety of reasons including, but not limited to, health, transportation, recreation, and social interaction.**
- b. Pedestrian connections shall be provided to commercial areas, schools, community facilities, parks, trails, and open spaces, and shall also be provided between streets that are disconnected (such as cul-de-sacs or blocks with lengths greater than 400 feet).**

FINDING: SATISFIED. Sidewalks are proposed along the Meadows Drive connection as well as the proposed cul-de-sac extension of NW Fendle Way. A 10 foot wide multiuse public access sidewalk is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. Additionally, the project will be conditioned to improve a direct connection to the Jay Pearson park, from Meadows drive west to the multi-use trail.

- 5. Bike Friendly. Great Neighborhoods are bike friendly for people of all ages and abilities.**
- a. Neighborhoods shall include a bike network that provides for a safe and enjoyable biking experience, and that encourages an increased use of bikes by people of all abilities for a variety of reasons, including, but not limited to, health, transportation, and recreation.**
 - b. Bike connections shall be provided to commercial areas, schools, community facilities, parks, trails, and open spaces.**

FINDING: SATISFIED. The applicant is proposing to extend Fendle Way (a local street) and terminate it in a cul-de-sac. Meadows Drive (a minor collector) will also be improved to match the existing street width of the existing portion, north and south. Per the TSP a local street and minor collectors have shared street access with bikes and vehicles. In addition, a 10 foot wide concrete multiuse path is proposed along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. A direct connection to the Jay Pearson Park, from Meadows Drive west to the multi-use trail is also conditioned as a required improvement

- 6.Connected Streets. Great Neighborhoods have interconnected streets that provide safe travel route options, increased connectivity between places and destinations, and easy pedestrian and bike use.**
- a. Streets shall be designed to function and connect with the surrounding built environment and the existing and future street network, and shall incorporate human scale elements including, but not limited to, Complete Streets features as defined in the Comprehensive Plan, grid street networks, neighborhood traffic management techniques, traffic calming, and safety enhancements.**
 - b. Streets shall be designed to encourage more bicycle, pedestrian and transit mobility with a goal of less reliance on vehicular mobility.**

FINDING: SATISFIED. The proposed subdivision will connect the north and south dead-end street of Meadows Drive and extend Fendle Way to terminate in a cul-de-sac. The proposed development will also be constructed with sidewalks and a multiuse path to connect NW Fendle Way and Meadows Drive. This connection will provide multiuse access from the neighborhood to the city park located west of the subdivision.

- 7.Accessibility. Great Neighborhoods are designed to be accessible and allow for ease of use for people of all ages and abilities.**
- a. To the best extent possible all features within a neighborhood shall be designed to be accessible and feature elements and principles of Universal Design.**
 - b. Design practices should strive for best practices and not minimum practices.**

FINDING: SATISFIED. The proposed subdivision street, sidewalk and pedestrian access grades are relatively flat and will be designed to meet all public works design standards and ADA Standards. Therefore, the development will allow ease of use for people of all ages.

8.Human Scale Design. Great Neighborhoods have buildings and spaces that are designed to be comfortable at a human scale and that foster human interaction within the built environment.

- a. **The size, form, and proportionality of development is designed to function and be balanced with the existing built environment.**
- b. **Buildings include design elements that promote inclusion and interaction with the right-of-way and public spaces, including, but not limited to, building orientation towards the street or a public space and placement of vehicle-oriented uses in less prominent locations.**
- c. **Public spaces include design elements that promote comfortability and ease of use at a human scale, including, but not limited to, street trees, landscaping, lighted public areas, and principles of Crime Prevention through Environmental Design (CPTED).**

FINDING: SATISFIED. The proposed development is an infill development. The proposed lots will face either the extension of Fendle Way or the connection of Meadows Drive or a public use area. The building will have garages so the vehicles could be stored out of view. The allowable building sizes based on the setbacks will balance with the proposed street extensions and be compatible with the surrounding neighborhood. Meadows Drive and Fendle Way will all have landscaping, streetlights, and street trees to promote a comfortable and ease of use throughout the built environment. In addition, the 10-foot-wide multiuse path to connect the public built environment of Fendle Way and NW Meadows Drive. These design elements promote comfort, ease of use and the principles of Crime Prevention through Environmental Design.

9.Mix of Activities. Great Neighborhoods provide easy and convenient access to many of the destinations, activities, and local services that residents use on a daily basis.

- a. **Neighborhood destinations including, but not limited to, neighborhood-serving commercial uses, schools, parks, and other community services, shall be provided in locations that are easily accessible to surrounding residential uses.**
- b. **Neighborhood-serving commercial uses are integrated into the built environment at a scale that is appropriate with the surrounding area.**
- c. **Neighborhoods are designed such that owning a vehicle can be optional.**

FINDING: SATISFIED. The proposed subdivision provides public access along the 15,086 square feet of open space to connect the cul-de-sac to Meadows Drive which will border the east side of Jay Pearson Neighborhood Park. The project will be conditioned to improve a direct connection to the Jay Pearson Park, from Meadows drive west to the multi-use trail. These connections will provide efficient pedestrian access for the residents.

10. Urban-Rural Interface. Great Neighborhoods complement adjacent rural areas and transition between urban and rural uses.

- a. **Buffers or transitions in the scale of uses, buildings, or lots shall be provided on urban lands adjacent to rural lands to ensure compatibility.**

FINDING: SATISFIED. The proposed subdivision is designed in accordance to blend with the surrounding neighborhood with lot sizes and building design that is consistent with the existing surrounding neighborhood.

11. Housing for Diverse Incomes and Generations. Great Neighborhoods provide housing opportunities for people and families with a wide range of incomes, and for people and families in all stages of life.

- a. **A range of housing forms and types shall be provided and integrated into neighborhoods to provide for housing choice at different income levels and for different generations.**

FINDING: SATISFIED. The proposed development provides housing for diverse incomes and different generations by the combination of varying lots sizes, rezoning from R-1 to R-3 and HB 2001. As shown on the subdivision plan the lot sizes vary from 5436 SF to 8363 SF, which would not be allowed under current zoning. In addition, the R-3 zone allows dual family living in addition to single dwellings. This coupled with HB 2001, which allows multi-dwelling development on residential zoned property creates the option for numerous housing types for diverse incomes spanning different generations.

12. Housing Variety. Great Neighborhoods have a variety of building forms and architectural variety to avoid monoculture design.

- a. **Neighborhoods shall have several different housing types.**
- b. **Similar housing types, when immediately adjacent to one another, shall provide variety in building form and design.**

FINDING: SATISFIED AS CONDITIONED. The applicant is proposing to sell the lots to multiple buyers, therefore, building types will be varied by each buyer. A condition at the time of building permits will ensure housing variety is met.

13. Unique and Integrated Design Elements. Great Neighborhoods have unique features, designs, and focal points to create neighborhood character and identity.

Neighborhoods shall be encouraged to have:

- a. **Environmentally friendly construction techniques, green infrastructure systems, and energy efficiency incorporated into the built environment.**
- b. **Opportunities for public art provided in private and public spaces.**
- c. **Neighborhood elements and features including, but not limited to, signs, benches, park shelters, street lights, bike racks, banners, landscaping, paved surfaces, and fences, with a consistent and integrated design that are unique to and define the neighborhood. (Ord 5066 §2, April 9, 2019)**

FINDING: SATISFIED. The proposed infill development will have unique features, designs, and focal points to create neighborhood character and identity. As shown on the Grading Plan, the development utilizes green infrastructure system known as a bioswale to treat stormwater prior to entering the existing drainage way. Another unique feature will be the relocated and enhanced wetland that will be adjacent to the multiuse path connecting Fendle Way and Meadows. The proposed homes will all be constructed per the new building and energy codes, this will ensure energy efficiency into the built environment. The development does not preclude opportunities for public art provided in private and public spaces. As shown on the subdivision plan there are two benches located along the concrete multiuse path, with enhanced landscaping in the relocated wetland and the green stormwater system, a fence along the wetland and green stormwater system. All building permits for the future homes will also be subject to the new residential design standards, that will ensure unique and integrated design elements are included on each of the new homes. All these components provide a consistent and integrated design that are unique to define the neighborhood