McMinnville High School Facilities Improvements

Conditional Use and Building Height Variance

Application Narrative

October 7, 2016

Figure 1 Proposed McMinnville High School Expansion Viewed from Southwest

McMinnville School District

Winterbrook Planning / DOWA-IBI

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REPRESENTED BY:	**Winterbrook Planning** Contact: Ben Schonberger, Senior Planner 310 SW 4th Avenue, Suite 1100 Portland, OR 97204 Phone: 503-827-4422 DOWA – IBI Group Architects, Inc. Contact: Jim Fitzpatrick 907 SW Stark Street Portland, OR 7205 Phone: 503-226-6940
SITE ADDRESS:	615 E 15th Street
DESCRIPTION:	Map 4416CA Tax Lot 2600 (High School Property) Map 4415CC Tax Lot 1590 (Baker Field) Map 4416CA Tax Lot 3000 (District Maintenance Yard)
EXISTING ZONING:	Residential (R-2)
CURRENT LAND USE:	High School, Athletic Fields and Maintenance Yard
APPLICATION:	Conditional Use Permit and Building Height Variance
DATE:	October 7, 2016

Contents

Figures 4
Appendices 4
Section 1 Background Information 5
A. Phase 1 MHS Expansion (2007-2008) 5
B. Project Proposal – Phase 2 High School Renovation 6
Required Land Use Permits 7
C. Phase 2 – Projects Funded by the 2016 Bond Measure 8
D. Phased Development 11
E. Site Description 11
F. Public Process 12
September 2016 Neighborhood Meetings 14
G. Key Issues 15
Parking and Circulation 15
Table 1. Existing and Proposed Parking Spaces 15
Buffering 16
Section 2 Compliance with Conditional Use Criteria 17
A. Why the proposal will be consistent with the Comprehensive Plan and the objectives of the zoning ordinance and other applicable policies of the City; 17
B. Why the location, size, design, and operating characteristics of the proposed development are such that it can be made reasonably compatible with and have minimal impact on the livability or appropriate development of abutting properties and the surrounding neighborhood, with consideration to be given to harmony in scale, bulk, coverage, and density; to the availability of public facilities and utilities; to the generation of traffic and the capacity of surrounding streets; and to any other relative impact of the development; 20
C. Why the development will cause no significant adverse impact on the livability, value, or appropriate development of abutting properties of the surrounding area when compared to the impact of permitted development that is not classified as conditional; 21
D. Why the location and design of the site and structures for the proposal will be as attractive as the nature of the use and its setting warrants; 22
E. Why the proposal will preserve environmental assets of particular interest to the community; 23
F. Why the McMinnville School District has a bona fide intent and capability to develop and use the land as proposed and has no inappropriate purpose for submitting the proposal, such as to artificially alter property values for speculative purposes. 23
Section 3 Compliance with Zoning and Parking Standards 24
Chapter 17.15 Compliance with R-2 Single Family Residential Zone Standards 24
Chapter 17.60 Compliance with Off Street Parking and Loading Standards 24
Table 2. Parking Requirements for Expansion Area 25
Section 4 Gymnasium Height Variance Findings 29
Why a height variance is needed 29
Special height exception for schools 30
Section 17.74.110 Conditions for Granting Variance 30

Figures

Figure 1 Proposed McMinnville High School Expansion Viewed from Southwest 1
Figure 2 McMinnville High School Aerial View – 2006 5
Figure 3 McMinnville High School Approved Conditional Use Site Plan 2007 6
Figure 4 McMinnville High School Aerial View 2015 7
Figure 5 Phase 2 Site Plan showing High School and Baker Field Renovation, New Technology Center and Field House, and Improved Parking and Circulation 8
Figure 6 Technical Center and Cafeteria Addition 9
Figure 7 Proposed MHS Ground Floor Expansion, Technical Center and Field House 10
Figure 8 Proposed MHS Upper Level Expansion (Auxiliary Gym above Locker Room) 11
Figure 9 Aerial View of Project Site – MHS, Baker Field and Maintenance Facility 12
Figure 10 September 15, 2016 Open House – McMinnville High School 13
Figure 11 Proposed High School Expansion Viewed from the Southeast 16
Figure 12 Why the Auxiliary Gym Needs to be 53'6" Tall 29
Figure 13 Distance from Auxiliary Gym North Elevation to NE 17th Street 30
Figure 14 Schematic Drawing showing Auxiliary Gym in relation to NE 17th Street 31

Appendices

Appendix 1: Project Drawings (DOWA)

LU 1.1.1	Existing High School Context Site Plan
LU 1.01	Existing Conditions (West)
LU 1.02	Existing Conditions (East)
LU 1.2.1	Transportation Circulation Plan (Schematic)
LU 1.5.1	Proposed Building Expansion Plan (Schematic)
LU 1.7.1:	Proposed Building Elevations (Schematic)
LU 1.7.2:	Proposed Building Elevations
LU 1.7.3:	Proposed Building Elevations
LU 1.7.4	SE Axonometric View (Schematic)
LU 1.7.5	SW Axonometric View (Schematic)
LU 1.7.6	Proposed Building Massing (NE 17th Street and Hembree Street)
LU 2.01	Site Plan West (detailed)
LU 2.02	Site Plan East (detailed)
LU 3.01	Proposed Parking and Circulation Plan (detailed)
LU 4.01	Existing Utility & Easements
LU 5.01	Proposed Utility & Easements
L 1.00	Landscape Plan (East)
L 1.00	Landscape Plan (West)
E 1.01	Partial Site Plan Electrical

Appendix 2: Transportation Impact Study (Lancaster Engineering)

Section 1 Background Information

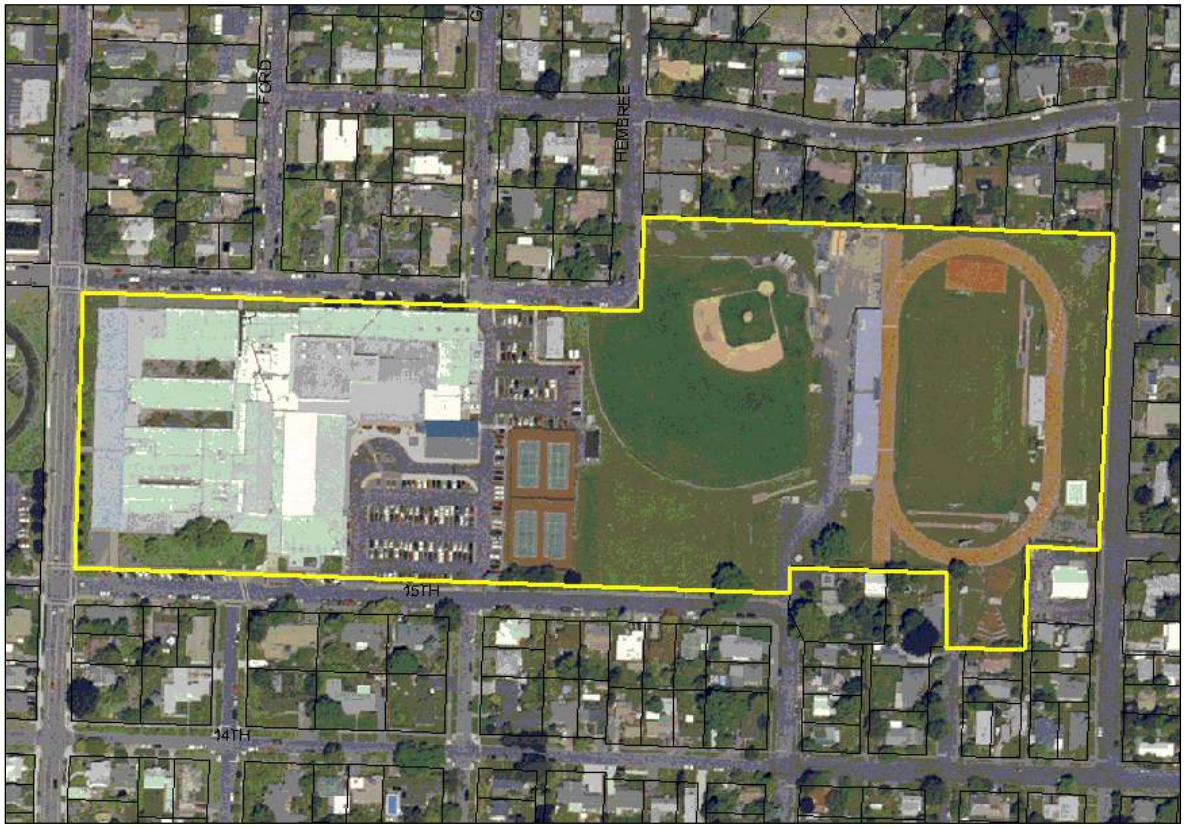
In 2005, with substantial public input, the McMinnville School District (the District) made the decision to invest limited bond funds in the redevelopment of the existing central high school to increase capacity by 700 students – rather than constructing a second high school on the west side of town.[1]

On May 27, 2016, McMinnville voters overwhelmingly approved a Measure 36-177, which authorized $89.4 million for capital improvements, including funds for a new career pathways (vocational technical) program and renovation of the central (older) facilities at McMinnville High School (MHS).[2]

A. Phase 1 MHS Expansion (2007-2008)

This project is the second phase of a project that began with MHS expansion in 2007-08. Figure 2 shows conditions as they existed in 2006 *before* the 2007-08 high school expansion.

Figure 2 McMinnville High School Aerial View – 2006

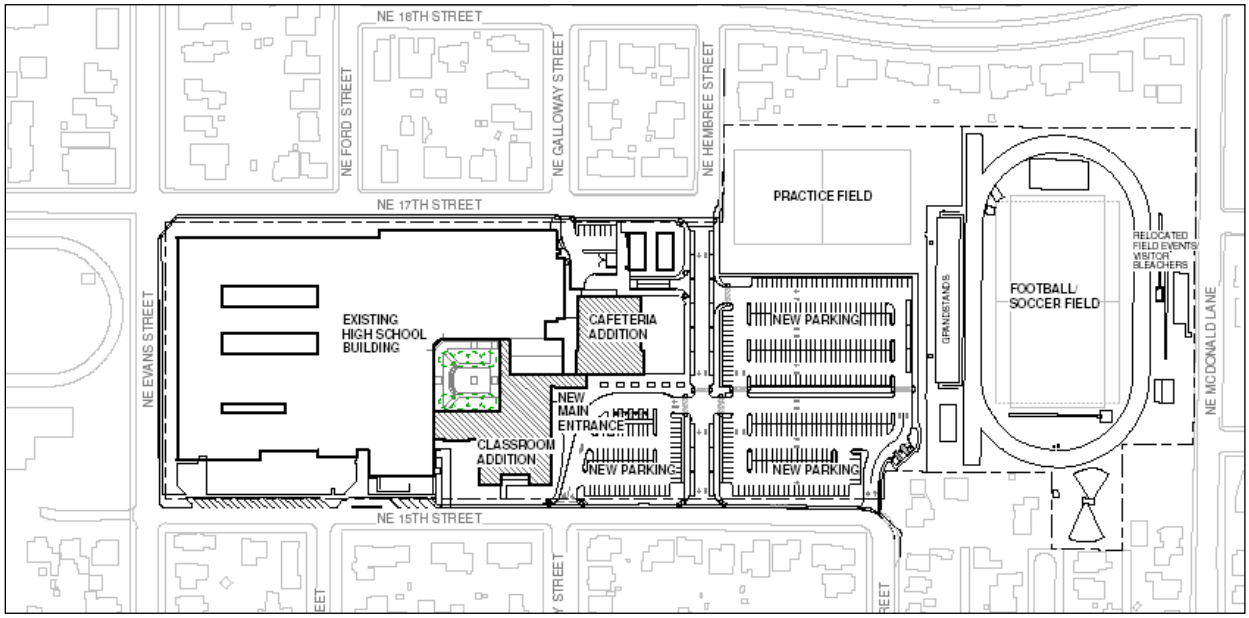


In **Phase 1** (2007-08), the District added 63,000 square feet to the existing high school to accommodate approximately 700 additional by adding 26 new classrooms, a kitchen, and a cafeteria.

[1] See "Long Range Facilities Assessment Report" (DOWA, 2005).
[2] The Board's decision to seek voter approval of this bond measure was based on the recommendation of the Long Range Facilities Task Force and DOWA's 2012 update the "Long Range Facilities Assessment Report."

Phase 1 added 188 parking spaces – 41 spaces more than required for the approved school expansion project. Figure 3 shows the approved site plan for the Phase 1 high school expansion.

Figure 3 McMinnville High School Approved Conditional Use Site Plan 2007



B. Project Proposal – Phase 2 High School Renovation

In **Phase 2** (2016-18), the focus is on improving high school facilities and programs – rather than accommodating more new students. The Career Pathways program will graduate students with trade/career skills through that will position graduates for community college or trade apprenticeships, thereby increasing student graduate success for those not on the 4-year college track.

Phase 2 improvements include:

- A new vocational technical center ("career pathways") building
- Central Redevelopment (Additional instructional classrooms and laboratories; consolidated and expanded indoor athletic facilities; and cafeteria expansion)
- A new Field House (to be used as a temporary physical education facility during construction, and for athletic programs and equipment storage thereafter)
- Baker Field improvements
- Improved bus and vehicular flow through the high school site
- Expanded parking lot (46 additional parking spaces – for a total 467 spaces)

Figure 4 (following page) shows high school conditions as they exist today – consistent with the plans approved by the Planning Commission in 2007.

Figure 4 McMinnville High School Aerial View 2015

Required Land Use Permits

Phase 2 high school improvements require a conditional use permit for high school renovations authorized by the 2016 bond measure, and a height variance to allow construction of the planned auxiliary gymnasium above existing locker rooms east of the existing main gymnasium.

- **Conditional Use**: The conditional use review will ensure that neighborhood impacts from high school renovation are minimized through the strategic design and location of buildings, parking and circulation areas.

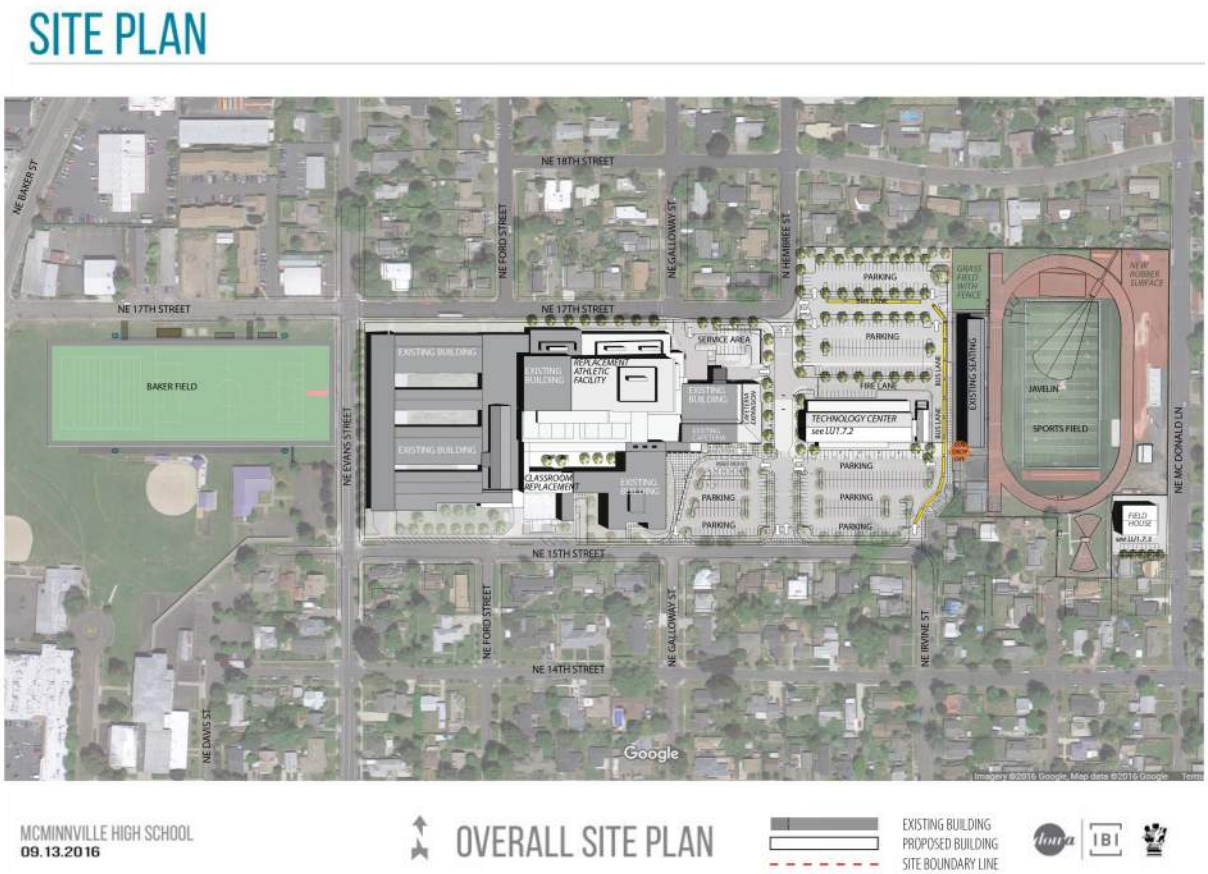
  Key elements of the Phase 2 plan include:
  - Building within existing building footprints where possible;
  - Replacing the NE McDonald Lane district-wide maintenance facility;
  - Moving the greenhouse and shed away from NE 17th Street to the center of the site;
  - Improving on-site bus and vehicular circulation and increasing on-site parking; and
  - Screening the Field House and parking areas from nearby residential areas.

- **Height Variance**: Part of the design strategy is to use the existing school site efficiently by building up rather than out. A height variance is necessary to allow for an auxiliary gym to be constructed above new locker room facilities. By consolidating indoor athletic

fields in a taller central structure, the District is able to provide additional on-site parking, maintain outdoor athletic fields on-site, and provide perimeter landscaping to minimize impacts on the neighborhood.

Because the 53'4" peak of the shed roof will be set back 79' from the north property line (and 129' from the front property lines of homes across NE 17th Street), the building height variance will have no significant adverse shading or visual impacts on neighboring residential properties.

Figure 5 Phase 2 Site Plan showing High School and Baker Field Renovation, New Technology Center and Field House, and Improved Parking and Circulation



C. Phase 2 – Projects Funded by the 2016 Bond Measure

McMinnville School District Bond Measure 36-177 passed on May 17, 2016 by over a 60% majority. This bond measure $89.4 million bond measure is matched by $7.1 by state funds. The bond measure focuses on improvements to McMinnville High School with upgrades to other District buildings:

- **Construction of a Career Pathway/Vocational Technology Center**. This center will house several of the Career Pathway programs and make room in the existing school building to expand other programs. Pathway programs include Business - Finance and Marketing, Computer Science, Construction, Criminal Justice,

Culinary Arts, Early Childhood Education, Education, Engineering & Aerospace Sciences (EASA), Manufacturing, Fabrication & Welding, Fire & Emergency Services, Health Services, Horticulture, Natural Resources Management, Performing Arts - Music and Theater, Visual Arts, Visual Communications.

Figure 6 Technical Center and Cafeteria Addition

- **Improved instructional space.** Four new classrooms at the Technology Center, plus 20 replacement classrooms and labs in the central high school building. The new classrooms will accommodate about 100 additional students, including EASA students returning to the main campus from the Evergreen Aviation facility.
- **Centralized athletic facilities.** The main gymnasium, auxiliary gym, locker rooms, and dance/yoga facilities will be replaced in a centralized athletic complex.
- **Baker Field Improvements**, including:
    - Upgrading existing competition Soccer Field with synthetic turf
    - -Adding half-field Football synthetic field practice field for Freshman Football
    - -Timer controlled Field Lighting
    - -Community walking path around both fields
    - -Restroom and storage building
    - -Additional pathways from 17th street and Evans Street Building Parking Lot

Other District-wide (including the high school) facility improvements include:

- **Safety, security and technology** infrastructure upgrades. Security improvements include safe entry management, security cameras, emergency intercom systems, door access controls, technology infrastructure, fire sprinkler systems, emergency back-up lighting, and other improvements to enhance school safety.
- **Facility repairs to maintain district buildings**, including the high school. Facility repairs and improvements, such as roofing, electrical, plumbing and mechanical system repairs necessary to main and responsibly stewer the community's investment.
- **Energy upgrades** to save operating costs. Energy efficiency upgrades include alternative (solar) energy roof arrays, replacement of windows, doors, insulation, and HVAC systems and other upgrades documented that will reduce daily operating costs.

Figure 7 Proposed MHS Ground Floor Expansion, Technical Center and Field House

Figure 8 Proposed MHS Upper Level Expansion (Auxiliary Gym above Locker Room)

D. Phased Development

School facility improvements are proposed over a two and a half year period beginning in February 2017:

- Vocational Technical Center building, parking, bus lane, cafeteria, entry security (February – August 2017)
- Baker Field repair and renovations (May – August 2017)
- Repair and renovation (May – August 2018)
- High school addition demolition and construction (June 2018 – August 2019)

E. Site Description

McMinnville High School sits on a 38.42 acre site generally bounded by E 15th Street, E 17th Street, NE Baker Street, and NE McDonald Lane in the heart of McMinnville. The site consists of three tax lots: a 22 acre tax lot east of Evans, a 16 acre tax lot west of Evans, and a 0.42 acre district maintenance building tax lot. The site is already developed for school, athletic field, maintenance and related school uses.

The site is zoned for Single Family Residential (R-2) use. Land to the north, south, and east has the same zoning. An area of land to the north of the running track is zoned General Commercial (C-3). West of NE Baker, the land is also zoned C-3.

Figure 9 Aerial View of Project Site – MHS, Baker Field and Maintenance Facility

Access to the existing high school building is primarily via driveway entrances from 15th Street on the south side of the school. There is also a vehicular entrance on the north side of the parking lot from 17th Street, across from NE Galloway Street. There are currently 422 off-street parking spaces, including the main lot, a small parking area off NE 17th Avenue, and the angle-in spaces off NE 15th Avenue.

The school site is surrounded by residential development. Single-family residential neighborhoods border the school to the north, south, and east. An area of developed commercial property borders the site at the far end, adjacent to the running track, north of 17th Street and along NE Baker Street.

There are no inventoried natural or historical resources on the site. Perimeter trees are located along most property lines and along public streets. Landscaped areas consist primarily of athletic fields with grass and shrubs surrounding existing buildings.

F. Public Process

The proposed plan for the High School was developed as the result of an intensive public outreach process that preceded the May 17, 2016 bond election. The plan follows the recommendations of the Long Range Facilities Task Force and the recommendations of the 2005 and 2012 Long Range Facilities Assessment Reports.

For almost two decades the District has maintained a mailing list of 300 neighbors in the immediate area around the high school known as the Neighbor Council, this group of neighbors was invited to bring issued and observations regularly to a high school meetings and gathers and were included in regular mailings informing them of activities planned in and around the high school property.

Figure 10 September 15, 2016 Open House – McMinnville High School

Over the last two years, District representatives have met directly with nearby residents to identify key issues as follows:

- Student parking on neighborhood streets
- Student driving speed and carelessness
- Trash left on streets
- Stadium lighting left on at night
- Athletic field and band practice noise

In addition to open public meetings with neighborhood residents, school district staff and the superintendent have talked directly and individually to some neighbors to discuss design options. Ultimately, give-and-take process with the people who be most affected by the high school has greatly improved the quality of the overall site plan. Balancing the interests of the various constituent groups within a limited budget and a fixed site area has been achieved through the proposed design.

At least two of the neighborhood concerns identified above have that have been brought forward and solved:

- Late night lights at the Stadium have been corrected with a timer that shuts lights at a consistent time each night
- Yard Trash from students has been assigned to Student groups to regularly police and pick-up on walk home paths from the school

This year the Associated Student Body Leadership Group (40 students) has taken the assignment to continue this work in the neighborhood and work on community outreach with the following assignments.

- Neighborhood Leaf Raking & Pick-up Program
- Yard Litter Pick-up (student trash that finds its way into neighbors yards and on sidewalks)
- Communication of High School Activities Calendar (door to door effort)
- Communication of heavy parking events around the High School, Stadium and Auditorium.

September 2016 Neighborhood Meetings

In preparation of submission of this conditional use and variance application, District representatives and the project team met with neighborhood residents at the high school to review proposed plans before preparing final application drawings, first on September 15th and again on September 21st, 2016.

At each of these meetings, District and the design team representatives provided an overview of the educational goals, the permitting process, the current state of the project design, and construction schedule and phasing.

The September 15 meeting was attended by a 12 citizens who asked questions related to the following topics:

- Project timing and construction phasing
- Coordinating construction with school activities
- Project budget
- Parking supply

The September 21st meeting (35 attendees) was held concurrent with “Back to School Night”, with an abbreviated presentation and more time for citizen questions. These questions included:

- Seismic upgrade information
- Construction scheduling
- Vehicular circulation and bus access
- Parking supply and management
- Building aesthetics

The design team answered citizen questions and agreed to continue communications with the public on these issues.

G. Key Issues

Parking and Circulation

Parking on local streets remains the central issue for neighbors. The District is trying to build enough on-site parking to accommodate student and staff demand, but not so much that parking areas overwhelm the site or detract from the District's commitment to carry out projects identified in the 2016 bond measure. Neighbors want school-related cars off neighborhood streets if possible, but recognize that there are limits to what can be accomplished on the existing high school site.

Some existing spaces will are needed to accommodate the Technical Center; to compensate for this loss and add additional parking, a portion of the practice field in the northeastern portion of the site (west of the Stadium) will be converted to parking. To balance the anticipated parking needs of the renovated high school with the desire to be responsive to neighbors, the District proposes a new, larger parking lot (to replace an athletic practice field in the northern portion of the property – west of the Stadium. Additional parking is also proposed next to the new Field House. The new supply of parking for the high school will total 467 spaces.

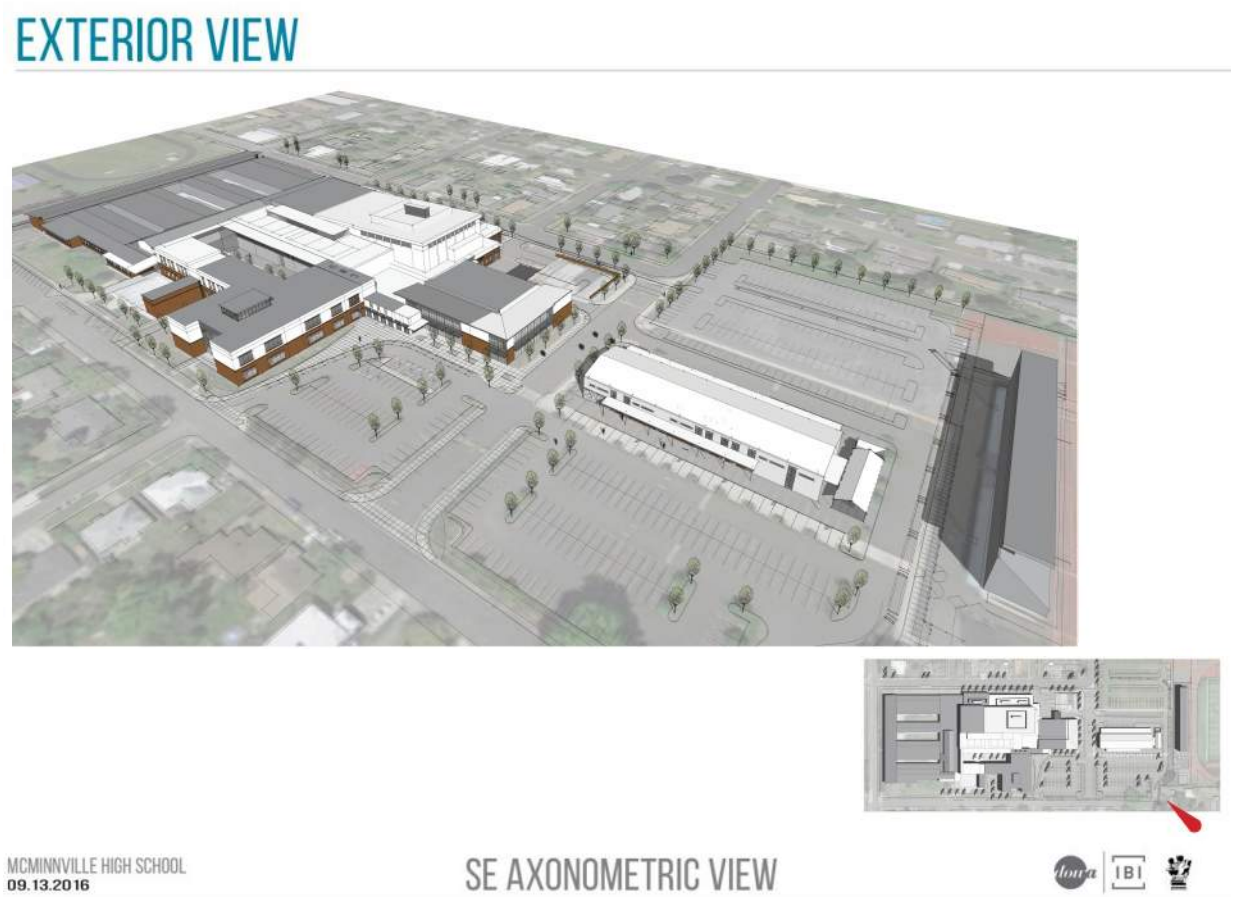
Table 1 summarizes the location and number of existing and proposed parking spaces on the high school site.

- As documented in Section 3 of this narrative, City parking standards require 21 spaces to accommodate four new classrooms and 100 additional students.
- As shown on Table 1, the number of parking spaces will increase by 46. This amounts to 25 spaces more than required by code.

Table 1. Existing and Proposed Parking Spaces

Location	Existing Parking	Proposed Parking
NE 15th Street Diagonal Parking	22	22
Central Drive Visitor Parking	0	8
Primary Entrance Parking	70	70
Southeast Parking Area	128	128
Central East Parking Area	186	41
Northeast Parking Area	5	168
North Service Area	6	22
Field House Parking Area	4	8
Total Parking Spaces	**421**	**467**

Figure 11 Proposed High School Expansion Viewed from the Southeast



Buffering

The District is concerned with potential visual impacts from proposed parking lots and the Field House on neighboring yards. The proposed landscape plan shows a combination of and a mid-level evergreen hedge to screen these uses from neighbors' views without creating safety problems for students and visitors.

Section 2 Compliance with Conditional Use Criteria

17.74.030 Authorization to Grant or Deny Conditional Use. A conditional use listed in this ordinance shall be permitted, altered or denied in accordance with the standards and procedures of this chapter. In the case of a use existing prior to the effective date of this ordinance and classified in this ordinance as a conditional use, a change in the use or in lot area, or an alteration of any structure shall conform with the requirements for conditional uses. In judging whether or not a conditional use proposal shall be approved or denied, the Planning Commission shall weigh its appropriateness and desirability or the public convenience or necessity to be served against any adverse conditions that would result from authorizing the particular development at the location proposed and, to approve such use, shall find that the following criteria are either met, can be met by observance of conditions, or are not applicable:

A. Why the proposal will be consistent with the Comprehensive Plan and the objectives of the zoning ordinance and other applicable policies of the City;

Applicable Comprehensive Plan Policies

In 2007, the staff report identified the following McMinnville Comprehensive Plan goals and policies as applicable to the high school expansion. Applicable plan goals and policies are addressed below.

CHAPTER III CULTURAL, HISTORICAL, AND EDUCATIONAL RESOURCES
GOAL III 1: TO PROVIDE CULTURAL AND SOCIAL SERVICES AND FACILITIES COMMENSURATE WITH THE NEEDS OF OUR EXPANDING POPULATION, PROPERLY LOCATED TO SERVICE THE COMMUNITY AND TO PROVIDE POSITIVE IMPACTS ON SURROUNDING AREAS.
Policy 13.00 The City of McMinnville shall allow future community center type facilities, both public and private, to locate in appropriate areas based on impacts on the surrounding land uses and the community as a whole, and the functions, land needs, and service area of the proposed facility.

GOAL III 3: TO PROVIDE FOR THE EDUCATIONAL NEEDS OF McMINNVILLE THROUGH THE PROPER PLANNING, LOCATION, AND ACQUISITION OF SCHOOL SITES AND FACILITIES.
Educational Policies:
18.00 The City of McMinnville shall cooperate with the McMinnville School District in the planning for future schools.
19.00 The location of future school sites shall be coordinated between the City and the McMinnville School District.

Response: The McMinnville School Board's decision to improve the high school at its existing location (rather than building a second high school on the Hill Road site) was based on the recommendation of the Long Range Facilities Task Force and DOWA's 2012 update the

"Long Range Facilities Assessment Report." The District determined that there is not a sufficient high student population (approximately 2,200) to justify two high schools. MHS's central location is accessible to high school students throughout the District via Baker Avenue (Highway 99W). The strategic design and location of buildings, parking and circulation areas ensures that neighborhood impacts from high school renovation are minimized through by:

- Building within existing building footprints where possible;
- Replacing the NE McDonald Lane district-wide maintenance facility with a new Field House and more parking spaces;
- Moving the greenhouse and shed away from NE 17th Street to the center of the site and adding more parking spaces;
- Improving on-site bus and vehicular circulation and increase on-site parking; and
- Screening the Field House and new parking areas from nearby residential areas

The school district has collaborated with the City in discussions about the current site and its intentions to expand and renovation McMinnville High School at its current location. Planning Director Doug Montgomery served on the Long Range Facilities Task Force that made the recommendation to expand the school at its current location. A public process that included City officials was part of the campaign to approve the bond measure.

> ***CHAPTER VI TRANSPORTATION SYSTEM***
> ***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: 126.00 The City of McMinnville shall continue to require adequate off-street parking and loading facilities for future developments and land use changes.***
> ***Parking 127.00 The City of McMinnville shall encourage the provision of off-street parking where possible, to better utilize existing and future roadways and rights-of-way as transportation routes.***

Response: Section 1.G (Key Issues) and Table 1 of this narrative demonstrates that more than adequate parking will be provided to address impacts from the proposed high school renovation. Section 3 explains why the proposal meets applicable City parking design standards and substantially exceeds the number of required parking spaces resulting from the proposed expansion..

The proposed parking plan shows a net increase in on-site parking of 46 spaces (from 421 to 467 spaces). The proposed Transportation Circulation Plan shows how bus and vehicular traffic flow to and through high school site will be significantly improved. The Transportation Impact Study (TIS) prepared by Lancaster Engineering shows that the proposed high school renovation and modest expansion will have no significant impact on the street system serving the high school.

> ***CHAPTER VII COMMUNITY FACILITIES AND SERVICES***
> ***GOAL VII 1: TO PROVIDE NECESSARY PUBLIC AND PRIVATE FACILITIES AND UTILITIES AT LEVELS COMMENSURATE WITH URBAN DEVELOPMENT, EXTENDED IN A PHASED MANNER, AND PLANNED AND PROVIDED IN ADVANCE OF OR CONCURRENT WITH DEVELOPMENT, IN***

ORDER TO PROMOTE THE ORDERLY CONVERSION OF URBANIZABLE AND FUTURE URBANIZABLE LANDS TO URBAN LANDS WITHIN THE McMINNVILLE URBAN GROWTH BOUNDARY.
Sanitary Sewer System Policy 136.00 The City of McMinnville shall insure that urban developments are connected to the municipal sewage system pursuant to applicable city, state, and federal regulations.

Response: There is an existing 20" public sanitary sewer that runs through the high school site from the north along the Galloway Street right-of-way. The line passes under the east end of the main high school vehicle way and continues to the south back out into the 15th Street and continues south within Galloway. A lateral line will be extended to the east from this 20" sewer to provide sanitary drainage for both the Technical Center and Field House buildings.

Storm Drainage Policy 142.00 The City of McMinnville shall insure that adequate storm water drainage is provided in urban developments through review and approval of storm drainage systems, and through requirements for connection to the municipal storm drainage system, or to natural drainage ways, where required.

Response: Onsite storm water treatment is not required within the City of McMinnville. Storm water detention facilities are usually required by the City of McMinnville development requirements. Per discussion with City Engineer Mike Bisset at City of McMinnville, however, the high school site lies in a sub-basin that does not have a detention requirement. Consequently, no design of detention, treatment, down-stream conveyance analysis or onsite infiltration will be required for the project. Storm facilities will include standard plumbing, catch basins and manholes to collect runoff from new buildings and impervious surfaces. The new storm drain facilities will be connected to an existing 24" storm main that currently runs within the main onsite vehicle roadway aligned with Hembree Street.

Water System Policies
144.00 The City of McMinnville, through the City Water and Light Department, shall provide water services for development at urban densities within the McMinnville Urban Growth Boundary.
147.00 The City of McMinnville shall continue to support coordination between City departments, other public and private agencies and utilities, and the City Water and Light Department to insure the coordinated provision of utilities to developing areas. The City shall also continue to coordinate with the City Water and Light Department in making land use decisions.

Response: There is an existing 10" public water main within the 17th Street right-of-way. The line continues across the northeast corner of the high school site within a public utility easement. The main high school fire and potable service lines are provided from this main at the intersection of 17th and Galloway Streets. The high school is currently served by a 3" potable service and a 6" fire line. New fire and potable water service connections with appropriate backflow assemblies for the new proposed Technical Center are planned to be provided from this same 10" water main in 17th Street.

Police and Fire Protection:
155.00 The ability of existing police and fire facilities and services to meet the needs of new service areas and populations shall be a criterion used in evaluating annexation, subdivision proposals, and other major land use decisions.

Response: The proposed new school renovation will be provided with a complete automatic sprinkler system. An 8" line will be extended into the school site to supply the onsite hydrant and sprinkler system riser. Based on perimeter protection requirements (OFC 507.5.1), no exterior portion of the building exterior perimeter may be more than 600 feet from a fire hydrant. There are two existing public fire hydrants connected to the 10" main running through the northeast corner of the high school site. Both of these hydrants may need to be relocated slightly to accommodate new vehicle circulation ways, but the locations should be sufficient to provide perimeter protection for both the proposed new buildings.

Energy Conservation:
178.00 The City of McMinnville shall encourage a compact urban development pattern to provide for conservation of all forms of energy.

Response: The proposal to expand and renovate MHS at its existing location encourages more efficient use of the existing high school site as called for by this policy. Reuse of existing infrastructure in a central location with excellent transportation access is an effective energy conservation measure. The 2016 bond measure includes a number of energy conservation measures, including a planned rooftop solar energy array.

Zoning Ordinance Objectives

Consistency Moreover, the proposal complies with all the relevant standards of the zoning code (Chapter 17), as demonstrated in this application..

B. Why the location, size, design, and operating characteristics of the proposed development are such that it can be made reasonably compatible with and have minimal impact on the livability or appropriate development of abutting properties and the surrounding neighborhood, with consideration to be given to harmony in scale, bulk, coverage, and density; to the availability of public facilities and utilities; to the generation of traffic and the capacity of surrounding streets; and to any other relative impact of the development;

District Response: The following narrative explains why the proposed high school expansion, as designed, will have a minimal impact on the livability of the surrounding neighborhood when compared with existing conditions.

Location

The Board's decision to improve the high school at its existing location (rather than building a second high school on the Hill Road site) was based on the recommendation of the Long Range Facilities Task Force and DOWA's 2012 update the "Long Range Facilities Assessment Report."

The District determined that there is not a sufficient high student population (approximately 2,200) to justify two high schools. MHS's central location is accessible to high school students throughout the District via Baker Avenue (Highway 99W) and NE Lafayette Avenue and McMinnville's grid street system.

Size and Design - Scale, Bulk, Coverage and Density

Overall, this building is sited on a large lot (approximately 38.42 acres). At the proposed size, the new building and other paved surfaces still covers over half of the site. The height and bulk of the proposed central building is mitigated by the stair-step design, which breaks up the building façade when viewed from the north and has not adverse impact on sunlight to residential lots on NE 17th Street.

The new parking area buffers adjacent development to the north with a landscape buffer that reduces the potential aesthetic impacts of the parking lot. The interior of this lot has landscaping and pedestrian paths to assist in pedestrian circulation within the lot and between the school and the stadium. Overall, the amount of open areas and greenspace on the school district property is consistent with the pattern of residential development in the area. Thus, the "scale, bulk, coverage, and density" of the new development on the site is compatible with the surrounding neighborhood.

Operating Characteristics

With regard to operating characteristics, the school will continue to operate on its regular schedule, approximately 8:30 to 3:00. Athletic events will follow the same general pattern as they have for many years. As noted in Sections 1.F and 1.G (Public Process and Key Issues) the District and MHS have made multiple, ongoing efforts to work with neighbors to resolve parking, noise and trash issues related to high school operations, These efforts have been largely successful, but require ongoing coordination between neighborhood and high school faculty and student representatives.

Adequate public facilities and utilities serve the proposed school including water and sewer. Storm drainage will be managed as shown on the site plan. The traffic impacts of the proposed addition will be relatively benign and can be supported by existing facilities. A transportation analysis is included as Appendix 2 of this application and shows that the existing street system can accommodate anticipated traffic from the proposed development. The proposed circulation plan will result in a much more efficient bus and vehicle movement to and through the school site. The 2-houir parking limit on NE 15th and 17th Streets adjacent to the school, combined with additional on-site parking (beyond what the MZO requires) will reduce the likelihood of students parking on public streets in the neighborhood.

C. Why the development will cause no significant adverse impact on the livability, value, or appropriate development of abutting properties of the surrounding area when compared to the impact of permitted development that is not classified as conditional;

Response: Permitted uses in the R-2 zone range from low density residential single-family homes and duplexes to public parks. In many ways the high school is similar to a public park in that sporting events often have the greatest impact, in terms of noise, glare, traffic and parking.

As documented in more detail in Section 1.F of this narrative, the MHS site is buffered from most nearby residential development by NE 15th and NE 17th Streets and McDonald Lane – each of which has a 50' right-of-way. The tallest buildings (the gymnasium and auditorium) are centrally located approximately 79' from the NE 17th Street property line, which minimizes visual and shading impacts from the high school renovation.

As documented in Section 1.G of this narrative, residential neighbors and City staff have voiced concerns about traffic, on-street parking, noise and light impacts from school students, especially after major sports events. As documented in more detail in Sections 1.F and 1.G of this narrative, these impacts are mitigated by this proposal in the following ways:

- Additional on-site parking and the 2-hour parking restriction on NE 15th and 17th Streets will reduce the need for students to park on nearby public streets;
- The perimeter of the school site is landscaped with trees and (in most cases) shrubbery;
- New parking areas and the Field House will be screened fenced and screened with evergreen shrubs;
- The new bus and vehicular circulation system will move traffic more efficiently to and through the school site;
- Regular communications between high school staff and neighborhood residents provide an opportunity to identify and respond to nuisance impacts in a timely and effective manner;
- Lighting from outdoor activities and for security is directed away from light-sensitive areas (homes and yards) and hooded where appropriate to focus light on athletic fields and parking areas.
- Student outreach efforts have proven effective in educating and providing peer pressure to encourage students to behave in a responsible manner.

D. Why the location and design of the site and structures for the proposal will be as attractive as the nature of the use and its setting warrants;

Response: MHS has been at this location since the 1950s. The District and its architects have made a number of design improvements to make the high school renovation as attractive as possible, given budgetary constraints and recognizing that high school operations will have some neighborhood impacts regardless of the design and layout of buildings on the site.

The project design will ensure that neighborhood impacts from high school renovation are minimized through the strategic design and location of buildings, parking and circulation areas. Key Phase 2 design features include:

- Building within existing building footprints where possible;
- Stepping the height of buildings down as they approach high school property lines; Replacing the NE McDonald Lane district-wide maintenance facility with a new Field house and screening;

- Moving the greenhouse and shed away from NE 17th Street to the center of the site and providing additional parking;
- Improving on-site bus and vehicular circulation and increasing on-site parking; and
- Screening the Field House and parking areas from nearby residential areas.

E. Why the proposal will preserve environmental assets of particular interest to the community;

Response: There are no city-inventoried environmental assets on the property. Surrounding properties are developed as residential uses. As noted in the 2007 staff report regarding high school expansion, this criterion is not applicable.

F. Why the McMinnville School District has a bona fide intent and capability to develop and use the land as proposed and has no inappropriate purpose for submitting the proposal, such as to artificially alter property values for speculative purposes.

Response: The McMinnville School District has an intent and capability to use the land as proposed. The district committed itself to build the project in the last election, and because of the passage of the 2016 bond measure, has the financial resources to begin construction in February of 2017.

Section 3 Compliance with Zoning and Parking Standards

Chapter 17.15 Compliance with R-2 Single Family Residential Zone Standards

The following findings demonstrate compliance with applicable R-2 Single Family Residential Zone standards.

> ***17.15.010 Permitted uses. In an R-2 zone, the following uses and their accessory uses are permitted:***
> ***17.15.020 Conditional uses. In an R-2 zone, the following uses and their accessory uses may be permitted subject to the provisions of Chapters 17.72 and 17.74 ***J. Public or private school or college;***

Response: The proposed use, a school, is not listed in this subsection as an outright permitted use. However, itt is a listed conditional use under 17.15.020(J). Therefore the project may be permitted if all the provisions of chapter 17.72 and 74 are met. Findings for conditional use review criteria found in 17.74.30 (Authorization to Grant or Deny Conditional Use) are addressed in Section 1, above.

> ***17.15.030 Lot size. In an R-2 zone, the lot size shall not be less than seven thousand square feet, except as provided in Section 17.15.010(C) of this ordinance.***
> ***17.15.040 Yard requirements. In an R-2 zone, each lot shall have yards of the following size unless otherwise provided for in Section 17.54.090: A. A front yard shall not be less than twenty feet; B. A rear yard shall not be less than twenty feet; C. A side yard shall not be less than seven and one-half feet, except an exterior side yard on the street side of a corner lot shall be not less than twenty feet.***

Response: The high school was built in the 1950s before the MZO was adopted in 1968. The oldest part of the building infringes on the rear 20' setback by a few feet; the existing greenhouse and shed also intrude into the rear setback area. Phase 2 renovations will remove the remove the shed and relocate the greenhouse in a central area, thus reducing nonconforming setbacks on this site. All new buildings will be constructed within required building envelopes.

> ***17.15.050 Building height. In an R-2 zone, a building shall not exceed a height of thirty-five feet.***

Response: Except for the main gymnasium expansion, the proposed expansion will be well below the 35' height maximum. Please see building height variance discussion in Section 3 below.

Chapter 17.60 Compliance with Off Street Parking and Loading Standards

The following findings demonstrate compliance with applicable Off Street Parking and Loading standards.

17.60.040 Spaces—Used to park automobiles only. Required parking spaces shall be available for the parking of operable passenger automobiles of residents, customers, patrons, and employees only, and shall not be used for storage of vehicles or materials or for the parking of trucks used in conducting the business or use.
17.60.050 Spaces—Location. Off-street parking spaces for dwellings shall be located on the same lot with the dwelling. All other required parking spaces shall be located not farther than two hundred feet from the building or use they are required to serve, measured in a straight line from the building.

Response: The parking areas as shown on the site plan serve both the proposed high school and its athletic facilities. The parking lots are sufficiently close to these uses that they meet this standard.

17.60.060 Spaces—Number required. Except for the southerly 100 feet of Block 10 and the northerly 100 feet of Block 11, Rowland's Addition and the area bounded by Second Street, Adams Street, Fourth Street, and Galloway Street, at the time of erection of a new structure or at the time of enlargement or change of use of an existing structure, off-street parking spaces shall be provided as follows unless greater requirements are otherwise established. Where square feet are specified, the area measured shall be the gross floor area primary to the functioning of the particular use of the property but shall exclude space devoted to off-street parking or unloading.
B. Institutional land use category: * * * 10. Senior high school: One space per classroom plus one space per administrative employee plus one space per each six students or one space per four seats or eight feet of bench length in the main auditorium or gymnasium, whichever is greater.

Response: The school currently has 421 parking spaces – 41 spaces more than required to meet parking standards for new development in 2007. The future impacts from the expanded high school are quantifiable as follows: 4 new classrooms, no new administrative employees, and 100 new students in addition to the approximately 2,200 students now attending MHS.

Table 2. Parking Requirements for Expansion Area

Category	Quantity	Spaces required
New classrooms and labs	4	4
New administrative employees	0	0
New students beyond 700 projected in 2007	100	17
Net new spaces required using "Classroom method"		**21**
Additional spaces provided		**46**

As shown on Table 2, the District is providing 25 spaces in excess of the minimum required to address impacts of the new expansion. The additional spaces are being constructed to accommodate students and staff from the existing building, to alleviate existing parking pressures and reduce on-street student parking.

17.60.070 Off-street loading requirements.
A. Buildings or structures to be built or substantially altered which receive and distribute materials and merchandise by trucks shall provide and maintain off-street loading berths in sufficient number and size to adequately handle the needs of the particular use;
B. The following standards shall be used in establishing the minimum number of berths required:

Gross Floor area of the Building in Square Feet	***l0,000 and over***
Number of Berths	***2***

C. A loading berth shall contain a space twelve feet wide and thirty-five feet long and have a vertical clearance of fourteen feet. Where the vehicles generally used for loading and unloading exceed these dimensions, the required size of these berths shall be increased.

Response: Loading will occur at the service area in the northeast corner of the building, which was improved as part of the 2007 high school expansion. Its layout and functioning is shown on the site plan. This loading area will also be used for loading of school supplies, food, etc.

17.60.080 Design requirements.
A. All parking lots and driving aisles shall be asphaltic cement concrete or Portland cement concrete with driving aisles, maneuvering aisle and parking spaces clearly marked…;

Response: The site plan shows a parking layout and design that conforms to all of the standards listed above. All parking areas will be paved. Detailed construction documents will also be submitted at the time of building permit that further demonstrates compliance with the dimensional standards of this section.

B. In a residential zone, a required front yard or a required side yard adjacent to the street shall not be used for any purpose except for off-street parking of motor vehicles, unless otherwise allowed by this ordinance, and such parking space shall not be less than twenty feet in depth from the property line;

Response: The site plan shows a parking layout and design that conforms to all of the standards listed above. Parking spaces within the 20' rear and front setbacks is at least 20' in depth as required by this section. Detailed construction documents will also be submitted at the time of building permit that further demonstrates compliance with the dimensional standards of this section.

C. Safe access shall be provided as follows:

1. ***Access aisles shall be of sufficient width for all vehicular turning and maneuvering;***
2. ***Groups of more than four parking spaces shall be so located and served by a driveway that their use will require no backing movements or other maneuvering within a street right-of-way other than an alley;***

3. ***Driveways to off-street parking areas shall be designed and constructed to facilitate the flow of traffic and to provide for maximum safety of pedestrians and vehicular traffic on the site;***
4. ***Clear vision areas shall be provided at driveway exits for all uses except single-family and two-family residential and shall have minimum dimensions of ten feet measured along the street right-of-way and the edge of the driveway. In commercial and industrial zones, buildings and signs may be constructed with cantilevers which extend out over the clear vision area at a height greater than eight feet when measured from the top of the curb, or where no curb exists, from the established centerline grade. Except for existing permanent buildings and structures (other than signs), nonconformities shall be made to comply with the provisions of this section within seven years from the date of its adoption;***
5. ***Driveway cuts shall be a minimum of twenty feet from a street intersection;***

Response: The site plan shows a parking layout and design that conforms to all of the standards listed above. Detailed construction documents will also be submitted at the time of building permit that further demonstrates compliance with the dimensional standards of this section.

D. Parking areas shall be made compatible with surrounding uses as follows:

1. ***Parking spaces along the outer boundaries of a parking area shall be contained by a curb or a bumper rail so placed to prevent a motor vehicle from extending over an adjacent property, sidewalk, or street;***
2. ***When a parking area in a commercial or industrial zone abuts a property in a residential zone, a site-obscuring fence or wall, either permanent or of living material, shall be placed along the affected property line. The responsibility for placement of the fence or wall lies with the commercial or industrial property;***
3. ***Artificial lighting which may be provided shall be so deflected as not to shine or create glare in any residential zone or on any adjacent dwelling;***

E. Space size minimum shall be as follows:

1. ***Handicap parking spaces shall be a minimum of twelve feet wide and 19 feet in length.***
2. ***Compact and subcompact parking spaces shall be a minimum of eight feet by sixteen feet.***
3. ***Standard parking spaces shall be a minimum of eight feet six inches by nineteen feet.***

F. The type of space shall be set as follows:

1. ***Handicap spaces shall be required and designated as per current federal, state, and local regulations.***
2. ***Standard spaces shall comprise not less than sixty-five percent of all newly constructed lot spaces.***

Response: As shown on proposed site plans, the proposed design meets these standards as follows:

- Parking areas along the outer boundaries of parking areas all have curbs to contain vehicles;

- An evergreen hedge will be planted to screen all parking areas from adjacent streets and residential yards;
- Parking and driveway lighting is designed to shine away from neighboring residential areas;
- The parking lots provide standard, compact and handicapped spaces as required by code.

17.60.140 Bicycle parking.

A. Bicycle parking facilities shall be required as follows:

1. ***In any commercial (C-l, C-2, and C-3) or office/residential (O-R) zone, bicycle parking facility requirements shall be based on the amount of automobile parking required. The minimum number of bicycle parking spaces provided shall be ten percent of the automobile parking spaces required.***
2. ***The uses exempted from bicycle parking requirements include: residential uses, drive-in theaters, mortuaries, motels, hotels, and automobile service stations.***
3. ***In all zones, for each fifteen automobile parking spaces required, a required automobile parking space may be eliminated if five bicycle parking spaces are provided.***

B. Bicycle parking facilities shall be provided pursuant to the following design standards. (as modified by the Bicycle Parking Administrative Rule of September 14, l984):

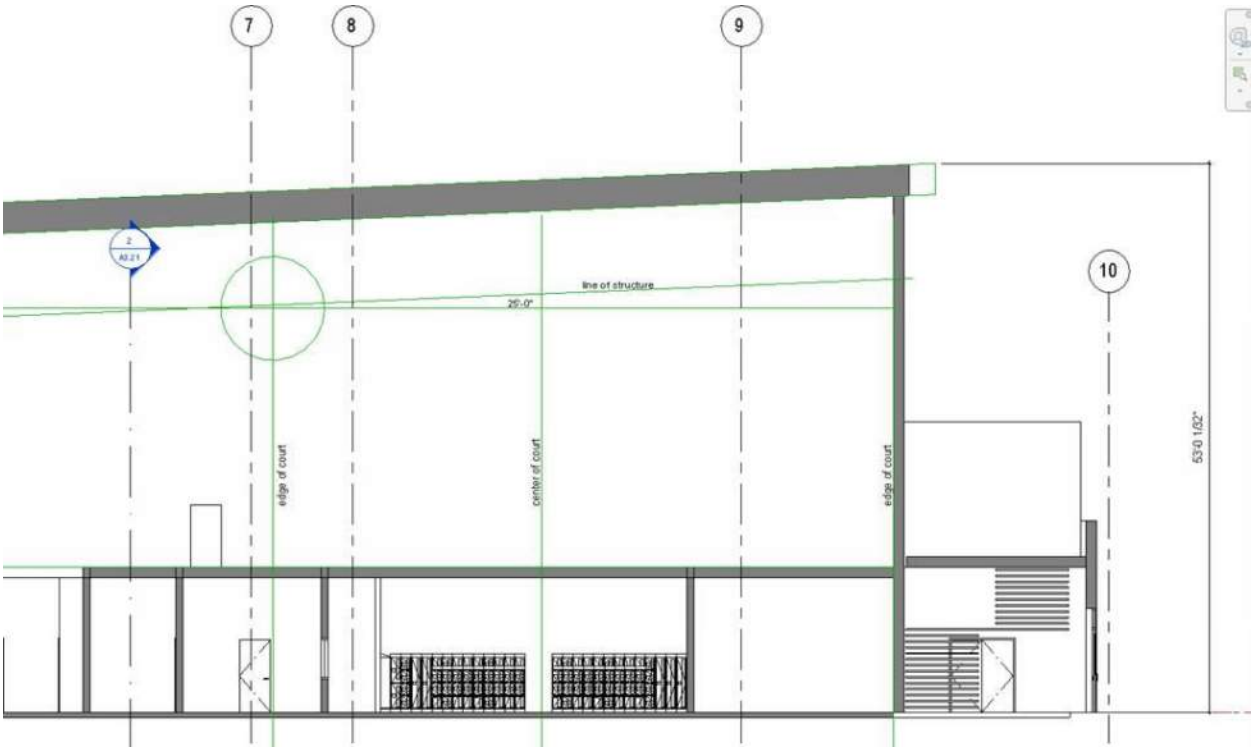
1. ***At a minimum, a bicycle parking facility shall consist of a stationary object to which the user can lock the frame and both wheels with a user-provided six-foot cable or chain and lock.***
2. ***Fixed objects which are intended to serve as bicycle parking facilities but not obviously designed for such purposes shall be clearly labeled as available for bicycle parking.***
3. ***Bicycle parking facilities shall provide a least an eighteen inch clearance between adjacent bicycles.***
4. ***Aisles between bicycle parking facilities shall be at least five-feet in width.***
5. ***Paving is not required for bicycle parking areas, but the outside ground surface shall be finished or planted in such a way that the surface will remain free from mud or dust. Bicycle parking may be provided within a required landscape area.***
6. ***Bicycle parking should be situated at least as conveniently as the most convenient car parking area. Bicycle and automobile parking areas shall be separated by a physical barrier or sufficient distance to protect parked bicycles from damage by automobiles.***

Response: From the code language above, it appears that bicycle parking is not required for developments in the R-2 zone. However, the transportation circulation plan shows bicycle and skateboard parking areas.

Section 4 Gymnasium Height Variance Findings

The District requests a height variance to allow for an auxiliary gym to be constructed above new locker rooms adjacent to the existing gymnasium. As shown on Figure 12, the height at the top of the shed roof will be 53'6". The low point of the shed roof will be 44'.

Figure 12 Why the Auxiliary Gym Needs to be 53'6" Tall



Why a height variance is needed

There are two principle reasons for the height variance:

1. The height variance is necessary to use the high school site efficiently, while allowing sufficient area for parking, athletic fields and landscaping. By building up rather than out, the school is able to provide additional parking for students, teachers and high school events, while retaining Baker Field and the High School Stadium athletic fields on-site.

2. The height variance allows for consolidation of state-of-the-art athletic facilities (indoor basketball court, training areas, girls and boys locker rooms and showers, and weight training facilities in the same concentrated area.

   This is all achieved by allowing construction of the new gym above the men's and women's locker room facilities as shown on Figure 12. The bottom of roof structure for the main gym needs to be at least 25' for basketball, with a roof of. 8'. Thus, the lowest height of the roof (on the west end) is about 44', about 10' higher than the existing 34'

tall gymnasium and auditorium. However, the second floor (above the locker rooms) must be 14’ above the finish floor; the roof assembly is about 3’, resulting in an average roof height of 50’. The roof needs an additional 3’6” at its peak to account for the slope of the shed roof.

Special height exception for schools

The maximum height for residential buildings in the R-2 zone is 35’; the minimum rear yard setback for buildings in the R-2 zone is 20’. However, McMinnville Zoning Ordinance Section 17.54.040 allows educational buildings as high as 60’, provided that required yard increases by one foot for each foot above 35’ in the R-2 zone:

> ***17.54.040 Exceptions to Building Height. The following exceptions to building height are permitted.***
> ***Public Buildings. Public, quasi-public or public-service buildings, hospitals, educational institutions or schools may be erected to a height not exceeding 60 feet, and churches and temples may be erected to a height not exceeding 75 feet, when permitted in a zone with lower height regulations, provided that required yards are increased one foot for each foot of additional building height above the height regulations for the zone.***

The definition of “required yard” is from property line to any part of the building face. The yard requirement in the R-2 zone is 20 feet. If the District were starting from scratch, the 53’6” proposed roof minus 35 foot limit results in 18’6” of excess height, which requires 18’6” of additional setback, which means 38’6” feet of total setback.

The existing building does not appear to comply with the 20 foot setback in all locations probably because it was built prior to adoption of the McMinnville Zoning Ordinance in 1968. Most of the northern wall of the building is setback 20’ from the property line.

Although the single-story north wall of the high school building is not set back 38 feet from the property line, the north wall of the auxiliary gym is 79’ back from the property line, which is about twice the setback required for a 53’6” tall building (38’6”).

Figure 13 Distance from Auxiliary Gym North Elevation to NE 17th Street

Section 17.74.110 Conditions for Granting Variance

All of the following criteria must be met for a height variance to be approved.

A. Why Exceptional or extraordinary circumstances apply to the property which do not apply generally to other properties in the same zone or vicinity, and result from lot size or shape legally existing prior to the date of the ordinance codified in this title, topography, or other circumstance over which the applicant has no control;

Response: The MHS site is very large – approximately 38.42 acres; this is the only developed high school site in McMinnville. The north wall of the school building was also constructed prior to adoption of the McMinnville Zoning Ordinance (MZO). This circumstance does not apply to any other property in the vicinity.

The central portion of high school has been here since 1960 prior to adoption of the MZO; the District could not have known that a variance would be necessary in the future due to the lack of an adequate setback (38'6') to allow a tall building on this site.

At this point, the District no longer has the option of creating a larger yard to allow the height authorized by Section 17.54.040 Exceptions to Building Height The school site is fully developed or needed for bond-funded school buildings, parking areas or athletic fields. This site condition makes it difficult to meet the high school's programmatic needs, as authorized by the 2016 bond measure, without exceeding the R-2 height limitation in this location. This circumstance does not apply to any other property in the City or vicinity.

B. Why the variance is necessary for the preservation of a property right of the applicant substantially the same as owners of other property in the same zone or vicinity possess;

Response: As noted above, the high school represents an unusual situation that is not directly comparable to a single-family home, duplex or accessory dwelling unit (permitted uses in the zone). The R-2 zone allows 35' tall homes with only an 8' setback, which would limit sunlight to adjacent homes to the north. Presumably, the purpose of the height standard is to provide light, air and open space between homes in the R-2 zone.

MZO 17.15.050 recognizes that schools may be up to 60' in height with a larger yard in the R-2 zone. The larger yard requirement presumably preserves light, air and open space for nearby houses. In the MHS's case, the purpose of the regulation is fully met by stair-stepping the buildings down from south to north, as shown on Figures 12 and 14. If the height variance is not approved, the District would be deprived of a property right (i.e., the height specified for schools in the R-2 zone) that typically be allowed for single-family homes or duplexes in the vicinity (the height specified for homes in the R-2 zone).

It is important to note that MZO 17.75.050 recognizes that conditional use permits (the high school has had several since the MZO was adopted in 1968) confer a property right to the permit holder:

17.74.060 Use Conveyed with Property-Termination Condition and Procedures.

A. Subject to the provisions of this section, a conditional use shall become a property right and shall be conveyed to the benefit of the owner or other person(s) entitled to possession regardless of transfer of title or interest unless otherwise specified by the Planning Commission at the time of approval;

The District has received several conditional use permits to allow school alteration since the 1950s when MHS was originally constructed – most recently in 2007. The District has a reasonable expectation that school expansion will be permitted at this location. Based on existing site conditions and the demonstrated need to expand the high school at this location, the height variance is necessary to preserve the District's investment in MHS which depends on the ability to build up to 53'6" at this location.

H. Why the variance would not be materially detrimental to the purposes of this title, or to property in the zone or vicinity in which the property is located, or otherwise conflict with the objectives of any city plan or policy;

The purpose of the MZO is quoted below:

17.03.020 Purpose. The purpose of the ordinance codified in Chapters 17.03 (General Provisions) through 17.74 (Review Criteria) of this title is to encourage appropriate and orderly physical development in the city through standards designed to protect residential, commercial, industrial, and civic areas from the intrusions of incompatible uses; to provide opportunities for establishments to concentrate for efficient operation in mutually beneficial relationship to each other and to shared services; to provide adequate open space, desired levels of population densities, workable relationships between land uses and the transportation system, adequate community facilities; and to provide assurance of opportunities for effective utilization of the land resources; and to promote in other ways public health, safety, convenience, and general welfare.

Response: This narrative has already demonstrated that high school renovation and expansion at this location is appropriate and orderly. The primary purpose of MHS Phase 2 proposal is to provide adequate and efficient provision of educational services to high school students throughout the District, as evidenced by the passed of the 2016 bond measure. MHS provides large amounts of community open space in the form of athletic and practice fields.

The Phase 2 proposal is designed to protect nearby residential areas from potential adverse school impacts. (See also discussion of public outreach and key issues in Sections 1.F and 1.G of this narrative.)

A major part of the design strategy is to use the existing school site efficiently by building up rather than out. By consolidating indoor athletic facilities in a taller central structure, the District is able to provide additional on-site parking, maintain outdoor athletic fields on-site, and provide perimeter landscaping to minimize impacts on the neighborhood. In this sense, approval of the height variance benefits neighboring residential areas, and would not be materially detrimental to the property in the R-2 zone or across NE 17th Street.

Figure 14 Schematic Drawing showing Auxiliary Gym in relation to NE 17th Street

Figure 14 shows the separation between the auxiliary gym on the left to homes across NE 17th Street on the right. Note that the stepped design minimizes potential adverse impacts related to air, light, shading and bulk of the school. The tallest part of the building is located 79' from the school property line; moreover, the street right-of-way provides an additional 50' of separation from homes along E 17th Street.

A height variance is necessary to allow for an auxiliary gym to be constructed above new locker room facilities. Because the 53'4" peak of the shed roof will be located 79' from the north property line (and 129' from the front property lines of homes across NE 17th Street), the building height variance will have no significant adverse shading or visual impacts on neighboring residential properties.

The McMinnville Comprehensive Plan is the controlling land use policy document in the City. As documented in Section 2.A above, the Comprehensive Plan (especially goals and policies related to the provision of school, transportation and other public facilities) strongly supports coordinated school expansion that considers and minimizes neighborhood impacts.

D. Why the variance requested is the minimum variance which would alleviate the hardship.

Response: In the introduction to Section 4, Figures 13 and the related discussion clearly shows that 53'6" (at the highest point of the shed roof) is necessary to accommodate the plan auxiliary gym above planned locker rooms in the planned athletic complex. The high school must build up at this location or sacrifice parking and open space that is highly valued by neighbors, the District and the City. There is simply no more room on site to achieve bond measure objectives without building up.

KADRD LED
LED Retrofit Kit

Catalog Number

Notes

Type 'SA1'

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The Contour® Series luminaires offer traditional square dayforms with softened edges for a versatile look that complements many applications. The KADRD LED retrofits any existing 100 - 400W metal halide or high pressure sodium KAD into a high-performance LED luminaire, while realizing typical energy savings up to 65% with expected service life up to 100,000 hours. The KADRD LED retrofit door simply replaces the existing KAD door containing the glass lens and installs in minutes.

Specifications

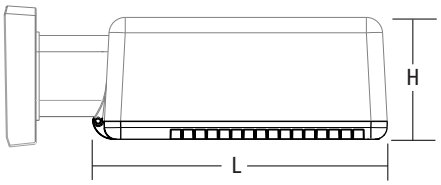
EPA: 1.2 ft² *(0.11 m²)*

Length: 17-1/2" *(44.5 cm)*

Width: 17-1/2" *(44.5 cm)*

Height: 7-1/8" *(18.1 cm)*

Weight (max): 13 lbs. *(5.9 kg)*



Ordering Information

EXAMPLE: KADRD LED 40C 1000 40K R5 MVOLT DDBXD

KADRD LED					
Series	**LEDs**	**Drive current**	**CCT**	**Distribution**	**Voltage**
KADRD LED	20C [1] 20 LEDs 30C [1] 30 LEDs 40C 40 LEDs 60C [2] 60 LEDs	530 [1] 530 mA 700 700 mA 1000 [2] 1000 mA	30K 3000 K 40K 4000 K 50K 5000 K	R2 Type II R3 Type III R4 Type IV R5 Type V	MVOLT 120 [3] 208 [3] 240 [3] 277 [3] 347 [1] 480 [1]

Options

Shipped installed

PIR Motion sensor, 8-15' mounting height [3]
PIRH Motion sensor, 15-30' mounting height [3]
HS Houseside shield [4]

Shipped separately

WG Wire guard [4]

Finish *(required)*

DDBXD Dark bronze
DBLXD Black
DNAXD Natural aluminum
DWHXD White
DDBTXD Textured dark bronze
DBLBXD Textured black
DNATXD Textured natural aluminum
DWHGXD Textured white

Accessories

Ordered and shipped separately.

KADWG U Wire guard accessory
KADLEDHS U Houseside shield

For more control options, visit DTL and ROAM online.

NOTES

1 20C or 30C LED are not available with 530 Drive current and 347V or 480V.
2 60C and 1000mA not available together.
3 PIR specifies the SensorSwitch SBGR-10-ODP control; PIRH specifies the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard.
4 Also available as a separate accessory; see Accessories information at left.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Actual wattage may differ by +/- 8% when operating between 120-480V +/-10%. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K					40K					50K				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
20C	530 mA	35 W	R2	4,140	1	0	1	115	4,446	1	0	1	123	4,473	1	0	1	124
			R3	4,123	1	0	1	115	4,427	1	0	1	123	4,455	1	0	1	124
			R4	4,128	1	0	1	115	4,433	1	0	1	123	4,460	1	0	1	124
			R5	4,381	2	0	1	122	4,704	2	0	1	131	4,734	2	0	1	131
	700 mA	46 W	R2	5,271	1	0	1	115	5,660	1	0	1	123	5,696	1	0	1	124
			R3	5,250	1	0	2	114	5,637	1	0	2	123	5,672	1	0	2	123
			R4	5,256	1	0	2	114	5,644	1	0	2	123	5,679	1	0	2	123
			R5	5,578	3	0	1	121	5,990	3	0	1	130	6,027	3	0	1	131
	1000 mA	73 W	R2	7,344	1	0	2	101	7,886	1	0	2	108	7,935	1	0	2	109
			R3	7,314	1	0	2	100	7,854	1	0	2	108	7,903	1	0	2	108
			R4	7,322	1	0	2	100	7,863	1	0	2	108	7,912	1	0	2	108
			R5	7,771	3	0	1	106	8,345	3	0	1	114	8,397	3	0	1	115
30C	530 mA	53 W	R2	6,166	1	0	2	116	6,621	1	0	2	125	6,663	1	0	2	126
			R3	6,141	1	0	2	116	6,594	1	0	2	124	6,635	1	0	2	125
			R4	6,148	1	0	2	116	6,602	1	0	2	125	6,643	1	0	2	125
			R5	6,525	3	0	1	123	7,006	3	0	1	132	7,050	3	0	1	133
	700 mA	70 W	R2	7,817	1	0	2	112	8,395	2	0	2	120	8,447	1	0	2	121
			R3	7,785	1	0	2	111	8,360	1	0	2	119	8,412	1	0	2	120
			R4	7,795	1	0	2	111	8,370	1	0	2	120	8,422	1	0	2	120
			R5	8,272	3	0	1	118	8,883	3	0	2	127	8,938	3	0	1	128
	1000 mA	108 W	R2	10,755	2	0	2	100	11,549	2	0	2	107	11,621	2	0	2	108
			R3	10,711	2	0	2	99	11,502	2	0	2	106	11,574	2	0	2	107
			R4	10,724	2	0	2	99	11,515	2	0	2	107	11,587	2	0	2	107
			R5	11,381	3	0	2	105	12,221	3	0	2	113	12,297	3	0	2	114
40C	530 mA	71 W	R2	8,156	2	0	2	115	8,758	2	0	2	123	8,812	2	0	2	124
			R3	8,122	1	0	2	114	8,722	2	0	2	123	8,776	2	0	2	124
			R4	8,132	1	0	2	115	8,732	1	0	2	123	8,786	1	0	2	124
			R5	8,630	3	0	2	122	9,267	3	0	2	131	9,325	3	0	2	131
	700 mA	94 W	R2	10,286	2	0	2	109	11,045	2	0	2	118	11,114	2	0	2	118
			R3	10,244	2	0	2	109	11,000	2	0	2	117	11,069	2	0	2	118
			R4	10,256	2	0	2	109	11,013	2	0	2	117	11,081	2	0	2	118
			R5	10,884	3	0	2	116	11,688	3	0	2	124	11,761	3	0	2	125
	1000 mA	141 W	R2	13,923	2	0	2	99	14,951	2	0	2	106	15,045	2	0	2	107
			R3	13,866	2	0	3	98	14,890	2	0	3	106	14,983	2	0	3	106
			R4	13,882	2	0	3	98	14,907	2	0	3	106	15,000	2	0	3	106
			R5	14,733	4	0	2	104	15,821	4	0	2	112	15,920	4	0	2	113
60C	530 mA	103W	R2	11,997	2	0	2	116	12,882	2	0	2	125	12,963	2	0	2	126
			R3	11,947	2	0	2	116	12,829	2	0	2	125	12,909	2	0	2	125
			R4	11,961	2	0	2	116	12,844	2	0	2	125	12,925	2	0	2	125
			R5	12,694	4	0	2	123	13,632	4	0	2	132	13,717	4	0	2	133
	700 mA	134 W	R2	14,927	3	0	3	109	16,029	3	0	3	117	16,130	3	0	3	118
			R3	14,866	3	0	3	109	15,964	2	0	3	117	16,063	2	0	3	117
			R4	14,884	3	0	3	109	15,982	2	0	3	117	16,082	2	0	3	117
			R5	15,796	4	0	2	115	16,962	4	0	2	124	17,068	4	0	2	125

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **KADRD LED** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	KADRD LED 40C 1000			
	1.0	0.93	0.88	0.79
	KADRD LED 60C 700			
	1.0	0.98	0.97	0.94

Electrical Load

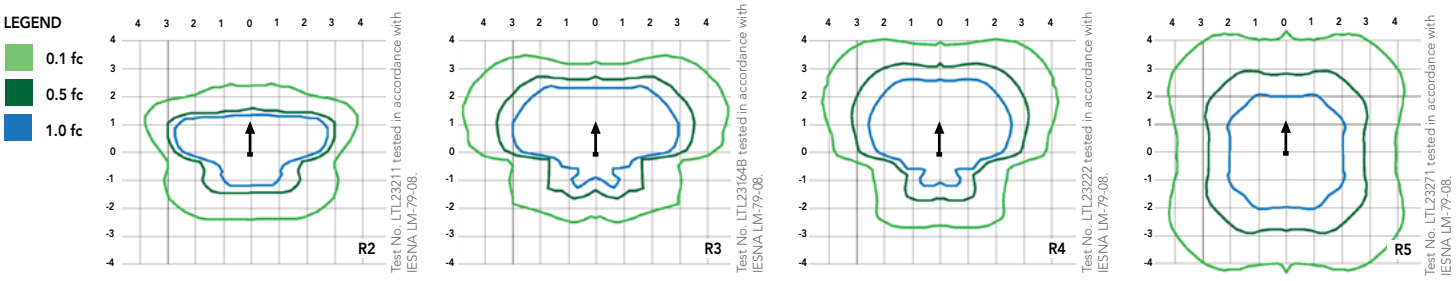
Number of LEDs	Drive Current (mA)	System Watts	Current (A) 120	208	240	277	347	480
20	530	35	0.30	0.18	0.16	0.15	-	-
	700	46	0.39	0.23	0.20	0.18	0.15	0.12
	1000	73	0.61	0.35	0.31	0.27	0.22	0.17
30	530	53	0.44	0.26	0.23	0.20	-	-
	700	70	0.58	0.34	0.29	0.26	0.21	0.16
	1000	108	0.90	0.52	0.46	0.40	0.32	0.24
40	530	71	0.60	0.35	0.32	0.29	0.21	0.16
	700	94	0.79	0.46	0.41	0.36	0.27	0.20
	1000	141	1.18	0.68	0.59	0.52	0.42	0.30
60	530	103	0.87	0.50	0.44	0.39	0.29	0.22
	700	134	1.15	0.66	0.58	0.51	0.40	0.29

NOTE: All ratings in this table are for a nominal system operated at 25°C ambient temperature. Current and power specifications in this table do not include branch circuit derating specified in the National Electrical Code. Please observe all applicable electrical codes and ratings.

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's KADRD LED homepage.

Isofootcandle plots for the KADRD LED 40C 530. Distances are in units of mounting height (20').



FEATURES & SPECIFICATIONS

INTENDED USE
The energy savings and long life of the KADRD LED area luminaire make it a reliable choice for illuminating streets, walkways, parking lots, and surrounding areas.

CONSTRUCTION
Single-piece die-cast, aluminum housing with contoured edges has a 0.12" nominal wall thickness. Die-cast door frame is fully gasketed with one-piece tubular silicone.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling.

OPTICS
Precision-molded refractive acrylic lenses are available in four distributions. Light engines are available in standard 4000K or optional 3000K or 5000K (70 CRI) configurations.

ELECTRICAL
Light engine consists of high-efficacy LEDs mounted to a metal-core circuit board and aluminum heat sink, ensuring optimal thermal management and long life. Class 1 electronic driver has a power factor >90%, THD <20%, and has an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION
Retrofit only--mounts directly on existing KAD or KAD-LED housing.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY
5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

KAD LED
LED Area Luminaire

Catalog Number

Notes

Type 'SA'

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

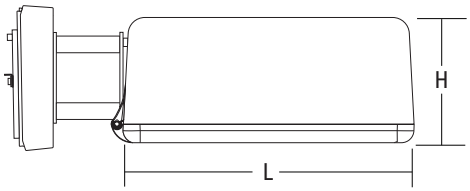
EPA: 1.2 ft² *(0.11 m²)*

Length: 17-1/2" *(44.5 cm)*

Width: 17-1/2" *(44.5 cm)*

Height: 7-1/8" *(18.1 cm)*

Weight (max): 36 lbs. *(16.4 kg)*



Introduction

The Contour® Series luminaires offer traditional square dayforms with softened edges for a versatile look that complements many applications. The KAD LED combines the latest in LED technology with the familiar aesthetic of the Contour® Series for stylish, high-performance illumination that lasts. It is ideal for replacing 100- 400W metal halide in area lighting applications with typical energy savings of 70% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: KAD LED 40C 1000 40K R5 MVOLT PUMBAK04 DDBXD

KAD LED

Series	LEDs	Drive current	CCT	Distribution	Voltage	Mounting[6]
KAD LED	20C [1] 20 LEDs 30C [1] 30 LEDs 40C 40 LEDs 60C 60 LEDs	530 530 mA[1,2] 700 700 mA 1000 1000 mA	30K 3000 K 40K 4000 K 50K 5000 K	R2 Type II R3 Type III R4 Type IV R5 Type V	MVOLT 277 [2] 120 [3] 347 [1,4,5] 208 [3] 480 [1,4] 240 [3]	**Shipped included** SPUMBAK___ Square pole universal mounting adaptor [7] RPUMBAK___ Round pole universal mounting adaptor [7] SPD___ Square pole RPD___ Round pole WBD___ Wall bracket WWD___ Wood pole or wall 04 4" arm 06 6" arm 09 9" arm [6] 12 12" arm [6] **Shipped separately** DAD12P Degree arm (pole) DAD12WB Degree arm (wall) KMA Mast arm external fitter

Options

Shipped installed

PER5	NEMA twist-lock five-wire receptacle only (no controls) [8]
PER7	Seven-wire receptacle only (no controls) [8]
SF	Single fuse (120, 277, 347V) [3]
DF	Double fuse (208, 240, 480V) [3]
PIR	Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc [9]
PIRH	Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc [9]
PIR1FC3V	Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc [9]
PIRH1FC3V	Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc [9]
BL30	Bi-level switched dimming, 30% [10,11]
BL50	Bi-level switched dimming, 50% [10,11]
PNMTDD3	Part night, dim till dawn [12]
PNMT5D3	Part night, dim 5 hrs [12]
PNMT6D3	Part night, dim 6 hrs [12]
PNMT7D3	Part night, dim 7 hrs [12]
HS	Houseside shield [13]

Shipped separately [13]

WG	Wire guard

Finish *(required)*

DDBXD	Dark bronze	DDBTXD	Textured dark bronze
DBLXD	Black	DBLBXD	Textured black
DNAXD	Natural aluminum	DNATXD	Textured natural aluminum
DWHXD	White	DWHGXD	Textured white

Stock configurations are offered for shorter lead times:

Standard Part Number	Stock Part Number
KAD LED 30C 1000 40K R3 MVOLT PUMBAK09 DDBXD	KADL 30C 40K R3
KAD LED 30C 1000 40K R5 MVOLT PUMBAK09 DDBXD	KADL 30C 40K R5
KAD LED 40C 1000 40K R3 MVOLT PUMBAK09 DDBXD	KADL 40C 40K R3
KAD LED 40C 1000 40K R5 MVOLT PUMBAK09 DDBXD	KADL 40C 40K R5
KAD LED 30C 1000 40K R3 MVOLT PUMBAK09 PIRH DDBXD	KADL 30C 40K R3 PIRH
KAD LED 30C 1000 40K R5 MVOLT PUMBAK09 PIRH DDBXD	KADL 30C 40K R5 PIRH
KAD LED 40C 1000 40K R3 MVOLT PUMBAK09 PIRH DDBXD	KADL 40C 40K R3 PIRH
KAD LED 40C 1000 40K R5 MVOLT PUMBAK09 PIRH DDBXD	KADL 40C 40K R5 PIRH

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [14]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [14]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [14]
DSHORT SBK U	Shorting cap [14]
KADLEDHS 20C U	Houseside shield for 20 LED unit
KADLEDHS 30C U	Houseside shield for 30 LED unit
KADLEDHS 40C U	Houseside shield for 40 LED unit
KADLEDHS 60C U	Houseside shield for 60 LED unit
KMA DDBXD U	Mast arm adapter (specify finish)
KADWG U	Wire guard accessory
PUMBAK DDBXD U*	Square and round pole universal mounting bracket adaptor (specify finish)

For more control options, visit DTL and ROAM online.
**Round pole top must be 3.25" O.D. minimum.*

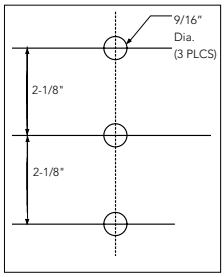
NOTES

1. 20C or 30C LED are not available with 530 Drive Current and 347V or 480V
2. Not available with 347 voltage
3. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
4. Maximum ambient temperature with 347V or 480V is 30°C.
5. Not available with 530mA.
6. 9" or 12" arm is required when two or more luminaires are oriented on a 90° drilling pattern.
7. Available as a separate combination accessory: PUMBAK (finish) U.
8. Mounting must be restricted to ±45° from horizontal aim per ANSI C136.10-2010.
9. PIR and PIR1FC3V specify the SensorSwitch SBGR-10-ODP control; PIRH and PIRH1FC3V specify the SensorSwitch SBGR-6-ODP control; see Outdoor Control Technical Guide for details. Dimming driver standard.
10. Requires an additional switched circuit with same phase as main luminaire power. Supply circuit and control circuit are required to be in the same phase.
11. Dimming driver standard. MVOLT only. Not available with 347V, 480V, PER5, PER7 or PNMT options.
12. Dimming driver standard. MVOLT only. Not available with 347V, 480V, PER5, PER7, BL30 or BL50.
13. Also available as a separate accessory; see Accessories information.
14. Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item from Acuity Brands Controls.

Drilling

Template #5

Top of Pole



Tenon Mounting Slipfitter**

Tenon O.D.	Single Unit	2 at 180°	2 at 90° †	3 at 120°	3 at 90° †	4 at 90° †
2-3/8"	T20-190	T20-280	T20-290	T20-320 †	T20-390	T20-490
2-7/8"	T25-190	T25-280	T25-290	T25-320	T25-390	T25-490
4"	T35-190	T35-280	T35-290	T35-320	T35-390	T35-490

*** For round pole mounting (RPDXX) only.* *† Requires 9" or 12" arm.*

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
20C	530 mA	35W	R2	4,140	1	0	1	118	4,446	1	0	1	127	4,473	1	0	1	128
			R3	4,123	1	0	1	118	4,427	1	0	1	126	4,455	1	0	1	127
			R4	4,128	1	0	1	118	4,433	1	0	1	127	4,460	1	0	1	127
			R5	4,381	2	0	1	125	4,704	3	0	1	134	4,734	3	0	1	135
	700 mA	45W	R2	5,271	1	0	1	117	5,660	1	0	1	126	5,696	1	0	2	127
			R3	5,250	1	0	2	117	5,637	1	0	2	125	5,672	1	0	2	126
			R4	5,256	1	0	2	117	5,644	1	0	2	125	5,679	1	0	2	126
			R5	5,578	3	0	1	124	5,990	3	0	1	133	6,027	3	0	1	134
	1000 mA	73W	R2	7,344	1	0	2	101	7,886	2	0	2	108	7,935	2	0	2	109
			R3	7,314	1	0	2	100	7,854	1	0	2	108	7,903	1	0	2	108
			R4	7,322	1	0	2	100	7,863	1	0	2	108	7,912	1	0	2	108
			R5	7,771	3	0	1	106	8,345	3	0	1	114	8,397	3	0	1	115
30C	530 mA	53W	R2	6,166	1	0	2	116	6,621	1	0	2	125	6,663	1	0	2	126
			R3	6,141	1	0	2	116	6,594	1	0	2	124	6,635	1	0	2	125
			R4	6,148	1	0	2	116	6,602	1	0	2	125	6,643	1	0	2	125
			R5	6,525	3	0	1	123	7,006	3	0	1	132	7,050	3	0	1	133
	700 mA	69W	R2	7,817	2	0	2	113	8,395	2	0	2	122	8,447	2	0	2	122
			R3	7,785	1	0	2	113	8,360	2	0	2	121	8,412	2	0	2	122
			R4	7,794	1	0	2	113	8,370	1	0	2	121	8,422	1	0	2	122
			R5	8,272	3	0	2	120	8,883	3	0	2	129	8,938	3	0	2	130
	1000 mA	108W	R2	10,755	2	0	2	100	11,549	2	0	2	107	11,621	2	0	2	108
			R3	10,711	2	0	2	99	11,502	2	0	2	106	11,574	2	0	2	107
			R4	10,724	2	0	2	99	11,515	2	0	2	107	11,587	2	0	2	107
			R5	11,381	3	0	2	105	12,221	4	0	2	113	12,297	4	0	2	114
40C	530 mA	71W	R2	8,156	2	0	2	115	8,758	2	0	2	123	8,812	2	0	2	124
			R3	8,122	2	0	2	114	8,722	2	0	2	123	8,776	2	0	2	124
			R4	8,132	1	0	2	115	8,732	1	0	2	123	8,786	1	0	2	124
			R5	8,630	3	0	2	122	9,267	3	0	2	131	9,325	3	0	2	131
	700 mA	94W	R2	10,286	2	0	2	109	11,045	2	0	2	118	11,114	2	0	2	118
			R3	10,244	2	0	2	109	11,000	2	0	2	117	11,069	2	0	2	118
			R4	10,256	2	0	2	109	11,013	2	0	2	117	11,081	2	0	2	118
			R5	10,884	3	0	2	116	11,688	4	0	2	124	11,761	4	0	2	125
	1000 mA	141W	R2	13,923	2	0	2	99	14,951	2	0	2	106	15,045	2	0	2	107
			R3	13,866	2	0	3	98	14,890	2	0	3	106	14,983	2	0	3	106
			R4	13,882	2	0	3	98	14,907	2	0	3	106	15,000	2	0	3	106
			R5	14,733	4	0	2	104	15,821	4	0	2	112	15,920	4	0	2	113
60C	530 mA	103W	R2	11,996	2	0	2	116	12,882	2	0	2	125	12,963	2	0	2	126
			R3	11,947	2	0	2	116	12,829	2	0	2	125	12,909	2	0	2	125
			R4	11,961	2	0	2	116	12,844	2	0	2	125	12,925	2	0	2	125
			R5	12,694	4	0	2	123	13,632	4	0	2	132	13,717	4	0	2	133
	700 mA	137W	R2	14,927	2	0	2	109	16,029	3	0	3	117	16,130	3	0	3	118
			R3	14,866	2	0	3	109	15,964	2	0	3	117	16,063	2	0	3	117
			R4	14,884	2	0	3	109	15,982	2	0	3	117	16,082	2	0	3	117
			R5	15,796	4	0	2	115	16,962	4	0	2	124	17,068	4	0	2	125
	1000 mA	216W	R2	19,328	3	0	3	89	20,754	3	0	3	96	20,884	3	0	3	97
			R3	19,248	3	0	3	89	20,669	3	0	4	96	20,799	3	0	4	96
			R4	19,271	3	0	3	89	20,693	3	0	4	96	20,823	3	0	4	96
			R5	20,452	4	0	2	95	21,962	4	0	2	102	22,099	4	0	2	102

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **KAD LED** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	KAD LED 60C 1000			
	1.0	0.91	0.86	0.76
	KAD LED 40C 1000			
	1.0	0.93	0.88	0.79
	KAD LED 60C 700			
	1.0	0.98	0.97	0.94

Electrical Load

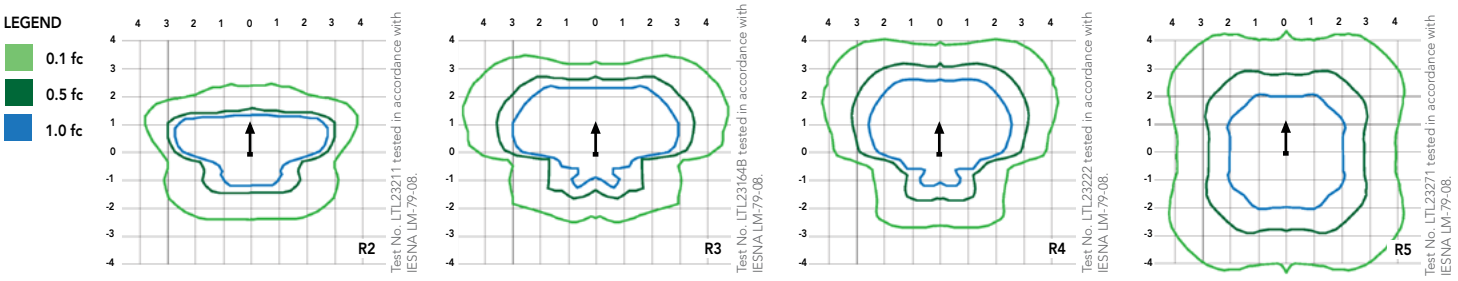
Number of LEDs	Drive Current (mA)	System Watts	Current (A) 120	208	240	277	347	480
20	530	35	0.30	0.18	0.16	0.15	-	-
	700	45	0.39	0.23	0.20	0.18	0.15	0.12
	1000	73	0.61	0.35	0.31	0.27	0.22	0.17
30	530	53	0.44	0.26	0.23	0.20	-	-
	700	69	0.58	0.34	0.29	0.26	0.21	0.16
	1000	108	0.90	0.52	0.46	0.40	0.32	0.24
40	530	71	0.60	0.35	0.32	0.29	0.21	0.16
	700	94	0.79	0.46	0.41	0.36	0.27	0.20
	1000	141	1.18	0.68	0.59	0.52	0.42	0.30
60	530	103	0.87	0.50	0.44	0.39	0.29	0.22
	700	137	1.15	0.66	0.58	0.51	0.40	0.29
	1000	216	1.81	1.04	0.92	0.81	0.63	0.47

NOTE: All ratings in this table are for a nominal system operated at 25°C ambient temperature. Current and power specifications in this table do not include branch circuit derating specified in the National Electrical Code. Please observe all applicable electrical codes and ratings.

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's KAD LED homepage.

Isofootcandle plots for the KAD LED 60C 1000 40K. Distances are in units of mounting height (20').



FEATURES & SPECIFICATIONS

INTENDED USE
The energy savings and long life of the KAD LED area luminaire make it a reliable choice for illuminating streets, walkways, parking lots, and surrounding areas.

CONSTRUCTION
Single-piece die-cast, aluminum housing with contoured edges has a 0.12" nominal wall thickness. Die-cast door frame has an impact-resistant, tempered glass lens that is fully gasketed with one piece tubular silicone.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling.

OPTICS
Precision-molded refractive acrylic lenses are available in four distributions. Light engines are available in standard 4000K, 3000K or 5000K (70 CRI) configurations.

ELECTRICAL
Light engine consists of high-efficacy LEDs mounted to a metal-core circuit board and aluminum heat sink, ensuring optimal thermal management and long life. Class 1 electronic driver has a power factor >90%, THD <20%, and has an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION
Included universal mounting block and extruded aluminum arm facilitate quick and easy installation using nearly any existing drilling pattern. Stainless steel bolts fasten the luminaire to the mounting block securing it to poles or walls. The KAD LED can withstand up to a 1.5 G vibration load rating per ANSI C136.31. The KAD LED also utilizes the standard K-Series (Template #5) for pole drilling.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. Rated for -40°C minimum ambient.
DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY
5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

KADRD LED
LED Retrofit Kit

Catalog Number

Notes

Type 'SB1'

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The Contour® Series luminaires offer traditional square dayforms with softened edges for a versatile look that complements many applications. The KADRD LED retrofits any existing 100 - 400W metal halide or high pressure sodium KAD into a high-performance LED luminaire, while realizing typical energy savings up to 65% with expected service life up to 100,000 hours. The KADRD LED retrofit door simply replaces the existing KAD door containing the glass lens and installs in minutes.

Specifications

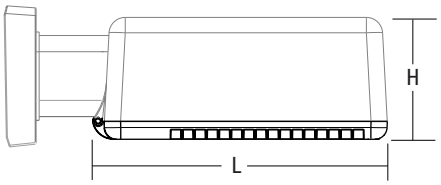
EPA: 1.2 ft² *(0.11 m²)*

Length: 17-1/2" *(44.5 cm)*

Width: 17-1/2" *(44.5 cm)*

Height: 7-1/8" *(18.1 cm)*

Weight (max): 13 lbs. *(5.9 kg)*



Ordering Information

EXAMPLE: KADRD LED 40C 1000 40K R5 MVOLT DDBXD

KADRD LED					
Series	**LEDs**	**Drive current**	**CCT**	**Distribution**	**Voltage**
KADRD LED	20C [1] 20 LEDs 30C [1] 30 LEDs 40C 40 LEDs 60C [2] 60 LEDs	530 [1] 530 mA 700 700 mA 1000 [2] 1000 mA	30K 3000 K 40K 4000 K 50K 5000 K	R2 Type II R3 Type III R4 Type IV R5 Type V	MVOLT 120 [3] 208 [3] 240 [3] 277 [3] 347 [1] 480 [1]

Options

Shipped installed

PIR Motion sensor, 8-15' mounting height [3]
PIRH Motion sensor, 15-30' mounting height [3]
HS Houseside shield [4]

Shipped separately

WG Wire guard [4]

Finish *(required)*

DDBXD Dark bronze
DBLXD Black
DNAXD Natural aluminum
DWHXD White
DDBTXD Textured dark bronze
DBLBXD Textured black
DNATXD Textured natural aluminum
DWHGXD Textured white

Accessories

Ordered and shipped separately.

KADWG U Wire guard accessory
KADLEDHS U Houseside shield

For more control options, visit DTL and ROAM online.

NOTES

1 20C or 30C LED are not available with 530 Drive current and 347V or 480V.
2 60C and 1000mA not available together.
3 PIR specifies the SensorSwitch SBGR-10-ODP control; PIRH specifies the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard.
4 Also available as a separate accessory; see Accessories information at left.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Actual wattage may differ by +/- 8% when operating between 120-480V +/-10%. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K					40K					50K				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
20C	530 mA	35 W	R2	4,140	1	0	1	115	4,446	1	0	1	123	4,473	1	0	1	124
			R3	4,123	1	0	1	115	4,427	1	0	1	123	4,455	1	0	1	124
			R4	4,128	1	0	1	115	4,433	1	0	1	123	4,460	1	0	1	124
			R5	4,381	2	0	1	122	4,704	2	0	1	131	4,734	2	0	1	131
	700 mA	46 W	R2	5,271	1	0	1	115	5,660	1	0	1	123	5,696	1	0	1	124
			R3	5,250	1	0	2	114	5,637	1	0	2	123	5,672	1	0	2	123
			R4	5,256	1	0	2	114	5,644	1	0	2	123	5,679	1	0	2	123
			R5	5,578	3	0	1	121	5,990	3	0	1	130	6,027	3	0	1	131
	1000 mA	73 W	R2	7,344	1	0	2	101	7,886	1	0	2	108	7,935	1	0	2	109
			R3	7,314	1	0	2	100	7,854	1	0	2	108	7,903	1	0	2	108
			R4	7,322	1	0	2	100	7,863	1	0	2	108	7,912	1	0	2	108
			R5	7,771	3	0	1	106	8,345	3	0	1	114	8,397	3	0	1	115
30C	530 mA	53 W	R2	6,166	1	0	2	116	6,621	1	0	2	125	6,663	1	0	2	126
			R3	6,141	1	0	2	116	6,594	1	0	2	124	6,635	1	0	2	125
			R4	6,148	1	0	2	116	6,602	1	0	2	125	6,643	1	0	2	125
			R5	6,525	3	0	1	123	7,006	3	0	1	132	7,050	3	0	1	133
	700 mA	70 W	R2	7,817	1	0	2	112	8,395	2	0	2	120	8,447	1	0	2	121
			R3	7,785	1	0	2	111	8,360	1	0	2	119	8,412	1	0	2	120
			R4	7,795	1	0	2	111	8,370	1	0	2	120	8,422	1	0	2	120
			R5	8,272	3	0	1	118	8,883	3	0	2	127	8,938	3	0	1	128
	1000 mA	108 W	R2	10,755	2	0	2	100	11,549	2	0	2	107	11,621	2	0	2	108
			R3	10,711	2	0	2	99	11,502	2	0	2	106	11,574	2	0	2	107
			R4	10,724	2	0	2	99	11,515	2	0	2	107	11,587	2	0	2	107
			R5	11,381	3	0	2	105	12,221	3	0	2	113	12,297	3	0	2	114
40C	530 mA	71 W	R2	8,156	2	0	2	115	8,758	2	0	2	123	8,812	2	0	2	124
			R3	8,122	1	0	2	114	8,722	2	0	2	123	8,776	2	0	2	124
			R4	8,132	1	0	2	115	8,732	1	0	2	123	8,786	1	0	2	124
			R5	8,630	3	0	2	122	9,267	3	0	2	131	9,325	3	0	2	131
	700 mA	94 W	R2	10,286	2	0	2	109	11,045	2	0	2	118	11,114	2	0	2	118
			R3	10,244	2	0	2	109	11,000	2	0	2	117	11,069	2	0	2	118
			R4	10,256	2	0	2	109	11,013	2	0	2	117	11,081	2	0	2	118
			R5	10,884	3	0	2	116	11,688	3	0	2	124	11,761	3	0	2	125
	1000 mA	141 W	R2	13,923	2	0	2	99	14,951	2	0	2	106	15,045	2	0	2	107
			R3	13,866	2	0	3	98	14,890	2	0	3	106	14,983	2	0	3	106
			R4	13,882	2	0	3	98	14,907	2	0	3	106	15,000	2	0	3	106
			R5	14,733	4	0	2	104	15,821	4	0	2	112	15,920	4	0	2	113
60C	530 mA	103W	R2	11,997	2	0	2	116	12,882	2	0	2	125	12,963	2	0	2	126
			R3	11,947	2	0	2	116	12,829	2	0	2	125	12,909	2	0	2	125
			R4	11,961	2	0	2	116	12,844	2	0	2	125	12,925	2	0	2	125
			R5	12,694	4	0	2	123	13,632	4	0	2	132	13,717	4	0	2	133
	700 mA	134 W	R2	14,927	3	0	3	109	16,029	3	0	3	117	16,130	3	0	3	118
			R3	14,866	3	0	3	109	15,964	2	0	3	117	16,063	2	0	3	117
			R4	14,884	3	0	3	109	15,982	2	0	3	117	16,082	2	0	3	117
			R5	15,796	4	0	2	115	16,962	4	0	2	124	17,068	4	0	2	125

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **KADRD LED** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	KADRD LED 40C 1000			
	1.0	0.93	0.88	0.79
	KADRD LED 60C 700			
	1.0	0.98	0.97	0.94

Electrical Load

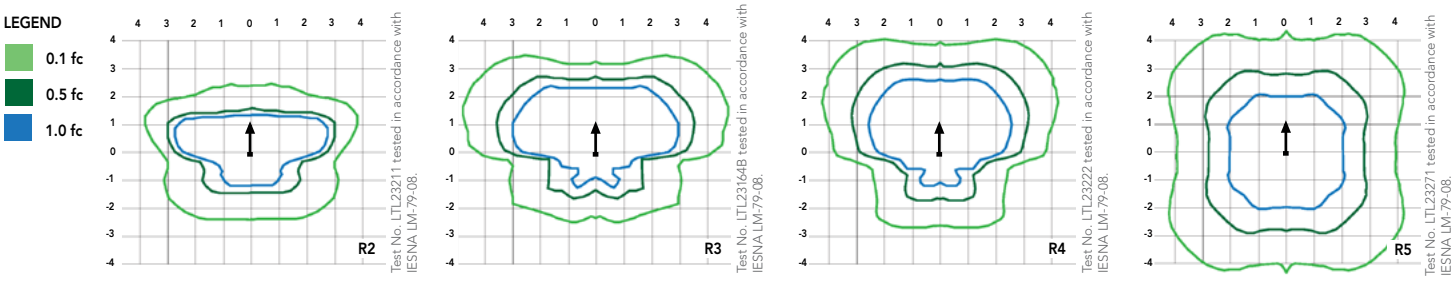
Number of LEDs	Drive Current (mA)	System Watts	Current (A) 120	208	240	277	347	480
20	530	35	0.30	0.18	0.16	0.15	-	-
	700	46	0.39	0.23	0.20	0.18	0.15	0.12
	1000	73	0.61	0.35	0.31	0.27	0.22	0.17
30	530	53	0.44	0.26	0.23	0.20	-	-
	700	70	0.58	0.34	0.29	0.26	0.21	0.16
	1000	108	0.90	0.52	0.46	0.40	0.32	0.24
40	530	71	0.60	0.35	0.32	0.29	0.21	0.16
	700	94	0.79	0.46	0.41	0.36	0.27	0.20
	1000	141	1.18	0.68	0.59	0.52	0.42	0.30
60	530	103	0.87	0.50	0.44	0.39	0.29	0.22
	700	134	1.15	0.66	0.58	0.51	0.40	0.29

NOTE: All ratings in this table are for a nominal system operated at 25°C ambient temperature. Current and power specifications in this table do not include branch circuit derating specified in the National Electrical Code. Please observe all applicable electrical codes and ratings.

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's KADRD LED homepage.

Isofootcandle plots for the KADRD LED 40C 530. Distances are in units of mounting height (20').



FEATURES & SPECIFICATIONS

INTENDED USE
The energy savings and long life of the KADRD LED area luminaire make it a reliable choice for illuminating streets, walkways, parking lots, and surrounding areas.

CONSTRUCTION
Single-piece die-cast, aluminum housing with contoured edges has a 0.12" nominal wall thickness. Die-cast door frame is fully gasketed with one-piece tubular silicone.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling.

OPTICS
Precision-molded refractive acrylic lenses are available in four distributions. Light engines are available in standard 4000K or optional 3000K or 5000K (70 CRI) configurations.

ELECTRICAL
Light engine consists of high-efficacy LEDs mounted to a metal-core circuit board and aluminum heat sink, ensuring optimal thermal management and long life. Class 1 electronic driver has a power factor >90%, THD <20%, and has an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION
Retrofit only--mounts directly on existing KAD or KAD-LED housing.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY
5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

KAD LED
LED Area Luminaire

Catalog Number

Notes

Type 'SA'

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

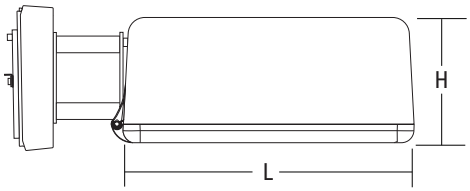
EPA: 1.2 ft² *(0.11 m²)*

Length: 17-1/2" *(44.5 cm)*

Width: 17-1/2" *(44.5 cm)*

Height: 7-1/8" *(18.1 cm)*

Weight (max): 36 lbs. *(16.4 kg)*



Introduction

The Contour® Series luminaires offer traditional square dayforms with softened edges for a versatile look that complements many applications. The KAD LED combines the latest in LED technology with the familiar aesthetic of the Contour® Series for stylish, high-performance illumination that lasts. It is ideal for replacing 100- 400W metal halide in area lighting applications with typical energy savings of 70% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: KAD LED 40C 1000 40K R5 MVOLT PUMBAK04 DDBXD

KAD LED

Series	LEDs	Drive current	CCT	Distribution	Voltage	Mounting[6]
KAD LED	20C [1] 20 LEDs 30C [1] 30 LEDs 40C 40 LEDs 60C 60 LEDs	530 530 mA[1,2] 700 700 mA 1000 1000 mA	30K 3000 K 40K 4000 K 50K 5000 K	R2 Type II R3 Type III R4 Type IV R5 Type V	MVOLT 277 [2] 120 [3] 347 [1,4,5] 208 [3] 480 [1,4] 240 [3]	**Shipped included** SPUMBAK___ Square pole universal mounting adaptor [7] RPUMBAK___ Round pole universal mounting adaptor [7] SPD___ Square pole RPD___ Round pole WBD___ Wall bracket WWD___ Wood pole or wall 04 4" arm 06 6" arm 09 9" arm [6] 12 12" arm [6] **Shipped separately** DAD12P Degree arm (pole) DAD12WB Degree arm (wall) KMA Mast arm external fitter

Options

Shipped installed

PER5	NEMA twist-lock five-wire receptacle only (no controls) [8]
PER7	Seven-wire receptacle only (no controls) [8]
SF	Single fuse (120, 277, 347V) [3]
DF	Double fuse (208, 240, 480V) [3]
PIR	Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc [9]
PIRH	Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc [9]
PIR1FC3V	Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc [9]
PIRH1FC3V	Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc [9]
BL30	Bi-level switched dimming, 30% [10,11]
BL50	Bi-level switched dimming, 50% [10,11]
PNMTDD3	Part night, dim till dawn [12]
PNMT5D3	Part night, dim 5 hrs [12]
PNMT6D3	Part night, dim 6 hrs [12]
PNMT7D3	Part night, dim 7 hrs [12]
HS	Houseside shield [13]

Shipped separately [13]

WG	Wire guard

Finish *(required)*

DDBXD	Dark bronze	DDBTXD	Textured dark bronze
DBLXD	Black	DBLBXD	Textured black
DNAXD	Natural aluminum	DNATXD	Textured natural aluminum
DWHXD	White	DWHGXD	Textured white

Stock configurations are offered for shorter lead times:

Standard Part Number	Stock Part Number
KAD LED 30C 1000 40K R3 MVOLT PUMBAK09 DDBXD	KADL 30C 40K R3
KAD LED 30C 1000 40K R5 MVOLT PUMBAK09 DDBXD	KADL 30C 40K R5
KAD LED 40C 1000 40K R3 MVOLT PUMBAK09 DDBXD	KADL 40C 40K R3
KAD LED 40C 1000 40K R5 MVOLT PUMBAK09 DDBXD	KADL 40C 40K R5
KAD LED 30C 1000 40K R3 MVOLT PUMBAK09 PIRH DDBXD	KADL 30C 40K R3 PIRH
KAD LED 30C 1000 40K R5 MVOLT PUMBAK09 PIRH DDBXD	KADL 30C 40K R5 PIRH
KAD LED 40C 1000 40K R3 MVOLT PUMBAK09 PIRH DDBXD	KADL 40C 40K R3 PIRH
KAD LED 40C 1000 40K R5 MVOLT PUMBAK09 PIRH DDBXD	KADL 40C 40K R5 PIRH

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [14]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [14]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [14]
DSHORT SBK U	Shorting cap [14]
KADLEDHS 20C U	Houseside shield for 20 LED unit
KADLEDHS 30C U	Houseside shield for 30 LED unit
KADLEDHS 40C U	Houseside shield for 40 LED unit
KADLEDHS 60C U	Houseside shield for 60 LED unit
KMA DDBXD U	Mast arm adapter (specify finish)
KADWG U	Wire guard accessory
PUMBAK DDBXD U*	Square and round pole universal mounting bracket adaptor (specify finish)

For more control options, visit DTL and ROAM online.
**Round pole top must be 3.25" O.D. minimum.*

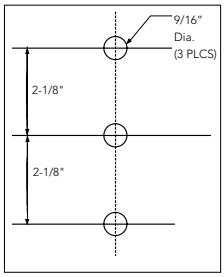
NOTES

1. 20C or 30C LED are not available with 530 Drive Current and 347V or 480V
2. Not available with 347 voltage
3. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
4. Maximum ambient temperature with 347V or 480V is 30°C.
5. Not available with 530mA.
6. 9" or 12" arm is required when two or more luminaires are oriented on a 90° drilling pattern.
7. Available as a separate combination accessory: PUMBAK (finish) U.
8. Mounting must be restricted to ±45° from horizontal aim per ANSI C136.10-2010.
9. PIR and PIR1FC3V specify the SensorSwitch SBGR-10-ODP control; PIRH and PIRH1FC3V specify the SensorSwitch SBGR-6-ODP control; see Outdoor Control Technical Guide for details. Dimming driver standard.
10. Requires an additional switched circuit with same phase as main luminaire power. Supply circuit and control circuit are required to be in the same phase.
11. Dimming driver standard. MVOLT only. Not available with 347V, 480V, PER5, PER7 or PNMT options.
12. Dimming driver standard. MVOLT only. Not available with 347V, 480V, PER5, PER7, BL30 or BL50.
13. Also available as a separate accessory; see Accessories information.
14. Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item from Acuity Brands Controls.

Drilling

Template #5

Top of Pole



Tenon Mounting Slipfitter**

Tenon O.D.	Single Unit	2 at 180°	2 at 90° †	3 at 120°	3 at 90° †	4 at 90° †
2-3/8"	T20-190	T20-280	T20-290	T20-320 †	T20-390	T20-490
2-7/8"	T25-190	T25-280	T25-290	T25-320	T25-390	T25-490
4"	T35-190	T35-280	T35-290	T35-320	T35-390	T35-490

*** For round pole mounting (RPDXX) only.* *† Requires 9" or 12" arm.*

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
20C	530 mA	35W	R2	4,140	1	0	1	118	4,446	1	0	1	127	4,473	1	0	1	128
			R3	4,123	1	0	1	118	4,427	1	0	1	126	4,455	1	0	1	127
			R4	4,128	1	0	1	118	4,433	1	0	1	127	4,460	1	0	1	127
			R5	4,381	2	0	1	125	4,704	3	0	1	134	4,734	3	0	1	135
	700 mA	45W	R2	5,271	1	0	1	117	5,660	1	0	1	126	5,696	1	0	2	127
			R3	5,250	1	0	2	117	5,637	1	0	2	125	5,672	1	0	2	126
			R4	5,256	1	0	2	117	5,644	1	0	2	125	5,679	1	0	2	126
			R5	5,578	3	0	1	124	5,990	3	0	1	133	6,027	3	0	1	134
	1000 mA	73W	R2	7,344	1	0	2	101	7,886	2	0	2	108	7,935	2	0	2	109
			R3	7,314	1	0	2	100	7,854	1	0	2	108	7,903	1	0	2	108
			R4	7,322	1	0	2	100	7,863	1	0	2	108	7,912	1	0	2	108
			R5	7,771	3	0	1	106	8,345	3	0	1	114	8,397	3	0	1	115
30C	530 mA	53W	R2	6,166	1	0	2	116	6,621	1	0	2	125	6,663	1	0	2	126
			R3	6,141	1	0	2	116	6,594	1	0	2	124	6,635	1	0	2	125
			R4	6,148	1	0	2	116	6,602	1	0	2	125	6,643	1	0	2	125
			R5	6,525	3	0	1	123	7,006	3	0	1	132	7,050	3	0	1	133
	700 mA	69W	R2	7,817	2	0	2	113	8,395	2	0	2	122	8,447	2	0	2	122
			R3	7,785	1	0	2	113	8,360	2	0	2	121	8,412	2	0	2	122
			R4	7,794	1	0	2	113	8,370	1	0	2	121	8,422	1	0	2	122
			R5	8,272	3	0	2	120	8,883	3	0	2	129	8,938	3	0	2	130
	1000 mA	108W	R2	10,755	2	0	2	100	11,549	2	0	2	107	11,621	2	0	2	108
			R3	10,711	2	0	2	99	11,502	2	0	2	106	11,574	2	0	2	107
			R4	10,724	2	0	2	99	11,515	2	0	2	107	11,587	2	0	2	107
			R5	11,381	3	0	2	105	12,221	4	0	2	113	12,297	4	0	2	114
40C	530 mA	71W	R2	8,156	2	0	2	115	8,758	2	0	2	123	8,812	2	0	2	124
			R3	8,122	2	0	2	114	8,722	2	0	2	123	8,776	2	0	2	124
			R4	8,132	1	0	2	115	8,732	1	0	2	123	8,786	1	0	2	124
			R5	8,630	3	0	2	122	9,267	3	0	2	131	9,325	3	0	2	131
	700 mA	94W	R2	10,286	2	0	2	109	11,045	2	0	2	118	11,114	2	0	2	118
			R3	10,244	2	0	2	109	11,000	2	0	2	117	11,069	2	0	2	118
			R4	10,256	2	0	2	109	11,013	2	0	2	117	11,081	2	0	2	118
			R5	10,884	3	0	2	116	11,688	4	0	2	124	11,761	4	0	2	125
	1000 mA	141W	R2	13,923	2	0	2	99	14,951	2	0	2	106	15,045	2	0	2	107
			R3	13,866	2	0	3	98	14,890	2	0	3	106	14,983	2	0	3	106
			R4	13,882	2	0	3	98	14,907	2	0	3	106	15,000	2	0	3	106
			R5	14,733	4	0	2	104	15,821	4	0	2	112	15,920	4	0	2	113
60C	530 mA	103W	R2	11,996	2	0	2	116	12,882	2	0	2	125	12,963	2	0	2	126
			R3	11,947	2	0	2	116	12,829	2	0	2	125	12,909	2	0	2	125
			R4	11,961	2	0	2	116	12,844	2	0	2	125	12,925	2	0	2	125
			R5	12,694	4	0	2	123	13,632	4	0	2	132	13,717	4	0	2	133
	700 mA	137W	R2	14,927	2	0	2	109	16,029	3	0	3	117	16,130	3	0	3	118
			R3	14,866	2	0	3	109	15,964	2	0	3	117	16,063	2	0	3	117
			R4	14,884	2	0	3	109	15,982	2	0	3	117	16,082	2	0	3	117
			R5	15,796	4	0	2	115	16,962	4	0	2	124	17,068	4	0	2	125
	1000 mA	216W	R2	19,328	3	0	3	89	20,754	3	0	3	96	20,884	3	0	3	97
			R3	19,248	3	0	3	89	20,669	3	0	4	96	20,799	3	0	4	96
			R4	19,271	3	0	3	89	20,693	3	0	4	96	20,823	3	0	4	96
			R5	20,452	4	0	2	95	21,962	4	0	2	102	22,099	4	0	2	102

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **KAD LED** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	KAD LED 60C 1000			
	1.0	0.91	0.86	0.76
	KAD LED 40C 1000			
	1.0	0.93	0.88	0.79
	KAD LED 60C 700			
	1.0	0.98	0.97	0.94

Electrical Load

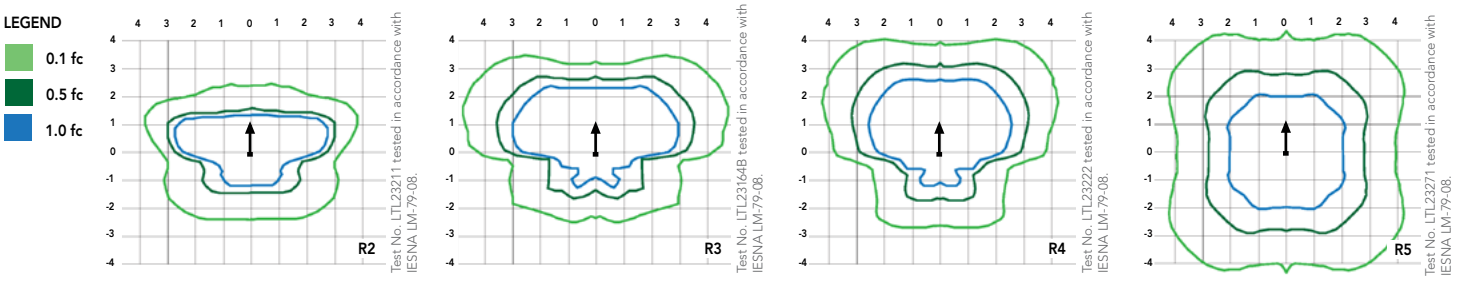
Number of LEDs	Drive Current (mA)	System Watts	Current (A) 120	208	240	277	347	480
20	530	35	0.30	0.18	0.16	0.15	-	-
	700	45	0.39	0.23	0.20	0.18	0.15	0.12
	1000	73	0.61	0.35	0.31	0.27	0.22	0.17
30	530	53	0.44	0.26	0.23	0.20	-	-
	700	69	0.58	0.34	0.29	0.26	0.21	0.16
	1000	108	0.90	0.52	0.46	0.40	0.32	0.24
40	530	71	0.60	0.35	0.32	0.29	0.21	0.16
	700	94	0.79	0.46	0.41	0.36	0.27	0.20
	1000	141	1.18	0.68	0.59	0.52	0.42	0.30
60	530	103	0.87	0.50	0.44	0.39	0.29	0.22
	700	137	1.15	0.66	0.58	0.51	0.40	0.29
	1000	216	1.81	1.04	0.92	0.81	0.63	0.47

NOTE: All ratings in this table are for a nominal system operated at 25°C ambient temperature. Current and power specifications in this table do not include branch circuit derating specified in the National Electrical Code. Please observe all applicable electrical codes and ratings.

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's KAD LED homepage.

Isofootcandle plots for the KAD LED 60C 1000 40K. Distances are in units of mounting height (20').



FEATURES & SPECIFICATIONS

INTENDED USE
The energy savings and long life of the KAD LED area luminaire make it a reliable choice for illuminating streets, walkways, parking lots, and surrounding areas.

CONSTRUCTION
Single-piece die-cast, aluminum housing with contoured edges has a 0.12" nominal wall thickness. Die-cast door frame has an impact-resistant, tempered glass lens that is fully gasketed with one piece tubular silicone.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling.

OPTICS
Precision-molded refractive acrylic lenses are available in four distributions. Light engines are available in standard 4000K, 3000K or 5000K (70 CRI) configurations.

ELECTRICAL
Light engine consists of high-efficacy LEDs mounted to a metal-core circuit board and aluminum heat sink, ensuring optimal thermal management and long life. Class 1 electronic driver has a power factor >90%, THD <20%, and has an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION
Included universal mounting block and extruded aluminum arm facilitate quick and easy installation using nearly any existing drilling pattern. Stainless steel bolts fasten the luminaire to the mounting block securing it to poles or walls. The KAD LED can withstand up to a 1.5 G vibration load rating per ANSI C136.31. The KAD LED also utilizes the standard K-Series (Template #5) for pole drilling.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. Rated for -40°C minimum ambient.
DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY
5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

CSXW LED
LED Wall Luminaire

CONTOUR SERIES

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

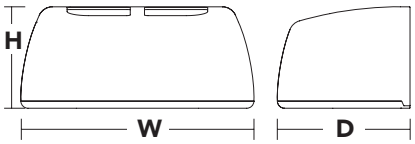
Specifications

Height: 7-1/8" *(29.2 cm)*

Width: 16-3/8" *(41.6cm)*

Depth: 9-5/16" *(23.6 cm)*

Weight (max): 30 lbs *(13.6 kg)*



Introduction

The Contour® Series luminaires offer traditional square dayforms with softened edges for a versatile look that complements many applications.

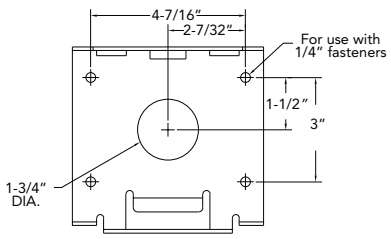
The CSXW LED combines the latest in LED technology with the familiar aesthetic of the Contour® Series for stylish, high-performance illumination that lasts. It is ideal for replacing 100-400W metal halide in wall-mounted applications with typical energy savings of 80% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: CSXW LED 30C 700 40K T3M MVOLT DDBXD

CSXW LED								
Series	**LEDs**	**Drive current**	**Color temperature**[1]	**Distribution**	**Voltage**	**Mounting**	**Options**	**Finish** *(required)*
CSXW LED	30C 30 LEDs	700 700 mA 1000 1000 mA	40K 4000K 50K 5000K	T2M Type II, medium T3M Type III, medium T4M Type IV, medium TFTM Type forward throw, medium	MVOLT[2] 120[2] 208[2] 240[2] 277[2] 347[3] 480[3]	**Shipped included** (blank) Surface mount **Shipped separately** BBW Surface-mounted back box (for conduit entry)[4]	**Shipped installed** PE Photoelectric cell, button type[5,6] DMG 0-10V dimming driver (no controls) SF Single fuse (120, 277, 347V)[7] DF Double fuse (208, 240, 480V)[7] **Shipped separately**[4] VG Vandal guard WG Wire guard	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Mounting Detail



Accessories

Ordered and shipped separately.

CSXWBBW DDBXD U	Back box accessory (specify finish)
CSXWWG U	Wire guard accessory
CSXWVG U	Vandal guard accessory

NOTES

1. Configured with 4000K (/40K) provides the shortest lead times. Consult factory for 5000K (/50K) lead times.
2. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options) or photocontrol (PE option).
3. Available with 700 mA options only (30C 700).
4. Also available as a separate accessory; see Accessories information at left.
5. Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option.
6. Must be ordered with fixture; cannot be field installed.
7. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	Performance Package	System Watts	Dist. Type	40K					50K				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30C	700 mA	30C 700 --K	69W	T2M	7,561	2	0	2	110	7,608	2	0	2	110
				T3M	7,981	2	0	2	116	8,031	2	0	2	116
				T4M	7,924	1	0	2	115	7,973	2	0	2	116
				TFTM	8,083	1	0	2	117	8,134	1	0	2	118
	1000 mA	30C 1000 --K	104W	T2M	11,321	2	0	2	109	10,422	2	0	2	100
				T3M	11,528	2	0	2	111	11,001	2	0	2	106
				T4M	11,735	2	0	2	113	10,922	2	0	2	105
				TFTM	11,942	2	0	2	115	11,142	2	0	2	107

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **CSXW LED** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.94	0.91	0.85

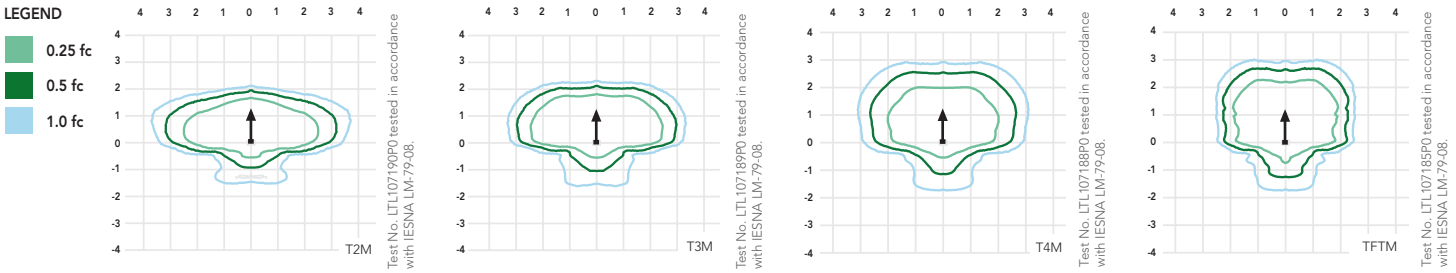
Electrical Load

Number of LEDs	Drive Current (mA)	System Watts	Current (A)					
			120V	208V	240V	277V	347V	480V
30C	700	69W	0.695	0.412	0.367	0.331	0.247	0.186
	1000	104W	1.034	0.599	0.528	0.472	0.382	0.302

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's CSXW homepage.

Isofootcandle plots for the CSXW LED 30C 1000 40K. Distances are in units of mounting height (20').



FEATURES & SPECIFICATIONS

INTENDED USE

The Contour Series Wall LED luminaire is ideal for commercial building mounted applications from over-the-door to 20 ft mounting heights.

CONSTRUCTION

Rugged, die-cast, single-piece aluminum housing. Unique flow-through design for optimized thermal management. Modularity allows for ease of maintenance and potential for future system upgrades. Metallic screen covers the top of the housing, preventing debris build-up while allowing for air flow. Housing is completely sealed against moisture and environmental contaminants.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling.

OPTICS

Precision-molded acrylic lenses provide optimal luminaire spacing and improved uniformity. Lenses are indexed to the circuit board to ensure consistent optical alignment and delivering repeatable photometric performance. Light engines are available in standard 4000K (70 CRI) or optional 5000K (67 CRI) configurations. The CSXW has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine consists of 30 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (100,000 hrs at 40°C, L70). Class 1 electronic driver has a power factor >90%, THD <20%, and has an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION

Universal mounting mechanism with integral mounting support allows fixture to hinge down. Bubble level provides correct alignment with every installation.

LISTINGS

CSA Certified to U.S. and Canadian standards. Rated for -40°C minimum ambient. Light engine is IP66 rated. Luminaire is IP65 rated.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

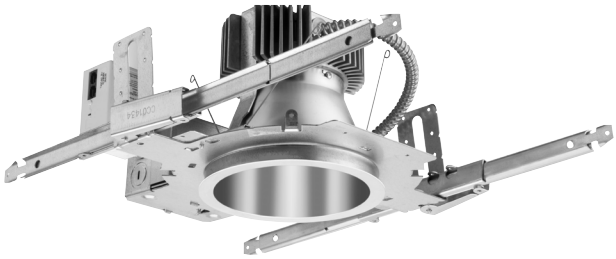
WARRANTY

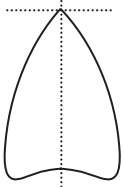
Five year limited warranty. Full warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Specifications subject to change without notice.
Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.

gotham®

Luminaire Type:
Catalog Number (autopopulated):





Gotham Architectural Downlighting
LED Downlights

6" Evo®
Downlight

Solid-State Lighting

2015 PROGRESS Report SELECTION

FEATURES

OPTICAL SYSTEM
- Self-flanged or flangeless semi-specular, matte-diffuse or specular finishing trim
- Patented Bounding Ray™ optical design (U.S. Patent No. 5,800,050)
- 45° cutoff to source and source image
- Top-down flash characteristic
- Polycarbonate lens integral to light engine

MECHANICAL SYSTEM
- 16-gauge galvanized steel construction; maximum 1-1/2" ceiling thickness
- Telescopic mounting bars maximum of 32" and minimum of 15", preinstalled, 4" vertical adjustment
- Toolless adjustments post installation
- Junction box capacity: 8 (4 in, 4 out) 12AWG rated for 90°C
- Light engine and driver accessible through aperture
- Injection molded mud ring includedwith flangeless trims. Ships separately. Installs independently of the mounting frame to reduce cracks in plaster due to vibration.

ELECTRICAL SYSTEM
- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- Tested according to LM-79 and LM-80 standards
- Overload and short circuit protected
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional

LISTINGS
- Fixtures are CSA certified to meet US and Canadian standards; wet location, covered ceiling

WARRANTY
- 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C.

ORDERING INFORMATION

EXAMPLE: EVO 35/10 6AR MWD LSS MVOLT EZ1

Series	Color temperature	Nominal lumen values	Aperture/Trim color	Trim Style	Distribution	Finish	Voltage
EVO	**27/** 2700 K **30/** 3000 K **35/** 3500 K **40/** 4000 K	**10** 1000 lumens **15** 1500 lumens **20** 2000 lumens **25** 2500 lumens **30** 3000 lumens **35** 3500 lumens **40** 4000 lumens **45** 4500 lumens	**6AR** Clear **6PR** Pewter **6WTR** Wheat **6GR** Gold **6WR**[1] White **6BR**[1] Black **6WRAMF**[1] White anti-microbial	(blank) Self-flanged **FL** Flangeless	**VND** Very narrow (0.5 s/mh) **ND** Narrow (0.7 s/mh) **MD** Medium (0.9 s/mh) **MWD** Medium wide (1.0 s/mh) **WD** Wide (1.2 s/mh)	**LSS** Semi-specular **LD** Matte-diffuse **LS** Specular	**MVOLT** **120** **277** **347**[2]

Driver[3]		Options			
EZ10	eldoLED ECOdrive 0-10v dimming driver. Minimum dimming level 10%	**SF**	Single fuse. Specify 120V or 277V.	**BGTD**	Bodine generator transfer device. Specify 120V or 277V.
EZ1	eldoLED ECOdrive 0-10V dimming driver. Minimum dimming level 1%	**TRW**[6]	White painted flange	**CRI90**	High CRI (90+)
EZB	eldoLED SOLOdrive 0-10V dimming driver. Minimum dimming level <1%.	**TRBL**[7]	Black painted flange	**CP**[10]	Chicago plenum. Specify 120V or 277V.
EDAB	eldoLED SOLOdrive DALI dimming driver. Minimum dimming level <1%.	**EL**[8]	Emergency battery pack with integral test switch	**RRL__**	RELOC®-ready luminaire connectors enable a simple and consistent factory installed option across all ABL luminaire brands. Refer to RRL for complete nomenclature.
EDXB	eldoLED POWERdrive DMX with RDM (remote device management). Minimum dimming level <1%. Includes termination resistor. Refer to DMXR Manual.	**ELR**[8]	Emergency battery pack with remote test switch		
EXA1	XPoint Wireless, eldoLED ECOdrive 1% dimming, 0-10V. Refer to XPoint tech sheet.	**NPS80EZ**[5]	nLight® dimming pack controls 0-10V eldoLED drivers.		
EXAB	XPoint Wireless, eldoLED SOLOdrive <1% dimming, 0-10V. Refer to XPoint tech sheet.	**NPS80EZER**[5,9]	nLight® dimming pack controls 0-10V eldoLED drivers. ER controls fixtures on emergency circuit.		
ECOS2[4,5]	Lutron® Hi-Lume® 2-wire forward-phase dimming driver. Minimum dimming level 1%. Minimum lumen 1000/Maximum lumen 3000.				
ECOS3[4,5]	Lutron® Hi-Lume® 3-wire or EcoSystem® dimming driver. Minimum dimming level 1%. Minimum lumen 1000/Maximum lumen 4500.				

GOTHAM ARCHITECTURAL DOWNLIGHTING | 1400 Lester Road Conyers GA 30012 | P 800.315.4982 | gothamlighting.com

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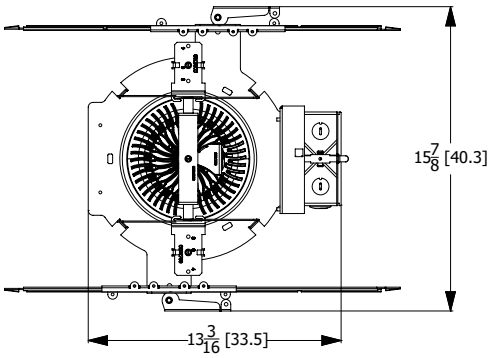
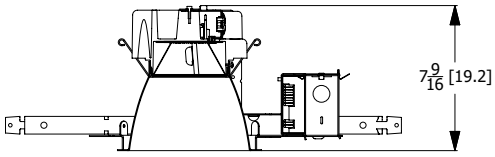
DIMENSIONAL DATA

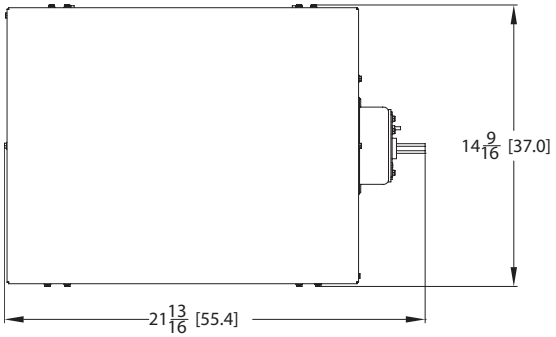
All dimensions are inches (centimeters) unless otherwise noted.

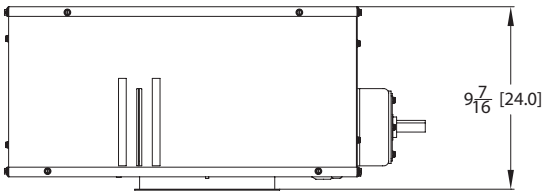




Aperture: 6-1/4" (15.9)
Ceiling Opening: 7-1/8" (18.1) self-flanged
7-1/4" (18.4) flangeless
Overlap trim: 7-1/2" (19.1)

DIMENSIONS FOR CHICAGO PLENUM





ELECTRICAL

WATTAGE CONSUMPTION MATRIX			
LUMENS	LM ACTUAL	WATTAGE	LUMENS per WATT
1000	1,059	11.8	90.1
1500	1,572	18.5	85.0
2000	2,058	23.2	88.9
2500	2,612	29.5	88.5
3000	3,077	36.6	84.1
3500	3,591	42.1	85.3
4000	4,046	48.1	84.2
4500	4,555	46.9	97.1

EMERGENCY LUMEN OUTPUT		
LUMENS	WATTAGE	INITIAL OUTPUT
1000	9.6	1000
1500	9.6	1000
2000	9.6	1000
2500	9.6	1000
3000	9.6	1000
3500	9.6	1000
4000	9.6	1000
4500	9.6	1000

ACCESSORIES

ACCESSORIES order as separate catalog numbers (shipped separately)

SCA6	Sloped ceiling adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SCA6 10D. Refer to TECH-190.
CTA4-8 YK	Ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 5"). Adds ~4" to fixture height.
GVRT	Vandal-resistant trim accessory. Refer to TECH-200.
ISD BC	0-10V wallbox dimmer. Refer to ISD-BC.

NOTES

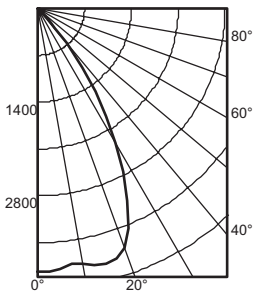
ORDERING NOTES

1. Not available with finishes.
2. Not available with EL or ELR options.
3. Refer to TECH-240 for compatible dimmers.
4. Not available with nLight® and XPoint options.
5. Specify voltage. ECOS2 not available in 277V.
6. Not available with white reflector. Not applicable with FL option.
7. Not available with black reflector. Not applicable with FL option.
8. For dimensional changes, refer to TECH-140. Not available with 347V.
9. For use with generator supply EM power. Will require an emergency hot feed and normal hot feed.
10. ELR not available. CP & ECOS2 - 3000 lumen max. CP & ECOS3 - 4000 lumen max. CP, ECOS2/ECOS3 & EL - 2000 lumen max.

Distribution Curve	Distribution Data	Output Data	Coefficient of Utilization	Illuminance: Single Luminaire 30" Above Floor

EVO 35/40 6AR LS

INPUT WATTS: 48.1, DELIVERED LUMENS: 4046, LM/W=84.1 , 1.03 S/MH, TEST NO. LTL27768



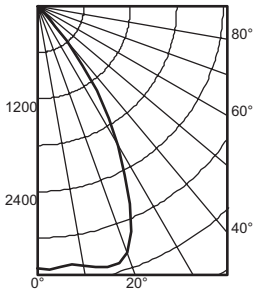
	Ave	Lumens
0	3935	
5	3901	371
15	3944	1106
25	3172	1427
35	1508	926
45	221	203
55	6	10
65	2	2
75	1	1
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	2904.3	71.8
0° - 40°	3830.0	94.7
0° - 60°	4043.4	99.9
0° - 90°	4046.3	100.0
90° - 180°	0.0	0.0
0° - 180°	4046.3	*100.0
*Efficiency		

pf / pc / pw	80% 50%	80% 30%	80% 10%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0	119	119	119	116	116	116	111	111	111
1	111	108	106	109	106	104	105	103	101
2	103	99	96	101	98	95	98	95	93
3	96	91	87	95	90	87	92	88	85
4	90	84	80	89	84	80	87	82	79
5	84	78	74	83	78	74	81	77	73
6	79	73	69	78	73	68	77	72	68
7	74	68	64	73	68	64	72	67	63
8	70	64	60	69	63	60	68	63	59
9	66	60	56	65	60	56	64	59	56
10	62	56	52	62	56	52	61	56	52

EVO 35/35 6AR LS

INPUT WATTS: 42.1, DELIVERED LUMENS: 3591, LM/W=85.3, 1.05 S/MH, TEST NO. LTL27767



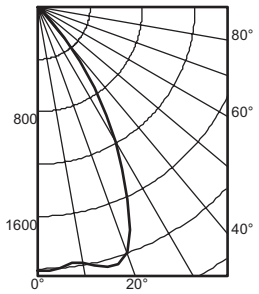
	Ave	Lumens
0	3400	
5	3390	324
15	3497	981
25	2830	1274
35	1335	820
45	193	177
55	5	9
65	2	2
75	1	1
85	1	1
90	1	

Zone	Lumens	% Lamp
0° - 30°	2579.3	71.8
0° - 40°	3399.8	94.7
0° - 60°	3586.3	99.9
0° - 90°	3590.5	100.0
90° - 180°	0.0	0.0
0° - 180°	3590.5	*100.0
*Efficiency		

pf / pc / pw	80% 50%	80% 30%	80% 10%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0	119	119	119	116	116	116	111	111	111
1	111	108	106	109	106	104	105	103	101
2	103	99	96	101	98	95	98	95	93
3	96	91	87	95	90	87	92	88	85
4	90	84	80	89	84	80	87	82	79
5	84	78	74	83	78	74	81	77	73
6	79	73	69	78	72	68	77	72	68
7	74	68	64	73	68	64	72	67	63
8	70	64	60	69	63	59	68	63	59
9	66	60	56	65	60	56	64	59	55
10	62	56	52	62	56	52	61	56	52

EVO 35/20 6AR LS

INPUT WATTS: 23.2, DELIVERED LUMENS: 2058, LM/W=88.7, 1.02 S/MH, TEST NO. LTL27777



	Ave	Lumens
0	2018	
5	1997	190
15	2053	576
25	1618	733
35	749	459
45	105	94
55	3	5
65	1	1
75	0	0
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	1498.5	72.8
0° - 40°	1958.0	95.1
0° - 60°	2056.6	99.9
0° - 90°	2058.3	100.0
90° - 180°	0.0	0.0
0° - 180°	2058.3	*100.0
*Efficiency		

pf / pc / pw	80% 50%	80% 30%	80% 10%	70% 50%	70% 30%	70% 10%	50% 50%	50% 30%	50% 10%
0	119	119	119	116	116	116	111	111	111
1	111	108	106	109	107	105	105	103	101
2	103	99	96	102	98	95	98	95	93
3	96	92	88	95	91	87	92	89	86
4	90	85	81	89	84	80	87	83	79
5	84	79	74	83	78	74	82	77	73
6	79	73	69	78	73	69	77	72	68
7	74	68	64	74	68	64	72	67	64
8	70	64	60	69	64	60	68	63	60
9	66	60	56	66	60	56	65	60	56
10	62	57	53	62	56	53	61	56	53

LUMEN OUTPUT MULTIPLIER - CRI	
CRI	**FACTOR**
80 CRI	1
90 CRI	0.79

LUMEN OUTPUT MULTIPLIER - CCT	
CRI	**FACTOR**
4000 K	1.035
3500 K	1
3000 K	0.973
2700 K	0.938

LUMEN OUTPUT MULTIPLIER - TRIM FINISH						
FINISH	**CLEAR (AR)**	**PEWTER (PR)**	**WHEAT (WTR)**	**GOLD (GR)**	**WHITE (WR/WRAMF)**	**BLACK (BR)**
Specular (LS)	1.00	0.88	0.83	0.95	N/A	N/A
Semi-specular (LSS)	0.95	0.84	0.79	0.90	N/A	N/A
Matte-diffuse (LD)	0.85	0.73	0.69	0.80	N/A	N/A
Paint	N/A	N/A	N/A	N/A	0.87	0.73

PHOTOMETRY NOTES

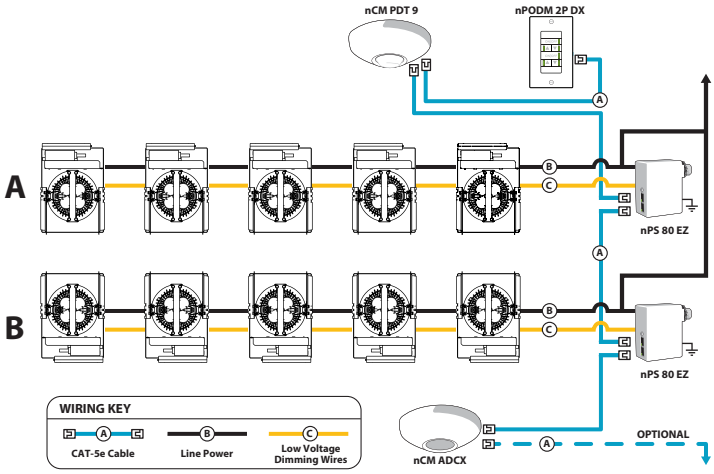
- Tested in accordance with IESNA LM-79-08.
- Tested to current IES and NEMA standards under stabilized laboratory conditions.
- CRI: 85 typical.

CONTROLS

Choose Wall Controls.
nLIGHT o ers multiple styles of wall controls – each with varying features and user experience.

Push-Button WallPod
Traditional tactile buttons and LED user feedback

Graphic WallPod
Full color touch screen provides a sophisticated look and feel



EXAMPLE
Group Fixture Control*
*Application diagram applies for fixtures with eldoLED drivers only.

nPS 80 EZ Dimming/Control Pack (qty 2 required)
nPODM 2P DX Dual On/Off/Dim Push-Button WallPod
nCM ADCX Daylight Sensor with Automatic Dimming Control
nCM PDT 9 Dual Technology Occupancy Sensor

Description: This design provides a dual on/off/dim wall station that enables manual control of the fixtures in Row A and Row B separately. Additionally, a daylight harvesting sensor is provided so the lights in row B can be configured to dim automatically when daylight is available. An occupancy sensor turns off all lights when the space is vacant.

nLight® Control Accessories:
Order as separate catalog number. Visit www.sensorswitch.com/nLight for complete listing of nLight controls.

WallPod stations	Model number
On/Off	nPODM [color]
On/Off & Raise/Lower	nPODM DX [color]
Graphic Touchscreen	nPOD GFX [color]
Photocell controls	**Model number**
Dimming	nCM ADCX

Occupancy sensors	Model number
Small motion 360°, ceiling (PIR / dual tech)	nCM 9 / nCM PDT 9
Large motion 360°, ceiling (PIR / dual tech)	nCM 10 / nCM PDT 10
Wide view (PIR / dual tech)	nWV 16 / nWV PDT 16
Wall Switch w/ Raise/Lower (PIR / dual tech)	nWSX LV DX / nWSX PDT LV DX
Cat-5 cables (plenum rated)	**Model number**
10', CAT5 10FT	CAT5 10FT J1
15', CAT5 15FT	CAT5 15FT J1

McMinnville High School Remodel

Transportation Impact Study

McMinnville, Oregon

DATE:
October 6, 2016

PREPARED FOR:
Jim Fitzpatrick
Dull Olson Weekes – IBI Group Architects, Inc.

PREPARED BY:
William Farley, PE

RENEWS: 12/31/2017

LANCASTER
ENGINEERING

321 SW 4th Ave., Suite 400 | Portland, OR 97204 | 503.248.0313 | lancasterengineering.com

Table of Contents

Executive Summary 3

Project Description 4

Trip Generation & Distribution 12

Future Traffic Conditions 20

Safety Analysis 27

Operational Analysis 28

Conclusions 30

Appendix 31

Executive Summary

1. The McMinnville High School is proposing a remodel of the school campus that will improve the existing school while providing a net increase of four new classrooms as well as a new technology center, an athletic field house, and expansion to the school's cafeteria. With the proposed remodel, the parking areas and circulation around the campus will be altered to relocate a number of student/faculty spaces as well as separate parent drop-off and bus loading areas.

2. Although no increase in the current enrollment of approximately 2,200 students is anticipated between now and when the remodel is completed, analysis was conducted assuming an increase in enrollment of 100 students to account for the capacity of the four additional classrooms. The trip generation calculations show that this potential increase in enrollment would generate an additional 43 trips during the morning peak period, 29 trips during the afternoon peak period, and 13 trips during the evening peak period.

3. Based on a detailed review of the crash history, no significant patterns or contributing design concerns were identified at the study intersections.

4. All study intersections are projected to operate within the performance standards established by the City of McMinnville through year 2019, regardless of the alterations to site circulation from the proposed remodel or the additional trips that would result from the potential increased enrollment of 100 students.

Project Description

Introduction

McMinnville High School is proposing a remodel of the school campus. The remodel will improve existing facilities by providing four additional classrooms as well as constructing a technology center, building an athletic field house, and expanding the school cafeteria. The parking areas and circulation around the campus will also be improved to separate parent drop-off and bus loading areas.

This report assesses the traffic impacts of the proposed remodel of the school campus on the nearby street system and provides recommendations regarding any mitigations necessary to maintain safe and efficient operation. Supporting information (including the site plan, traffic counts, and detailed traffic analysis calculations) is included in the attached appendix.

Location Description

The high school campus is located at 615 NE 15th Street in McMinnville, Oregon. The school property is bounded by NE 15th Street to the south, NE 17th Street to the north, NE Evans Street to the west, and NE McDonald Lane to the east. The school is located in an area that is predominantly residential.

The school's access for the parent drop-off area, bus loading zones, and main student/faculty parking areas is provided as an aisle that connects NE 15th Street and NE 17th Street across from NE Hembree Street. An additional access is located to the east on NE 15th Street across from NE Irvine Street and an additional egress is located to the west across from NE Galloway Street.

Based on scoping conversations with City of McMinnville staff, the following intersections have been identified for analysis of impacts related to the development:

- NE Evans Street at NE 19th Street
- NE Evans Street at NE 17th Street
- NE Evans Street at NE 15th Street

Additionally, the following access intersections have been identified for analysis of impacts related to the revised circulation of the parking areas following the remodel of the campus:

- NE Hembree Street at NE 17th Street
- NE Galloway Street at NE 15th Street
- School Main Access at NE 15th Street
- NE Irvine Street at NE 15th Street

Vicinity Streets

NE Evans Street is under the jurisdiction of the City of McMinnville and is classified as a Minor Collector. The street is a two-lane facility with a school-zone speed limit of 20 mph from 7:00 AM to 5:00 PM on school days and a statutory residential speed limit of 25 mph at other times. Curbs and sidewalks are installed along both sides of the street. Bike lanes are provided between NE 8th Street and NE 17th Street where on-street parking is restricted.

NE 19th Street is under the jurisdiction of the City of McMinnville and is classified as a Major Collector. The street is a two-lane facility with a statutory residential speed limit of 25 mph. Curbs are installed along both sides of the street and sidewalks are provided along the northern side. On-street parking is available along both sides of the roadway.

NE 17th Street is under the jurisdiction of the City of McMinnville and is classified as a Local Street. It is a two-lane facility, without centerline striping, and has a statutory residential speed limit of 25 mph outside the hours of 7:00 AM and 5:00 PM on school days. Curbs are installed along both sides of the street and sidewalks are provided along the southern side. On-street parking is permitted along both sides; however, parking on the northern side of the street is limited to two hours without residential permit on school days between 7:00 AM and 4:00 PM.

NE 15th Street is under the jurisdiction of the City of McMinnville and is classified as a Local Street. The street is a two-lane facility, without centerline striping, and has a statutory residential speed limit of 25 mph outside the hours of 7:00 AM and 5:00 PM on school days. Curbs and sidewalks are provided along both sides of the roadway. On-street parking areas are provided along both sides of the facility; however, parking on the southern side of the street is limited to two hours without residential permit on school days between 7:00 AM and 4:00 PM.

NE Hembree Street is under the jurisdiction of the City of McMinnville and is classified as a Local Street. The street is a two-lane facility, without centerline striping, and has a statutory residential speed limit of 25 mph. Curbs are provided along both sides of the roadway and sidewalks are installed intermittently. Parking is permitted along bides of the street.

NE Galloway Street is under the jurisdiction of the City of McMinnville and is classified as a Local Street. The street is a two-lane facility, without centerline striping, and has a statutory residential speed limit of 25 mph. Curbs and sidewalks are provided along both sides of the roadway. Parking is permitted along the eastern side of the street and is limited to two hours without permit during school hours near the campus.

NE Irvine Street is under the jurisdiction of the City of McMinnville and is classified as a Local Street. The street is a two-lane facility, without centerline striping, and has a statutory residential speed limit of 25 mph. Curbs and sidewalks are provided along both sides of the roadway. Parking is permitted along both sides of the street and is limited to two hours without permit during school hours near the campus.

Study Intersections

The intersection of NE Evans Street at NE 19th Street is a four-legged intersection operating under all-way stop control. Each approach at the intersection has a single, shared lane for all turning movements. Crosswalks are marked along the northern, eastern, and western legs.

The intersection of NE Evans Street at NE 17th Street is a four-legged intersection operating under two-way stop control for the eastbound and westbound approaches on NE 17th Street. Each approach at the intersection has a single, shared vehicle lane for all turning movements. The northbound approach has a bike lane located to the right of the vehicle lane. Crosswalks are marked across each leg of the intersection.

The intersection of NE Evans Street at NE 15th Street is a four-legged intersection operating under all-way stop control. Each approach at the intersection has a single, shared vehicle lane for all turning movements. The northbound and southbound approaches each have a bike lane located to the right of the vehicle lane. Crosswalks are marked across each leg of the intersection.

The intersection of NE Hembree Street at NE 17th Street is a three-legged intersection operating under all-way stop control. The southern leg of the intersection serves as access to the main aisle serving the school's parking areas. Each approach at the intersection has a single, shared vehicle lane for all turning movements. After the completion of the remodel of the high school, an eastern leg will be constructed for traffic entering and exiting the school property.

The intersection of NE Galloway Street at NE 15th Street is a four-legged intersection operating under two-way stop control for the northbound and southbound approaches. The southbound approach at the intersection serves as an egress for the drop-off area along the front of the campus and has a dedicated left-turn lane and a through/right-turn lane. The northbound approach on NE Galloway Street and the eastbound and westbound approaches on NE 15th Street each have a single, shared lane for all turning movements.

The intersection of the school's main access at NE 15th Street is a three-legged intersection operating under stop control for the southbound approach from the school. Each approach at the intersection has a single, shared lane for all turning movements.

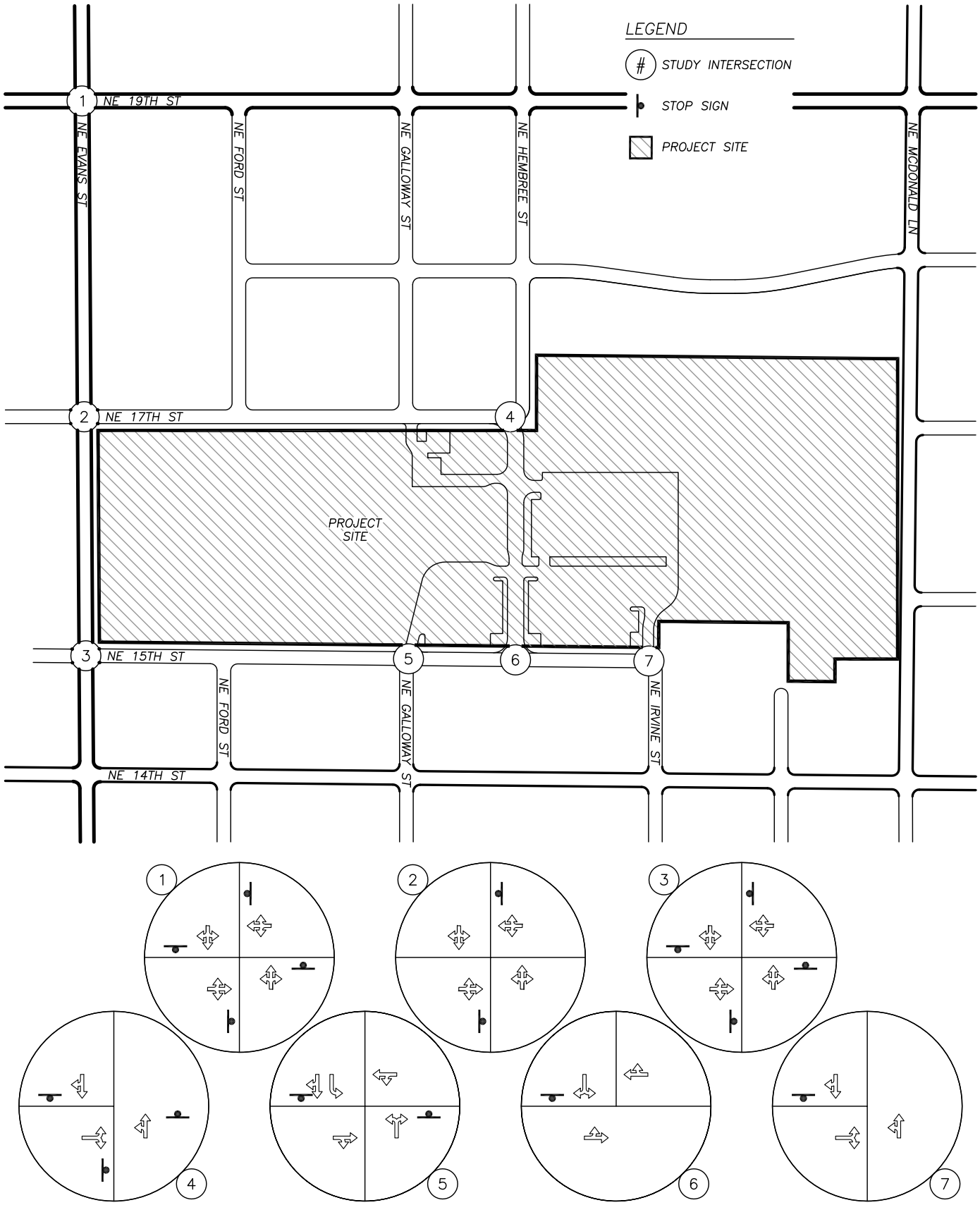
The intersection of NE Irvine Street at NE 15th Street is a three-legged intersection operating under stop control for the southbound approach from the school's parking lot. Each approach at the intersection has a single, shared lane for all turning movements.

Figure 1 on page eight provides a vicinity map showing the existing lane configurations and traffic control devices at the study intersections.

Traffic Counts

Traffic volumes were collected at the intersection of the school's main access at NE 15th Street on Thursday, September, 22nd, 2016, from 7:00 AM to 9:00 AM and from 2:00 PM to 6:00 PM. Traffic volumes were collected at the remaining study intersections on Tuesday, September 20th, 2016, for the same periods. Turning movement volumes corresponding to a system-wide peak period from 7:30 AM to 8:30 AM for the morning peak hour, from 2:55 PM to 3:55 PM for the afternoon peak hour, and from 5:00 PM to 6:00 PM for the evening peak hour were used for analysis.

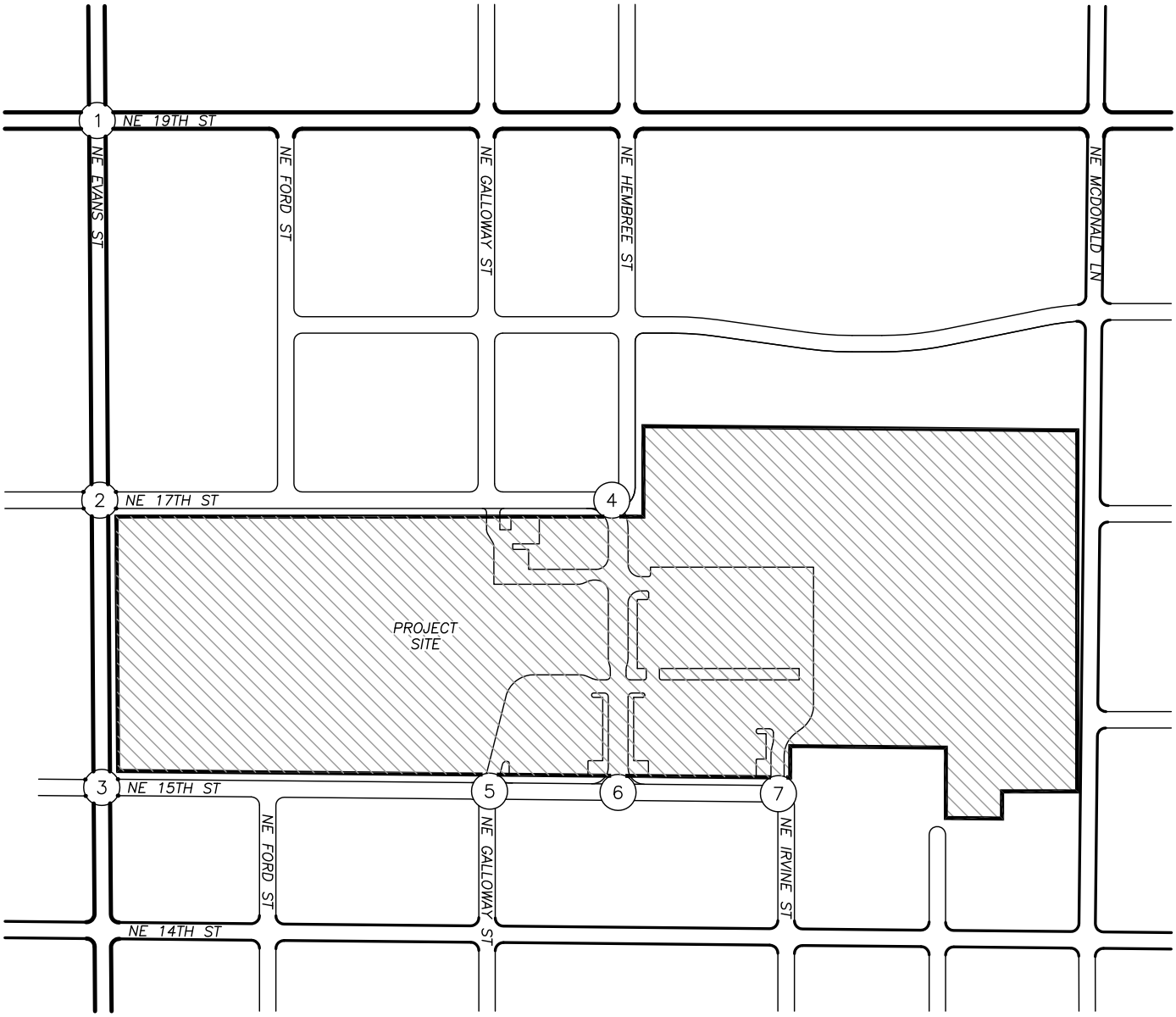
Figure 2 on page 9, Figure 3 on page 10, and Figure 4 on page 11 shows the traffic volumes occurring at each of the study intersections for the morning, afternoon, and evening peak hours, respectively.

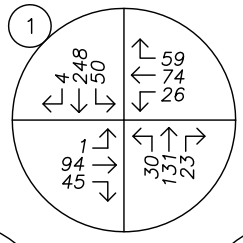


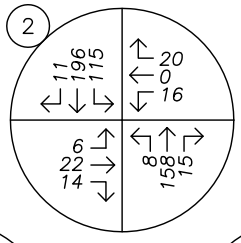
VICINITY MAP

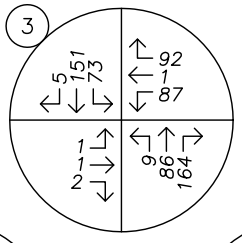
no scale

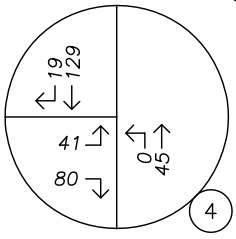
FIGURE 1

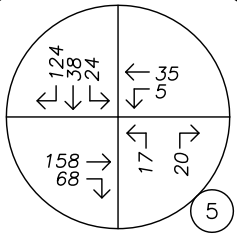


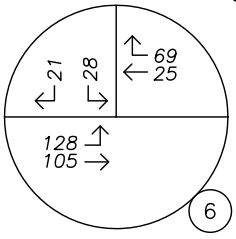


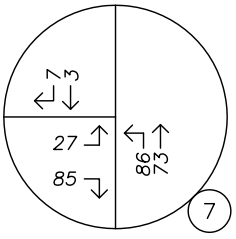








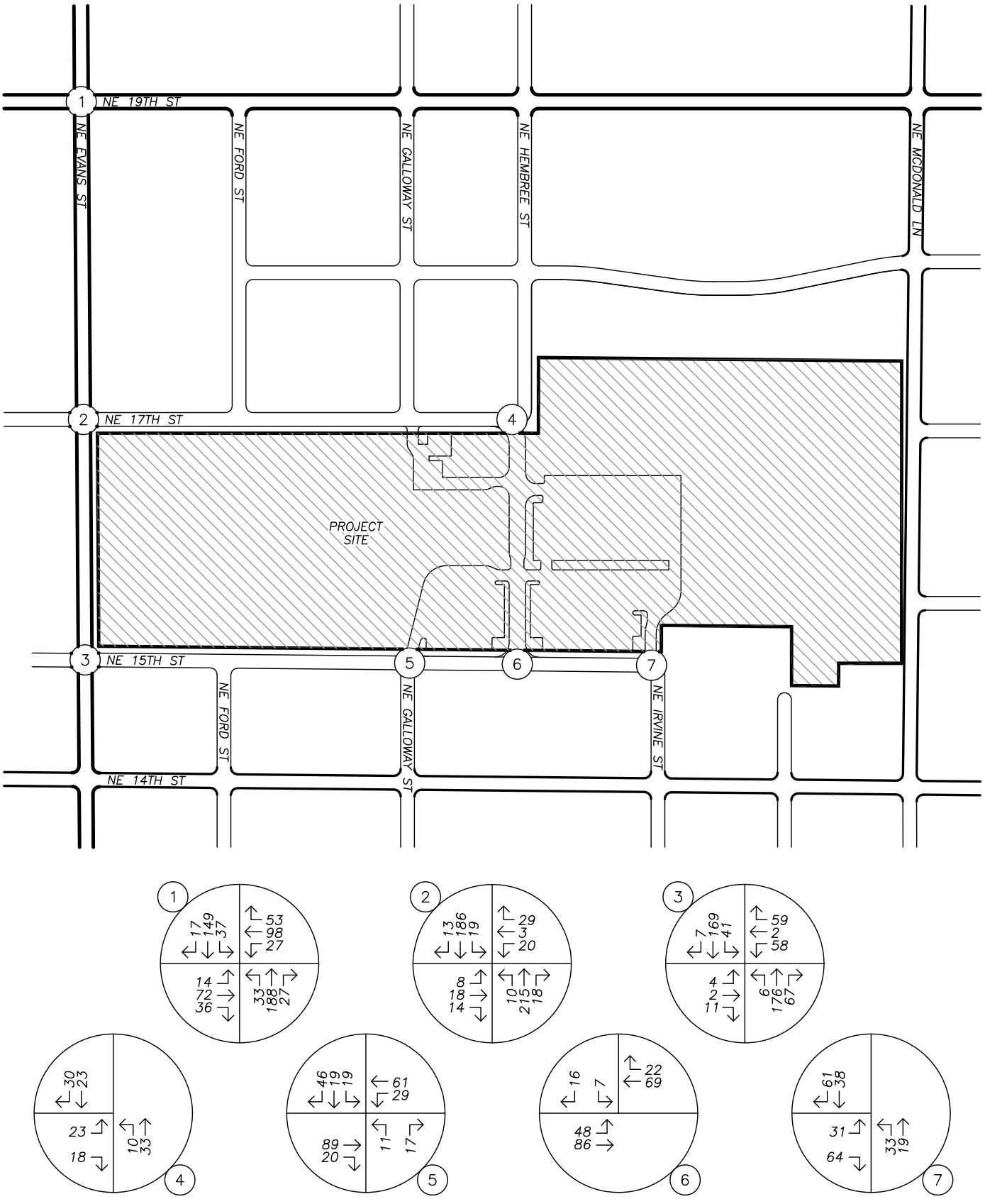




TRAFFIC VOLUMES
2016 Existing Conditions
Morning Peak Hour

no scale

FIGURE 2

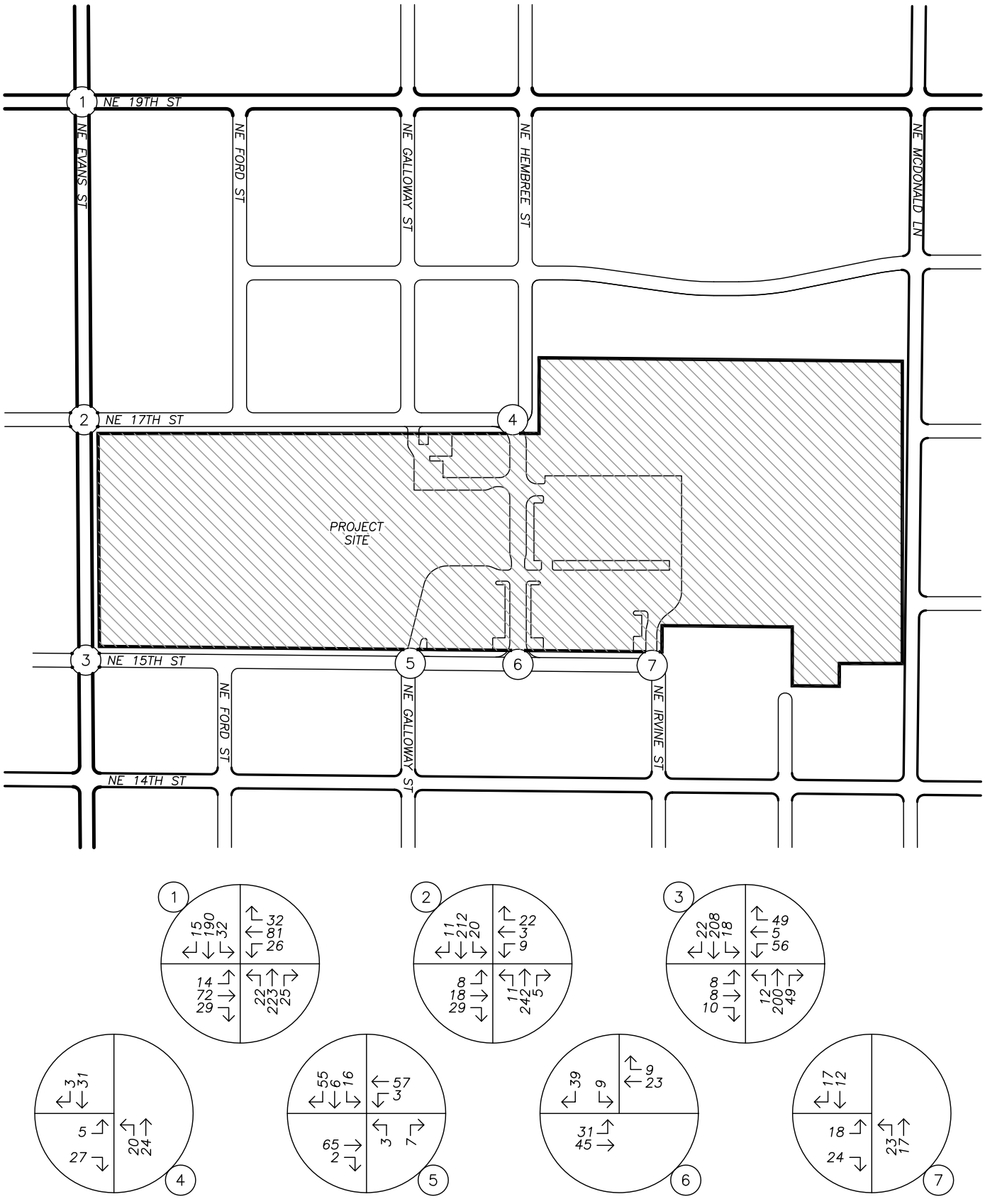


TRAFFIC VOLUMES
2016 Existing Conditions
Afternoon Peak Hour

no scale

FIGURE 3

PAGE 10



TRAFFIC VOLUMES
2016 Existing Conditions
Evening Peak Hour

no scale

FIGURE 4

Trip Generation & Distribution

Trip Generation

The remodel of the McMinnville High School campus will provide a net increase of four classrooms, a new technology center, an athletic field house, and an expansion to the cafeteria while improving traffic circulation by separating bus loading zones and parent drop-off areas. Enrollment for the high school is currently approximately 2,200 students and could potentially increase because of the addition of four new classrooms. Thus, it was assumed the campus could accommodate 100 new students by year 2019, when the remodel and additional facilities are projected to be completed and operational.

To estimate the number of trips that would be generated by a potential increase in enrollment by 100 students, trip rate data from the *Trip Generation Manual*[1] was used. Data corresponding to land-use code 530, *High School*, was referenced based on the number of students.

The trip generation calculations show that with 100 additional students, the high school would generate an additional 43 trips during the morning peak hour with 29 entering trips and 14 exiting trips. During the afternoon peak hour associated with school release, the high school would generate an additional 29 trips with 10 trips entering and 19 trips exiting the site. During the evening peak hour, the school would be projected to generate a total of 13 additional trips with 6 trips entering the site and 7 trips exiting the site.

Detailed trip generation calculations for the increased enrollment of 100 students at McMinnville High School are included in the appendix to this report.

Trip Distribution & Assignment

The directional distribution of site trips to and from the high school campus was estimated based on existing travel patterns at the study intersections while taking in account locations of likely trip destinations and locations of major transportation facilities in the site vicinity. Based on the data, the following trip distribution was estimated and used for analysis:

- 25 percent to and from the south along NE Evans Street;
- 20 percent to and from the north along NE Evans Street;
- 20 percent to and from the north along NE Hembree Street;
- 20 percent to and from the south along NE Irvine Street;
- 10 percent to and from the south along NE Galloway Street; and,
- 5 percent to and from the west along NE 19th Street.

Since the remodel of the high school will alter traffic circulation through the site with the separation of parent drop-off areas and bus loading zones while relocating approximately 144 student/faculty park-

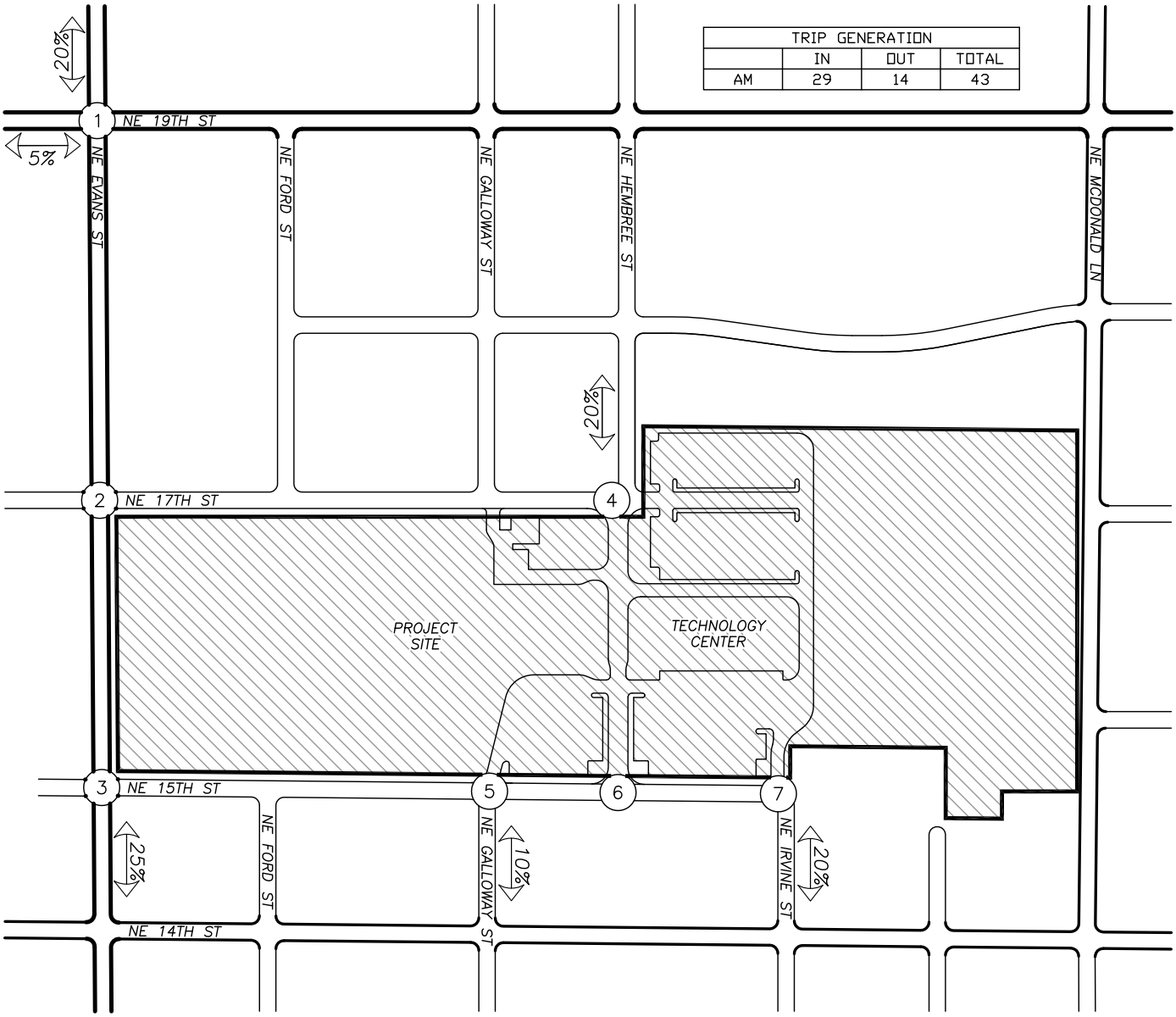
1 Institute of Transportation Engineers (ITE), *Trip Generation Manual, 9th Edition,* 2012.

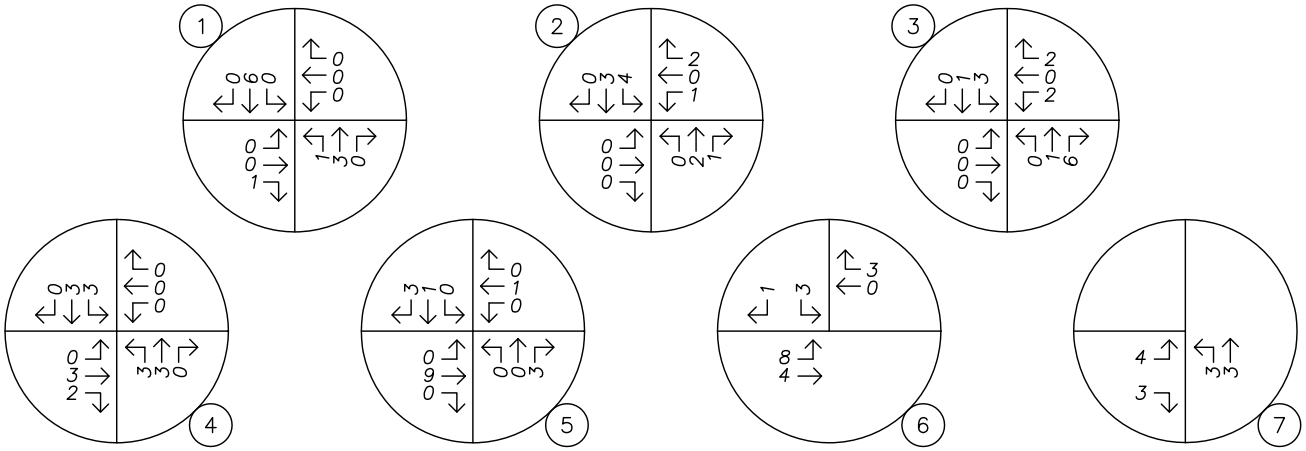
ing spaces to the north side of the property, the following assumptions were made regarding how buses and students/faculty arrive and depart the school:

- Approximately 60 percent of vehicles entering and remaining on the site during the morning peak hour were redirected to the new parking areas on the north end of the campus and the new access from NE 17th Street;
- Approximately 30 percent of vehicles exiting the site that had not arrived during the afternoon peak hour were redirected to the new parking areas and the access from NE 17th Street;
- Approximately 30 percent of the vehicles entering and exiting the site during the evening peak hour were redirected to the new parking areas and the access from NE 17th Street;
- Vehicles exiting via the NE Irvine Street access were redirected to use the school's main access to NE 15th Street; and,
- All bus traffic was redirected to enter via the NE Irvine Street access and exit via the new access to NE 17th Street at NE Humbree Street.

Figure 5 on page 14, Figure 6 on page 15, and Figure 7 on page 16 provide the trip distribution and assignment during the morning, afternoon, and evening peak periods for the increased enrollment of 100 students. Figure 8 on page 17, Figure 9 on page 18, and Figure 10 on page 19 provide the assumed adjustments to traffic circulation resulting from the remodel of the high school campus.

TRIP GENERATION			
	IN	OUT	TOTAL
AM	29	14	43



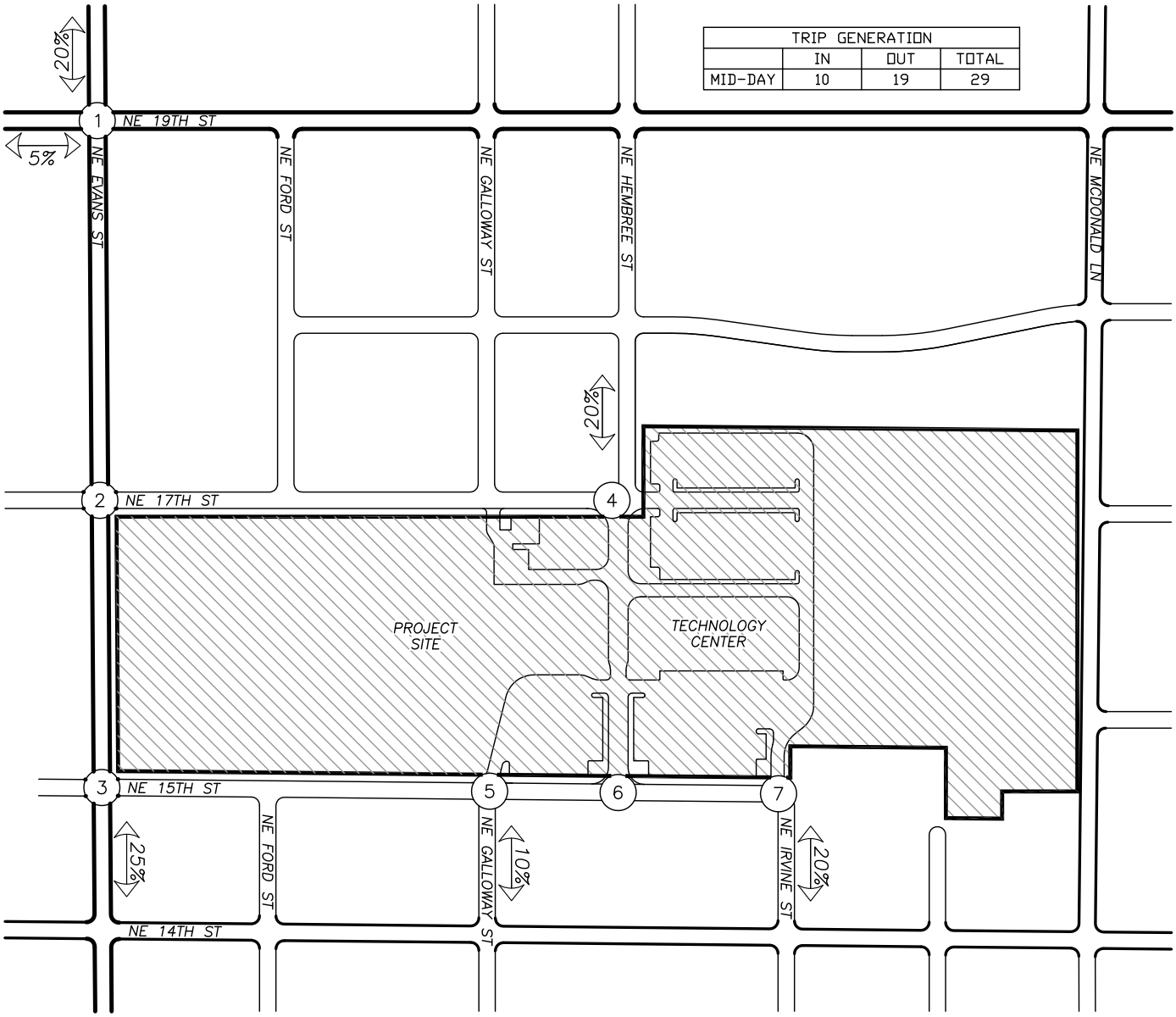


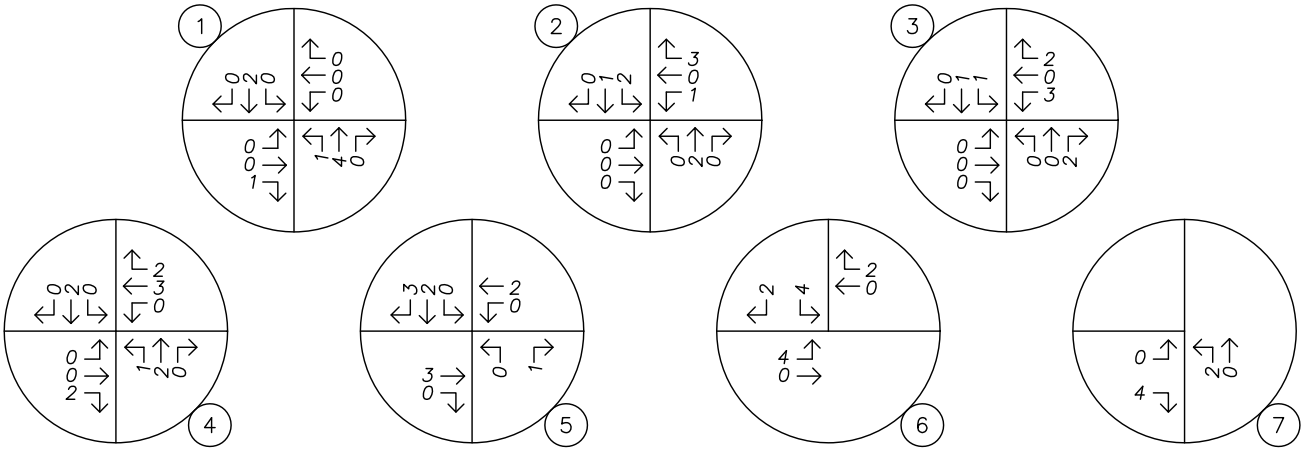
SITE TRIP DISTRIBUTION & ASSIGNMENT
School Remodel (Assumed Increase of 100 Students)
AM Peak Hour

no scale

FIGURE 5

TRIP GENERATION			
	IN	OUT	TOTAL
MID-DAY	10	19	29

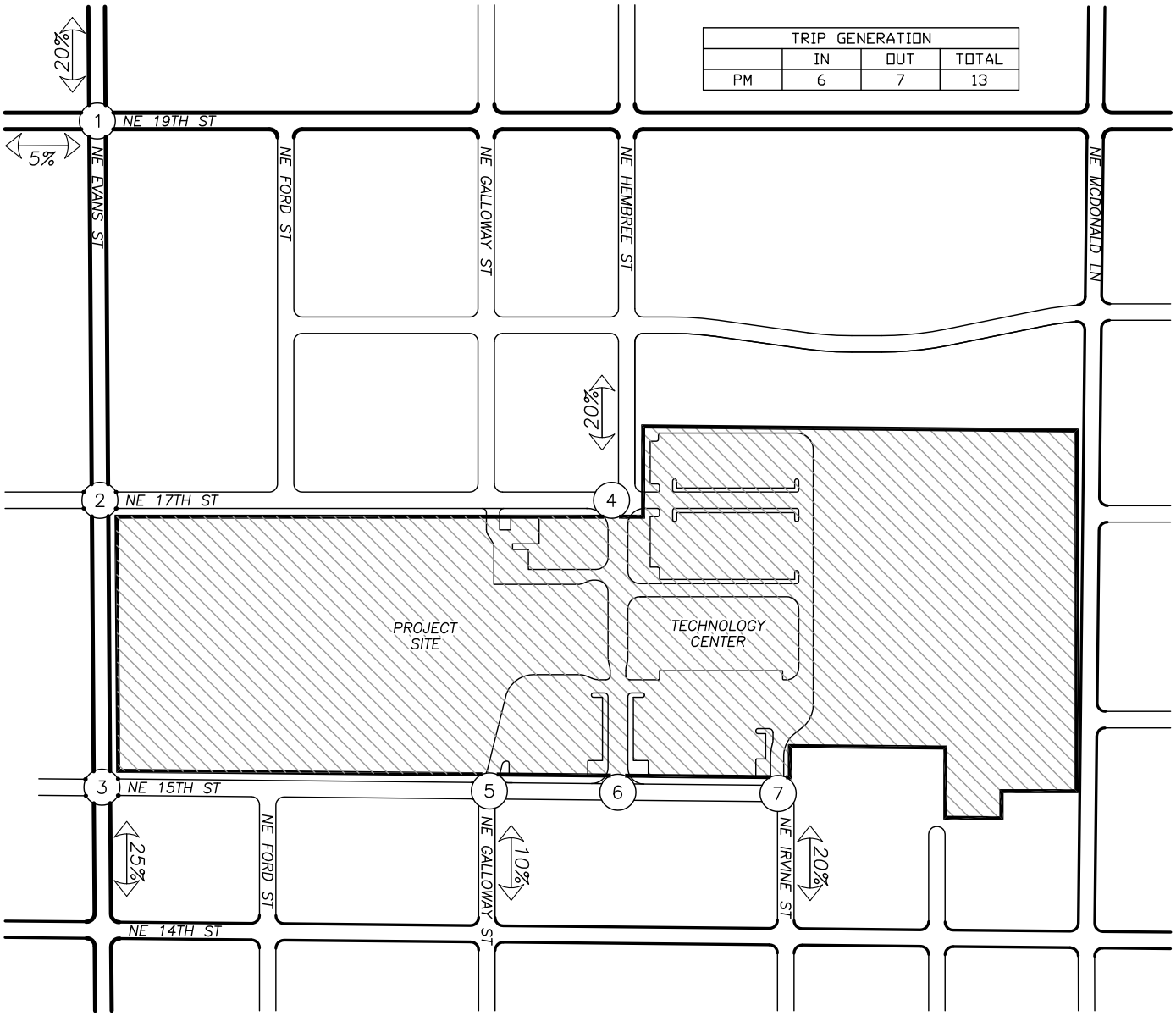


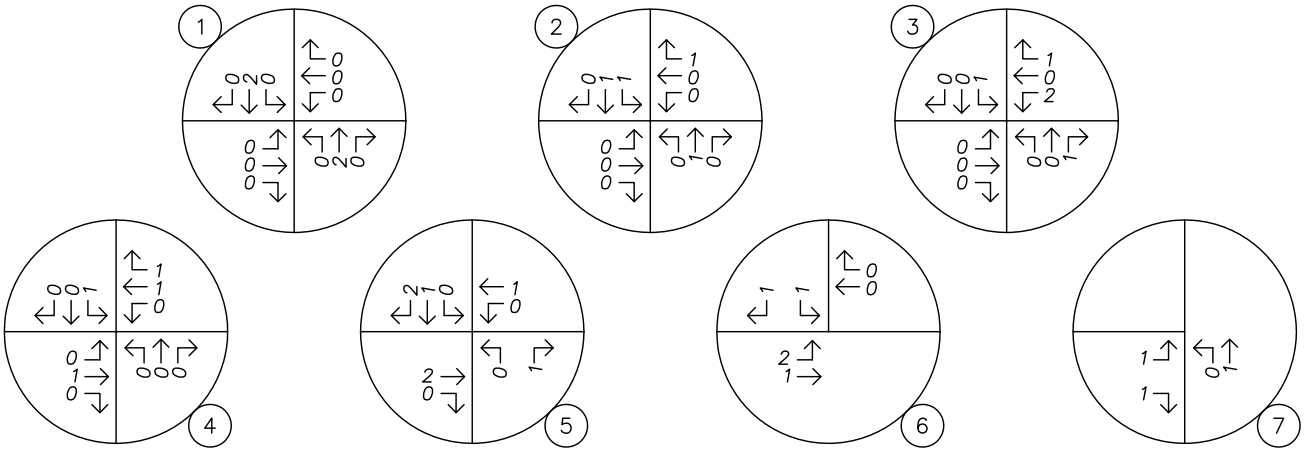


SITE TRIP DISTRIBUTION & ASSIGNMENT
School Remodel (Assumed Increase of 100 Students)
Afternoon Peak Hour

no scale

FIGURE 6

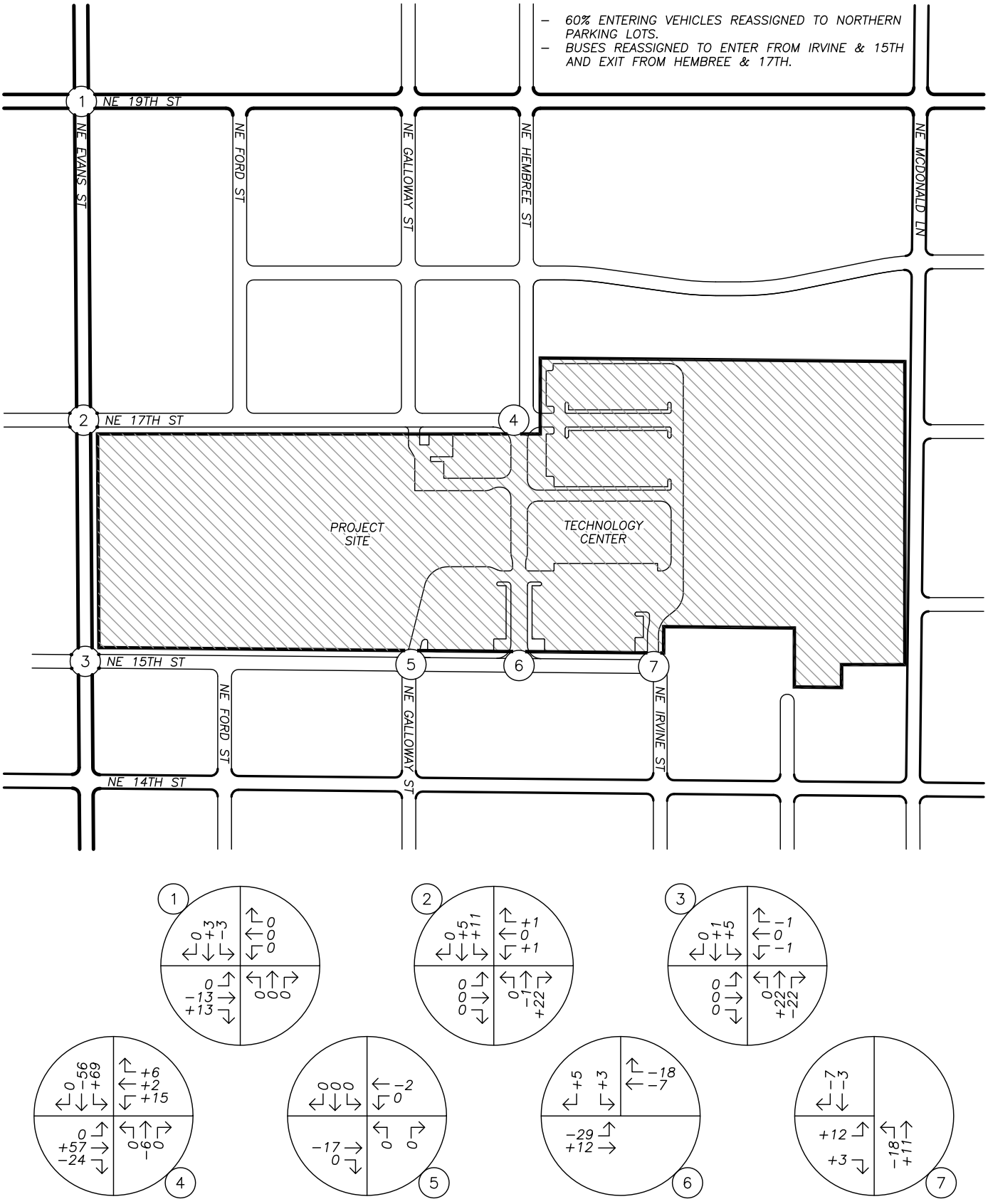




SITE TRIP DISTRIBUTION & ASSIGNMENT
School Remodel (Assumed Increase of 100 Students)
PM Peak Hour

no scale

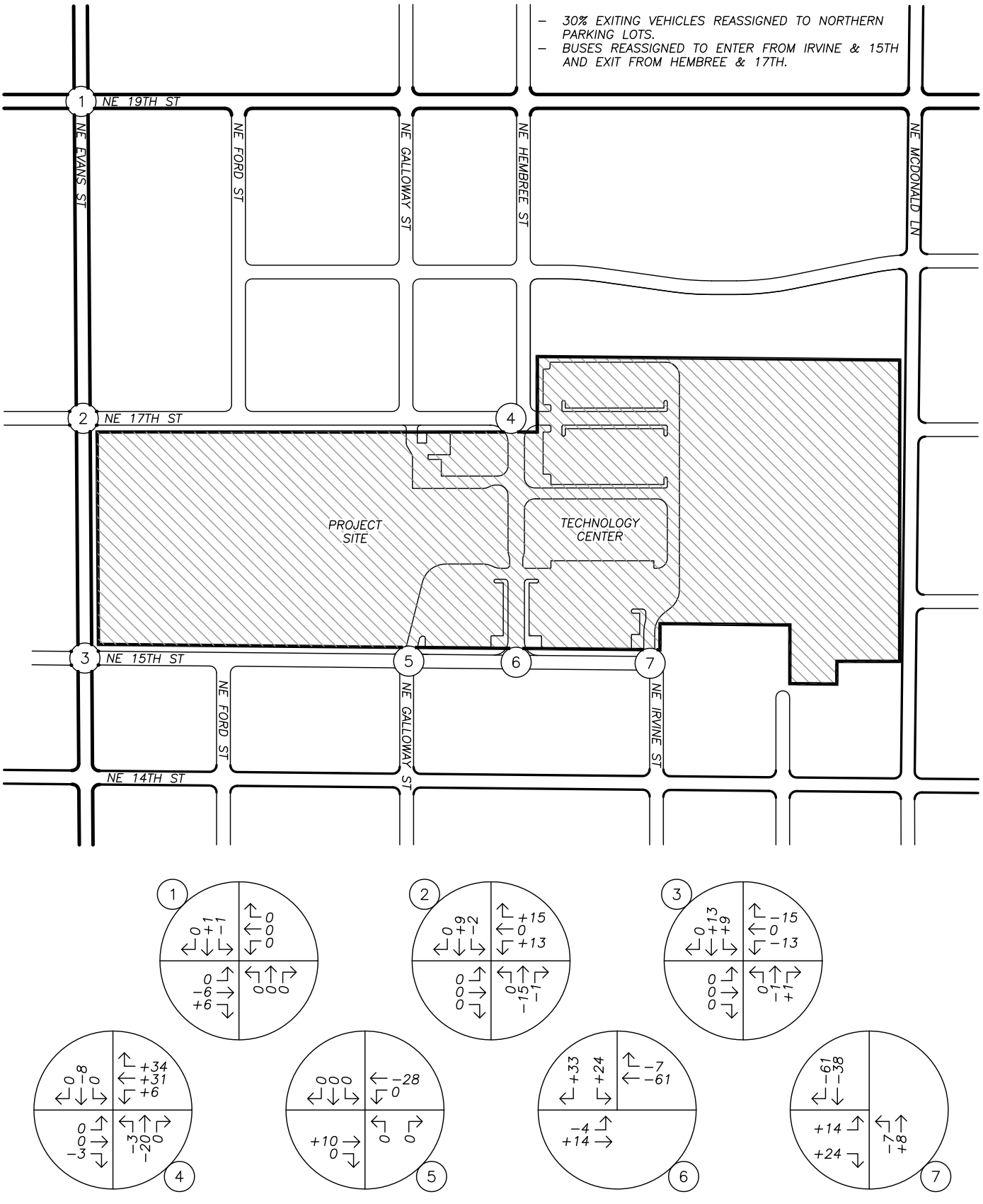
FIGURE 7



SITE TRIP DISTRIBUTION & ASSIGNMENT
Redistribution of Buses and Students/Faculty Trips
AM Peak Hour

no scale

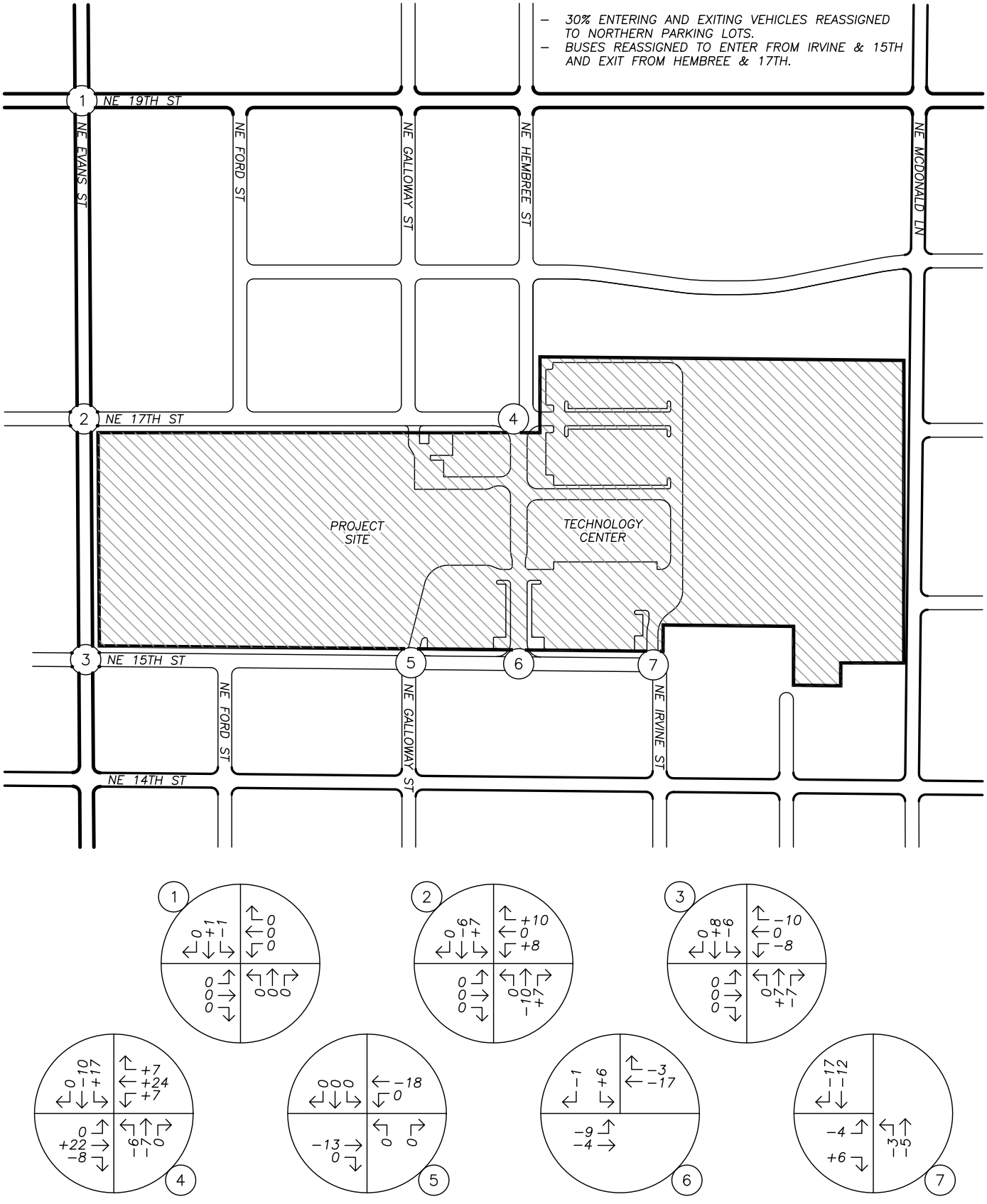
FIGURE 8



SITE TRIP DISTRIBUTION & ASSIGNMENT
Redistribution of Buses and Students/Faculty Trips
Afternoon Peak Hour

no scale

FIGURE 9



SITE TRIP DISTRIBUTION & ASSIGNMENT
Redistribution of Buses and Students/Faculty Trips
PM Peak Hour

no scale

FIGURE 10

Future Traffic Conditions

Background Traffic

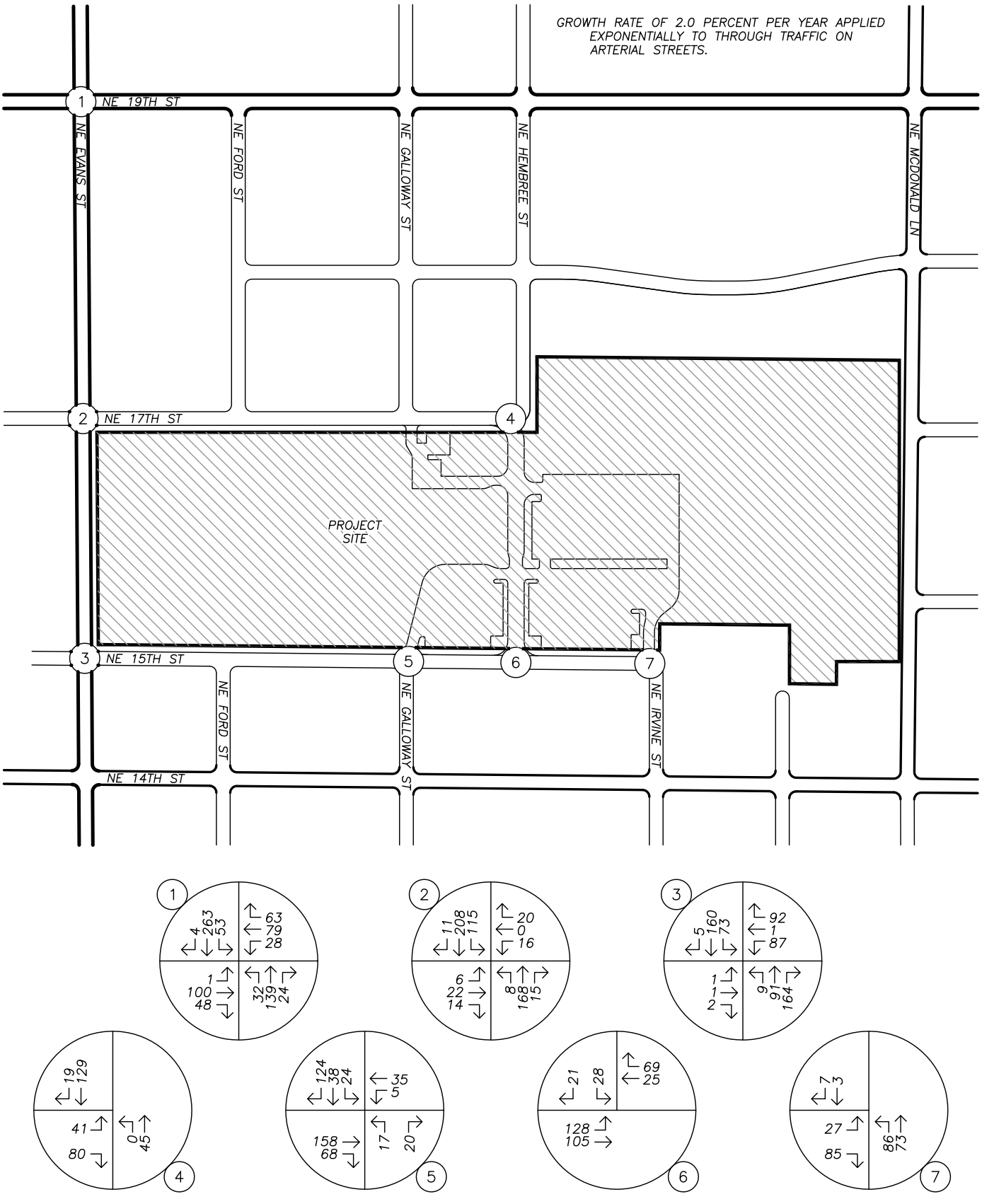
To provide analysis of the impact of the proposed remodel of the high school and alteration of site circulation on the nearby transportation facilities at the time of its projected completion date, an estimate of future traffic volumes is required. This adjustment to traffic volumes accounts for the general growth in the area not associated with the school that may occur during the remodel and construction of four additional classrooms, the technology center, the athletic field house, and expansion to the cafeteria. In order to calculate theses future traffic volumes, a compounded growth rate of two percent per year for an assumed build-out condition of three years was applied to the measured existing through traffic volumes on arterial streets to approximate year 2019 background conditions, when the high school's remodel is projected to be completed and operating.

The projected morning, afternoon, and evening peak hour volumes for year 2019 traffic conditions are shown in Figure 11 on page 21, Figure 12 on page 22, and Figure 13 on page 23.

Background Plus Site Trips

Peak hour trips calculated to be generated by a potential increase in enrollment of 100 students, as described earlier within the Trip Generation & Distribution section, were added to the projected year 2019 background traffic volumes. Adjustments to volumes associated with the alteration of the site circulation and relocation of student/faculty parking to the north of the site were then applied to obtain the expected 2019 background plus site trips.

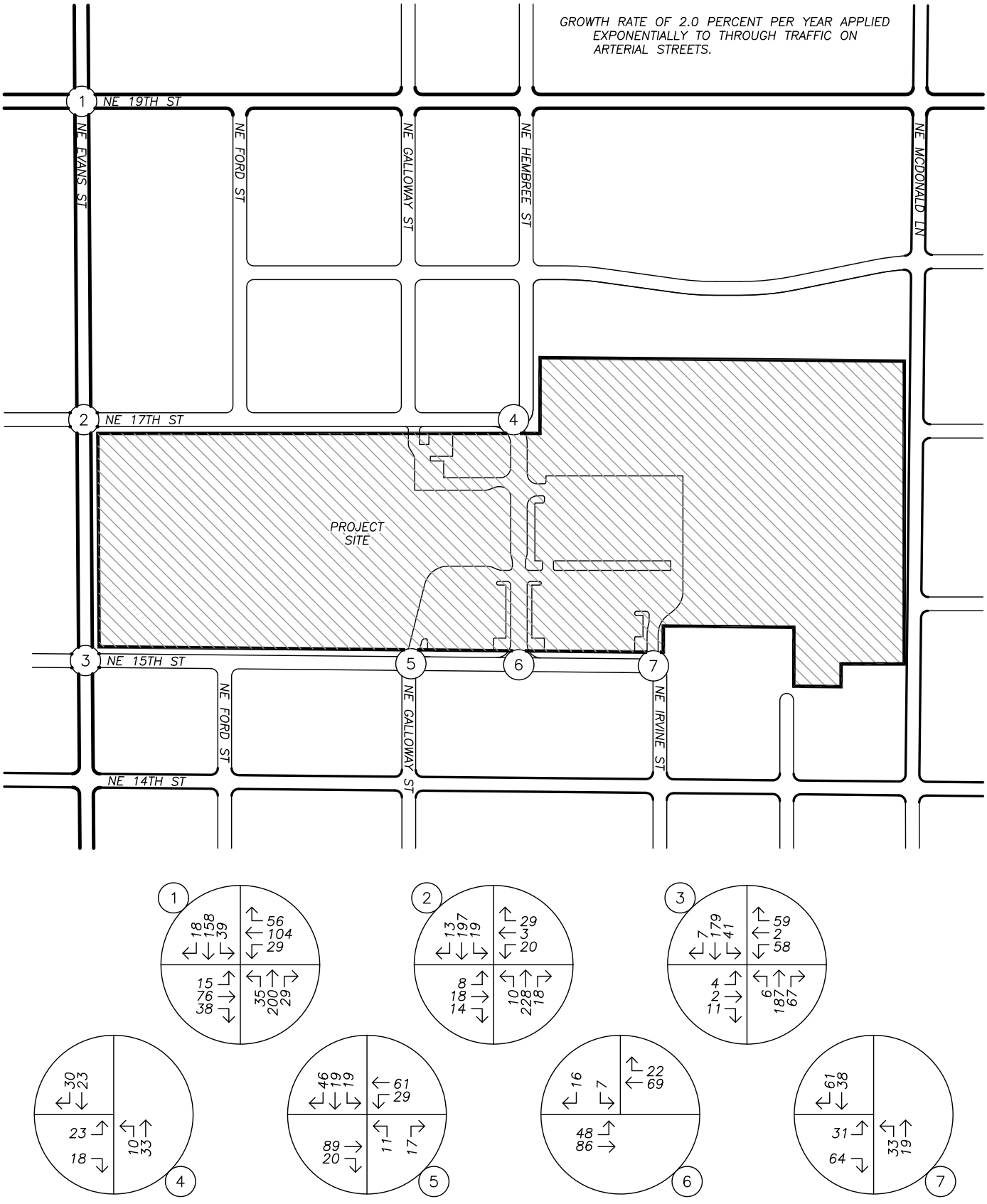
The projected year 2019 traffic volumes after the completion of the proposed remodel are shown in Figure 14 on page 24 for the morning peak hour, Figure 15 on page 25 for the afternoon peak hour, and Figure 16 on page 26 for the evening peak hour.



TRAFFIC VOLUMES
Year 2019 Background Conditions
AM Peak Hour

no scale

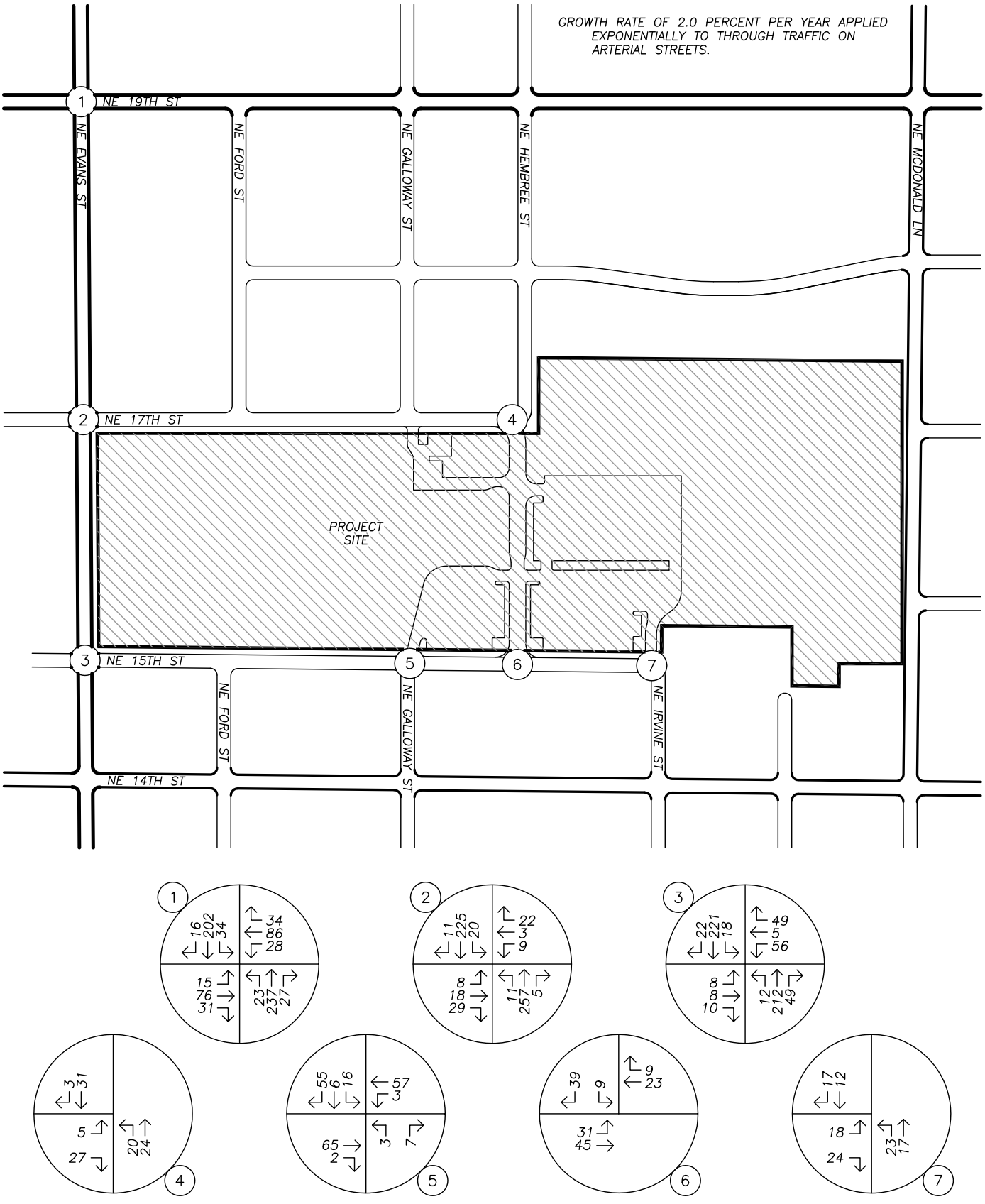
FIGURE 11



TRAFFIC VOLUMES
Year 2019 Background Conditions
Afternoon Peak Hour

no scale

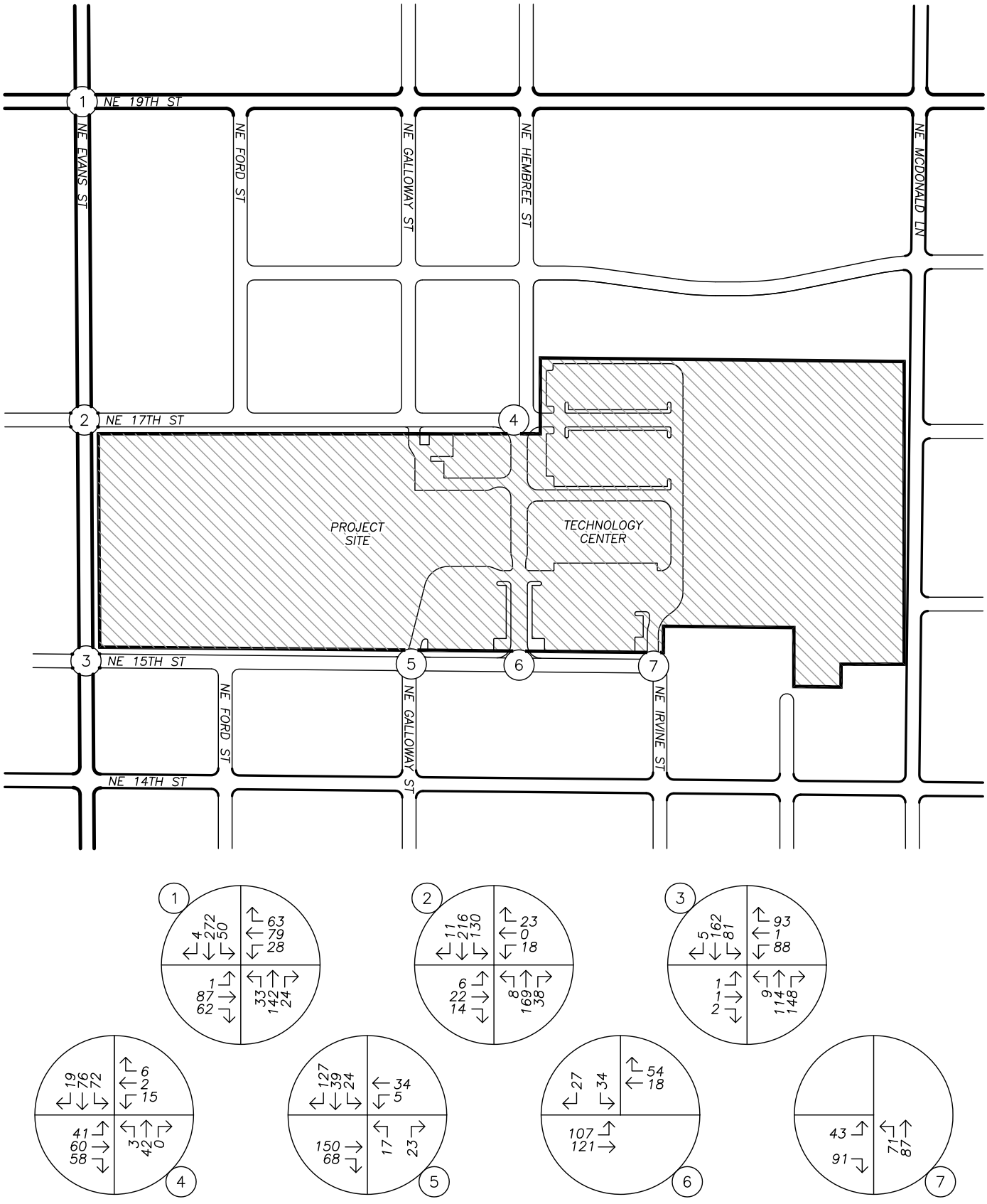
FIGURE 12



TRAFFIC VOLUMES
Year 2019 Background Conditions
PM Peak Hour

no scale

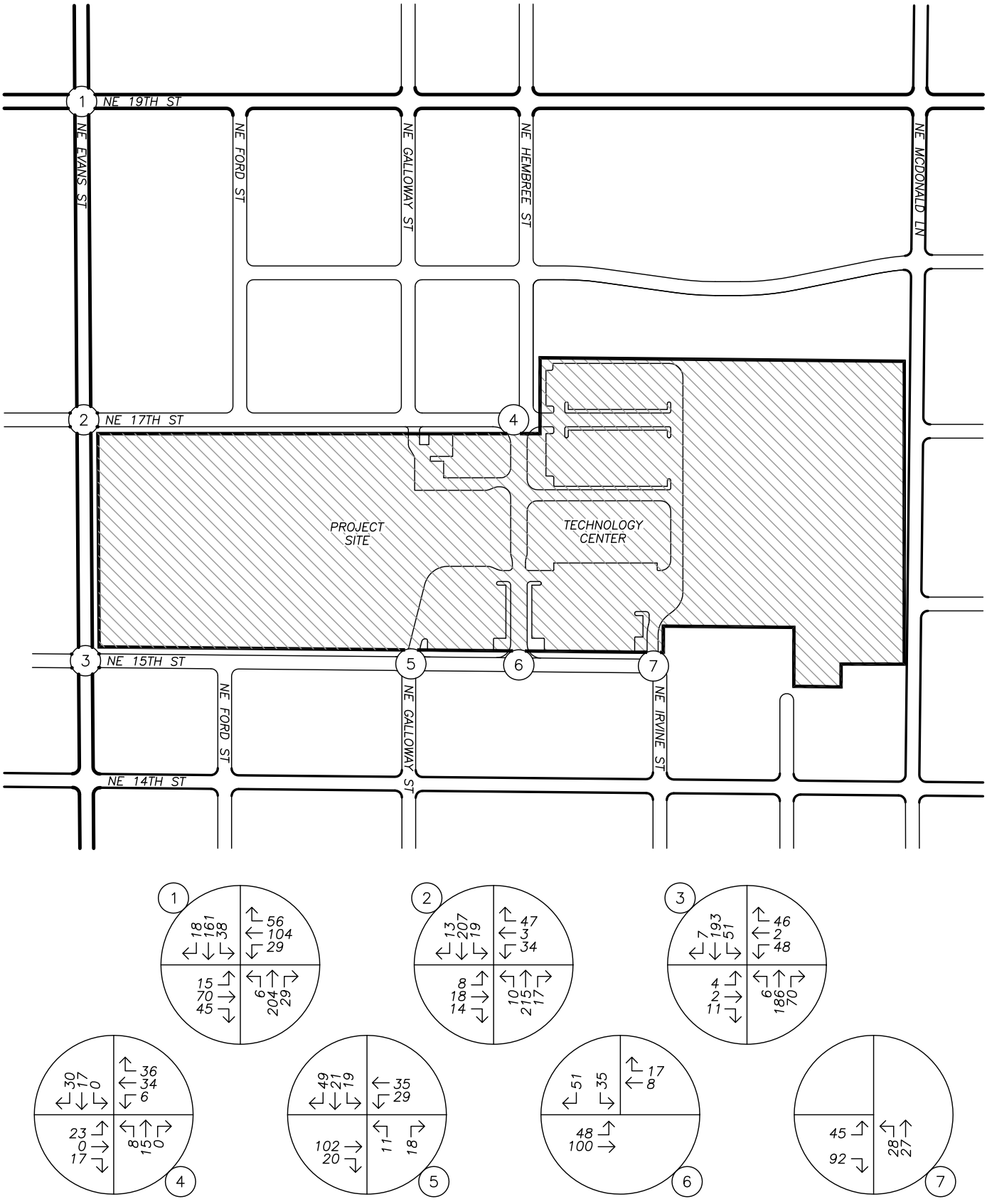
FIGURE 13



TRAFFIC VOLUMES
Year 2019 Site Conditions
AM Peak Hour

no scale

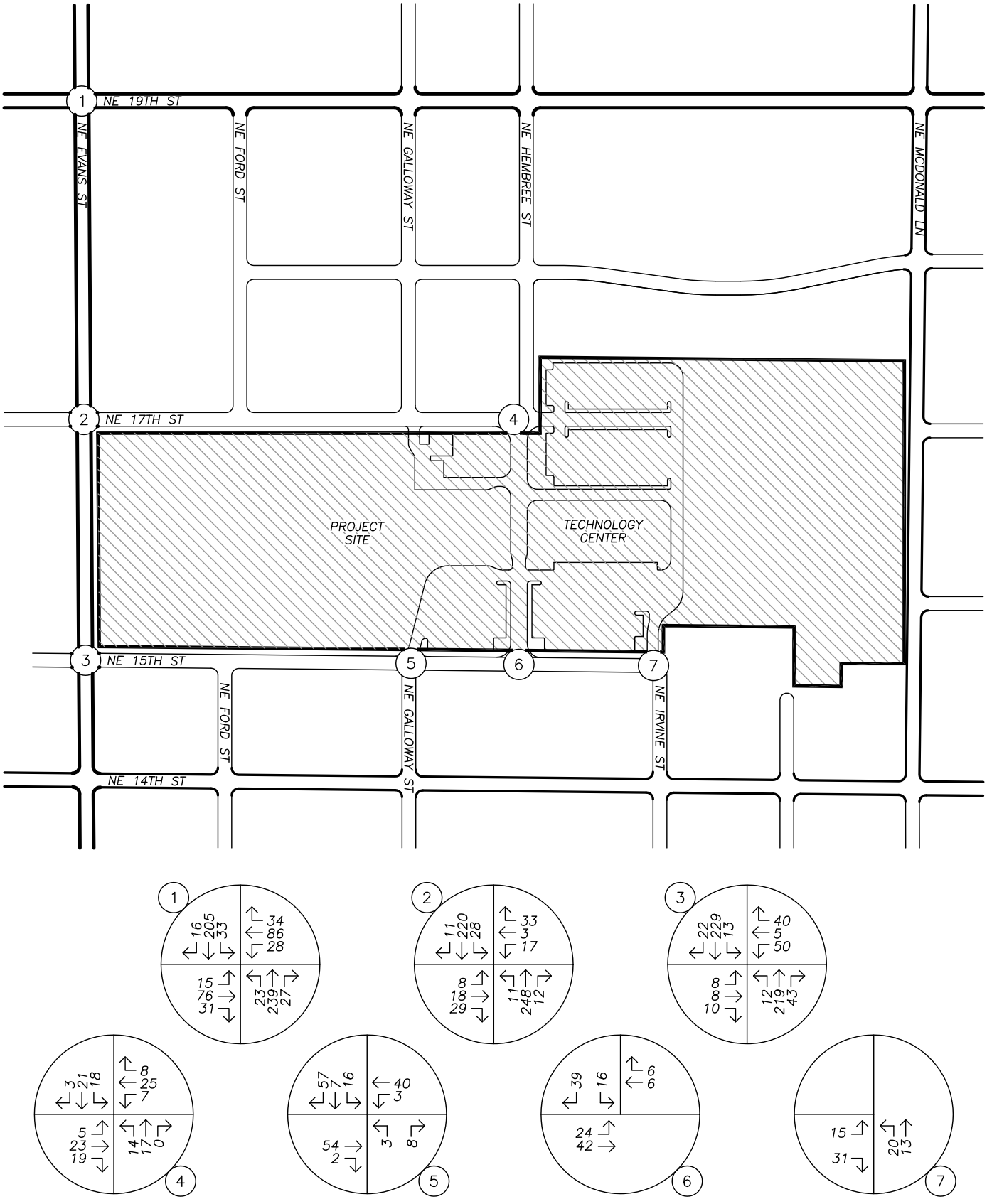
FIGURE 14



TRAFFIC VOLUMES
Year 2019 Site Conditions
Afternoon Peak Hour

no scale

FIGURE 15



TRAFFIC VOLUMES
Year 2019 Site Conditions
PM Peak Hour

no scale

FIGURE 16

Safety Analysis

Crash Data Review

A review of crashes occurring at the study intersections was conducted using the most recent five years of available data (January 2010 to December 2014) obtained from the Oregon Department of Transportation's Crash Analysis and Reporting Unit. The crash data was evaluated based on the number of crashes, the types of collisions, the severity of the collisions, and the crash rate for the intersection. Crash rates allow comparison of safety risks at different intersections by accounting for both the number of crashes occurring and the number of vehicles that travel through the intersection. Crash rates were calculated using the common assumption that traffic counted during the evening peak period represents 10 percent of the annual average daily traffic at the intersection. Crash rates in excess of one to two crashes per million entering vehicles (CMEV) may be indicative of design deficiencies and therefore require a need for further investigation and possible mitigation.

The intersection of NE Evans Street at NE 19th Street had five reported crashes during the analysis period. Three of the crashes were angle collisions, one crash involved a turning vehicle, and one was a rear-end collision. Of the reported crashes, three resulted in property damage only (*PDO*), one resulted in possible injuries or complaints of pain (*Injury-C*), and one resulted in a non-incapacitating injury (*Injury-B*). The crash rate for the intersection was calculated to be 0.36 CMEV.

The intersection of NE Evans Street at NE 17th Street had five reported crashes during the five-year analysis period. These crashes included four angle-type collisions and one crash involving a turning vehicle. Three of the crashes resulted in only property damage, one crash resulted in possible injuries or complaints of pain, and one crash resulted in a non-incapacitating injury. The crash rate was calculated to be 0.46 CMEV.

The intersection of NE Evans Street at NE 15th Street had one reported crash. The crash was a non-collision in which a motorcycle driving too fast for conditions overturned. The crash resulted in the driver suffering an incapacitating injury (*Injury-A*). The crash rate for the intersection was calculated to be 0.08 CMEV.

The intersection of NE Galloway Street at NE 15th Street had one reported crash during the analysis period that involved a vehicle backing into a parked vehicle. Only property damage was reported. The crash rate for the intersection was calculated to be 0.26 CMEV.

No crashes were found to have been reported during the five-year analysis period at any of the remaining study intersections.

Based on a detailed review of the crash history, no significant patterns or contributing design concerns were identified at the study intersections. No safety-specific mitigations are recommended.

Operational Analysis

Capacity Analysis

To determine traffic impacts resulting from the proposed remodel of the McMinnville High School, an operational analysis was conducted for each of the study intersections. The analysis was conducted according to the unsignalized intersection methodologies provided in the *Highway Capacity Manual 2010*[2]. The analysis periods included morning, afternoon, and evening peak hours for existing conditions, year 2019 background conditions, year 2019 background plus site trips projected to result from a potential increased enrollment of 100 students.

Per Chapter 2 of the City of McMinnville's Transportation System Plan, intersections under the jurisdiction of the City must operate with a volume-to-capacity (v/c) ratio of 0.90 or less. The v/c ratio compares the actual traffic to the potential capacity to determine the portion that is utilized by traffic.

The intersection of NE Evans Street at NE 19th Street is currently operating with a v/c ratio of 0.74 or better during all studied peak periods. With the proposed remodel of the high school, the intersection is projected to operate with a v/c ratio of 0.84 during the morning peak hour, 0.54 during the afternoon peak hour, and 0.50 during the evening peak hour.

After the western leg is added to the intersection of NE Hembree Street at NE 17th Street, the intersection is projected to operate with a v/c ratio of 0.45 or better during all peak periods.

With reduced traffic volumes projected for NE 15th Street due to the alterations to site circulation, each of the school's access intersections are projected to continue to operate acceptably following the proposed remodel.

The results of the capacity analysis, along with the levels of service, calculated delay, and volume-to-capacity ratios are shown in the table on the following page. Detailed calculations, as well as tables showing the relationships between delay and level of service, are included in the appendix to this report.

2 Transportation Research Board, *Highway Capacity Manual 2010,* 2010.

CAPACITY ANALYSIS SUMMARY

	AM Peak Hour			Afternoon Peak Hour			PM Peak Hour		
	LOS	Delay (s)	V / C	LOS	Delay (s)	V / C	LOS	Delay (s)	V / C
NE Evans St at NE 19th St									
2016 Existing	C	18	0.74	B	13	0.48	B	12	0.46
2019 Background	C	22	0.82	B	13	0.53	B	13	0.50
2019 Background + Site	C	25	0.84	B	14	0.54	B	13	0.50
NE Evans St at NE 17th St									
2016 Existing	C	22	0.23	C	16	0.14	B	12	0.11
2019 Background	C	23	0.24	C	16	0.14	B	13	0.11
2019 Background + Site	D	27	0.28	C	16	0.24	B	13	0.11
NE Evans St at NE 15th St									
2016 Existing	B	12	0.48	B	11	0.41	A	10	0.34
2019 Background	B	12	0.49	B	11	0.43	A	10	0.36
2019 Background + Site	B	13	0.51	B	11	0.43	A	10	0.36
NE Hembree St at NE 17th St									
2016 Existing	A	10	0.37	A	8	0.11	A	7	0.07
2019 Background	A	10	0.37	A	8	0.11	A	7	0.07
2019 Background + Site	B	11	0.45	A	8	0.17	A	7	0.07
NE Galloway St at NE 15th St									
2016 Existing	C	16	0.33	C	18	0.20	A	10	0.09
2019 Background	C	16	0.33	C	18	0.20	A	10	0.09
2019 Background + Site	C	16	0.33	C	17	0.13	A	10	0.09
Main School Access at NE 15th St									
2016 Existing	B	14	0.16	B	11	0.07	A	9	0.08
2019 Background	B	14	0.16	B	11	0.07	A	9	0.08
2019 Background + Site	B	13	0.18	B	12	0.23	A	9	0.09
NE Irvine St at NE 15th St									
2016 Existing	B	10	0.04	B	12	0.33	A	9	0.04
2019 Background	B	10	0.04	B	12	0.33	A	9	0.04
2019 Background + Site	A	8	0.07	A	8	0.08	A	7	0.01

Based on the detailed analysis, each of the study intersections are projected to operate within the City of McMinnville's operational standards through year 2019, regardless of the proposed remodel of the school or alterations to site circulation. Accordingly, no operational mitigations are recommended.

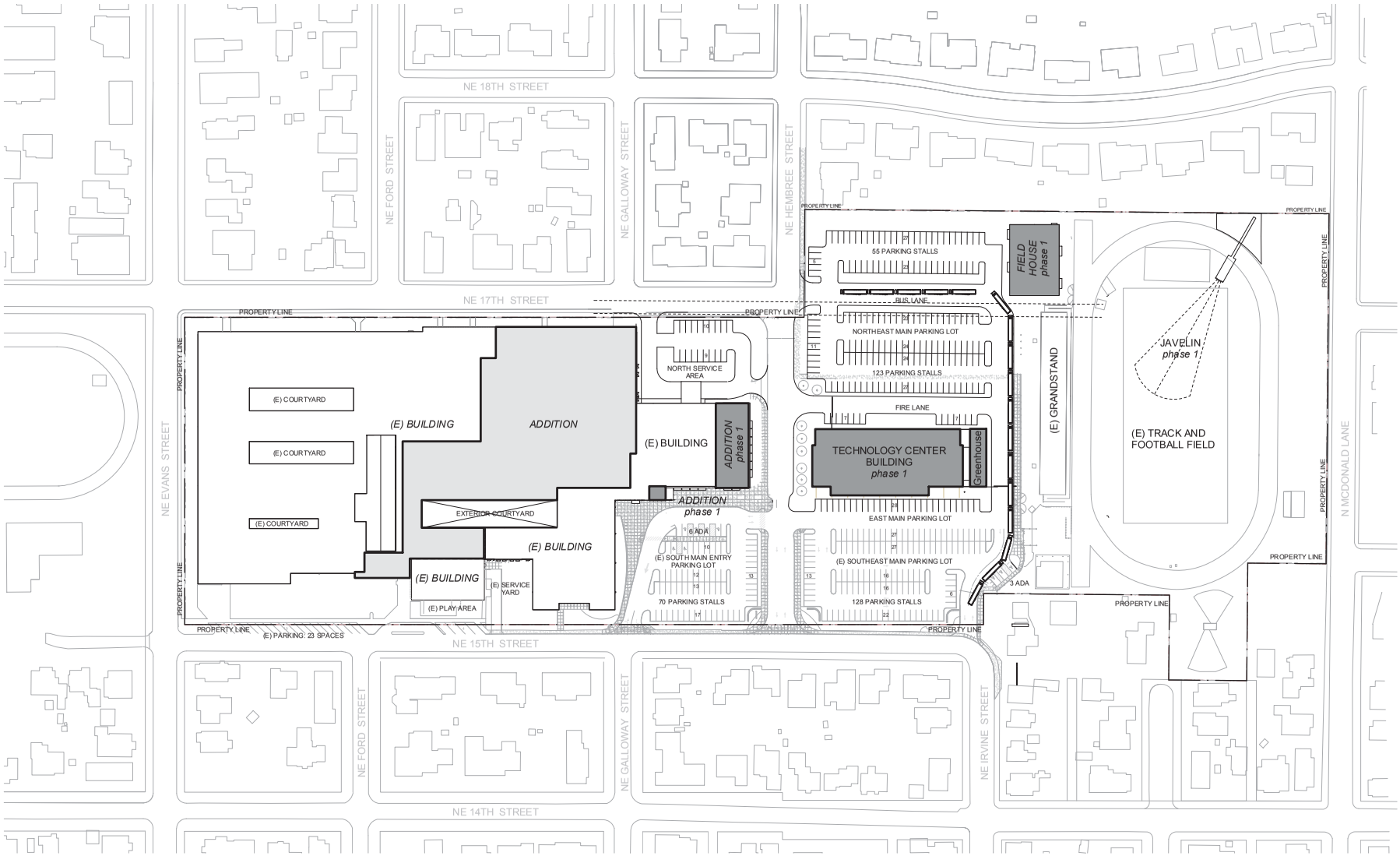
Conclusions

All study intersections are projected to operate within the performance standards established by the City of McMinnville through year 2019, with or without the alterations to site circulation from the proposed remodel of the McMinnville High School or the additional trips that would result from the potential increased enrollment of 100 students.

Based on a detailed review of the crash history, no significant patterns or contributing design concerns were identified at the study intersections.

Based on the detailed analysis, the transportation system in the vicinity of the McMinnville High School can safely and efficiently support the proposed remodel of the school campus as well as the alterations to site circulation. No operational or safety mitigations are recommended in conjunction with the proposed development.

Appendix



OVERALL SITE PLAN NEW CONSTRUCTION

SCALE: 1" = 60'-0"

1

9/23/2016 10:05:22 AM
C:\DOWA projects\16029 McMinnville HS Reno_melissa.march.rvt

MCMINNVILLE SCHOOL DISTRICT
1500 NE Baker Street McMinnville OR 97205
tel 503.565.4000 fax 503.565.4030
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Dull Olson Weekes - IBI Group Architects, Inc.
907 SW Stark Street Portland, OR 97205 USA
tel 503.226.6650 fax 503.273.9182
www.dowa-ibigroup.com www.ibigroup.com

NOT FOR CONSTRUCTION

McMinnville High School Addition and Remodel - Phase 1

McMinnville School District
615 NE 15th Street, McMinnville, OR 97128
t.: (503) 565.4000
f.: (503) 565.4030

key plan

phase | SCHEMATIC

date | 09/23/16

revisions

project # | 16029

OVERALL SITE PLAN NEW CONSTRUCTION

A2.00

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE Evans St at NE 19th St**		
Location	45.22 - -123.19		
Start Date	9/20/2016		
Start Time	7:00AM		
Key Data Summary			
Peak Hour Start	7:25AM	System Peak Hour Start	
Peak 15 Min Start	8:00AM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.64	PHF (15-Min Interval)	0.68

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
32	130	20	51	260	5	1	93	46	25	68	58	331	189	105	164	182	316	140	151

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0.0%	3.1%	25.0%	5.9%	0.8%	20.0%	0.0	15.1%	4.3%	12.0%	1.5%	3.4%	2.1%	3.2%	1.9%	13.4%	4.9%	1.9%	11.4%	4.0%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
1	6	7	21

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound			
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM	0	7	0	0	2	4	1	0	0	2	1	0	1	2	1	0
7:05AM	0	4	1	0	3	8	0	0	0	4	2	0	0	4	3	0
7:10AM	0	10	1	0	1	8	0	0	0	1	0	0	0	2	2	0
7:15AM	0	3	1	0	1	8	0	0	0	6	1	0	1	2	1	0
7:20AM	2	2	0	0	4	28	0	0	0	8	1	0	3	1	0	0
7:25AM	2	7	3	0	2	19	1	0	0	3	1	0	0	2	3	0
7:30AM	1	7	1	0	1	17	0	0	0	3	1	0	2	3	3	0
7:35AM	0	6	1	0	2	19	0	0	0	3	1	0	2	5	2	0
7:40AM	1	8	1	0	3	12	0	0	0	2	5	0	0	5	4	0
7:45AM	2	5	2	0	8	18	0	0	0	7	4	0	1	4	3	0
7:50AM	1	12	2	0	5	16	0	0	0	6	4	0	0	6	6	0
7:55AM	3	14	0	0	2	31	0	0	0	12	4	0	7	6	4	0
8:00AM	4	17	1	0	4	23	1	0	0	20	6	0	1	7	4	0
8:05AM	6	12	5	0	8	33	0	0	1	12	7	0	1	7	6	0
8:10AM	3	19	3	0	4	35	3	0	0	14	5	0	4	4	9	0
8:15AM	4	12	0	0	10	26	0	0	0	8	5	0	4	9	8	0
8:20AM	5	11	1	0	2	11	0	0	0	3	3	0	3	10	6	0
8:25AM	0	8	6	0	1	7	0	0	0	4	0	0	1	8	4	0
8:30AM	0	6	0	0	1	6	1	0	0	2	1	0	1	4	1	0
8:35AM	0	4	0	0	0	8	0	0	0	8	1	0	1	3	2	0
8:40AM	1	3	2	0	3	10	0	0	0	10	2	0	2	4	3	0
8:45AM	1	6	1	0	3	7	1	0	0	5	1	0	1	5	1	0
8:50AM	1	4	2	0	3	6	0	0	0	4	2	0	2	4	0	0
8:55AM	0	7	0	0	1	7	2	0	0	4	0	0	1	1	5	0

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM	0	7	0	0	2	4	1	0	0	2	1	0	0	2	1	0
7:05AM	0	4	1	0	2	8	0	0	0	4	2	0	0	4	2	0
7:10AM	0	9	1	0	1	8	0	0	0	1	0	0	0	1	2	0
7:15AM	0	3	1	0	1	7	0	0	0	5	1	0	0	2	0	0
7:20AM	2	2	0	0	4	28	0	0	0	8	1	0	2	1	0	0
7:25AM	2	7	2	0	2	19	0	0	0	2	1	0	0	1	3	0
7:30AM	1	7	1	0	1	17	0	0	0	3	1	0	2	3	3	0
7:35AM	0	6	1	0	2	19	0	0	0	3	1	0	2	5	2	0
7:40AM	1	7	1	0	3	12	0	0	0	2	5	0	0	5	3	0
7:45AM	2	5	1	0	8	18	0	0	0	7	3	0	1	4	3	0
7:50AM	1	12	2	0	5	16	0	0	0	6	4	0	0	6	6	0
7:55AM	3	13	0	0	2	31	0	0	0	11	4	0	4	6	4	0
8:00AM	4	17	1	0	4	22	1	0	0	16	5	0	1	7	4	0
8:05AM	6	12	3	0	8	32	0	0	1	11	7	0	1	7	5	0
8:10AM	3	18	3	0	4	35	3	0	0	9	5	0	4	4	9	0
8:15AM	4	12	0	0	7	26	0	0	0	6	5	0	4	9	8	0
8:20AM	5	10	0	0	2	11	0	0	0	3	3	0	3	10	6	0
8:25AM	0	8	3	0	1	7	0	0	0	4	0	0	1	6	4	0
8:30AM	0	6	0	0	1	4	1	0	0	2	1	0	1	3	1	0
8:35AM	0	4	0	0	0	8	0	0	0	5	1	0	1	3	1	0
8:40AM	1	3	2	0	3	10	0	0	0	6	2	0	2	3	3	0
8:45AM	1	6	1	0	3	7	1	0	0	3	1	0	1	5	1	0
8:50AM	1	4	2	0	3	6	0	0	0	3	2	0	2	4	0	0
8:55AM	0	7	0	0	1	7	2	0	0	4	0	0	1	1	3	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:05AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:10AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:15AM	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0
7:20AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:25AM	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0
7:30AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:35AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:40AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
7:50AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:55AM	0	1	0	0	0	0	0	0	0	1	0	0	3	0	0	0
8:00AM	0	0	0	0	0	1	0	0	0	4	1	0	0	0	0	0
8:05AM	0	0	2	0	0	1	0	0	0	1	0	0	0	0	1	0
8:10AM	0	1	0	0	0	0	0	0	0	5	0	0	0	0	0	0
8:15AM	0	0	0	0	3	0	0	0	0	2	0	0	0	0	0	0
8:20AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:25AM	0	0	3	0	0	0	0	0	0	0	0	0	0	2	0	0
8:30AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
8:35AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0
8:40AM	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0
8:45AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:50AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:55AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
7:00AM	0	1	1	0
7:05AM	0	0	0	2
7:10AM	0	0	0	1
7:15AM	1	0	0	0
7:20AM	0	0	0	0
7:25AM	1	0	0	0
7:30AM	0	0	0	0
7:35AM	0	0	0	0
7:40AM	0	1	2	0
7:45AM	0	1	0	2
7:50AM	0	2	0	8
7:55AM	0	2	0	6
8:00AM	0	0	1	2
8:05AM	0	0	0	2
8:10AM	0	0	2	1
8:15AM	0	0	2	0
8:20AM	0	0	0	0
8:25AM	0	0	2	1
8:30AM	0	2	2	2
8:35AM	0	0	0	0
8:40AM	0	0	0	0
8:45AM	0	0	0	0
8:50AM	0	1	0	1
8:55AM	0	0	0	0

K-D-N
KEY DATA NETWORK

Count Name: NE Evans St at NE 19th St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
189	316	505
0	0	0
189	**316**	**505**

5	260	51
0	0	0
R	**T**	**L**

Total	245	0	**245**
In	140	0	**140**
Out	105	0	**105**

1	0	**L**
93	0	**T**
46	0	**R**

Peak Hour Summary

7:25AM to 8:20AM

Lights
Other Vehicles

L	**T**	**R**
32	130	20
0	0	0

331	182	513
0	0	0
331	**182**	**513**
Out	In	Total

Northbound Approach

R	0	58
T	0	68
L	0	25

164	164	164	Out
151	151	151	In
315	315	315	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE Evans St at NE 19th St**		
Location	45.22 - -123.19		
Start Date	9/20/2016		
Start Time	7:00AM		
Key Data Summary			
Peak Hour Start	2:45PM	System Peak Hour Start	
Peak 15 Min Start	3:25PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.74	PHF (15-Min Interval)	0.80

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
30	188	27	35	159	14	14	71	34	31	100	54	224	256	144	133	245	208	119	185

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
6.7%	4.8%	11.1%	2.9%	3.8%	7.1%	0.0	5.6%	2.9%	6.5%	8.0%	3.7%	4.0%	4.3%	7.6%	6.0%	5.7%	3.8%	4.2%	6.5%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
9	10	3	57

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
2:00PM	2	14	2	0	1	10	1	0	1	1	2	0	1	4	3	0	42
2:05PM	2	12	2	0	4	7	1	0	2	4	3	0	1	4	0	0	42
2:10PM	1	25	4	0	1	10	1	0	0	1	4	0	2	6	3	0	58
2:15PM	3	27	4	0	3	8	1	0	1	3	1	0	1	7	3	0	62
2:20PM	3	15	3	0	2	9	2	0	3	3	2	0	2	9	2	0	55
2:25PM	3	25	2	0	3	5	1	0	0	9	2	0	2	6	2	0	60
2:30PM	1	26	3	0	6	6	1	0	1	3	2	0	1	4	2	0	56
2:35PM	3	18	2	0	4	6	2	0	1	7	2	0	4	9	2	0	60
2:40PM	0	12	1	0	5	8	0	0	2	4	2	0	2	7	3	0	46
2:45PM	0	16	2	0	2	12	1	0	1	4	4	0	5	8	6	0	61
2:50PM	1	14	2	0	3	16	0	0	0	7	0	0	3	4	1	0	51
2:55PM	0	15	3	0	2	15	0	0	3	0	3	0	0	5	0	0	46
3:00PM	1	11	4	0	2	11	1	0	0	14	2	0	2	5	6	0	59
3:05PM	2	14	1	0	3	17	0	0	1	6	4	0	3	9	5	0	65
3:10PM	1	10	2	0	5	15	3	0	2	2	3	0	4	7	3	0	57
3:15PM	1	12	1	0	5	12	0	0	3	11	6	0	6	5	5	0	67
3:20PM	0	16	2	0	5	13	1	0	0	5	5	0	4	5	2	0	58
3:25PM	6	20	0	0	3	13	1	0	0	6	3	0	0	15	7	0	74
3:30PM	5	18	4	0	4	13	3	0	2	6	1	0	3	12	7	0	78
3:35PM	8	22	4	0	1	11	2	0	0	7	3	0	0	16	11	0	85
3:40PM	5	20	2	0	0	11	2	0	2	3	0	0	1	9	1	0	56
3:45PM	2	14	2	0	5	10	2	0	0	4	3	0	3	6	3	0	54
3:50PM	2	16	2	0	2	8	2	0	1	8	3	0	1	4	3	0	52
3:55PM	2	17	0	0	3	8	0	0	1	3	0	0	2	7	1	0	44

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM	2	14	2	0	1	10	1	0	1	1	2	0	1	2	3	0
2:05PM	2	12	2	0	3	7	1	0	2	4	3	0	1	2	0	0
2:10PM	1	25	4	0	1	9	1	0	0	1	4	0	2	6	3	0
2:15PM	3	27	4	0	3	8	1	0	1	3	1	0	1	6	3	0
2:20PM	3	12	2	0	2	9	2	0	3	3	2	0	2	4	2	0
2:25PM	3	25	2	0	3	5	1	0	0	9	2	0	0	5	2	0
2:30PM	1	26	3	0	6	6	1	0	1	3	2	0	0	4	2	0
2:35PM	2	18	2	0	4	6	2	0	1	7	2	0	4	9	1	0
2:40PM	0	12	1	0	5	7	0	0	2	4	1	0	2	6	3	0
2:45PM	0	16	2	0	2	12	1	0	1	4	4	0	5	8	6	0
2:50PM	1	13	2	0	3	16	0	0	0	7	0	0	3	4	1	0
2:55PM	0	14	1	0	2	15	0	0	3	0	3	0	0	5	0	0
3:00PM	1	11	4	0	2	10	1	0	0	13	2	0	2	5	5	0
3:05PM	2	13	1	0	3	13	0	0	1	6	4	0	3	7	5	0
3:10PM	1	10	2	0	5	15	3	0	2	2	3	0	2	5	3	0
3:15PM	1	11	1	0	4	12	0	0	3	10	5	0	6	5	5	0
3:20PM	0	15	2	0	5	13	1	0	0	4	5	0	4	4	2	0
3:25PM	6	19	0	0	3	12	1	0	0	6	3	0	0	15	7	0
3:30PM	5	18	4	0	4	13	3	0	2	5	1	0	3	12	7	0
3:35PM	7	20	3	0	1	11	2	0	0	7	3	0	0	13	10	0
3:40PM	4	19	2	0	0	11	1	0	2	3	0	0	1	9	1	0
3:45PM	2	14	2	0	5	10	2	0	0	3	3	0	3	6	3	0
3:50PM	2	16	2	0	2	8	2	0	1	8	3	0	1	4	3	0
3:55PM	2	17	0	0	3	8	0	0	1	2	0	0	2	7	1	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
2:05PM	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0
2:10PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:15PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2:20PM	0	3	1	0	0	0	0	0	0	0	0	0	0	5	0	0
2:25PM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0
2:30PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2:35PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:40PM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0
2:45PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:50PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:55PM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0
3:05PM	0	1	0	0	0	4	0	0	0	0	0	0	0	2	0	0
3:10PM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0
3:15PM	0	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0
3:20PM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0
3:25PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:30PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:35PM	1	2	1	0	0	0	0	0	0	0	0	0	0	3	1	0
3:40PM	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
3:45PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:50PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:55PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
2:00PM	0	0	0	0
2:05PM	0	0	0	0
2:10PM	0	2	2	2
2:15PM	0	0	0	2
2:20PM	0	1	0	0
2:25PM	0	0	0	0
2:30PM	0	0	0	1
2:35PM	0	1	4	1
2:40PM	0	0	0	0
2:45PM	0	0	1	1
2:50PM	0	0	0	2
2:55PM	0	1	0	0
3:00PM	0	0	0	0
3:05PM	1	2	0	1
3:10PM	1	0	0	3
3:15PM	0	0	0	1
3:20PM	0	0	0	0
3:25PM	2	0	1	15
3:30PM	3	4	1	21
3:35PM	1	3	0	7
3:40PM	1	0	0	6
3:45PM	2	0	1	4
3:50PM	0	0	0	1
3:55PM	0	0	1	1

K-D-N
KEY DATA NETWORK

Count Name: NE Evans St at NE 19th St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
256	208	464
0	0	0
256	**208**	**464**

14	159	35
0	0	0
R	**T**	**L**

Total	263	0	**263**
In	119	0	**119**
Out	144	0	**144**

14	0	**L**
71	0	**T**
34	0	**R**

Peak Hour Summary

2:45PM to 3:40PM

Lights
Other Vehicles

L	**T**	**R**
30	188	27
0	0	0

224	245	469
0	0	0
224	**245**	**469**
Out	In	Total

Northbound Approach

R	0	54
T	0	100
L	0	31

133	133	133	Out
185	185	185	In
318	318	318	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE Evans St at NE 19th St**		
Location	45.22 - -123.19		
Start Date	9/20/2016		
Start Time	7:00AM		
Key Data Summary			
Peak Hour Start	4:40PM	System Peak Hour Start	
Peak 15 Min Start	5:05PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.80	PHF (15-Min Interval)	0.91

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
20	219	27	46	190	22	19	67	30	29	99	44	249	282	141	140	266	258	116	172

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0.0%	1.4%	3.7%	4.3%	1.6%	0.0%	0.0	7.5%	0.0%	3.4%	3.0%	2.3%	1.6%	1.4%	2.1%	5.7%	1.5%	1.9%	4.3%	2.9%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
7	7	29	24

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
4:00PM	2	17	0	0	2	9	2	0	0	3	4	0	2	8	5	0	54
4:05PM	4	13	1	0	4	17	1	0	0	2	1	0	1	2	4	0	50
4:10PM	2	14	1	0	7	16	3	0	1	1	2	0	1	8	4	0	60
4:15PM	0	17	1	0	2	18	0	0	1	7	2	0	1	5	3	0	57
4:20PM	0	13	0	0	3	18	0	0	0	4	0	0	1	4	2	0	45
4:25PM	0	13	0	0	4	19	0	0	0	4	0	0	0	6	4	0	50
4:30PM	1	17	2	0	1	5	0	0	2	5	3	0	3	7	1	0	47
4:35PM	3	19	0	0	3	14	3	0	0	5	6	0	1	4	5	0	63
4:40PM	1	18	2	0	5	15	3	0	2	2	1	0	1	4	2	0	56
4:45PM	1	18	2	0	7	24	2	0	2	2	5	0	1	5	5	0	74
4:50PM	1	13	3	0	3	16	3	0	2	4	4	0	3	11	8	0	71
4:55PM	1	15	2	0	6	17	2	0	0	6	1	0	3	11	2	0	66
5:00PM	3	16	3	0	5	14	1	0	2	6	2	0	2	8	3	0	65
5:05PM	5	24	4	0	4	8	3	0	3	5	1	0	3	9	3	0	72
5:10PM	1	27	1	0	4	9	1	0	1	12	5	0	4	13	7	0	85
5:15PM	1	16	3	0	5	15	1	0	2	9	1	0	2	11	1	0	67
5:20PM	2	7	2	0	3	19	0	0	1	8	2	0	3	7	1	0	55
5:25PM	1	23	3	0	0	18	1	0	0	4	2	0	2	7	2	0	63
5:30PM	1	30	1	0	2	16	1	0	1	4	3	0	3	5	5	0	72
5:35PM	2	12	1	0	2	19	4	0	3	5	3	0	2	8	5	0	66
5:40PM	3	14	2	0	1	12	0	0	1	6	3	0	2	4	1	0	49
5:45PM	1	22	2	0	0	16	2	0	0	7	1	0	0	3	0	0	54
5:50PM	2	17	1	0	2	19	0	0	0	1	4	0	2	3	2	0	53
5:55PM	0	15	2	0	4	25	1	0	0	5	2	0	1	3	2	0	60

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM	2	17	0	0	2	9	2	0	0	2	4	0	2	8	5	0
4:05PM	4	13	1	0	0	17	1	0	0	2	0	0	1	2	4	0
4:10PM	2	14	1	0	5	16	3	0	1	1	2	0	1	8	4	0
4:15PM	0	16	1	0	2	18	0	0	1	7	1	0	1	5	3	0
4:20PM	0	13	0	0	2	18	0	0	0	4	0	0	1	4	2	0
4:25PM	0	13	0	0	4	19	0	0	0	4	0	0	0	6	4	0
4:30PM	1	17	2	0	0	5	0	0	2	3	3	0	3	7	1	0
4:35PM	3	19	0	0	2	12	3	0	0	5	6	0	1	4	5	0
4:40PM	1	18	2	0	5	15	3	0	2	1	1	0	1	4	2	0
4:45PM	1	18	2	0	7	24	2	0	2	2	5	0	1	5	5	0
4:50PM	1	13	3	0	3	16	3	0	2	4	4	0	3	11	8	0
4:55PM	1	15	2	0	6	17	2	0	0	6	1	0	3	11	2	0
5:00PM	3	15	3	0	5	14	1	0	2	5	2	0	2	8	3	0
5:05PM	5	24	4	0	4	8	3	0	3	5	1	0	3	8	3	0
5:10PM	1	26	1	0	4	8	1	0	1	12	5	0	4	13	7	0
5:15PM	1	16	3	0	3	14	1	0	2	9	1	0	2	11	1	0
5:20PM	2	6	1	0	3	18	0	0	1	8	2	0	3	7	1	0
5:25PM	1	23	3	0	0	18	1	0	0	2	2	0	2	6	2	0
5:30PM	1	30	1	0	2	16	1	0	1	4	3	0	2	5	4	0
5:35PM	2	12	1	0	2	19	4	0	3	4	3	0	2	7	5	0
5:40PM	3	14	2	0	1	12	0	0	1	6	3	0	2	4	1	0
5:45PM	1	22	2	0	0	16	2	0	0	6	1	0	0	3	0	0
5:50PM	2	17	1	0	1	19	0	0	0	0	4	0	2	3	2	0
5:55PM	0	15	2	0	4	25	1	0	0	5	2	0	1	3	2	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:05PM	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0
4:10PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
4:15PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:20PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:25PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30PM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0
4:35PM	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0
4:40PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:50PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:05PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:10PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:15PM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0
5:20PM	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0
5:25PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0
5:30PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
5:35PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
5:40PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:50PM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
5:55PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
4:00PM	0	0	0	1
4:05PM	1	0	1	0
4:10PM	0	1	0	1
4:15PM	0	0	1	0
4:20PM	0	2	0	2
4:25PM	0	0	0	0
4:30PM	0	9	0	5
4:35PM	1	0	2	2
4:40PM	0	0	7	9
4:45PM	0	1	7	3
4:50PM	7	5	7	5
4:55PM	0	0	2	4
5:00PM	0	1	5	2
5:05PM	0	0	0	0
5:10PM	0	0	1	0
5:15PM	0	0	0	0
5:20PM	0	0	0	0
5:25PM	0	0	0	0
5:30PM	0	0	0	0
5:35PM	0	0	0	1
5:40PM	1	0	0	0
5:45PM	1	1	0	1
5:50PM	0	0	0	0
5:55PM	0	0	0	0

K-D-N
KEY DATA NETWORK

Count Name: NE Evans St at NE 19th St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
282	258	540
0	0	0
282	**258**	**540**

22	190	46
0	0	0
R	**T**	**L**

Total	257	0	**257**
In	116	0	**116**
Out	141	0	**141**

19	0	**L**
67	0	**T**
30	0	**R**

Peak Hour Summary

4:40PM to 5:35PM

Lights
Other Vehicles

L	**T**	**R**
20	219	27
0	0	0

249	266	515
0	0	0
249	**266**	**515**
Out	In	Total

Northbound Approach

R	0	44
T	0	99
L	0	29

140	140	140	Out
172	172	172	In
312	312	312	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE Evans St at NE 17th St**		
Location	45.22 - -123.19		
Start Date	9/20/2016		
Start Time	7:00AM		
Key Data Summary			
Peak Hour Start	7:25AM	System Peak Hour Start	
Peak 15 Min Start	8:00AM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.67	PHF (15-Min Interval)	0.69

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
9	152	15	125	198	12	7	21	15	16	0	21	229	180	21	161	176	335	43	37

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
33.3%	5.9%	0.0%	2.4%	2.0%	0.0%	0.0	0.0%	0.0%	0.0%	#DIV/0!	4.8%	1.7%	5.6%	14.3%	1.9%	6.8%	2.1%	0.0%	2.7%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
21	9	9	26

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
7:00AM	1	7	1	0	0	6	0	0	1	0	0	0	1	0	0	0	17
7:05AM	0	4	0	0	1	8	0	0	1	1	0	0	0	0	1	0	16
7:10AM	0	6	2	0	1	8	0	0	2	0	0	0	0	0	1	0	20
7:15AM	1	5	2	0	1	7	1	0	0	3	2	0	1	0	0	0	23
7:20AM	0	3	1	0	10	17	2	0	1	5	1	0	1	0	1	0	42
7:25AM	1	7	0	0	10	11	1	0	1	1	1	0	0	0	1	0	34
7:30AM	1	9	1	0	7	13	1	0	0	1	1	0	0	0	1	0	35
7:35AM	2	7	0	0	3	16	1	0	0	2	0	0	0	0	0	0	31
7:40AM	1	11	0	0	5	12	1	0	0	2	0	0	0	0	0	0	32
7:45AM	0	6	1	0	3	19	0	0	1	0	2	0	1	0	0	0	33
7:50AM	0	14	3	0	6	16	1	0	1	1	1	0	0	0	1	0	44
7:55AM	1	16	1	0	16	21	1	0	2	3	1	0	1	0	1	0	64
8:00AM	2	20	1	0	10	22	1	0	0	4	1	0	2	0	5	0	68
8:05AM	0	16	5	0	20	17	3	0	0	1	3	0	2	0	4	0	71
8:10AM	1	19	2	0	18	23	0	0	1	1	4	0	2	0	3	0	74
8:15AM	0	11	0	0	20	14	1	0	0	4	0	0	6	0	4	0	60
8:20AM	0	16	1	0	7	14	1	0	1	1	1	0	2	0	1	0	45
8:25AM	0	13	0	0	0	9	0	0	0	2	0	0	0	0	0	0	24
8:30AM	1	7	0	0	0	8	0	0	0	0	1	0	1	0	0	0	18
8:35AM	2	3	0	0	0	9	0	0	0	0	1	0	1	0	0	0	16
8:40AM	0	7	0	0	1	12	0	0	1	0	0	0	0	0	0	0	21
8:45AM	0	6	0	0	0	11	0	0	0	1	1	0	2	0	0	0	21
8:50AM	0	7	1	0	1	8	0	0	1	1	0	0	0	0	0	0	19
8:55AM	0	6	0	0	0	9	0	0	0	0	0	0	3	0	1	0	19

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM	1	7	1	0	0	5	0	0	1	0	0	0	1	0	0	0
7:05AM	0	4	0	0	1	8	0	0	1	1	0	0	0	0	1	0
7:10AM	0	6	2	0	1	8	0	0	2	0	0	0	0	0	0	0
7:15AM	1	5	2	0	1	6	1	0	0	3	2	0	1	0	0	0
7:20AM	0	3	1	0	10	16	2	0	1	5	1	0	0	0	1	0
7:25AM	0	6	0	0	10	11	1	0	1	1	1	0	0	0	1	0
7:30AM	0	9	1	0	7	13	1	0	0	1	1	0	0	0	1	0
7:35AM	2	7	0	0	3	16	1	0	0	2	0	0	0	0	0	0
7:40AM	1	10	0	0	5	12	1	0	0	2	0	0	0	0	0	0
7:45AM	0	5	1	0	2	19	0	0	1	0	2	0	1	0	0	0
7:50AM	0	14	3	0	6	16	1	0	1	1	1	0	0	0	1	0
7:55AM	0	15	1	0	15	20	1	0	2	3	1	0	1	0	1	0
8:00AM	2	20	1	0	9	20	1	0	0	4	1	0	2	0	5	0
8:05AM	0	15	5	0	20	16	3	0	0	1	3	0	2	0	3	0
8:10AM	1	18	2	0	18	23	0	0	1	1	4	0	2	0	3	0
8:15AM	0	11	0	0	20	14	1	0	0	4	0	0	6	0	4	0
8:20AM	0	13	1	0	7	14	1	0	1	1	1	0	2	0	1	0
8:25AM	0	11	0	0	0	9	0	0	0	2	0	0	0	0	0	0
8:30AM	1	7	0	0	0	7	0	0	0	0	1	0	1	0	0	0
8:35AM	2	3	0	0	0	9	0	0	0	0	1	0	0	0	0	0
8:40AM	0	7	0	0	1	12	0	0	1	0	0	0	0	0	0	0
8:45AM	0	6	0	0	0	11	0	0	0	1	1	0	2	0	0	0
8:50AM	0	7	1	0	1	8	0	0	1	1	0	0	0	0	0	0
8:55AM	0	6	0	0	0	9	0	0	0	0	0	0	3	0	1	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:05AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:10AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:20AM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
7:25AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:35AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:40AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
7:50AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:55AM	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
8:00AM	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0
8:05AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0
8:10AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:20AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:25AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8:35AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:40AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:50AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:55AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
7:00AM	1	0	1	0
7:05AM	1	0	0	2
7:10AM	0	2	0	0
7:15AM	1	0	0	1
7:20AM	2	0	0	0
7:25AM	1	1	0	1
7:30AM	5	0	0	1
7:35AM	2	0	1	0
7:40AM	1	0	1	0
7:45AM	2	0	2	0
7:50AM	0	2	1	9
7:55AM	1	0	0	4
8:00AM	2	1	0	8
8:05AM	3	1	2	0
8:10AM	2	4	0	3
8:15AM	0	0	2	0
8:20AM	2	0	0	0
8:25AM	0	0	3	2
8:30AM	1	0	0	2
8:35AM	0	0	0	2
8:40AM	0	0	1	0
8:45AM	0	0	0	0
8:50AM	0	0	0	1
8:55AM	0	0	0	0

K-D-N
KEY DATA NETWORK

Count Name: NE Evans St at NE 17th St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
180	335	515
0	0	0
180	**335**	**515**

12	198	125
0	0	0
R	**T**	**L**

Total	64	0	**64**
In	43	0	**43**
Out	21	0	**21**

7	0	**L**
21	0	**T**
15	0	**R**

Peak Hour Summary

7:25AM to 8:20AM

Lights
Other Vehicles

L	**T**	**R**
9	152	15
0	0	0

229	176	405
0	0	0
229	**176**	**405**
Out	In	Total

Northbound Approach

R	0	21
T	0	0
L	0	16

161	161	161	Out
37	37	37	In
198	198	198	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE Evans St at NE 17th St**		
Location	45.22 - -123.19		
Start Date	9/20/2016		
Start Time	2:00 PM		
Key Data Summary			
Peak Hour Start	2:50PM	System Peak Hour Start	
Peak 15 Min Start	3:20PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.71	PHF (15-Min Interval)	0.79

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
10	214	18	19	193	12	8	17	14	20	3	28	227	250	25	54	242	224	39	51

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
10.0%	6.5%	11.1%	0.0%	4.7%	0.0%	0.0	11.8%	0.0%	10.0%	0.0%	0.0%	4.8%	5.6%	4.0%	7.4%	7.0%	4.0%	5.1%	3.9%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
26	4	12	57

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
2:00PM	0	15	0	0	1	14	0	0	1	1	0	0	1	0	2	0	35
2:05PM	2	16	0	0	0	9	1	0	0	0	1	0	0	0	0	0	29
2:10PM	2	32	2	0	2	14	0	0	0	0	1	0	1	0	1	0	55
2:15PM	1	27	0	0	0	10	0	0	0	0	0	0	0	0	2	0	40
2:20PM	3	25	0	0	0	11	1	0	0	0	3	0	0	1	0	0	44
2:25PM	0	26	1	0	0	8	1	0	1	0	0	0	0	0	0	0	37
2:30PM	0	28	0	0	0	8	0	0	0	2	1	0	0	0	0	0	39
2:35PM	4	25	2	0	0	13	1	0	0	0	0	0	0	0	0	0	45
2:40PM	0	14	1	0	0	12	0	0	0	0	0	0	0	0	0	0	27
2:45PM	0	16	0	0	0	19	0	0	0	0	1	0	1	0	1	0	38
2:50PM	0	18	1	0	0	19	0	0	0	0	1	0	2	0	1	0	42
2:55PM	1	16	0	0	1	18	2	0	0	0	0	0	1	0	1	0	40
3:00PM	0	17	1	0	1	15	0	0	0	1	2	0	1	0	0	0	38
3:05PM	0	15	1	0	1	21	0	0	0	0	0	0	2	0	1	0	41
3:10PM	0	13	1	0	3	18	2	0	1	3	2	0	0	0	0	0	43
3:15PM	3	12	0	0	1	19	0	0	1	5	1	0	0	0	1	0	43
3:20PM	1	18	3	0	2	20	4	0	2	0	1	0	2	0	2	0	55
3:25PM	0	19	5	0	4	12	0	0	1	1	2	0	0	1	10	0	55
3:30PM	2	27	1	0	2	16	0	0	1	1	0	0	7	1	7	0	65
3:35PM	1	29	2	0	1	11	1	0	1	1	0	0	1	1	3	0	52
3:40PM	1	15	2	0	3	11	1	0	0	2	3	0	1	0	1	0	40
3:45PM	1	15	1	0	0	13	2	0	1	3	2	0	3	0	1	0	42
3:50PM	0	19	1	0	0	12	1	0	0	1	1	0	2	0	2	0	39
3:55PM	1	20	0	0	0	10	0	0	1	0	1	0	0	0	0	0	33

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM	0	15	0	0	1	14	0	0	1	1	0	0	1	0	2	0
2:05PM	2	16	0	0	0	9	1	0	0	0	1	0	0	0	0	0
2:10PM	2	32	2	0	2	13	0	0	0	0	1	0	1	0	1	0
2:15PM	1	27	0	0	0	10	0	0	0	0	0	0	0	0	1	0
2:20PM	3	23	0	0	0	10	1	0	0	0	3	0	0	1	0	0
2:25PM	0	26	1	0	0	6	0	0	1	0	0	0	0	0	0	0
2:30PM	0	28	0	0	0	7	0	0	0	2	1	0	0	0	0	0
2:35PM	3	24	2	0	0	13	1	0	0	0	0	0	0	0	0	0
2:40PM	0	14	1	0	0	10	0	0	0	0	0	0	0	0	0	0
2:45PM	0	16	0	0	0	19	0	0	0	0	1	0	1	0	1	0
2:50PM	0	16	0	0	0	19	0	0	0	0	1	0	2	0	1	0
2:55PM	1	14	0	0	1	18	2	0	0	0	0	0	0	0	1	0
3:00PM	0	17	1	0	1	14	0	0	0	1	2	0	1	0	0	0
3:05PM	0	14	1	0	1	18	0	0	0	0	0	0	2	0	1	0
3:10PM	0	13	1	0	3	15	2	0	1	3	2	0	0	0	0	0
3:15PM	3	11	0	0	1	18	0	0	1	5	1	0	0	0	1	0
3:20PM	1	17	3	0	2	20	4	0	2	0	1	0	2	0	2	0
3:25PM	0	18	4	0	4	11	0	0	1	1	2	0	0	1	10	0
3:30PM	2	27	1	0	2	16	0	0	1	1	0	0	7	1	7	0
3:35PM	0	24	2	0	1	11	1	0	1	1	0	0	1	1	3	0
3:40PM	1	14	2	0	3	11	1	0	0	2	3	0	0	0	1	0
3:45PM	1	15	1	0	0	13	2	0	1	1	2	0	3	0	1	0
3:50PM	0	19	1	0	0	12	1	0	0	1	1	0	2	0	2	0
3:55PM	1	20	0	0	0	10	0	0	1	0	1	0	0	0	0	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:05PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:10PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:15PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:20PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:25PM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0
2:30PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:35PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:40PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
2:45PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:50PM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:55PM	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:00PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:05PM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0
3:10PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
3:15PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:20PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:25PM	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0
3:30PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:35PM	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:40PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:45PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:50PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:55PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
2:00PM	0	0	0	0
2:05PM	0	0	0	0
2:10PM	0	1	0	0
2:15PM	0	1	1	0
2:20PM	0	0	0	0
2:25PM	0	0	0	0
2:30PM	0	0	0	1
2:35PM	0	0	1	0
2:40PM	0	1	0	0
2:45PM	0	1	0	1
2:50PM	1	0	0	0
2:55PM	0	2	0	2
3:00PM	0	0	0	0
3:05PM	0	0	0	3
3:10PM	1	0	0	2
3:15PM	0	0	1	0
3:20PM	3	1	0	12
3:25PM	8	0	1	9
3:30PM	5	1	4	18
3:35PM	1	0	0	5
3:40PM	6	0	4	1
3:45PM	1	0	2	5
3:50PM	0	0	0	0
3:55PM	2	1	3	2

K-D-N
KEY DATA NETWORK

Count Name: NE Evans St at NE 17th St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
250	224	474
0	0	0
250	**224**	**474**

12	193	19
0	0	0
R	**T**	**L**

Total	64	0	**64**
In	39	0	**39**
Out	25	0	**25**

8	0	**L**
17	0	**T**
14	0	**R**

Peak Hour Summary

2:50PM to 3:45PM

Lights
Other Vehicles

L	**T**	**R**
10	214	18
0	0	0

227	242	469
0	0	0
227	**242**	**469**
Out	In	Total

Northbound Approach

R	0	28
T	0	3
L	0	20

54	54	54	Out
51	51	51	In
105	105	105	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE Evans St at NE 17th St**		
Location	45.22 - -123.19		
Start Date	9/20/2016		
Start Time	4:00PM		
Key Data Summary			
Peak Hour Start	5:00PM	System Peak Hour Start	
Peak 15 Min Start	5:45PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.89	PHF (15-Min Interval)	0.96

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
11	242	5	20	212	11	8	18	29	9	3	22	250	272	25	43	258	243	55	34

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0.0%	1.2%	0.0%	5.0%	1.4%	0.0%	0.0	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	1.1%	0.0%	2.3%	1.2%	1.6%	0.0%	0.0%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
52	3	7	5

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
4:00PM	1	18	1	0	1	14	1	0	1	1	0	0	0	0	1	0	39
4:05PM	0	16	0	0	0	14	2	0	0	2	6	0	1	1	1	0	43
4:10PM	1	18	0	0	0	19	2	0	1	0	1	0	0	0	0	0	42
4:15PM	3	13	0	0	2	16	0	0	0	0	3	0	3	0	1	0	41
4:20PM	0	13	1	0	3	18	0	0	0	1	1	0	1	1	0	0	39
4:25PM	0	12	0	0	3	16	0	0	0	1	2	0	0	0	2	0	36
4:30PM	0	22	0	0	2	7	1	0	1	2	1	0	0	0	1	0	37
4:35PM	3	14	0	0	1	17	1	0	2	2	0	0	1	1	1	0	43
4:40PM	0	23	0	0	1	13	1	0	2	2	1	0	0	0	0	0	43
4:45PM	0	15	1	0	1	30	1	0	1	2	0	0	1	0	0	0	52
4:50PM	0	18	1	0	4	18	0	0	1	0	2	0	1	0	1	0	46
4:55PM	1	16	1	0	4	18	1	0	1	0	3	0	0	0	0	0	45
5:00PM	0	21	0	0	0	16	4	0	0	2	2	0	3	0	0	0	48
5:05PM	1	31	1	0	0	11	1	0	2	0	2	0	1	0	0	0	50
5:10PM	2	27	1	0	2	13	1	0	0	1	3	0	0	0	3	0	53
5:15PM	1	16	2	0	1	17	1	0	3	2	2	0	0	1	3	0	49
5:20PM	1	12	0	0	0	22	1	0	0	0	2	0	0	1	0	0	39
5:25PM	2	26	1	0	3	19	0	0	0	0	1	0	0	0	3	0	55
5:30PM	0	23	0	0	0	22	1	0	0	1	3	0	0	0	4	0	54
5:35PM	0	15	0	0	3	17	1	0	0	3	3	0	0	0	2	0	44
5:40PM	0	14	0	0	0	20	0	0	1	1	5	0	1	0	2	0	44
5:45PM	0	21	0	0	1	13	0	0	1	6	3	0	1	1	4	0	51
5:50PM	3	20	0	0	4	21	1	0	1	2	2	0	1	0	0	0	55
5:55PM	1	16	0	0	6	21	0	0	0	0	1	0	2	0	1	0	48

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM	1	18	1	0	1	14	1	0	1	1	0	0	0	0	1	0
4:05PM	0	16	0	0	0	13	2	0	0	2	5	0	1	1	1	0
4:10PM	0	18	0	0	0	19	2	0	1	0	1	0	0	0	0	0
4:15PM	3	13	0	0	2	15	0	0	0	0	3	0	3	0	0	0
4:20PM	0	13	1	0	3	18	0	0	0	1	1	0	1	1	0	0
4:25PM	0	12	0	0	3	16	0	0	0	1	2	0	0	0	2	0
4:30PM	0	22	0	0	2	7	1	0	1	2	1	0	0	0	1	0
4:35PM	3	14	0	0	1	15	1	0	2	2	0	0	1	1	1	0
4:40PM	0	23	0	0	1	13	1	0	2	2	1	0	0	0	0	0
4:45PM	0	15	1	0	1	29	1	0	1	2	0	0	1	0	0	0
4:50PM	0	18	1	0	4	18	0	0	1	0	2	0	1	0	1	0
4:55PM	1	15	1	0	4	18	1	0	1	0	2	0	0	0	0	0
5:00PM	0	21	0	0	0	16	4	0	0	2	2	0	3	0	0	0
5:05PM	1	31	1	0	0	11	1	0	2	0	2	0	1	0	0	0
5:10PM	2	26	1	0	1	13	1	0	0	1	3	0	0	0	3	0
5:15PM	1	16	2	0	1	16	1	0	3	2	2	0	0	1	3	0
5:20PM	1	10	0	0	0	21	1	0	0	0	2	0	0	1	0	0
5:25PM	2	26	1	0	3	19	0	0	0	0	1	0	0	0	3	0
5:30PM	0	23	0	0	0	21	1	0	0	1	3	0	0	0	4	0
5:35PM	0	15	0	0	3	17	1	0	0	3	3	0	0	0	2	0
5:40PM	0	14	0	0	0	20	0	0	1	1	5	0	1	0	2	0
5:45PM	0	21	0	0	1	13	0	0	1	6	3	0	1	1	4	0
5:50PM	3	20	0	0	4	21	1	0	1	2	2	0	1	0	0	0
5:55PM	1	16	0	0	6	21	0	0	0	0	1	0	2	0	1	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:05PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
4:10PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
4:20PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:35PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
4:40PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:50PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:00PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5:15PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:20PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:25PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:35PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:40PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
4:00PM	1	0	0	0
4:05PM	0	0	0	1
4:10PM	2	0	0	0
4:15PM	0	0	1	0
4:20PM	0	0	1	1
4:25PM	1	0	0	0
4:30PM	0	0	0	1
4:35PM	0	2	0	1
4:40PM	0	9	0	1
4:45PM	0	3	0	2
4:50PM	0	2	1	2
4:55PM	0	0	1	1
5:00PM	0	1	1	1
5:05PM	5	1	5	1
5:10PM	0	0	0	0
5:15PM	0	0	1	0
5:20PM	0	0	0	0
5:25PM	0	0	0	0
5:30PM	0	1	0	1
5:35PM	0	0	0	0
5:40PM	0	0	0	0
5:45PM	21	0	0	2
5:50PM	3	0	0	0
5:55PM	23	0	0	0

K-D-N
KEY DATA NETWORK

Count Name: NE Evans St at NE 17th St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
272	243	515
0	0	0
272	**243**	**515**

11	212	20
0	0	0
R	**T**	**L**

Total	80	0	**80**
In	55	0	**55**
Out	25	0	**25**

8	0	**L**
18	0	**T**
29	0	**R**

R	0	22
T	0	3
L	0	9

43	43	43	Out
34	34	34	In
77	77	77	Total

Peak Hour Summary

5:00PM to 5:55PM

Lights
Other Vehicles

L	T	R
11	242	5
0	0	0

250	258	508
0	0	0
250	**258**	**508**
Out	In	Total

Northbound Approach

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE Evans St at NE 15th St**		
Location	45.21 - -123.19		
Start Date	9/20/2016		
Start Time	7:00AM		
Key Data Summary			
Peak Hour Start	7:30AM	System Peak Hour Start	
Peak 15 Min Start	8:00AM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.69	PHF (15-Min Interval)	0.72

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
9	86	164	73	151	5	1	1	2	87	1	92	240	179	15	238	259	229	4	180

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0.0%	5.8%	2.4%	4.1%	0.7%	0.0%	0.0	0.0%	0.0%	2.3%	0.0%	7.6%	1.3%	6.7%	0.0%	2.9%	3.5%	1.7%	0.0%	5.0%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
3	87	13	19

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
7:00AM	0	6	0	0	2	4	1	0	0	0	0	0	1	0	2	0	16
7:05AM	0	3	6	0	2	7	0	0	0	0	0	0	3	0	1	0	22
7:10AM	3	4	0	0	1	7	0	0	0	0	0	0	2	0	5	0	22
7:15AM	1	5	2	0	0	3	2	0	1	0	0	0	0	0	1	0	15
7:20AM	0	3	7	0	1	21	1	0	0	0	0	0	1	0	2	0	36
7:25AM	0	3	5	0	6	3	1	0	0	0	0	0	0	1	5	0	24
7:30AM	1	10	8	0	3	11	1	0	0	0	1	0	5	0	1	0	41
7:35AM	0	5	6	0	5	9	1	0	0	0	0	0	3	0	4	0	33
7:40AM	1	8	7	0	3	8	1	0	0	0	0	0	3	0	3	0	34
7:45AM	1	3	8	0	5	16	0	0	0	0	0	0	8	0	5	0	46
7:50AM	2	12	14	0	6	12	0	0	0	0	0	0	3	0	5	0	54
7:55AM	1	5	18	0	5	18	0	0	0	1	0	0	11	0	11	0	70
8:00AM	1	7	18	0	13	12	0	0	0	0	0	0	9	0	17	0	77
8:05AM	1	11	23	0	12	10	1	0	0	0	0	0	9	0	8	0	75
8:10AM	0	11	19	0	10	15	1	0	0	0	0	0	14	0	11	0	81
8:15AM	0	1	27	0	6	18	0	0	0	0	0	0	12	0	11	0	75
8:20AM	1	6	13	0	5	12	0	0	0	0	0	0	7	0	10	0	54
8:25AM	0	7	3	0	0	10	0	0	1	0	1	0	3	1	6	0	32
8:30AM	0	6	3	0	0	8	0	0	1	0	0	0	4	0	1	0	23
8:35AM	0	4	1	0	1	10	0	0	0	0	0	0	1	0	1	0	18
8:40AM	0	5	0	0	1	12	0	0	0	0	0	0	2	0	1	0	21
8:45AM	0	6	1	0	1	10	0	0	0	0	0	0	1	0	1	0	20
8:50AM	0	7	1	0	2	9	0	0	0	0	0	0	2	0	1	0	22
8:55AM	1	6	1	0	2	9	1	0	0	0	0	0	2	0	0	0	22

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM	0	6	0	0	2	4	1	0	0	0	0	0	1	0	2	0
7:05AM	0	3	6	0	2	6	0	0	0	0	0	0	3	0	1	0
7:10AM	3	4	0	0	1	7	0	0	0	0	0	0	2	0	5	0
7:15AM	1	5	2	0	0	3	2	0	1	0	0	0	0	0	1	0
7:20AM	0	3	6	0	1	18	1	0	0	0	0	0	1	0	2	0
7:25AM	0	2	5	0	6	3	1	0	0	0	0	0	0	1	4	0
7:30AM	1	9	8	0	3	11	1	0	0	0	1	0	5	0	1	0
7:35AM	0	5	6	0	5	9	1	0	0	0	0	0	3	0	4	0
7:40AM	1	7	7	0	3	8	1	0	0	0	0	0	3	0	3	0
7:45AM	1	3	8	0	5	16	0	0	0	0	0	0	8	0	4	0
7:50AM	2	12	14	0	6	12	0	0	0	0	0	0	3	0	5	0
7:55AM	1	4	18	0	5	17	0	0	0	1	0	0	11	0	10	0
8:00AM	1	7	16	0	12	12	0	0	0	0	0	0	9	0	17	0
8:05AM	1	10	23	0	10	10	1	0	0	0	0	0	9	0	8	0
8:10AM	0	11	18	0	10	15	1	0	0	0	0	0	14	0	10	0
8:15AM	0	1	26	0	6	18	0	0	0	0	0	0	12	0	11	0
8:20AM	1	6	13	0	5	12	0	0	0	0	0	0	5	0	8	0
8:25AM	0	6	3	0	0	10	0	0	1	0	1	0	3	1	4	0
8:30AM	0	6	3	0	0	7	0	0	1	0	0	0	4	0	1	0
8:35AM	0	3	1	0	1	9	0	0	0	0	0	0	1	0	1	0
8:40AM	0	5	0	0	1	12	0	0	0	0	0	0	2	0	1	0
8:45AM	0	6	1	0	1	10	0	0	0	0	0	0	1	0	1	0
8:50AM	0	7	1	0	2	9	0	0	0	0	0	0	2	0	1	0
8:55AM	1	6	1	0	2	9	1	0	0	0	0	0	2	0	0	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:05AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:10AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:20AM	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0
7:25AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:35AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:40AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:50AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:55AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0
8:00AM	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0
8:05AM	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
8:10AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
8:15AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:20AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
8:25AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0
8:30AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8:35AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8:40AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:50AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:55AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
7:00AM	0	0	0	0
7:05AM	0	0	0	0
7:10AM	0	1	0	1
7:15AM	0	1	0	0
7:20AM	0	0	0	1
7:25AM	0	3	0	0
7:30AM	0	3	0	1
7:35AM	1	13	3	1
7:40AM	0	9	1	0
7:45AM	0	5	0	3
7:50AM	0	8	0	6
7:55AM	0	9	0	1
8:00AM	0	8	1	1
8:05AM	0	10	5	4
8:10AM	1	5	0	0
8:15AM	0	8	1	1
8:20AM	0	5	0	1
8:25AM	1	4	2	0
8:30AM	0	3	0	0
8:35AM	0	1	1	0
8:40AM	0	0	1	2
8:45AM	0	9	0	0
8:50AM	0	0	0	0
8:55AM	0	1	0	1

K-D-N
KEY DATA NETWORK

Count Name: NE Evans St at NE 15th St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
179	229	408
0	0	0
179	**229**	**408**

5	151	73
0	0	0
R	**T**	**L**

Total	19	0	**19**
In	4	0	**4**
Out	15	0	**15**

1	0	**L**
1	0	**T**
2	0	**R**

Peak Hour Summary

7:30AM to 8:25AM

Lights
Other Vehicles

L	**T**	**R**
9	86	164
0	0	0

240	259	499
0	0	0
240	**259**	**499**
Out	In	Total

Northbound Approach

R	0	92
T	0	1
L	0	87

238	238	238	Out
180	180	180	In
418	418	418	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE Evans St at NE 15th St**		
Location	45.21 - -123.19		
Start Date	9/20/2016		
Start Time	2:00PM		
Key Data Summary			
Peak Hour Start	2:55PM	System Peak Hour Start	
Peak 15 Min Start	3:25PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.76	PHF (15-Min Interval)	0.78

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
6	176	67	41	169	7	4	2	11	58	2	59	238	239	15	110	249	217	17	119

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0.0%	4.0%	3.0%	9.8%	3.0%	0.0%	0.0	0.0%	0.0%	3.4%	0.0%	10.2%	2.9%	5.4%	0.0%	5.5%	3.6%	4.1%	0.0%	6.7%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
11	197	13	35

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
2:00PM	0	15	2	0	1	12	0	0	0	0	0	0	6	0	2	0	38
2:05PM	0	16	3	0	0	10	0	0	0	0	0	0	1	0	0	0	30
2:10PM	0	34	1	0	2	14	0	0	1	0	0	0	2	0	1	0	55
2:15PM	0	28	1	0	0	9	1	0	1	0	0	0	1	0	1	0	42
2:20PM	0	24	1	0	0	17	0	0	2	0	0	0	0	0	1	0	45
2:25PM	1	27	2	0	0	11	0	0	0	0	0	0	1	0	1	0	43
2:30PM	0	28	1	0	1	9	0	0	0	0	0	0	1	1	0	0	41
2:35PM	0	27	1	0	0	9	0	0	1	0	0	0	0	0	2	0	40
2:40PM	0	14	0	0	1	13	2	0	0	0	1	0	1	0	0	0	32
2:45PM	0	16	0	0	0	19	0	0	1	0	0	0	0	0	1	0	37
2:50PM	0	18	1	0	4	17	0	0	0	0	1	0	0	0	1	0	42
2:55PM	0	14	4	0	1	17	1	0	0	0	1	0	0	0	3	0	41
3:00PM	0	16	3	0	0	13	1	0	0	0	0	0	0	0	1	0	34
3:05PM	0	17	6	0	7	20	0	0	0	0	0	0	1	0	0	0	51
3:10PM	1	11	10	0	7	14	1	0	0	0	0	0	3	0	2	0	49
3:15PM	1	13	10	0	3	11	2	0	0	0	0	0	1	0	3	0	44
3:20PM	2	17	5	0	4	9	0	0	0	1	0	0	2	0	5	0	45
3:25PM	1	14	4	0	4	15	1	0	0	0	6	0	9	1	11	0	66
3:30PM	1	13	2	0	3	17	0	0	0	0	2	0	13	0	14	0	65
3:35PM	0	20	0	0	2	15	0	0	1	1	1	0	10	0	11	0	61
3:40PM	0	13	10	0	4	14	0	0	0	0	0	0	6	0	4	0	51
3:45PM	0	13	5	0	5	10	1	0	1	0	0	0	3	0	2	0	40
3:50PM	0	15	8	0	1	14	0	0	2	0	1	0	10	1	3	0	55
3:55PM	0	19	4	0	1	11	0	0	0	0	0	0	1	0	3	0	39

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM	0	15	2	0	1	11	0	0	0	0	0	0	5	0	2	0
2:05PM	0	16	3	0	0	10	0	0	0	0	0	0	1	0	0	0
2:10PM	0	34	1	0	2	13	0	0	1	0	0	0	2	0	1	0
2:15PM	0	28	1	0	0	9	1	0	1	0	0	0	1	0	1	0
2:20PM	0	23	1	0	0	15	0	0	2	0	0	0	0	0	0	0
2:25PM	1	27	2	0	0	8	0	0	0	0	0	0	1	0	1	0
2:30PM	0	28	0	0	1	7	0	0	0	0	0	0	1	1	0	0
2:35PM	0	27	1	0	0	9	0	0	1	0	0	0	0	0	1	0
2:40PM	0	14	0	0	1	11	2	0	0	0	1	0	1	0	0	0
2:45PM	0	16	0	0	0	19	0	0	1	0	0	0	0	0	1	0
2:50PM	0	16	1	0	4	17	0	0	0	0	1	0	0	0	1	0
2:55PM	0	13	4	0	1	17	1	0	0	0	1	0	0	0	2	0
3:00PM	0	16	3	0	0	13	1	0	0	0	0	0	0	0	1	0
3:05PM	0	16	6	0	7	16	0	0	0	0	0	0	1	0	0	0
3:10PM	1	11	9	0	6	13	1	0	0	0	0	0	3	0	2	0
3:15PM	1	12	9	0	2	11	2	0	0	0	0	0	1	0	3	0
3:20PM	2	17	5	0	4	9	0	0	0	1	0	0	2	0	5	0
3:25PM	1	13	4	0	3	15	1	0	0	0	6	0	8	1	10	0
3:30PM	1	13	2	0	3	17	0	0	0	0	2	0	13	0	14	0
3:35PM	0	17	0	0	2	15	0	0	1	1	1	0	9	0	8	0
3:40PM	0	13	10	0	3	14	0	0	0	0	0	0	6	0	3	0
3:45PM	0	13	5	0	5	10	1	0	1	0	0	0	3	0	2	0
3:50PM	0	15	8	0	1	14	0	0	2	0	1	0	10	1	3	0
3:55PM	0	19	4	0	1	11	0	0	0	0	0	0	1	0	3	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
2:05PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:10PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:15PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:20PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	0
2:25PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
2:30PM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0
2:35PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:40PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
2:45PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:50PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:55PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:00PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:05PM	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0
3:10PM	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0
3:15PM	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0
3:20PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:25PM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0
3:30PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:35PM	0	3	0	0	0	0	0	0	0	0	0	0	1	0	3	0
3:40PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
3:45PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:50PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:55PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
2:00PM	0	1	0	0
2:05PM	0	0	0	7
2:10PM	0	1	1	0
2:15PM	0	0	0	0
2:20PM	0	45	0	0
2:25PM	0	0	0	0
2:30PM	0	1	1	1
2:35PM	0	3	1	0
2:40PM	0	1	0	0
2:45PM	0	11	0	1
2:50PM	0	13	0	0
2:55PM	0	2	0	2
3:00PM	0	4	0	0
3:05PM	0	20	0	1
3:10PM	0	30	0	7
3:15PM	1	4	0	2
3:20PM	0	7	0	1
3:25PM	1	34	7	11
3:30PM	3	35	5	4
3:35PM	3	36	1	1
3:40PM	0	14	0	6
3:45PM	3	9	0	0
3:50PM	0	2	0	0
3:55PM	0	2	0	0

K-D-N
KEY DATA NETWORK

Count Name: NE Evans St at NE 15th St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
239	217	456
0	0	0
239	**217**	**456**

7	169	41
0	0	0
R	**T**	**L**

Total	32	0	**32**
In	17	0	**17**
Out	15	0	**15**

4	0	**L**
2	0	**T**
11	0	**R**

Peak Hour Summary

2:55PM to 3:50PM

Lights
Other Vehicles

L	**T**	**R**
6	176	67
0	0	0

238	249	487
0	0	0
238	**249**	**487**
Out	In	Total

Northbound Approach

R	0	59
T	0	2
L	0	58

110	110	110	Out
119	119	119	In
229	229	229	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE Evans St at NE 15th St**		
Location	45.21 - -123.19		
Start Date	9/20/2016		
Start Time	4:00PM		
Key Data Summary			
Peak Hour Start	5:00PM	System Peak Hour Start	
Peak 15 Min Start	5:40PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.84	PHF (15-Min Interval)	0.95

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
12	200	49	18	208	22	8	8	10	56	5	49	274	257	39	75	261	248	26	110

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0.0%	1.5%	0.0%	0.0%	1.0%	0.0%	0.0	0.0%	0.0%	0.0%	0.0%	2.0%	0.7%	1.6%	0.0%	0.0%	1.1%	0.8%	0.0%	0.9%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
0	21	8	7

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
4:00PM	0	16	2	0	0	14	0	0	1	0	1	0	4	0	3	0	41
4:05PM	0	14	0	0	1	17	1	0	0	0	1	0	5	0	1	0	40
4:10PM	0	16	2	0	2	17	0	0	1	0	0	0	1	0	2	0	41
4:15PM	0	16	0	0	1	17	2	0	0	0	0	0	2	0	2	0	40
4:20PM	0	13	2	0	2	20	1	0	0	1	0	0	1	0	1	0	41
4:25PM	1	10	4	0	1	15	0	0	0	0	0	0	2	0	1	0	34
4:30PM	0	20	5	0	2	10	0	0	0	2	1	0	2	0	4	0	46
4:35PM	1	13	1	0	4	11	1	0	0	0	0	0	1	0	4	0	36
4:40PM	0	19	3	0	3	11	0	0	2	0	2	0	0	0	1	0	41
4:45PM	1	15	3	0	3	26	1	0	0	0	0	0	2	0	0	0	51
4:50PM	1	15	4	0	1	17	2	0	1	0	0	0	1	0	2	0	44
4:55PM	0	14	1	0	0	21	1	0	1	0	0	0	2	1	3	0	44
5:00PM	4	19	5	0	1	14	3	0	0	1	1	0	2	1	2	0	53
5:05PM	0	28	4	0	1	12	6	0	1	0	2	0	2	0	4	0	60
5:10PM	1	26	2	0	0	13	1	0	0	1	1	0	3	1	5	0	54
5:15PM	1	17	4	0	2	17	1	0	1	0	1	0	3	0	1	0	48
5:20PM	0	11	1	0	2	17	1	0	0	0	0	0	4	1	2	0	39
5:25PM	1	23	5	0	2	20	2	0	1	0	1	0	4	0	5	0	64
5:30PM	2	18	3	0	2	14	4	0	0	1	1	0	7	1	4	0	57
5:35PM	1	10	2	0	1	22	1	0	2	0	1	0	3	0	3	0	46
5:40PM	0	11	9	0	2	20	1	0	1	0	2	0	8	0	2	0	56
5:45PM	2	13	1	0	2	19	0	0	1	5	0	0	7	1	7	0	58
5:50PM	0	16	4	0	0	23	0	0	1	0	0	0	6	0	6	0	56
5:55PM	0	8	9	0	3	17	2	0	0	0	0	0	7	0	8	0	54

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM	0	16	2	0	0	14	0	0	1	0	1	0	4	0	3	0
4:05PM	0	14	0	0	1	15	1	0	0	0	1	0	5	0	1	0
4:10PM	0	16	2	0	2	17	0	0	1	0	0	0	1	0	1	0
4:15PM	0	16	0	0	0	17	2	0	0	0	0	0	2	0	2	0
4:20PM	0	13	2	0	2	20	1	0	0	1	0	0	1	0	1	0
4:25PM	1	10	4	0	1	15	0	0	0	0	0	0	2	0	1	0
4:30PM	0	20	5	0	2	10	0	0	0	2	1	0	2	0	4	0
4:35PM	1	13	1	0	4	10	1	0	0	0	0	0	1	0	4	0
4:40PM	0	19	3	0	3	11	0	0	2	0	2	0	0	0	1	0
4:45PM	1	15	3	0	3	26	1	0	0	0	0	0	2	0	0	0
4:50PM	1	15	4	0	1	17	2	0	1	0	0	0	1	0	2	0
4:55PM	0	14	1	0	0	20	1	0	1	0	0	0	2	1	3	0
5:00PM	4	19	5	0	1	14	3	0	0	1	1	0	2	1	1	0
5:05PM	0	28	4	0	1	12	6	0	1	0	2	0	2	0	4	0
5:10PM	1	25	2	0	0	13	1	0	0	1	1	0	3	1	5	0
5:15PM	1	17	4	0	2	16	1	0	1	0	1	0	3	0	1	0
5:20PM	0	9	1	0	2	16	1	0	0	0	0	0	4	1	2	0
5:25PM	1	23	5	0	2	20	2	0	1	0	1	0	4	0	5	0
5:30PM	2	18	3	0	2	14	4	0	0	1	1	0	7	1	4	0
5:35PM	1	10	2	0	1	22	1	0	2	0	1	0	3	0	3	0
5:40PM	0	11	9	0	2	20	1	0	1	0	2	0	8	0	2	0
5:45PM	2	13	1	0	2	19	0	0	1	5	0	0	7	1	7	0
5:50PM	0	16	4	0	0	23	0	0	1	0	0	0	6	0	6	0
5:55PM	0	8	9	0	3	17	2	0	0	0	0	0	7	0	8	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:05PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
4:10PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:15PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:20PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:35PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:40PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:50PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:00PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:05PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:20PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:25PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:35PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:40PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
4:00PM	0	5	0	0
4:05PM	3	5	1	1
4:10PM	1	3	0	0
4:15PM	1	0	1	1
4:20PM	0	5	1	0
4:25PM	0	1	0	0
4:30PM	0	4	0	0
4:35PM	4	7	0	1
4:40PM	0	13	0	5
4:45PM	1	5	0	2
4:50PM	0	5	0	0
4:55PM	0	2	0	0
5:00PM	0	4	1	1
5:05PM	0	1	1	0
5:10PM	0	2	1	1
5:15PM	0	0	1	0
5:20PM	0	1	0	0
5:25PM	0	3	1	0
5:30PM	0	1	1	0
5:35PM	0	0	0	0
5:40PM	0	4	0	2
5:45PM	0	4	2	2
5:50PM	0	0	0	1
5:55PM	0	1	0	0

K-D-N
KEY DATA NETWORK

Count Name: NE Evans St at NE 15th St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
257	248	505
0	0	0
257	**248**	**505**

22	208	18
0	0	0
R	**T**	**L**

Total	65	0	**65**
In	26	0	**26**
Out	39	0	**39**

8	0	**L**
8	0	**T**
10	0	**R**

Peak Hour Summary

5:00PM to 5:55PM

Lights
Other Vehicles

L	**T**	**R**
12	200	49
0	0	0

274	261	535
0	0	0
274	**261**	**535**
Out	In	Total

Northbound Approach

R	0	49
T	0	5
L	0	56

75	75	75	Out
110	110	110	In
185	185	185	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE 17th St at N Hembree St**		
Location	45.22 - -123.19		
Start Date	9/20/2016		
Start Time	7:00AM		
Key Data Summary			
Peak Hour Start	7:25AM	System Peak Hour Start	
Peak 15 Min Start	8:05AM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.48	PHF (15-Min Interval)	0.53

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0	47		132	19	40		82					214	87	19	0	47	151	122	0

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
#DIV/0!	12.8%	#DIV/0!	#DIV/0!	12.9%	10.5%	0.0	#DIV/0!	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	7.9%	6.9%	10.5%	#DIV/0!	12.8%	12.6%	0.0%	#DIV/0!

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
54	2	21	

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
7:00AM	0	1		0		1	0	0	0		0	0					2
7:05AM	0	0		0		5	0	0	1		0	0					6
7:10AM	0	0		0		2	0	0	0		0	0					2
7:15AM	0	0		0		2	0	0	0		0	0					2
7:20AM	0	1		0		5	0	0	0		10	0					16
7:25AM	0	4		0		4	0	0	0		5	0					13
7:30AM	0	0		0		4	0	0	2		3	0					9
7:35AM	0	0		0		3	1	0	1		3	0					8
7:40AM	0	3		0		2	0	0	1		2	0					8
7:45AM	0	2		0		5	1	0	1		4	0					13
7:50AM	0	3		0		14	0	0	1		6	0					24
7:55AM	0	4		0		13	1	0	3		14	0					35
8:00AM	0	6		0		21	2	0	3		7	0					39
8:05AM	0	4		0		19	7	0	11		6	0					47
8:10AM	0	8		0		25	1	0	6		16	0					56
8:15AM	0	8		0		16	4	0	7		13	0					48
8:20AM	0	5		0		6	2	0	4		3	0					20
8:25AM	0	2		0		1	0	0	1		3	0					7
8:30AM	0	2		0		0	0	0	0		0	0					2
8:35AM	0	0		0		1	0	0	0		0	0					1
8:40AM	0	2		0		0	1	0	0		1	0					4
8:45AM	0	0		0		0	0	0	1		0	0					1
8:50AM	0	0		0		0	0	0	1		2	0					3
8:55AM	0	0		0		1	0	0	0		0	0					1

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM	0	1		0		1	0	0	0		0	0				
7:05AM	0	0		0		5	0	0	1		0	0				
7:10AM	0	0		0		2	0	0	0		0	0				
7:15AM	0	0		0		1	0	0	0		0	0				
7:20AM	0	1		0		5	0	0	0		10	0				
7:25AM	0	4		0		4	0	0	0		5	0				
7:30AM	0	0		0		4	0	0	2		3	0				
7:35AM	0	0		0		3	0	0	1		3	0				
7:40AM	0	3		0		2	0	0	1		2	0				
7:45AM	0	2		0		4	1	0	1		4	0				
7:50AM	0	3		0		14	0	0	1		6	0				
7:55AM	0	4		0		13	1	0	3		14	0				
8:00AM	0	4		0		19	2	0	3		7	0				
8:05AM	0	2		0		16	7	0	11		6	0				
8:10AM	0	7		0		18	1	0	6		16	0				
8:15AM	0	7		0		12	3	0	7		13	0				
8:20AM	0	5		0		6	2	0	4		3	0				
8:25AM	0	2		0		1	0	0	1		3	0				
8:30AM	0	2		0		0	0	0	0		0	0				
8:35AM	0	0		0		1	0	0	0		0	0				
8:40AM	0	2		0		0	1	0	0		1	0				
8:45AM	0	0		0		0	0	0	1		0	0				
8:50AM	0	0		0		0	0	0	1		2	0				
8:55AM	0	0		0		1	0	0	0		0	0				
	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM	0	0		0		0	0	0	0		0	0				
7:05AM	0	0		0		0	0	0	0		0	0				
7:10AM	0	0		0		0	0	0	0		0	0				
7:15AM	0	0		0		1	0	0	0		0	0				
7:20AM	0	0		0		0	0	0	0		0	0				
7:25AM	0	0		0		0	0	0	0		0	0				
7:30AM	0	0		0		0	0	0	0		0	0				
7:35AM	0	0		0		0	1	0	0		0	0				
7:40AM	0	0		0		0	0	0	0		0	0				
7:45AM	0	0		0		1	0	0	0		0	0				
7:50AM	0	0		0		0	0	0	0		0	0				
7:55AM	0	0		0		0	0	0	0		0	0				
8:00AM	0	2		0		2	0	0	0		0	0				
8:05AM	0	2		0		3	0	0	0		0	0				
8:10AM	0	1		0		7	0	0	0		0	0				
8:15AM	0	1		0		4	1	0	0		0	0				
8:20AM	0	0		0		0	0	0	0		0	0				
8:25AM	0	0		0		0	0	0	0		0	0				
8:30AM	0	0		0		0	0	0	0		0	0				
8:35AM	0	0		0		0	0	0	0		0	0				
8:40AM	0	0		0		0	0	0	0		0	0				
8:45AM	0	0		0		0	0	0	0		0	0				
8:50AM	0	0		0		0	0	0	0		0	0				
8:55AM	0	0		0		0	0	0	0		0	0				

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
7:00AM	0	0	0	
7:05AM	0	0	0	
7:10AM	0	0	0	
7:15AM	0	0	0	
7:20AM	0	0	0	
7:25AM	0	0	0	
7:30AM	0	0	0	
7:35AM	1	0	0	
7:40AM	2	0	0	
7:45AM	2	0	0	
7:50AM	2	0	0	
7:55AM	4	0	3	
8:00AM	5	2	2	
8:05AM	6	0	4	
8:10AM	12	0	0	
8:15AM	15	0	11	
8:20AM	5	0	1	
8:25AM	9	0	2	
8:30AM	38	0	0	
8:35AM	0	0	0	
8:40AM	0	2	0	
8:45AM	1	0	0	
8:50AM	2	0	0	
8:55AM	2	0	0	

K-D-N
KEY DATA NETWORK

Count Name: NE 17th St at N Hembree St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
87	151	238
0	0	0
87	**151**	**238**

19	132	
0	0	0
R	**T**	**L**

Total	141	0	**141**
In	122	0	**122**
Out	19	0	**19**

40	0	**L**
	0	**T**
82	0	**R**

Peak Hour Summary

7:25AM to 8:20AM

Lights
Other Vehicles

R	0	
T	0	
L	0	

0	0	0	Out
0	0	0	In
0	0	0	Total

L	**T**	**R**
0	47	
0	0	0

214	47	261
0	0	0
214	**47**	**261**
Out	In	Total

Northbound Approach

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE 17th St at N Hembree St**		
Location	45.22 - -123.19		
Start Date	9/20/2016		
Start Time	7:00AM		
Key Data Summary			
Peak Hour Start	2:55PM	System Peak Hour Start	
Peak 15 Min Start	3:30PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.50	PHF (15-Min Interval)	0.58

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
10	33		23	30	23		18					41	56	40	0	43	53	41	0

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0.0%	30.3%			34.8%	0.0%	0.0%		16.7%				26.8%	17.9%	0.0%		23.3%	15.1%	7.3%	

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
33	1	2	

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
2:00PM	0	1		0		0	0	0	1		1	0					3
2:05PM	0	0		0		1	0	0	0		0	0					1
2:10PM	0	1		0		1	0	0	0		1	0					3
2:15PM	0	3		0		0	0	0	0		0	0					3
2:20PM	0	0		0		1	0	0	0		1	0					2
2:25PM	0	1		0		1	0	0	1		0	0					3
2:30PM	0	0		0		0	0	0	1		2	0					3
2:35PM	0	0		0		2	0	0	0		0	0					2
2:40PM	2	0		0		0	0	0	1		0	0					3
2:45PM	0	1		0		0	2	0	1		0	0					4
2:50PM	1	1		0		0	0	0	0		0	0					2
2:55PM	0	1		0		1	1	0	1		0	0					4
3:00PM	0	0		0		1	1	0	1		1	0					4
3:05PM	1	0		0		1	3	1	4		1	0					10
3:10PM	1	0		0		1	1	0	0		3	0					6
3:15PM	0	0		0		3	3	0	2		0	0					8
3:20PM	0	0		0		3	5	0	2		1	0					11
3:25PM	0	0		0		1	8	0	4		0	0					13
3:30PM	0	10		0		1	8	0	3		1	0					23
3:35PM	4	12		0		2	0	0	2		2	0					22
3:40PM	1	4		0		3	0	0	2		5	0					15
3:45PM	2	4		0		5	0	0	1		3	0					15
3:50PM	1	2		0		1	0	0	1		1	1					6
3:55PM	0	2		0		1	0	0	0		1	0					4

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM	0	1		0		0	0	0	1		1	0				
2:05PM	0	0		0		1	0	0	0		0	0				
2:10PM	0	1		0		1	0	0	0		1	0				
2:15PM	0	3		0		0	0	0	0		0	0				
2:20PM	0	0		0		1	0	0	0		1	0				
2:25PM	0	1		0		1	0	0	1		0	0				
2:30PM	0	0		0		0	0	0	1		2	0				
2:35PM	0	0		0		2	0	0	0		0	0				
2:40PM	2	0		0		0	0	0	1		0	0				
2:45PM	0	1		0		0	2	0	1		0	0				
2:50PM	1	1		0		0	0	0	0		0	0				
2:55PM	0	1		0		1	1	0	1		0	0				
3:00PM	0	0		0		1	1	0	1		1	0				
3:05PM	1	0		0		1	3	1	4		1	0				
3:10PM	1	0		0		1	1	0	0		3	0				
3:15PM	0	0		0		0	3	0	2		0	0				
3:20PM	0	0		0		1	5	0	2		1	0				
3:25PM	0	0		0		0	8	0	4		0	0				
3:30PM	0	1		0		0	8	0	3		0	0				
3:35PM	4	11		0		1	0	0	2		2	0				
3:40PM	1	4		0		3	0	0	2		5	0				
3:45PM	2	4		0		5	0	0	1		1	0				
3:50PM	1	2		0		1	0	0	1		1	1				
3:55PM	0	2		0		1	0	0	0		1	0				

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM	0	0		0		0	0	0	0		0	0				
2:05PM	0	0		0		0	0	0	0		0	0				
2:10PM	0	0		0		0	0	0	0		0	0				
2:15PM	0	0		0		0	0	0	0		0	0				
2:20PM	0	0		0		0	0	0	0		0	0				
2:25PM	0	0		0		0	0	0	0		0	0				
2:30PM	0	0		0		0	0	0	0		0	0				
2:35PM	0	0		0		0	0	0	0		0	0				
2:40PM	0	0		0		0	0	0	0		0	0				
2:45PM	0	0		0		0	0	0	0		0	0				
2:50PM	0	0		0		0	0	0	0		0	0				
2:55PM	0	0		0		0	0	0	0		0	0				
3:00PM	0	0		0		0	0	0	0		0	0				
3:05PM	0	0		0		0	0	0	0		0	0				
3:10PM	0	0		0		0	0	0	0		0	0				
3:15PM	0	0		0		3	0	0	0		0	0				
3:20PM	0	0		0		2	0	0	0		0	0				
3:25PM	0	0		0		1	0	0	0		0	0				
3:30PM	0	9		0		1	0	0	0		1	0				
3:35PM	0	1		0		1	0	0	0		0	0				
3:40PM	0	0		0		0	0	0	0		0	0				
3:45PM	0	0		0		0	0	0	0		2	0				
3:50PM	0	0		0		0	0	0	0		0	0				
3:55PM	0	0		0		0	0	0	0		0	0				

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
2:00PM	0	0	0	
2:05PM	0	0	0	
2:10PM	0	0	0	
2:15PM	0	0	0	
2:20PM	0	0	0	
2:25PM	0	0	0	
2:30PM	2	0	0	
2:35PM	0	0	0	
2:40PM	0	0	0	
2:45PM	0	0	0	
2:50PM	0	0	0	
2:55PM	0	0	0	
3:00PM	0	0	0	
3:05PM	0	0	1	
3:10PM	6	1	0	
3:15PM	3	0	0	
3:20PM	8	0	0	
3:25PM	3	0	1	
3:30PM	2	0	0	
3:35PM	3	0	0	
3:40PM	0	0	0	
3:45PM	6	0	0	
3:50PM	2	0	0	
3:55PM	0	0	0	

K-D-N
KEY DATA NETWORK

Count Name: NE 17th St at N Hembree St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
56	53	109
0	0	0
56	**53**	**109**

30	23	
0	0	0
R	**T**	**L**

Total	81	0	**81**
In	41	0	**41**
Out	40	0	**40**

23	0	**L**
	0	**T**
18	0	**R**

Peak Hour Summary

2:55PM to 3:50PM

Lights
Other Vehicles

L	**T**	**R**
10	33	
0	0	0

41	43	84
0	0	0
41	**43**	**84**
Out	In	Total

Northbound Approach

R	0	
T	0	
L	0	

0	0	0	Out
0	0	0	In
0	0	0	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE 17th St at N Hembree St**		
Location	45.22 - -123.19		
Start Date	9/20/2016		
Start Time	4:00PM		
Key Data Summary			
Peak Hour Start	5:00PM	System Peak Hour Start	
Peak 15 Min Start	5:45PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.57	PHF (15-Min Interval)	0.76

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
20	24		31	3	5		27					58	29	23	0	44	34	32	0

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0.0%	0.0%		3.2%	33.3%	0.0%		0.0%					1.7%	0.0%	4.3%		0.0%	5.9%	0.0%	

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
35	0	1	

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
4:00PM	0	3		0		0	0	0	1		1	0					5
4:05PM	1	3		0		1	0	0	0		1	0					6
4:10PM	0	1		0		0	0	0	0		0	0					1
4:15PM	0	0		0		1	0	0	0		0	0					1
4:20PM	1	1		0		0	0	0	2		4	0					8
4:25PM	1	0		0		3	0	0	0		2	0					6
4:30PM	1	0		0		1	0	0	0		4	0					6
4:35PM	1	2		0		4	0	0	0		2	0					9
4:40PM	0	1		0		2	0	0	0		1	0					4
4:45PM	0	4		0		3	0	0	0		1	0					8
4:50PM	2	2		0		6	0	0	1		5	0					16
4:55PM	0	1		0		3	1	0	0		4	0					9
5:00PM	2	2		0		4	1	0	0		0	0					9
5:05PM	1	1		0		2	0	0	1		0	0					5
5:10PM	1	1		0		1	1	0	0		0	0					4
5:15PM	1	3		0		4	1	0	1		4	0					14
5:20PM	1	1		0		4	0	0	0		0	0					6
5:25PM	2	3		0		2	0	0	0		2	0					9
5:30PM	2	2		0		1	0	0	0		3	0					8
5:35PM	1	2		0		1	0	0	2		2	0					8
5:40PM	5	3		0		2	0	0	0		1	0					11
5:45PM	1	0		0		1	0	0	1		5	0					8
5:50PM	1	3		0		6	0	0	0		6	0					16
5:55PM	2	3		0		3	0	0	0		4	0					12

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM	0	3		0		0	0	0	1		1	0				
4:05PM	1	3		0		1	0	0	0		1	0				
4:10PM	0	1		0		0	0	0	0		0	0				
4:15PM	0	0		0		1	0	0	0		0	0				
4:20PM	1	1		0		0	0	0	2		4	0				
4:25PM	1	0		0		2	0	0	0		2	0				
4:30PM	1	0		0		1	0	0	0		4	0				
4:35PM	1	2		0		4	0	0	0		2	0				
4:40PM	0	1		0		2	0	0	0		1	0				
4:45PM	0	4		0		3	0	0	0		1	0				
4:50PM	2	2		0		4	0	0	1		5	0				
4:55PM	0	1		0		3	1	0	0		4	0				
5:00PM	2	2		0		4	1	0	0		0	0				
5:05PM	1	1		0		2	0	0	1		0	0				
5:10PM	1	1		0		1	0	0	0		0	0				
5:15PM	1	3		0		4	1	0	1		4	0				
5:20PM	1	1		0		4	0	0	0		0	0				
5:25PM	2	3		0		2	0	0	0		2	0				
5:30PM	2	2		0		1	0	0	0		3	0				
5:35PM	1	2		0		1	0	0	2		2	0				
5:40PM	5	3		0		2	0	0	0		1	0				
5:45PM	1	0		0		1	0	0	1		5	0				
5:50PM	1	3		0		5	0	0	0		6	0				
5:55PM	2	3		0		3	0	0	0		4	0				
	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM	0	0		0		0	0	0	0		0	0				
4:05PM	0	0		0		0	0	0	0		0	0				
4:10PM	0	0		0		0	0	0	0		0	0				
4:15PM	0	0		0		0	0	0	0		0	0				
4:20PM	0	0		0		0	0	0	0		0	0				
4:25PM	0	0		0		1	0	0	0		0	0				
4:30PM	0	0		0		0	0	0	0		0	0				
4:35PM	0	0		0		0	0	0	0		0	0				
4:40PM	0	0		0		0	0	0	0		0	0				
4:45PM	0	0		0		0	0	0	0		0	0				
4:50PM	0	0		0		2	0	0	0		0	0				
4:55PM	0	0		0		0	0	0	0		0	0				
5:00PM	0	0		0		0	0	0	0		0	0				
5:05PM	0	0		0		0	0	0	0		0	0				
5:10PM	0	0		0		0	1	0	0		0	0				
5:15PM	0	0		0		0	0	0	0		0	0				
5:20PM	0	0		0		0	0	0	0		0	0				
5:25PM	0	0		0		0	0	0	0		0	0				
5:30PM	0	0		0		0	0	0	0		0	0				
5:35PM	0	0		0		0	0	0	0		0	0				
5:40PM	0	0		0		0	0	0	0		0	0				
5:45PM	0	0		0		0	0	0	0		0	0				
5:50PM	0	0		0		1	0	0	0		0	0				
5:55PM	0	0		0		0	0	0	0		0	0				

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
4:00PM	1	0	0	
4:05PM	0	0	0	
4:10PM	0	0	0	
4:15PM	0	0	0	
4:20PM	0	0	0	
4:25PM	1	1	0	
4:30PM	0	0	0	
4:35PM	0	0	0	
4:40PM	2	0	0	
4:45PM	7	0	0	
4:50PM	0	0	0	
4:55PM	5	0	0	
5:00PM	2	0	0	
5:05PM	1	0	0	
5:10PM	0	0	0	
5:15PM	0	0	0	
5:20PM	2	0	0	
5:25PM	0	0	0	
5:30PM	1	0	0	
5:35PM	0	0	0	
5:40PM	24	0	0	
5:45PM	0	0	1	
5:50PM	1	0	0	
5:55PM	4	0	0	

K-D-N
KEY DATA NETWORK

Count Name: NE 17th St at N Hembree St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
29	34	63
0	0	0
29	**34**	**63**

3	31	
0	0	0
R	**T**	**L**

Total	55	0	**55**
In	32	0	**32**
Out	23	0	**23**

5	0	**L**
	0	**T**
27	0	**R**

R	0	
T	0	
L	0	

0	0	0	Out
0	0	0	In
0	0	0	Total

Peak Hour Summary

5:00PM to 5:55PM

Lights
Other Vehicles

L	T	R
20	24	
0	0	0

58	44	102
0	0	0
58	**44**	**102**
Out	In	Total

Northbound Approach

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**Galloway St at 15th St**		
Location	45.21 - -123.19		
Start Date	9/20/2016		
Start Time	6:50AM		
Key Data Summary			
Peak Hour Start	7:25AM	System Peak Hour Start	
Peak 15 Min Start	8:00AM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.57	PHF (15-Min Interval)	0.65

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
19	0	20	22	37	123	0	164	67	5	35	0	109	0	177	206	39	182	231	40

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
10.5%		0.0%	0.0%	2.7%	4.9%		3.0%	0.0%	0.0%	2.9%		0.9%		5.1%	2.4%	5.1%	3.8%	2.2%	2.5%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
2	6	146	52

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
6:50AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4
6:55AM	0	1	0	0	0	0	3	0	2	2	0	0	0	0	0	0	8
7:00AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
7:05AM	0	0	0	0	0	0	3	0	0	7	0	0	0	0	0	0	10
7:10AM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	5
7:15AM	0	0	2	0	0	0	1	0	0	2	0	0	0	0	0	0	5
7:20AM	1	0	0	0	1	0	4	0	1	5	0	0	0	1	0	0	13
7:25AM	2	0	1	0	0	0	3	0	0	9	0	0	0	1	0	0	16
7:30AM	1	0	1	0	1	3	3	0	0	3	5	0	1	3	0	0	21
7:35AM	0	0	0	0	1	0	2	0	0	9	0	0	0	1	0	0	13
7:40AM	0	0	2	0	2	0	4	0	0	9	3	0	0	1	0	0	21
7:45AM	3	0	1	0	3	4	8	0	0	11	0	0	0	2	0	0	32
7:50AM	1	0	1	0	4	8	9	0	0	15	1	0	0	1	0	0	40
7:55AM	4	0	0	0	4	2	17	0	0	16	7	0	0	0	0	0	50
8:00AM	3	0	4	0	1	1	22	0	0	25	8	0	1	7	0	0	72
8:05AM	1	0	1	0	1	6	12	0	0	18	7	0	2	6	0	0	54
8:10AM	0	0	5	0	1	4	19	0	0	23	8	0	0	2	0	0	62
8:15AM	2	0	4	0	2	5	14	0	0	17	16	0	1	7	0	0	68
8:20AM	2	0	0	0	2	4	10	0	0	9	12	0	0	4	0	0	43
8:25AM	0	0	1	0	2	1	4	0	0	3	1	0	0	1	0	0	13
8:30AM	0	0	0	0	1	0	2	0	0	4	0	0	0	2	0	0	9
8:35AM	0	0	0	0	0	0	1	0	0	3	0	0	0	1	0	0	5
8:40AM	1	0	0	0	0	2	1	0	0	2	0	0	0	0	0	0	6
8:45AM	0	0	2	0	0	0	1	0	0	2	0	0	0	2	0	0	7
8:50AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
6:50AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
6:55AM	0	1	0	0	0	0	3	0	2	2	0	0	0	0	0	0
7:00AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:05AM	0	0	0	0	0	0	3	0	0	7	0	0	0	0	0	0
7:10AM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0
7:15AM	0	0	2	0	0	0	1	0	0	2	0	0	0	0	0	0
7:20AM	1	0	0	0	1	0	4	0	1	5	0	0	0	1	0	0
7:25AM	1	0	1	0	0	0	3	0	0	9	0	0	0	1	0	0
7:30AM	1	0	1	0	1	3	3	0	0	3	5	0	1	3	0	0
7:35AM	0	0	0	0	1	0	2	0	0	9	0	0	0	1	0	0
7:40AM	0	0	2	0	2	0	4	0	0	9	3	0	0	1	0	0
7:45AM	3	0	1	0	3	4	8	0	0	11	0	0	0	1	0	0
7:50AM	0	0	1	0	4	8	9	0	0	15	1	0	0	1	0	0
7:55AM	4	0	0	0	4	2	17	0	0	16	7	0	0	0	0	0
8:00AM	3	0	4	0	1	1	22	0	0	22	8	0	1	7	0	0
8:05AM	1	0	1	0	1	6	12	0	0	18	7	0	2	6	0	0
8:10AM	0	0	5	0	1	4	18	0	0	22	8	0	0	2	0	0
8:15AM	2	0	4	0	2	4	12	0	0	16	16	0	1	7	0	0
8:20AM	2	0	0	0	2	4	7	0	0	9	12	0	0	4	0	0
8:25AM	0	0	1	0	2	1	4	0	0	3	1	0	0	1	0	0
8:30AM	0	0	0	0	1	0	2	0	0	4	0	0	0	2	0	0
8:35AM	0	0	0	0	0	0	1	0	0	3	0	0	0	1	0	0
8:40AM	1	0	0	0	0	2	1	0	0	2	0	0	0	0	0	0
8:45AM	0	0	2	0	0	0	1	0	0	2	0	0	0	2	0	0
8:50AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
6:50AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:55AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:05AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:10AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:20AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:25AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:35AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:40AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:50AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:55AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
8:05AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:10AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
8:15AM	0	0	0	0	0	1	2	0	0	1	0	0	0	0	0	0
8:20AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
8:25AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:35AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:40AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

K-D-N
KEY DATA NETWORK

8:45AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:50AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
6:50AM	0	0	0	0
6:55AM	1	0	1	0
7:00AM	0	0	0	0
7:05AM	0	0	0	0
7:10AM	0	0	1	0
7:15AM	0	0	0	0
7:20AM	1	0	0	0
7:25AM	0	0	0	0
7:30AM	0	0	0	0
7:35AM	0	0	0	0
7:40AM	0	0	8	0
7:45AM	0	0	6	0
7:50AM	0	0	5	0
7:55AM	0	2	8	4
8:00AM	1	0	16	3
8:05AM	0	1	18	10
8:10AM	1	3	33	6
8:15AM	0	0	27	14
8:20AM	0	0	25	15
8:25AM	1	0	2	3
8:30AM	0	1	1	0
8:35AM	0	0	0	0
8:40AM	0	0	1	1
8:45AM	0	0	0	0
8:50AM	0	0	0	0

K-D-N
KEY DATA NETWORK

Count Name: Galloway St at 15th St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
0	182	182
0	0	0
0	**182**	**182**

123	37	22
0	0	0
R	**T**	**L**

Total	408	0	**408**
In	231	0	**231**
Out	177	0	**177**

0	0	**L**
164	0	**T**
67	0	**R**

Peak Hour Summary

7:25AM to 8:20AM

Lights
Other Vehicles

L	**T**	**R**
19	0	20
0	0	0

109	39	148
0	0	0
109	**39**	**148**
Out	In	Total

Northbound Approach

R	0	0
T	0	35
L	0	5

206	206	206	Out
40	40	40	In
246	246	246	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**Galloway at 15th 2pm**		
Location	45.21 - -123.19		
Start Date	9/20/2016		
Start Time	2:00PM		
Key Data Summary			
Peak Hour Start	2:55PM	System Peak Hour Start	
Peak 15 Min Start	3:25PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.37	PHF (15-Min Interval)	0.50

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
11	1	17	19	19	46	0	89	20	29	61	0	68	1	118	125	29	84	109	90

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0.0%	0.0%	0.0%	0.0%	0.0%	6.5%		5.6%	0.0%	3.4%	8.2%		1.5%	0.0%	6.8%	4.0%	0.0%	3.6%	4.6%	6.7%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
24	68	145	33

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound			
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM	0	0	0	0	0	0	1	0	0	2	0	0	0	4	0	0
2:05PM	0	0	1	0	0	0	0	0	0	2	1	0	0	3	0	0
2:10PM	1	0	1	0	0	1	1	0	0	1	0	0	0	2	0	0
2:15PM	0	0	1	0	0	0	0	0	0	2	1	0	0	2	0	0
2:20PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
2:25PM	0	0	0	0	0	0	1	0	0	3	0	0	0	2	0	0
2:30PM	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
2:35PM	1	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0
2:40PM	0	0	1	0	1	1	1	0	0	3	0	0	0	0	0	0
2:45PM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:50PM	1	0	1	0	0	0	0	0	0	4	0	0	1	1	0	0
2:55PM	0	0	0	0	2	1	1	0	0	7	0	0	0	0	0	0
3:00PM	0	0	0	0	1	0	1	0	0	4	0	0	0	0	0	0
3:05PM	0	1	2	0	1	2	0	0	0	11	0	0	0	0	0	0
3:10PM	0	0	0	0	1	0	1	0	0	13	0	0	0	3	0	0
3:15PM	2	0	0	0	0	0	1	0	0	12	0	0	2	3	0	0
3:20PM	3	0	1	0	1	0	6	0	0	7	0	0	1	6	0	0
3:25PM	0	0	5	0	5	5	10	0	0	8	6	0	9	11	0	0
3:30PM	4	0	5	0	3	7	9	0	0	2	5	0	14	22	0	0
3:35PM	1	0	0	0	2	1	3	0	0	5	3	0	3	8	0	0
3:40PM	0	0	3	0	1	3	5	0	0	10	2	0	0	2	0	0
3:45PM	1	0	0	0	2	0	6	0	0	4	4	0	0	4	0	0
3:50PM	0	0	1	0	0	0	3	0	0	6	0	0	0	2	0	0
3:55PM	0	0	1	0	0	0	1	0	0	4	0	0	0	1	0	0

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM	0	0	0	0	0	0	1	0	0	2	0	0	0	4	0	0
2:05PM	0	0	1	0	0	0	0	0	0	2	1	0	0	2	0	0
2:10PM	1	0	1	0	0	1	1	0	0	1	0	0	0	2	0	0
2:15PM	0	0	1	0	0	0	0	0	0	2	1	0	0	1	0	0
2:20PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
2:25PM	0	0	0	0	0	0	1	0	0	3	0	0	0	2	0	0
2:30PM	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
2:35PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
2:40PM	0	0	1	0	1	1	1	0	0	3	0	0	0	0	0	0
2:45PM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:50PM	1	0	1	0	0	0	0	0	0	4	0	0	1	1	0	0
2:55PM	0	0	0	0	2	1	1	0	0	7	0	0	0	0	0	0
3:00PM	0	0	0	0	1	0	1	0	0	4	0	0	0	0	0	0
3:05PM	0	1	2	0	1	2	0	0	0	11	0	0	0	0	0	0
3:10PM	0	0	0	0	1	0	1	0	0	11	0	0	0	3	0	0
3:15PM	2	0	0	0	0	0	1	0	0	10	0	0	2	3	0	0
3:20PM	3	0	1	0	1	0	5	0	0	7	0	0	1	5	0	0
3:25PM	0	0	5	0	5	5	9	0	0	7	6	0	9	11	0	0
3:30PM	4	0	5	0	3	7	9	0	0	2	5	0	13	19	0	0
3:35PM	1	0	0	0	2	1	2	0	0	5	3	0	3	7	0	0
3:40PM	0	0	3	0	1	3	5	0	0	10	2	0	0	2	0	0
3:45PM	1	0	0	0	2	0	6	0	0	4	4	0	0	4	0	0
3:50PM	0	0	1	0	0	0	3	0	0	6	0	0	0	2	0	0
3:55PM	0	0	1	0	0	0	1	0	0	4	0	0	0	1	0	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:05PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2:10PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2:20PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:25PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:35PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:40PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:50PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:55PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:05PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:10PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:15PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:20PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
3:25PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
3:30PM	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0
3:35PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
3:40PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:50PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:55PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
2:00PM	0	0	1	0
2:05PM	0	0	0	0
2:10PM	0	0	0	0
2:15PM	0	0	1	0
2:20PM	0	0	0	0
2:25PM	0	0	1	0
2:30PM	0	0	0	0
2:35PM	0	0	0	0
2:40PM	0	0	0	0
2:45PM	1	0	0	0
2:50PM	0	0	0	0
2:55PM	0	0	0	0
3:00PM	0	0	1	0
3:05PM	2	0	5	3
3:10PM	0	1	4	1
3:15PM	2	3	5	10
3:20PM	1	7	16	16
3:25PM	5	10	65	1
3:30PM	5	6	29	1
3:35PM	9	7	14	1
3:40PM	0	1	2	0
3:45PM	0	0	4	0
3:50PM	0	33	0	0
3:55PM	0	2	0	1

K-D-N
KEY DATA NETWORK

Count Name: Galloway at 15th 2pm
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
1	84	85
0	0	0
1	**84**	**85**

46	19	19
0	0	0
R	**T**	**L**

Total	227	0	**227**
In	109	0	**109**
Out	118	0	**118**

0	0	**L**
89	0	**T**
20	0	**R**

Peak Hour Summary

2:55PM to 3:50PM

Lights
Other Vehicles

L	**T**	**R**
11	1	17
0	0	0

68	29	97
0	0	0
68	**29**	**97**
Out	In	Total

Northbound Approach

R	0	0
T	0	61
L	0	29

125	125	125	Out
90	90	90	In
215	215	215	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**Galloway at 15th PM**		
Location	45.21 - -123.19		
Start Date	9/20/2016		
Start Time	4:00PM		
Key Data Summary			
Peak Hour Start	5:00PM	System Peak Hour Start	
Peak 15 Min Start	5:45PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.50	PHF (15-Min Interval)	0.72

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
3	0	7	16	6	55	2	65	2	3	57	1	11	3	115	88	10	77	69	61

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
0	12	2	3

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
4:00PM	0	0	0	0	0	2	2	0	0	3	0	0	0	1	0	0	8
4:05PM	0	0	0	0	0	0	2	0	0	1	0	0	1	2	0	0	6
4:10PM	0	0	0	0	0	0	1	0	0	3	1	0	0	2	0	0	7
4:15PM	1	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	4
4:20PM	1	0	0	0	1	0	1	0	0	5	1	0	0	1	0	0	10
4:25PM	0	0	0	0	1	1	2	0	0	4	0	0	0	1	0	0	9
4:30PM	0	0	1	0	1	0	3	0	0	8	0	0	0	3	0	0	16
4:35PM	0	0	1	0	0	0	2	0	0	4	0	0	0	1	0	0	8
4:40PM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4
4:45PM	0	0	2	0	2	0	1	0	0	5	0	0	0	0	0	0	10
4:50PM	0	0	0	0	0	0	3	0	0	5	0	0	0	0	0	0	8
4:55PM	0	0	0	0	2	1	3	0	0	2	0	0	0	3	0	0	11
5:00PM	0	0	0	0	2	0	3	0	0	6	0	0	0	2	0	0	13
5:05PM	0	0	0	0	1	1	4	0	0	3	1	0	0	3	0	0	13
5:10PM	0	0	0	0	0	0	4	0	0	4	0	0	0	3	0	0	11
5:15PM	0	0	1	0	0	1	3	0	0	6	0	0	0	5	1	0	17
5:20PM	0	0	1	0	0	0	2	0	0	4	0	0	1	4	0	0	12
5:25PM	1	0	1	0	0	0	2	0	0	7	0	0	0	8	0	0	19
5:30PM	0	0	0	0	1	2	6	0	0	3	0	0	1	6	0	0	19
5:35PM	0	0	1	0	1	0	2	0	0	4	0	0	0	1	0	0	9
5:40PM	0	0	1	0	3	1	9	0	0	8	1	0	1	5	0	0	29
5:45PM	1	0	0	0	1	0	7	0	1	5	0	0	0	6	0	0	21
5:50PM	0	0	1	0	3	0	5	0	0	5	0	0	0	4	0	0	18
5:55PM	1	0	1	0	4	1	8	0	1	10	0	0	0	10	0	0	36

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM	0	0	0	0	0	2	2	0	0	3	0	0	0	1	0	0
4:05PM	0	0	0	0	0	0	2	0	0	1	0	0	1	2	0	0
4:10PM	0	0	0	0	0	0	1	0	0	3	1	0	0	1	0	0
4:15PM	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
4:20PM	1	0	0	0	1	0	1	0	0	5	1	0	0	1	0	0
4:25PM	0	0	0	0	1	1	2	0	0	4	0	0	0	1	0	0
4:30PM	0	0	1	0	1	0	3	0	0	8	0	0	0	3	0	0
4:35PM	0	0	1	0	0	0	2	0	0	3	0	0	0	1	0	0
4:40PM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0
4:45PM	0	0	2	0	2	0	1	0	0	5	0	0	0	0	0	0
4:50PM	0	0	0	0	0	0	3	0	0	5	0	0	0	0	0	0
4:55PM	0	0	0	0	2	1	3	0	0	2	0	0	0	2	0	0
5:00PM	0	0	0	0	2	0	3	0	0	6	0	0	0	2	0	0
5:05PM	0	0	0	0	1	1	4	0	0	3	1	0	0	3	0	0
5:10PM	0	0	0	0	0	0	4	0	0	4	0	0	0	3	0	0
5:15PM	0	0	1	0	0	1	3	0	0	6	0	0	0	5	1	0
5:20PM	0	0	1	0	0	0	2	0	0	4	0	0	1	4	0	0
5:25PM	1	0	1	0	0	0	2	0	0	7	0	0	0	8	0	0
5:30PM	0	0	0	0	1	2	6	0	0	3	0	0	1	6	0	0
5:35PM	0	0	1	0	1	0	2	0	0	4	0	0	0	1	0	0
5:40PM	0	0	1	0	3	1	9	0	0	8	1	0	1	5	0	0
5:45PM	1	0	0	0	1	0	7	0	1	5	0	0	0	6	0	0
5:50PM	0	0	1	0	3	0	5	0	0	5	0	0	0	4	0	0
5:55PM	1	0	1	0	4	1	8	0	1	10	0	0	0	10	0	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:05PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:10PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:15PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:20PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:35PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:40PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:50PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:00PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:20PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:35PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:40PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
4:00PM	0	0	0	3
4:05PM	57	14	0	4
4:10PM	7	1	0	1
4:15PM	0	1	0	0
4:20PM	1	0	0	0
4:25PM	0	0	0	0
4:30PM	0	0	0	0
4:35PM	0	1	0	0
4:40PM	0	3	0	0
4:45PM	0	1	0	0
4:50PM	0	0	0	0
4:55PM	0	1	0	0
5:00PM	0	4	0	0
5:05PM	0	3	0	0
5:10PM	0	1	0	0
5:15PM	0	0	0	0
5:20PM	0	0	0	0
5:25PM	0	0	0	0
5:30PM	0	0	1	0
5:35PM	0	0	0	0
5:40PM	0	1	0	2
5:45PM	0	3	0	1
5:50PM	0	0	0	0
5:55PM	0	0	1	0

K-D-N
KEY DATA NETWORK

Count Name: Galloway at 15th PM
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
3	77	80
0	0	0
3	**77**	**80**

55	6	16
0	0	0
R	**T**	**L**

Total	184	0	**184**
In	69	0	**69**
Out	115	0	**115**

2	0	**L**
95	0	**T**
2	0	**R**

Peak Hour Summary

5:00PM to 5:55PM

Lights
Other Vehicles

L	**T**	**R**
3	0	7
0	0	0

11	10	21
0	0	0
11	**10**	**21**
Out	In	Total

Northbound Approach

R	0	1
T	0	57
L	0	3

88	88	88	Out
61	61	61	In
149	149	149	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE 15th St at McMinnville High School**		
Location	45.21 - -123.19		
Start Date	9/22/2016		
Start Time	7:00AM		
Key Data Summary			
Peak Hour Start	7:30AM	System Peak Hour Start	
Peak 15 Min Start	8:05AM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.60	PHF (15-Min Interval)	0.67

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
		28		21	128	105			25	69	0	197	46	133	0	49	233	94	

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
			53.6%		9.5%	4.7%	1.9%			0.0%	8.7%		6.1%	4.3%	12.8%		34.7%	3.4%	6.4%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
6	0	2	

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound			
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM					0		0	0	2	0		0		0	0	0
7:05AM					0		2	0	2	1		0		0	0	0
7:10AM					0		0	0	3	1		0		1	0	0
7:15AM					0		0	0	3	0		0		0	1	0
7:20AM					1		1	0	5	0		0		0	0	0
7:25AM					0		0	0	7	1		0		1	3	1
7:30AM					1		0	0	5	2		0		1	2	0
7:35AM					2		2	0	10	4		0		0	1	0
7:40AM					0		1	0	8	4		0		1	4	0
7:45AM					0		1	0	6	7		0		0	1	0
7:50AM					1		1	0	14	10		0		3	9	0
7:55AM					2		1	0	11	12		0		1	4	0
8:00AM					2		1	0	19	10		0		3	9	0
8:05AM					5		2	0	11	11		0		5	10	0
8:10AM					6		1	0	15	14		0		7	9	0
8:15AM					6		3	0	7	18		0		1	10	0
8:20AM					2		8	0	11	6		0		3	6	0
8:25AM					1		0	0	11	7		0		0	4	0
8:30AM					1		1	0	3	2		0		0	1	0
8:35AM					0		1	0	3	0		0		1	1	0
8:40AM					0		2	0	0	1		0		0	0	0
8:45AM					0		1	0	2	1		0		0	0	0
8:50AM					0		0	0	1	1		0		0	0	0
8:55AM					0		1	0	1	0		0		0	0	0

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM					0		0	0	2	0		0		0	0	0
7:05AM					0		2	0	2	1		0		0	0	0
7:10AM					0		0	0	3	1		0		1	0	0
7:15AM					0		0	0	3	0		0		0	1	0
7:20AM					1		0	0	5	0		0		0	0	0
7:25AM					0		0	0	7	1		0		1	3	1
7:30AM					0		0	0	5	2		0		1	2	0
7:35AM					2		2	0	10	4		0		0	1	0
7:40AM					0		1	0	8	4		0		1	4	0
7:45AM					0		0	0	6	7		0		0	1	0
7:50AM					1		1	0	14	10		0		3	9	0
7:55AM					2		1	0	10	12		0		1	4	0
8:00AM					2		1	0	17	9		0		3	8	0
8:05AM					2		2	0	10	11		0		5	9	0
8:10AM					1		0	0	15	14		0		7	6	0
8:15AM					1		3	0	7	18		0		1	10	0
8:20AM					2		8	0	9	5		0		3	5	0
8:25AM					0		0	0	11	7		0		0	4	0
8:30AM					1		1	0	3	2		0		0	1	0
8:35AM					0		1	0	3	0		0		1	1	0
8:40AM					0		2	0	0	1		0		0	0	0
8:45AM					0		1	0	1	1		0		0	0	0
8:50AM					0		0	0	1	1		0		0	0	0
8:55AM					0		0	0	1	0		0		0	0	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM					0		0	0	0	0		0		0	0	0
7:05AM					0		0	0	0	0		0		0	0	0
7:10AM					0		0	0	0	0		0		0	0	0
7:15AM					0		0	0	0	0		0		0	0	0
7:20AM					0		1	0	0	0		0		0	0	0
7:25AM					0		0	0	0	0		0		0	0	0
7:30AM					1		0	0	0	0		0		0	0	0
7:35AM					0		0	0	0	0		0		0	0	0
7:40AM					0		0	0	0	0		0		0	0	0
7:45AM					0		1	0	0	0		0		0	0	0
7:50AM					0		0	0	0	0		0		0	0	0
7:55AM					0		0	0	1	0		0		0	0	0
8:00AM					0		0	0	2	1		0		0	1	0
8:05AM					3		0	0	1	0		0		0	1	0
8:10AM					5		1	0	0	0		0		0	3	0
8:15AM					5		0	0	0	0		0		0	0	0
8:20AM					0		0	0	2	1		0		0	1	0
8:25AM					1		0	0	0	0		0		0	0	0
8:30AM					0		0	0	0	0		0		0	0	0
8:35AM					0		0	0	0	0		0		0	0	0
8:40AM					0		0	0	0	0		0		0	0	0
8:45AM					0		0	0	1	0		0		0	0	0
8:50AM					0		0	0	0	0		0		0	0	0
8:55AM					0		1	0	0	0		0		0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
7:00AM		0	0	0
7:05AM		0	0	0
7:10AM		0	0	0
7:15AM		0	0	0
7:20AM		0	0	0
7:25AM		0	0	0
7:30AM		0	0	0
7:35AM		1	0	0
7:40AM		0	0	0
7:45AM		1	0	0
7:50AM		0	0	1
7:55AM		0	0	0
8:00AM		1	0	1
8:05AM		0	0	0
8:10AM		0	0	0
8:15AM		2	0	0
8:20AM		1	0	0
8:25AM		0	0	0
8:30AM		0	0	0
8:35AM		0	0	0
8:40AM		0	0	0
8:45AM		3	0	0
8:50AM		1	0	0
8:55AM		0	0	0

K-D-N
KEY DATA NETWORK

Count Name: NE 15th St at McMinnville High School
Start Date: 9/22/2016

Southbound Approach		
Out	In	Total
197	49	246
0	0	0
197	**49**	**246**

21		28
0	0	0
R	**T**	**L**

Total	279	0	**279**
In	233	0	**233**
Out	46	0	**46**

128	0	**L**
105	0	**T**
	0	**R**

Peak Hour Summary

7:30AM to 8:25AM

Lights
Other Vehicles

L	**T**	**R**
0	0	0

0	0	0
0	0	0
0	**0**	**0**
Out	In	Total

Northbound Approach

R	0	69
T	0	25
L	0	

133	133	133	Out
94	94	94	In
227	227	227	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE 15th St at McMinnville High School**		
Location	45.21 - -123.19		
Start Date	9/22/2016		
Start Time	2:00PM		
Key Data Summary			
Peak Hour Start	3:00PM	System Peak Hour Start	
Peak 15 Min Start	3:25PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.40	PHF (15-Min Interval)	0.53

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
			7	16	54	85			69	21	0	75	85	92	0	23	139	90	

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
			85.7%		31.3%	9.3%	0.0%			1.4%	38.1%		17.3%	7.1%	6.5%		47.8%	3.6%	10.0%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
	35	3	6

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
2:00PM					0		1	0	1	0		0		1	1	0	4
2:05PM					0		0	0	0	1		0		2	0	0	3
2:10PM					0		0	0	1	2		0		1	0	0	4
2:15PM					0		1	0	0	0		0		1	0	0	2
2:20PM					0		0	0	1	0		0		0	2	0	3
2:25PM					0		0	0	1	2		0		1	1	0	5
2:30PM					0		1	0	1	2		0		0	1	0	5
2:35PM					0		2	0	2	0		0		1	0	0	5
2:40PM					1		1	0	0	2		0		0	1	0	5
2:45PM					0		1	0	3	2		0		0	2	0	8
2:50PM					0		1	0	2	2		0		1	0	0	6
2:55PM					0		1	0	1	3		0		0	2	0	7
3:00PM					0		0	0	6	0		0		0	2	0	8
3:05PM					1		1	0	3	5		0		0	1	0	11
3:10PM					0		0	0	2	2		0		3	5	0	12
3:15PM					0		1	0	4	9		0		1	1	0	16
3:20PM					0		0	0	2	10		0		4	3	0	19
3:25PM					0		0	0	1	21		0		18	0	0	40
3:30PM					3		4	0	3	11		0		31	1	0	53
3:35PM					1		2	0	9	3		0		10	1	0	26
3:40PM					0		4	0	7	6		0		1	4	0	22
3:45PM					2		2	0	4	8		0		0	0	0	16
3:50PM					0		1	0	6	8		0		1	2	0	18
3:55PM					0		1	0	7	2		0		0	1	0	11

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM					0		1	0	1	0		0		1	1	0
2:05PM					0		0	0	0	1		0		2	0	0
2:10PM					0		0	0	1	2		0		1	0	0
2:15PM					0		1	0	0	0		0		0	0	0
2:20PM					0		0	0	1	0		0		0	1	0
2:25PM					0		0	0	1	2		0		1	1	0
2:30PM					0		1	0	1	1		0		0	1	0
2:35PM					0		2	0	2	0		0		1	0	0
2:40PM					1		1	0	0	2		0		0	1	0
2:45PM					0		1	0	3	2		0		0	2	0
2:50PM					0		1	0	2	2		0		1	0	0
2:55PM					0		1	0	1	3		0		0	2	0
3:00PM					0		0	0	6	0		0		0	1	0
3:05PM					1		1	0	2	5		0		0	0	0
3:10PM					0		0	0	2	2		0		3	2	0
3:15PM					0		1	0	2	9		0		1	0	0
3:20PM					0		0	0	1	10		0		3	1	0
3:25PM					0		0	0	0	21		0		18	0	0
3:30PM					0		0	0	3	11		0		31	1	0
3:35PM					0		2	0	9	3		0		10	1	0
3:40PM					0		3	0	7	6		0		1	4	0
3:45PM					0		2	0	4	8		0		0	0	0
3:50PM					0		1	0	6	8		0		1	2	0
3:55PM					0		1	0	7	2		0		0	1	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM					0		0	0	0	0		0		0	0	0
2:05PM					0		0	0	0	0		0		0	0	0
2:10PM					0		0	0	0	0		0		0	0	0
2:15PM					0		0	0	0	0		0		1	0	0
2:20PM					0		0	0	0	0		0		0	1	0
2:25PM					0		0	0	0	0		0		0	0	0
2:30PM					0		0	0	0	1		0		0	0	0
2:35PM					0		0	0	0	0		0		0	0	0
2:40PM					0		0	0	0	0		0		0	0	0
2:45PM					0		0	0	0	0		0		0	0	0
2:50PM					0		0	0	0	0		0		0	0	0
2:55PM					0		0	0	0	0		0		0	0	0
3:00PM					0		0	0	0	0		0		0	1	0
3:05PM					0		0	0	1	0		0		0	1	0
3:10PM					0		0	0	0	0		0		0	3	0
3:15PM					0		0	0	2	0		0		0	1	0
3:20PM					0		0	0	1	0		0		1	2	0
3:25PM					0		0	0	1	0		0		0	0	0
3:30PM					3		4	0	0	0		0		0	0	0
3:35PM					1		0	0	0	0		0		0	0	0
3:40PM					0		1	0	0	0		0		0	0	0
3:45PM					2		0	0	0	0		0		0	0	0
3:50PM					0		0	0	0	0		0		0	0	0
3:55PM					0		0	0	0	0		0		0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
2:00PM		0	0	0
2:05PM		0	0	0
2:10PM		1	0	0
2:15PM		0	0	0
2:20PM		1	0	0
2:25PM		1	0	0
2:30PM		0	0	0
2:35PM		0	0	0
2:40PM		2	0	0
2:45PM		0	0	0
2:50PM		0	0	1
2:55PM		1	0	0
3:00PM		0	0	0
3:05PM		0	0	0
3:10PM		1	0	0
3:15PM		1	1	0
3:20PM		5	1	2
3:25PM		11	1	1
3:30PM		9	0	1
3:35PM		2	0	0
3:40PM		4	0	1
3:45PM		0	0	1
3:50PM		0	0	0
3:55PM		2	0	0

K-D-N
KEY DATA NETWORK

Count Name: NE 15th St at McMinnville High School
Start Date: 9/22/2016

Southbound Approach		
Out	In	Total
75	23	98
0	0	0
75	**23**	**98**

16		7
0	0	0
R	**T**	**L**

Total	224	0	**224**
In	139	0	**139**
Out	85	0	**85**

54	0	**L**
85	0	**T**
	0	**R**

Peak Hour Summary

3:00PM to 3:55PM

Lights
Other Vehicles

R	0	21
T	0	69
L	0	

92	92	92	Out
90	90	90	In
182	182	182	Total

L	**T**	**R**
0	0	0

0	0	0
0	0	0
0	**0**	**0**
Out	In	Total

Northbound Approach

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE 15th St at McMinnville High School**		
Location	45.21 - -123.19		
Start Date	9/22/2016		
Start Time	4:00PM		
Key Data Summary			
Peak Hour Start	5:00PM	System Peak Hour Start	
Peak 15 Min Start	5:35PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.54	PHF (15-Min Interval)	0.65

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
			9		39	31	45			23	9	0	40	62	54	0	48	76	32

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
			11.1%		2.6%	0.0%	0.0%			0.0%	0.0%		0.0%	1.6%	1.9%		4.2%	0.0%	0.0%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
	56	1	1

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
4:00PM					0		2	0	4	2		0		2	3	0	13
4:05PM					0		0	0	5	3		0		1	0	0	9
4:10PM					1		2	0	2	2		0		0	1	0	8
4:15PM					0		4	0	1	4		0		0	1	0	10
4:20PM					0		0	0	4	4		0		2	0	0	10
4:25PM					0		1	0	1	2		0		1	1	0	6
4:30PM					0		0	0	1	2		0		2	0	0	5
4:35PM					1		1	0	2	3		0		3	0	0	10
4:40PM					0		0	0	2	2		0		0	0	0	4
4:45PM					0		2	0	4	0		0		1	0	0	7
4:50PM					1		1	0	0	4		0		1	1	0	8
4:55PM					0		1	0	6	2		0		0	2	0	11
5:00PM					0		1	0	4	2		0		2	2	0	11
5:05PM					1		2	0	1	1		0		1	2	0	8
5:10PM					2		3	0	0	0		0		2	0	0	7
5:15PM					0		2	0	5	7		0		2	0	0	16
5:20PM					0		0	0	2	3		0		2	1	0	8
5:25PM					0		1	0	2	4		0		0	1	0	8
5:30PM					1		4	0	4	3		0		2	0	0	14
5:35PM					0		6	0	3	8		0		1	0	0	18
5:40PM					1		6	0	4	8		0		4	1	0	24
5:45PM					1		2	0	4	5		0		4	2	0	18
5:50PM					1		2	0	2	1		0		1	0	0	7
5:55PM					2		10	0	0	3		0		2	0	0	17

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM					0		2	0	4	2		0		2	3	0
4:05PM					0		0	0	5	3		0		1	0	0
4:10PM					1		2	0	2	2		0		0	1	0
4:15PM					0		4	0	1	4		0		0	1	0
4:20PM					0		0	0	4	4		0		2	0	0
4:25PM					0		1	0	1	2		0		1	1	0
4:30PM					0		0	0	1	2		0		2	0	0
4:35PM					0		1	0	2	3		0		3	0	0
4:40PM					0		0	0	2	2		0		0	0	0
4:45PM					0		2	0	4	0		0		1	0	0
4:50PM					1		1	0	0	4		0		1	1	0
4:55PM					0		1	0	6	2		0		0	2	0
5:00PM					0		1	0	4	2		0		2	2	0
5:05PM					1		2	0	1	1		0		1	2	0
5:10PM					1		2	0	0	0		0		2	0	0
5:15PM					0		2	0	5	7		0		2	0	0
5:20PM					0		0	0	2	3		0		2	1	0
5:25PM					0		1	0	2	4		0		0	1	0
5:30PM					1		4	0	4	3		0		2	0	0
5:35PM					0		6	0	3	8		0		1	0	0
5:40PM					1		6	0	4	8		0		4	1	0
5:45PM					1		2	0	4	5		0		4	2	0
5:50PM					1		2	0	2	1		0		1	0	0
5:55PM					2		10	0	0	3		0		2	0	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM					0		0	0	0	0		0		0	0	0
4:05PM					0		0	0	0	0		0		0	0	0
4:10PM					0		0	0	0	0		0		0	0	0
4:15PM					0		0	0	0	0		0		0	0	0
4:20PM					0		0	0	0	0		0		0	0	0
4:25PM					0		0	0	0	0		0		0	0	0
4:30PM					0		0	0	0	0		0		0	0	0
4:35PM					1		0	0	0	0		0		0	0	0
4:40PM					0		0	0	0	0		0		0	0	0
4:45PM					0		0	0	0	0		0		0	0	0
4:50PM					0		0	0	0	0		0		0	0	0
4:55PM					0		0	0	0	0		0		0	0	0
5:00PM					0		0	0	0	0		0		0	0	0
5:05PM					0		0	0	0	0		0		0	0	0
5:10PM					1		1	0	0	0		0		0	0	0
5:15PM					0		0	0	0	0		0		0	0	0
5:20PM					0		0	0	0	0		0		0	0	0
5:25PM					0		0	0	0	0		0		0	0	0
5:30PM					0		0	0	0	0		0		0	0	0
5:35PM					0		0	0	0	0		0		0	0	0
5:40PM					0		0	0	0	0		0		0	0	0
5:45PM					0		0	0	0	0		0		0	0	0
5:50PM					0		0	0	0	0		0		0	0	0
5:55PM					0		0	0	0	0		0		0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
4:00PM		0	0	0
4:05PM		3	0	0
4:10PM		1	0	0
4:15PM		1	0	0
4:20PM		1	0	0
4:25PM		0	0	0
4:30PM		0	0	0
4:35PM		1	0	0
4:40PM		5	0	0
4:45PM		0	0	0
4:50PM		0	0	0
4:55PM		6	0	0
5:00PM		20	0	1
5:05PM		14	0	0
5:10PM		5	0	0
5:15PM		0	0	0
5:20PM		0	0	0
5:25PM		1	0	0
5:30PM		2	0	0
5:35PM		1	0	0
5:40PM		0	0	0
5:45PM		7	0	0
5:50PM		2	0	0
5:55PM		4	1	0

K-D-N
KEY DATA NETWORK

Count Name: NE 15th St at McMinnville High School
Start Date: 9/22/2016

Southbound Approach

Out	In	Total
40	48	88
0	0	0
40	**48**	**88**

39		9
0	0	0
R	**T**	**L**

Total	138	0	**138**
In	76	0	**76**
Out	62	0	**62**

31	0	**L**
45	0	**T**
	0	**R**

Peak Hour Summary

5:00PM to 5:55PM

Lights
Other Vehicles

L	**T**	**R**
0	0	0

0	0	0
0	0	0
0	**0**	**0**
Out	In	Total

Northbound Approach

R	0	9
T	0	23
L	0	

54	54	54	Out
32	32	32	In
86	86	86	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE Irvine St at NE 15th St**		
Location	45.21 - -123.18		
Start Date	9/20/2016		
Start Time	7:00AM		
Key Data Summary			
Peak Hour Start	7:30AM	System Peak Hour Start	
Peak 15 Min Start	8:05AM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.44	PHF (15-Min Interval)	0.58

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
		7		3	27	85			86	73	0	100	89	92	0	10	112	159	

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
		0.0%		0.0%	0.0	18.8%			7.0%	0.0%		1.0%	6.7%	17.4%		0.0%	15.2%	3.8%	

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
10	1	3	

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound			
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM					0		0	0	0	0		0	0	0	0	0
7:05AM					0		0	0	1	0		0	0	1	0	0
7:10AM					0		0	0	0	0		0	0	0	0	0
7:15AM					0		0	0	0	0		0	0	2	0	0
7:20AM					0		0	0	0	1		0	0	0	0	0
7:25AM					0		0	0	0	1		0	1	0	0	0
7:30AM					0		0	0	0	2		0	4	0	0	0
7:35AM					0		0	0	1	3		0	3	1	0	0
7:40AM					0		0	0	1	6		0	4	2	0	0
7:45AM					0		0	0	2	4		0	9	3	0	0
7:50AM					0		0	0	1	11		0	4	1	0	0
7:55AM					0		0	0	4	7		0	8	7	0	0
8:00AM					3		0	0	2	9		0	10	18	0	0
8:05AM					0		1	0	2	4		0	10	7	0	0
8:10AM					3		1	0	6	13		0	12	18	0	0
8:15AM					1		0	0	6	15		0	10	12	0	0
8:20AM					0		1	0	0	8		0	8	4	0	0
8:25AM					0		0	0	2	3		0	4	0	0	0
8:30AM					0		0	0	0	1		0	0	1	0	0
8:35AM					0		0	0	0	1		0	2	0	0	0
8:40AM					0		0	0	0	1		0	2	0	0	0
8:45AM					0		0	0	0	0		0	2	0	0	0
8:50AM					0		0	0	0	3		0	2	0	0	0
8:55AM					0		0	0	0	2		0	0	0	0	0

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM					0		0	0	0	0		0		0	0	0
7:05AM					0		0	0	1	0		0		0	1	0
7:10AM					0		0	0	0	0		0		0	0	0
7:15AM					0		0	0	0	0		0		0	2	0
7:20AM					0		0	0	0	1		0		0	0	0
7:25AM					0		0	0	0	1		0		1	0	0
7:30AM					0		0	0	0	2		0		4	0	0
7:35AM					0		0	0	1	3		0		3	1	0
7:40AM					0		0	0	1	6		0		4	2	0
7:45AM					0		0	0	2	4		0		9	3	0
7:50AM					0		0	0	1	10		0		4	1	0
7:55AM					0		0	0	4	7		0		8	7	0
8:00AM					3		0	0	2	6		0		9	18	0
8:05AM					0		1	0	2	2		0		10	7	0
8:10AM					3		1	0	6	9		0		10	18	0
8:15AM					1		0	0	5	11		0		9	12	0
8:20AM					0		1	0	0	7		0		6	4	0
8:25AM					0		0	0	2	2		0		4	0	0
8:30AM					0		0	0	0	1		0		0	1	0
8:35AM					0		0	0	0	1		0		2	0	0
8:40AM					0		0	0	0	1		0		2	0	0
8:45AM					0		0	0	0	0		0		2	0	0
8:50AM					0		0	0	0	3		0		2	0	0
8:55AM					0		0	0	0	2		0		0	0	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:00AM					0		0	0	0	0		0		0	0	0
7:05AM					0		0	0	0	0		0		0	0	0
7:10AM					0		0	0	0	0		0		0	0	0
7:15AM					0		0	0	0	0		0		0	0	0
7:20AM					0		0	0	0	0		0		0	0	0
7:25AM					0		0	0	0	0		0		0	0	0
7:30AM					0		0	0	0	0		0		0	0	0
7:35AM					0		0	0	0	0		0		0	0	0
7:40AM					0		0	0	0	0		0		0	0	0
7:45AM					0		0	0	0	0		0		0	0	0
7:50AM					0		0	0	0	1		0		0	0	0
7:55AM					0		0	0	0	0		0		0	0	0
8:00AM					0		0	0	0	3		0		1	0	0
8:05AM					0		0	0	0	2		0		0	0	0
8:10AM					0		0	0	0	4		0		2	0	0
8:15AM					0		0	0	1	4		0		1	0	0
8:20AM					0		0	0	0	1		0		2	0	0
8:25AM					0		0	0	0	1		0		0	0	0
8:30AM					0		0	0	0	0		0		0	0	0
8:35AM					0		0	0	0	0		0		0	0	0
8:40AM					0		0	0	0	0		0		0	0	0
8:45AM					0		0	0	0	0		0		0	0	0
8:50AM					0		0	0	0	0		0		0	0	0
8:55AM					0		0	0	0	0		0		0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
7:00AM		0	0	0
7:05AM		0	0	0
7:10AM		0	0	0
7:15AM		0	0	0
7:20AM		0	0	0
7:25AM		0	0	0
7:30AM		2	0	0
7:35AM		0	1	1
7:40AM		0	0	0
7:45AM		1	0	0
7:50AM		1	0	0
7:55AM		0	0	0
8:00AM		0	0	0
8:05AM		0	0	0
8:10AM		1	0	0
8:15AM		3	0	2
8:20AM		2	0	0
8:25AM		0	0	0
8:30AM		1	0	0
8:35AM		0	0	0
8:40AM		0	0	0
8:45AM		0	0	0
8:50AM		0	0	0
8:55AM		0	0	0

K-D-N
KEY DATA NETWORK

Count Name: NE Irvine St at NE 15th St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
100	10	110
0	0	0
100	**10**	**110**

3		7
0	0	0
R	**T**	**L**

Total	201	0	**201**
In	112	0	**112**
Out	89	0	**89**

27	0	**L**
85	0	**T**
	0	**R**

Peak Hour Summary

7:30AM to 8:25AM

Lights
Other Vehicles

L	**T**	**R**
0	0	0

0	0	0
0	0	0
0	**0**	**0**
Out	In	Total

Northbound Approach

R	0	73
T	0	86
L	0	

92	92	92	Out
159	159	159	In
251	251	251	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE Irvine St at NE 15th St**		
Location	45.21 - -123.18		
Start Date	9/20/2016		
Start Time	2:00PM		
Key Data Summary			
Peak Hour Start	3:00PM	System Peak Hour Start	
Peak 15 Min Start	3:20PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.30	PHF (15-Min Interval)	0.41

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
			39		61	31	63			38	20	0	51	99	102	0	100	94	58

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
			0.0%		3.3%	0.0%	6.3%			23.7%	0.0%		0.0%	11.1%	3.9%		2.0%	4.3%	15.5%

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
5	1	0	

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
2:00PM					0		4	0	0	1		0	0	1	0		6
2:05PM					0		0	0	0	1		0	1	0	0		2
2:10PM					0		0	0	0	1		0	0	0	0		1
2:15PM					0		0	0	0	1		0	2	0	0		3
2:20PM					1		0	0	0	1		0	0	0	0		2
2:25PM					0		0	0	0	2		0	2	0	0		4
2:30PM					0		0	0	0	2		0	0	0	0		2
2:35PM					0		0	0	1	1		0	1	0	0		3
2:40PM					0		0	0	1	1		0	1	0	0		3
2:45PM					0		0	0	0	0		0	1	0	0		1
2:50PM					0		0	0	0	2		0	4	0	0		6
2:55PM					0		0	0	0	2		0	0	0	0		2
3:00PM					0		0	0	1	1		0	1	0	0		3
3:05PM					0		1	0	2	2		0	1	2	0		8
3:10PM					1		1	0	6	4		0	4	4	0		20
3:15PM					3		1	0	5	1		0	7	5	0		22
3:20PM					1		3	0	4	5		0	9	4	0		26
3:25PM					15		28	0	5	21		0	1	1	0		71
3:30PM					17		22	0	2	11		0	4	2	0		58
3:35PM					1		2	0	0	6		0	3	0	0		12
3:40PM					0		0	0	4	3		0	0	1	0		8
3:45PM					0		1	0	1	3		0	2	0	0		7
3:50PM					0		2	0	1	5		0	1	0	0		9
3:55PM					1		0	0	0	1		0	5	1	0		8

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM					0		4	0	0	1		0		0	1	0
2:05PM					0		0	0	0	1		0		1	0	0
2:10PM					0		0	0	0	1		0		0	0	0
2:15PM					0		0	0	0	1		0		1	0	0
2:20PM					1		0	0	0	1		0		0	0	0
2:25PM					0		0	0	0	2		0		2	0	0
2:30PM					0		0	0	0	2		0		0	0	0
2:35PM					0		0	0	1	0		0		1	0	0
2:40PM					0		0	0	1	1		0		1	0	0
2:45PM					0		0	0	0	0		0		1	0	0
2:50PM					0		0	0	0	2		0		4	0	0
2:55PM					0		0	0	0	2		0		0	0	0
3:00PM					0		0	0	1	1		0		0	0	0
3:05PM					0		1	0	2	2		0		0	2	0
3:10PM					1		1	0	6	4		0		2	4	0
3:15PM					3		1	0	5	1		0		5	5	0
3:20PM					1		3	0	4	5		0		7	4	0
3:25PM					15		28	0	5	21		0		1	1	0
3:30PM					17		22	0	2	7		0		3	2	0
3:35PM					1		2	0	0	6		0		3	0	0
3:40PM					0		0	0	4	3		0		0	1	0
3:45PM					0		1	0	1	3		0		2	0	0
3:50PM					0		0	0	1	5		0		1	0	0
3:55PM					1		0	0	0	1		0		5	1	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
2:00PM					0		0	0	0	0		0		0	0	0
2:05PM					0		0	0	0	0		0		0	0	0
2:10PM					0		0	0	0	0		0		0	0	0
2:15PM					0		0	0	0	0		0		1	0	0
2:20PM					0		0	0	0	0		0		0	0	0
2:25PM					0		0	0	0	0		0		0	0	0
2:30PM					0		0	0	0	0		0		0	0	0
2:35PM					0		0	0	0	1		0		0	0	0
2:40PM					0		0	0	0	0		0		0	0	0
2:45PM					0		0	0	0	0		0		0	0	0
2:50PM					0		0	0	0	0		0		0	0	0
2:55PM					0		0	0	0	0		0		0	0	0
3:00PM					0		0	0	0	0		0		1	0	0
3:05PM					0		0	0	0	0		0		1	0	0
3:10PM					0		0	0	0	0		0		2	0	0
3:15PM					0		0	0	0	0		0		2	0	0
3:20PM					0		0	0	0	0		0		2	0	0
3:25PM					0		0	0	0	0		0		0	0	0
3:30PM					0		0	0	0	4		0		1	0	0
3:35PM					0		0	0	0	0		0		0	0	0
3:40PM					0		0	0	0	0		0		0	0	0
3:45PM					0		0	0	0	0		0		0	0	0
3:50PM					0		2	0	0	0		0		0	0	0
3:55PM					0		0	0	0	0		0		0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
2:00PM		0	0	0
2:05PM		0	0	0
2:10PM		0	0	2
2:15PM		0	0	0
2:20PM		0	0	0
2:25PM		0	0	0
2:30PM		0	0	0
2:35PM		0	0	0
2:40PM		0	0	0
2:45PM		0	0	0
2:50PM		0	0	0
2:55PM		0	0	0
3:00PM		0	0	0
3:05PM		0	1	0
3:10PM		0	0	0
3:15PM		0	0	0
3:20PM		0	0	0
3:25PM		0	0	0
3:30PM		3	0	0
3:35PM		2	0	0
3:40PM		0	0	0
3:45PM		0	0	0
3:50PM		0	0	0
3:55PM		0	0	0

KEY DATA NETWORK

Count Name: NE Irvine St at NE 15th St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
51	100	151
0	0	0
51	**100**	**151**

61		39
0	0	0
R	**T**	**L**

Total	193	0	**193**
In	94	0	**94**
Out	99	0	**99**

31	0	**L**
63	0	**T**
	0	**R**

Peak Hour Summary

3:00PM to 3:55PM

Lights
Other Vehicles

L	**T**	**R**
0	0	0

0	0	0
0	0	0
0	**0**	**0**
Out	In	Total

Northbound Approach

R	0	20
T	0	38
L	0	

102	102	102	Out
58	58	58	In
160	160	160	Total

K-D-N
KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224			
Study Name	**NE Irvine St at NE 15th St**		
Location	45.21 - -123.18		
Start Date	9/20/2016		
Start Time	4:00PM		
Key Data Summary			
Peak Hour Start	5:00PM	System Peak Hour Start	
Peak 15 Min Start	5:45PM	System Peak 15 Min Start	
PHF (5-Min Interval)	0.54	PHF (15-Min Interval)	0.75

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
		12		17	18	24			23	17	0	35	40	36	0	29	42	40	

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
		0.0%		0.0%	0.0%	4.2%			0.0%	5.9%		2.9%	0.0%	2.8%		0.0%	2.4%	2.5%	

PEAK-HOUR VOLUMES- PEDESTRIANS

North	South	East	West
0	1	0	

PEAK-HOUR VOLUMES- BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight

All Vehicle Volumes

	Northbound				Southbound				Eastbound				Westbound				
Start	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach				
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Total
4:00PM					0		0	0	0	1		0	0	0	0		1
4:05PM					0		0	0	0	0		0	1	1	0		2
4:10PM					0		0	0	1	1		0	0	1	0		3
4:15PM					0		0	0	1	0		0	1	1	0		3
4:20PM					0		0	0	0	2		0	2	0	0		4
4:25PM					0		0	0	0	1		0	3	0	0		4
4:30PM					2		0	0	2	2		0	6	1	0		13
4:35PM					1		1	0	0	1		0	2	1	0		6
4:40PM					2		0	0	0	0		0	1	2	0		5
4:45PM					1		0	0	0	4		0	2	2	0		9
4:50PM					2		0	0	0	1		0	1	2	0		6
4:55PM					0		0	0	0	1		0	3	2	0		6
5:00PM					0		1	0	0	4		0	2	0	0		7
5:05PM					1		2	0	1	0		0	2	0	0		6
5:10PM					0		0	0	3	0		0	3	1	0		7
5:15PM					1		2	0	0	2		0	1	2	0		8
5:20PM					1		0	0	0	1		0	2	1	0		5
5:25PM					1		2	0	3	0		0	4	3	0		13
5:30PM					0		3	0	0	3		0	1	0	0		7
5:35PM					1		0	0	2	1		0	1	3	0		8
5:40PM					3		1	0	2	1		0	4	2	0		13
5:45PM					1		3	0	2	1		0	1	3	0		11
5:50PM					0		1	0	2	5		0	1	0	0		9
5:55PM					3		2	0	3	6		0	1	2	0		17

K-D-N
KEY DATA NETWORK

	Lights															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM					0		0	0	0	1		0		0	0	0
4:05PM					0		0	0	0	0		0		1	0	0
4:10PM					0		0	0	1	1		0		0	1	0
4:15PM					0		0	0	0	0		0		1	1	0
4:20PM					0		0	0	0	2		0		2	0	0
4:25PM					0		0	0	0	1		0		3	0	0
4:30PM					2		0	0	2	2		0		6	1	0
4:35PM					1		1	0	0	0		0		2	1	0
4:40PM					2		0	0	0	0		0		1	2	0
4:45PM					1		0	0	0	3		0		2	2	0
4:50PM					2		0	0	0	1		0		1	2	0
4:55PM					0		0	0	0	0		0		3	2	0
5:00PM					0		1	0	0	4		0		2	0	0
5:05PM					1		2	0	1	0		0		2	0	0
5:10PM					0		0	0	3	0		0		3	1	0
5:15PM					1		2	0	0	2		0		1	2	0
5:20PM					1		0	0	0	1		0		2	1	0
5:25PM					1		2	0	3	0		0		4	3	0
5:30PM					0		3	0	0	3		0		1	0	0
5:35PM					1		0	0	2	1		0		1	2	0
5:40PM					3		1	0	2	1		0		4	2	0
5:45PM					1		3	0	2	1		0		1	3	0
5:50PM					0		1	0	2	4		0		1	0	0
5:55PM					3		2	0	3	6		0		1	2	0

	Other Vehicles															
	Northbound				Southbound				Eastbound				Westbound			
	Northbound Approach				Southbound Approach				Eastbound Approach				Westbound Approach			
Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
4:00PM					0		0	0	0	0		0		0	0	0
4:05PM					0		0	0	0	0		0		0	1	0
4:10PM					0		0	0	0	0		0		0	0	0
4:15PM					0		0	0	1	0		0		0	0	0
4:20PM					0		0	0	0	0		0		0	0	0
4:25PM					0		0	0	0	0		0		0	0	0
4:30PM					0		0	0	0	0		0		0	0	0
4:35PM					0		0	0	0	1		0		0	0	0
4:40PM					0		0	0	0	0		0		0	0	0
4:45PM					0		0	0	0	1		0		0	0	0
4:50PM					0		0	0	0	0		0		0	0	0
4:55PM					0		0	0	0	1		0		0	0	0
5:00PM					0		0	0	0	0		0		0	0	0
5:05PM					0		0	0	0	0		0		0	0	0
5:10PM					0		0	0	0	0		0		0	0	0
5:15PM					0		0	0	0	0		0		0	0	0
5:20PM					0		0	0	0	0		0		0	0	0
5:25PM					0		0	0	0	0		0		0	0	0
5:30PM					0		0	0	0	0		0		0	0	0
5:35PM					0		0	0	0	0		0		0	1	0
5:40PM					0		0	0	0	0		0		0	0	0
5:45PM					0		0	0	0	0		0		0	0	0
5:50PM					0		0	0	0	1		0		0	0	0
5:55PM					0		0	0	0	0		0		0	0	0

K-D-N
KEY DATA NETWORK

Pedestrians				
	Northbound	Southbound	Eastbound	Westbound
Start	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach
Time	North	South	East	West
4:00PM		0	0	0
4:05PM		2	0	0
4:10PM		0	0	0
4:15PM		0	0	0
4:20PM		0	0	0
4:25PM		3	0	0
4:30PM		0	0	0
4:35PM		0	0	0
4:40PM		0	0	0
4:45PM		0	0	0
4:50PM		0	0	0
4:55PM		1	0	0
5:00PM		0	0	0
5:05PM		0	0	0
5:10PM		0	0	0
5:15PM		0	1	0
5:20PM		0	0	0
5:25PM		0	0	0
5:30PM		0	0	0
5:35PM		0	0	0
5:40PM		0	0	0
5:45PM		0	0	0
5:50PM		0	0	0
5:55PM		0	0	0

K-D-N
KEY DATA NETWORK

Count Name: NE Irvine St at NE 15th St
Start Date: 9/20/2016

Southbound Approach		
Out	In	Total
35	29	64
0	0	0
35	**29**	**64**

17		12
0	0	0
R	**T**	**L**

Total	82	0	**82**
In	42	0	**42**
Out	40	0	**40**

18	0	**L**
24	0	**T**
	0	**R**

Peak Hour Summary

5:00PM to 5:55PM

Lights
Other Vehicles

L	**T**	**R**
0	0	0

0	0	0
0	0	0
0	**0**	**0**
Out	In	Total

Northbound Approach

R	0	17
T	0	23
L	0	

36	36	36	Out
40	40	40	In
76	76	76	Total

TRIP GENERATION CALCULATIONS

Land Use: High School
Land Use Code: 530
Variable: Students
Variable Value: 100

AM PEAK HOUR

Trip Rate: 0.43

	Enter	Exit	Total
Directional Distribution	68%	32%	
Trip Ends	**29**	**14**	**43**

PM PEAK HOUR

Trip Rate: 0.13

	Enter	Exit	Total
Directional Distribution	47%	53%	
Trip Ends	**6**	**7**	**13**

WEEKDAY

Trip Rate: 1.71

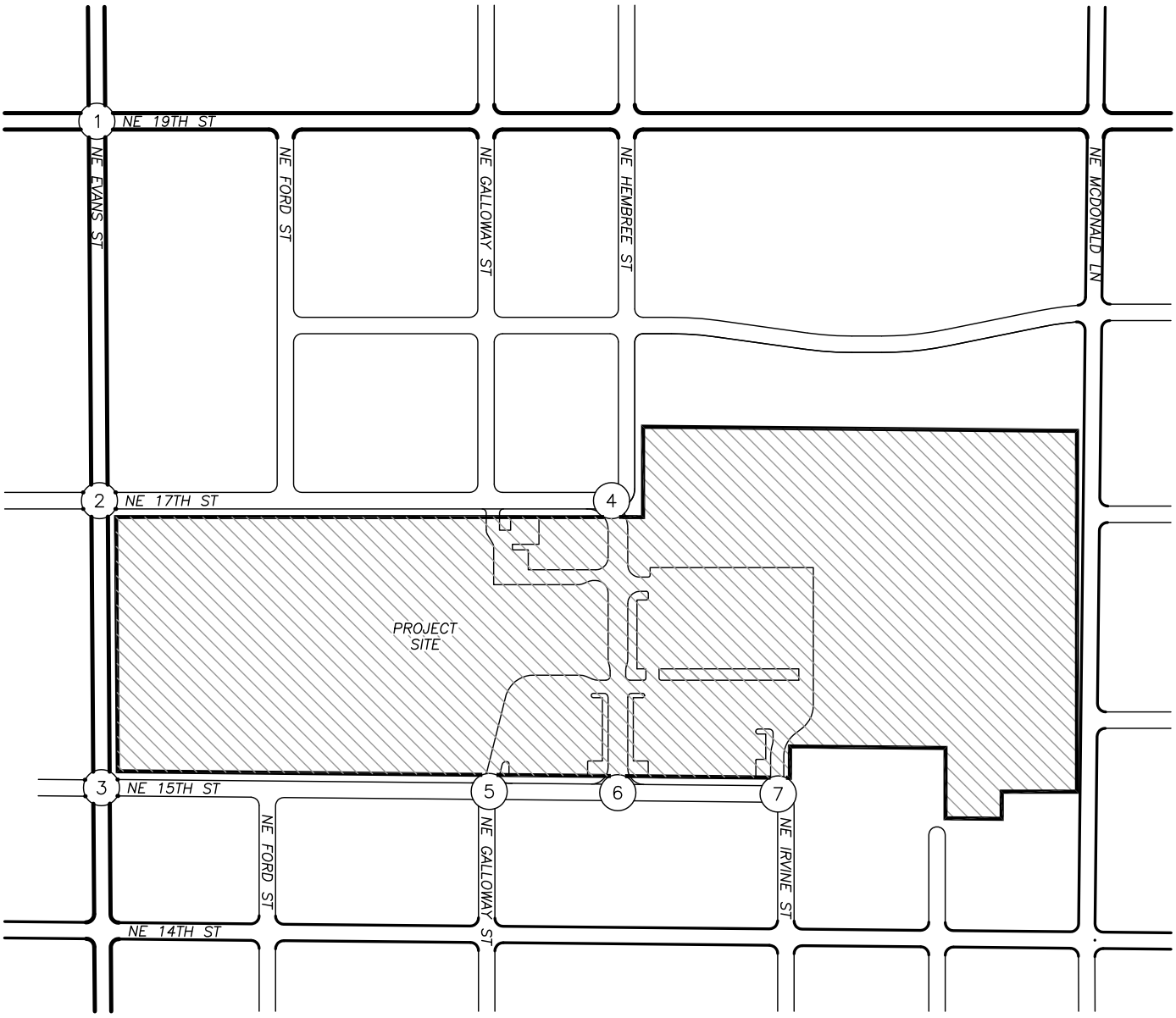
	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**86**	**86**	**172**

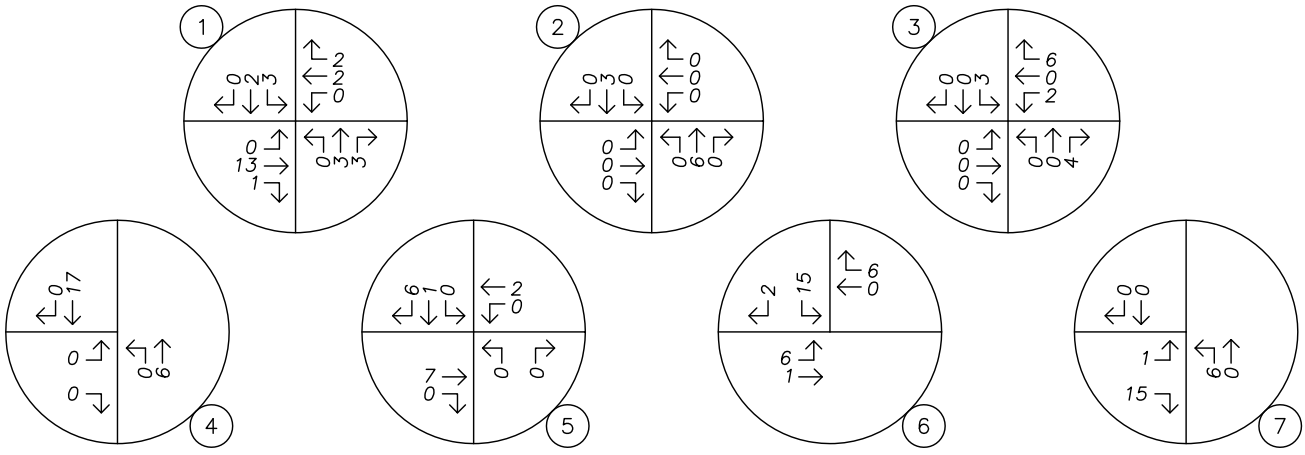
PM PEAK HOUR OF GENERATOR

Trip Rate: 0.29

	Enter	Exit	Total
Directional Distribution	33%	67%	
Trip Ends	**10**	**19**	**29**

Source: TRIP GENERATION, Ninth Edition



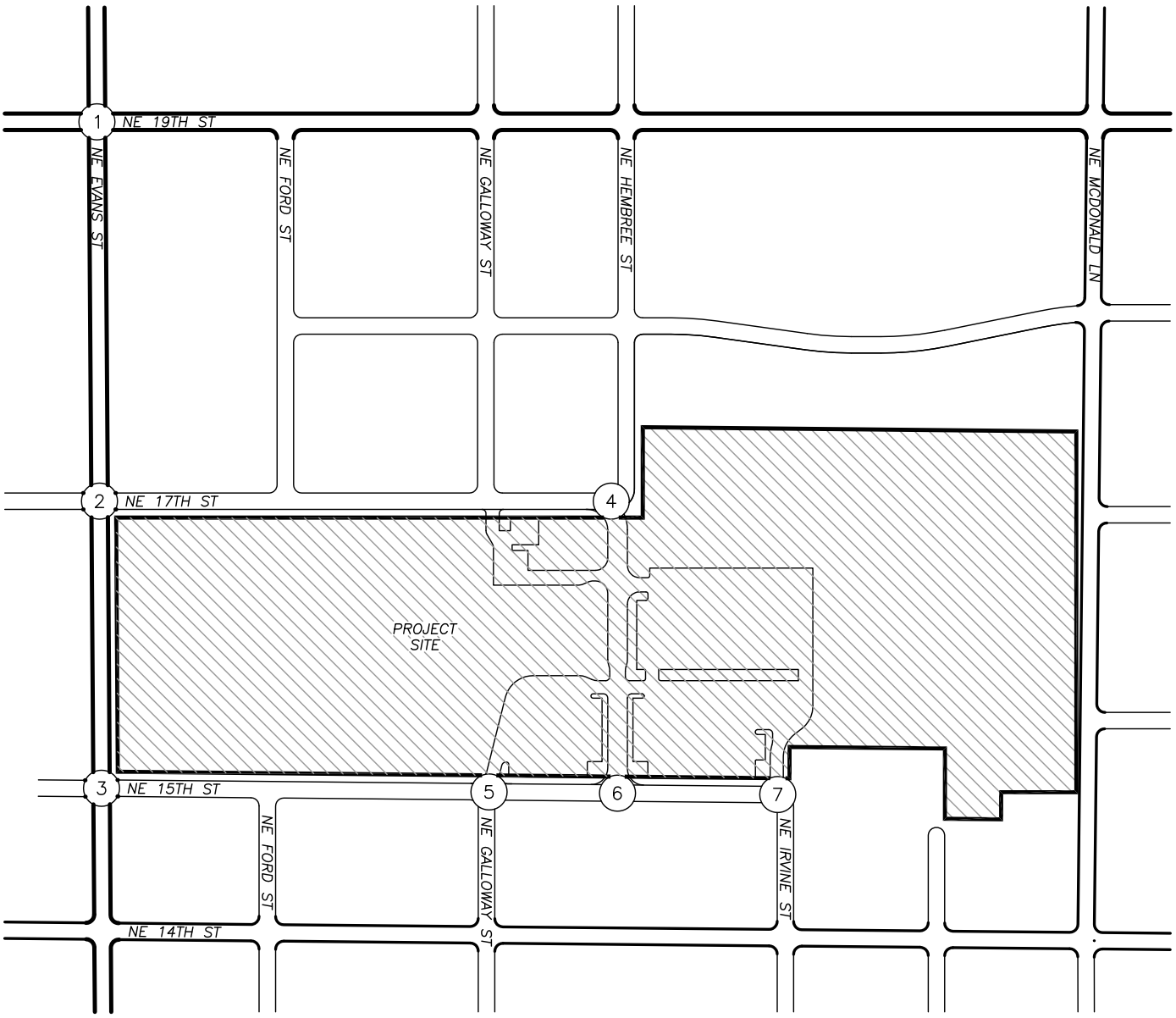


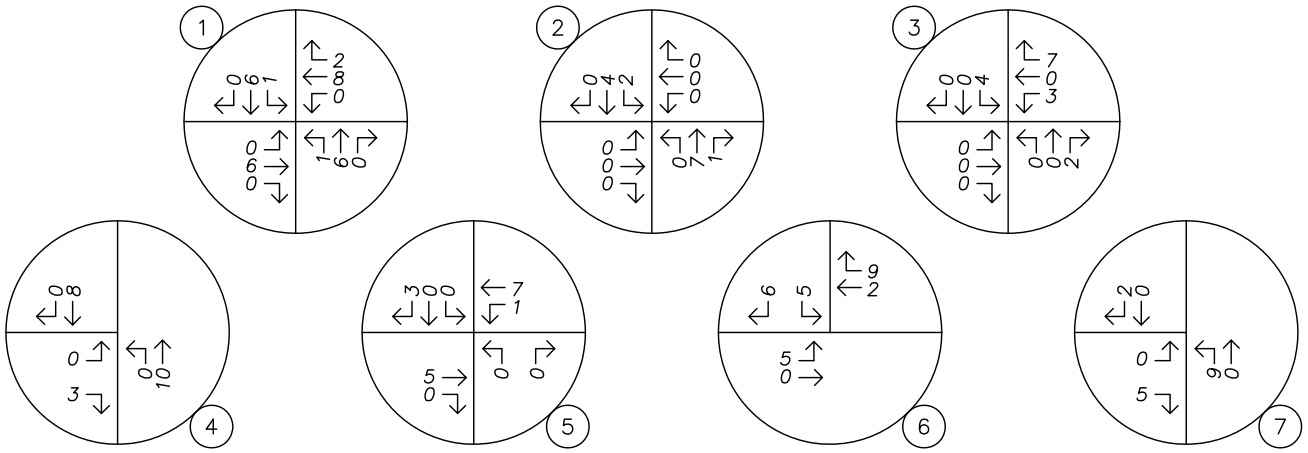
TRAFFIC VOLUMES
Existing Bus Circulation
AM Peak Hour

no scale

FIGURE APP 1

PAGE --



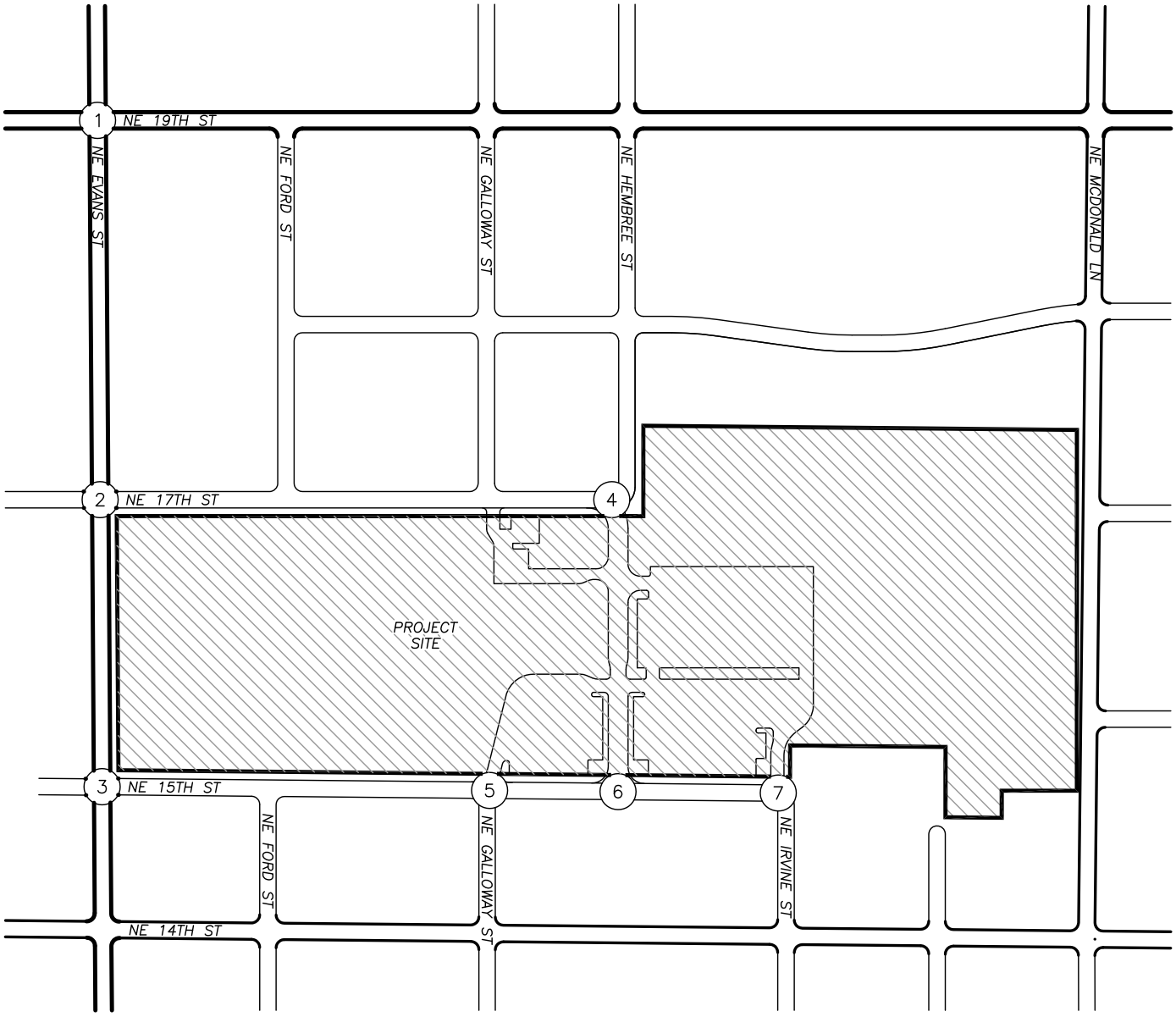


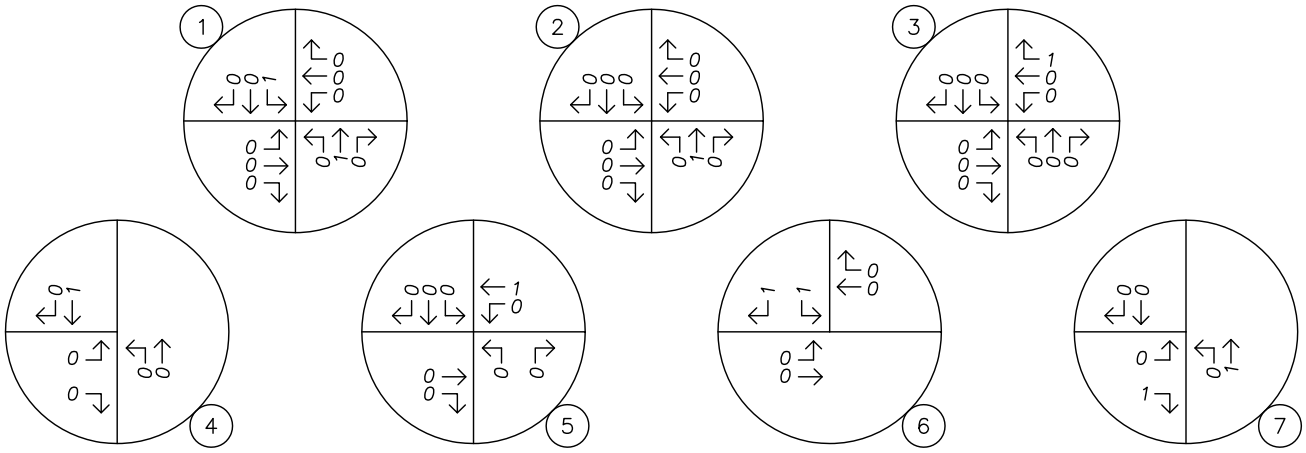
TRAFFIC VOLUMES
Existing Bus Circulation
Afternoon Peak Hour

no scale

FIGURE APP 2

PAGE --



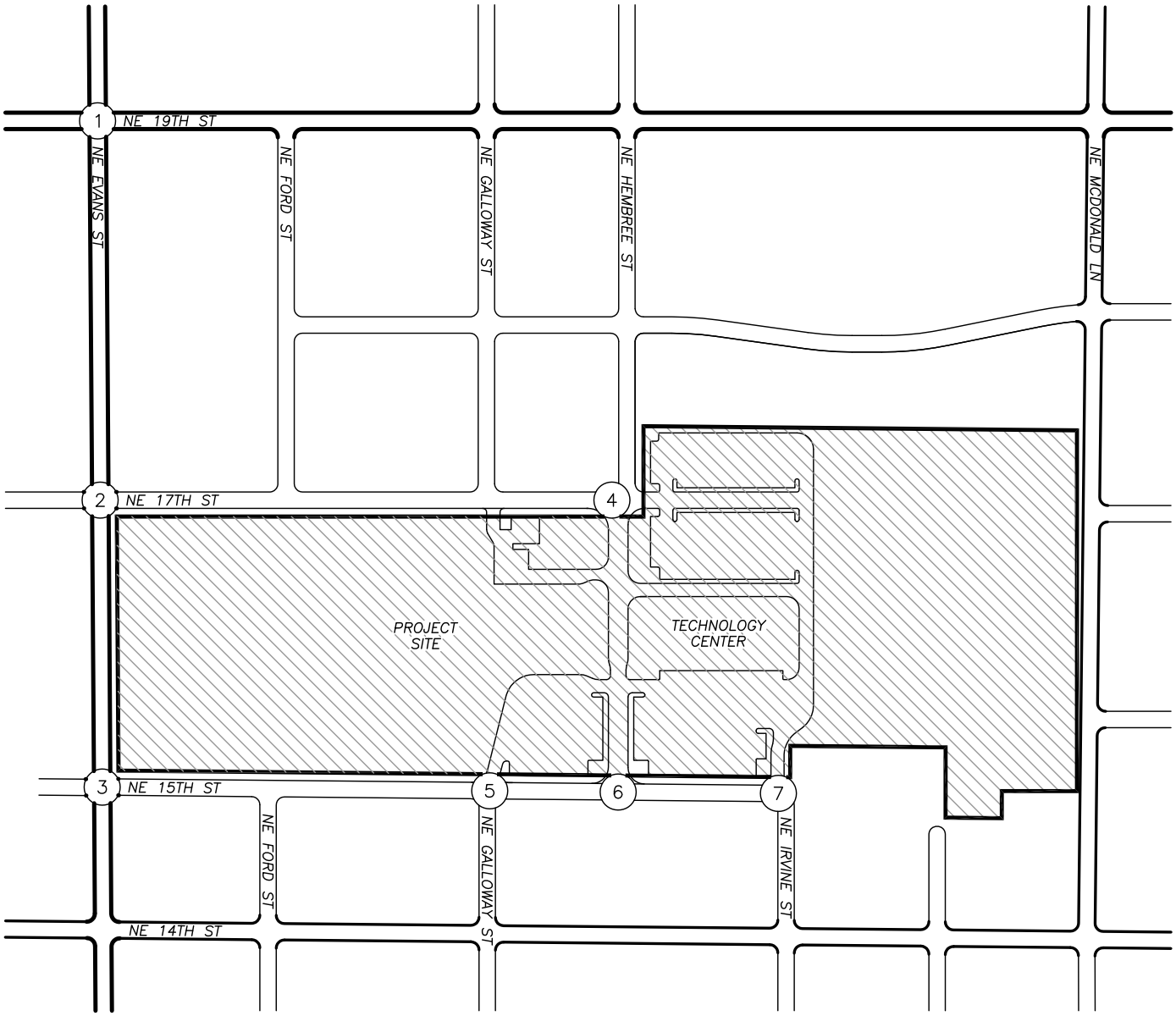


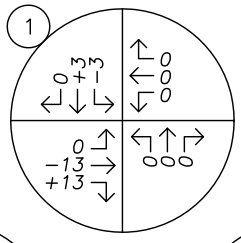
TRAFFIC VOLUMES
Existing Bus Circulation
PM Peak Hour

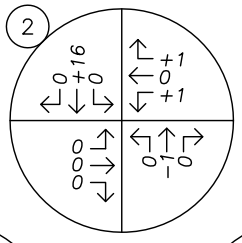
no scale

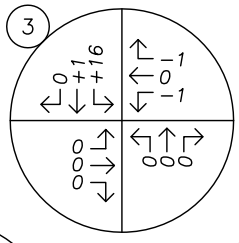
FIGURE APP 3

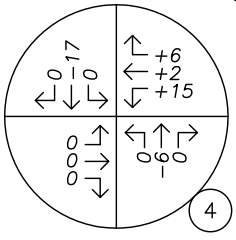
PAGE --

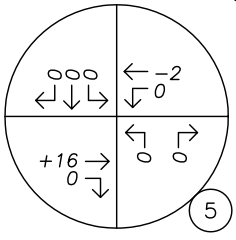


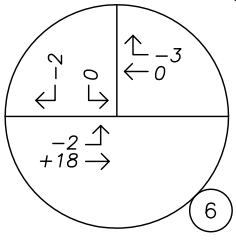


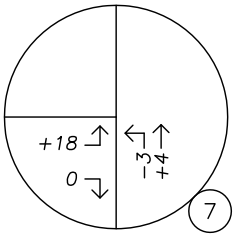










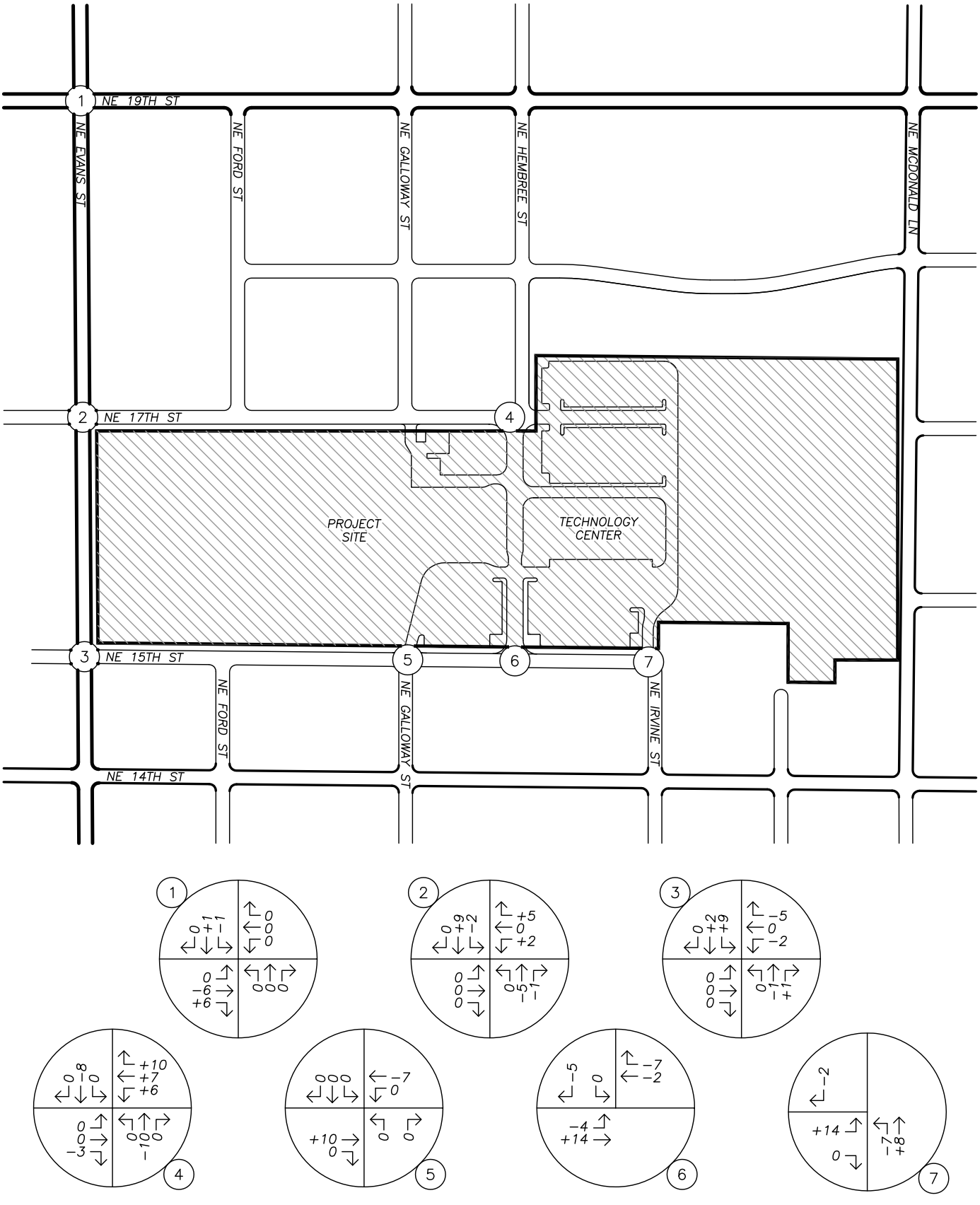


SITE TRIP DISTRIBUTION & ASSIGNMENT
Redistribution of Buses
AM Peak Hour

no scale

FIGURE APP 4

PAGE --

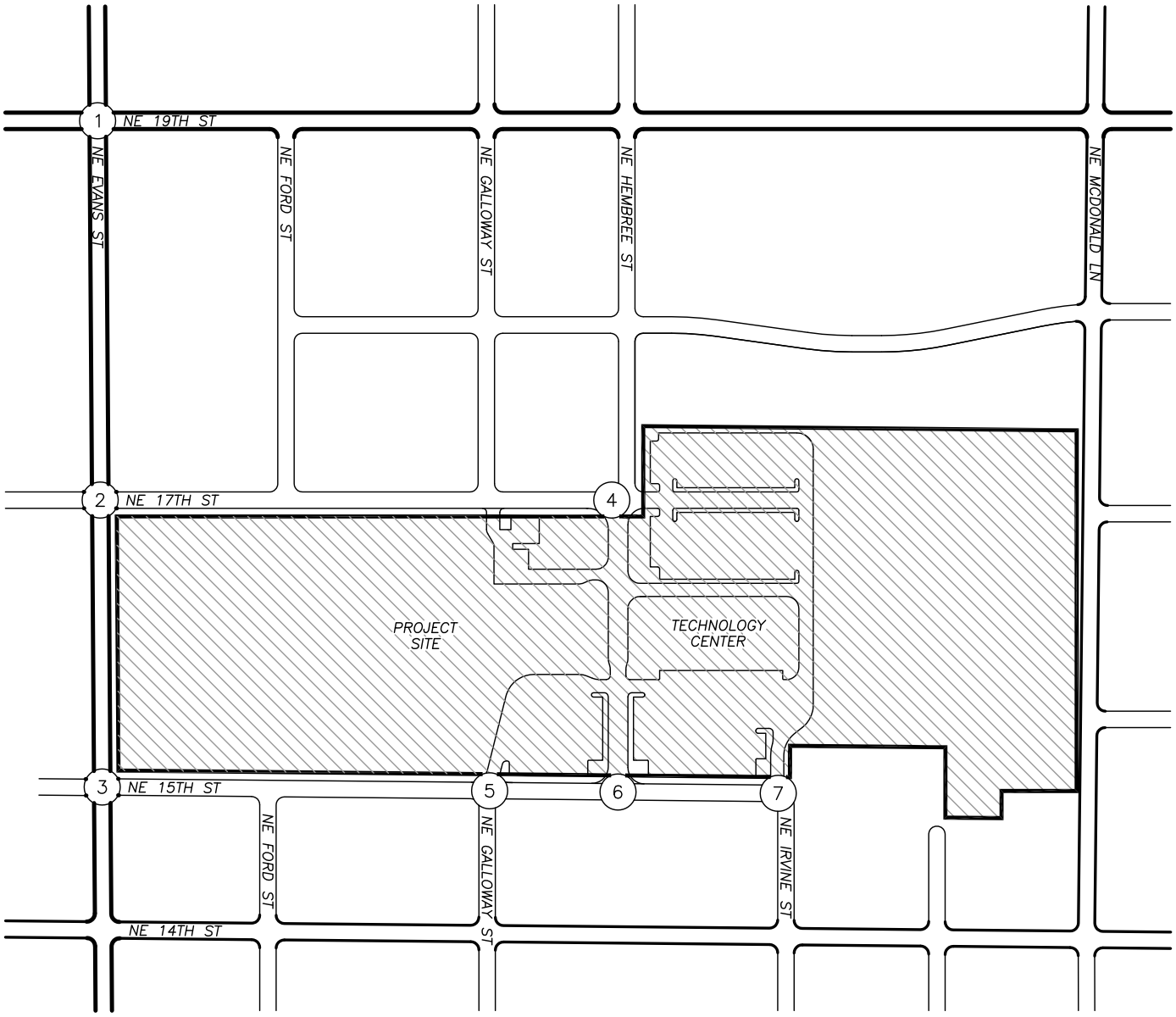


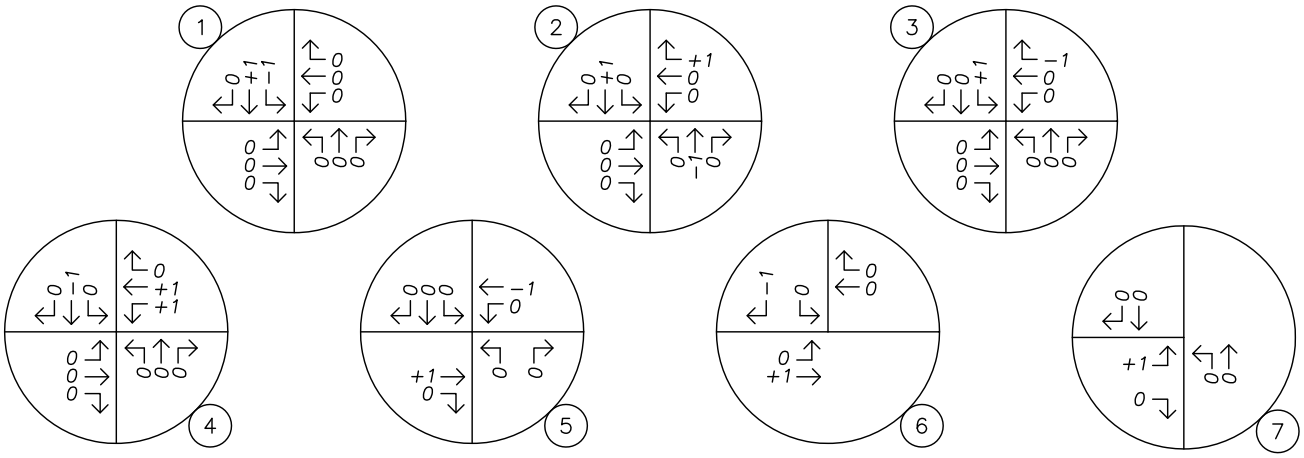
SITE TRIP DISTRIBUTION & ASSIGNMENT
Redistribution of Buses
Afternoon Peak Hour

no scale

FIGURE APP 5

PAGE --



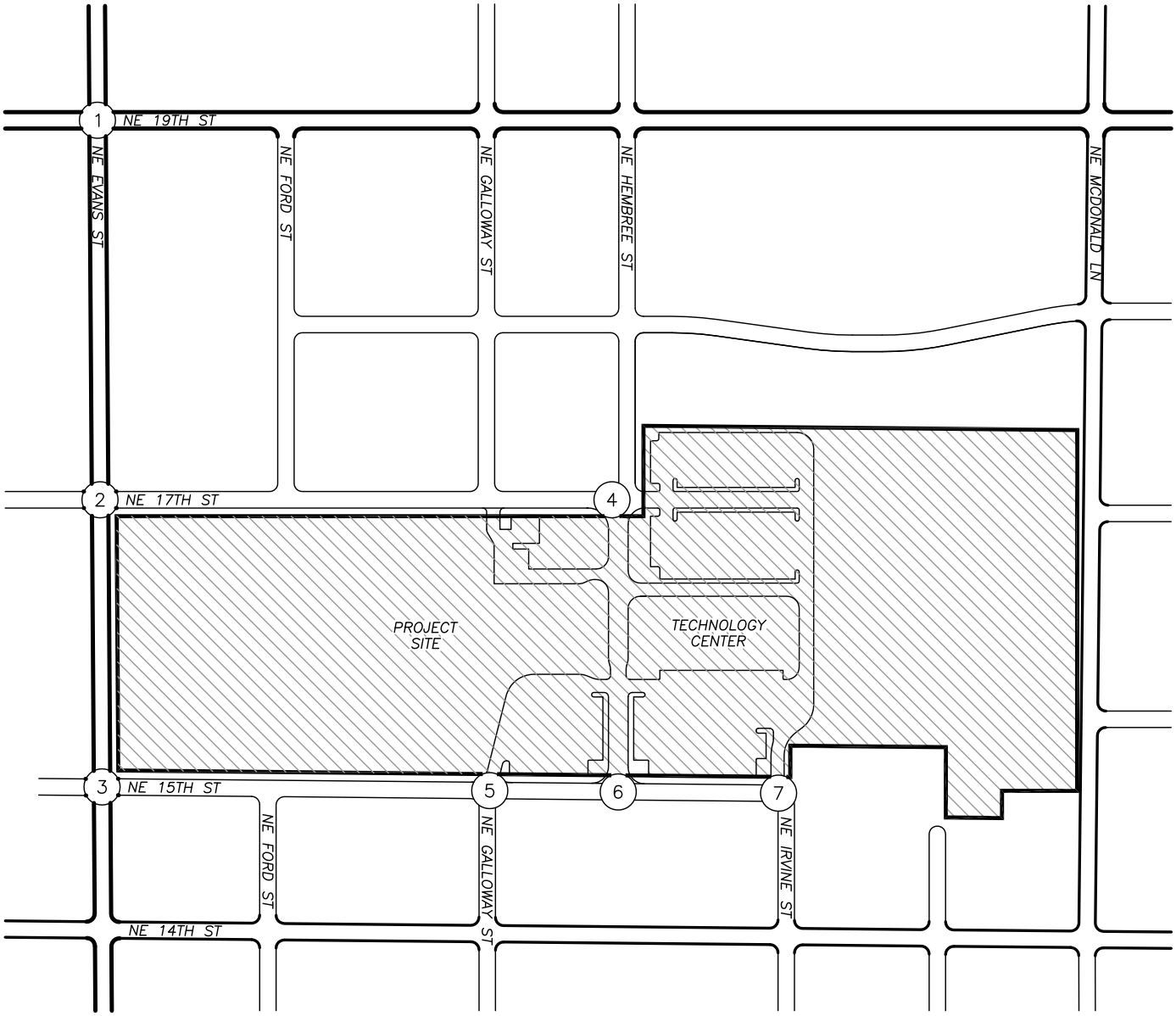


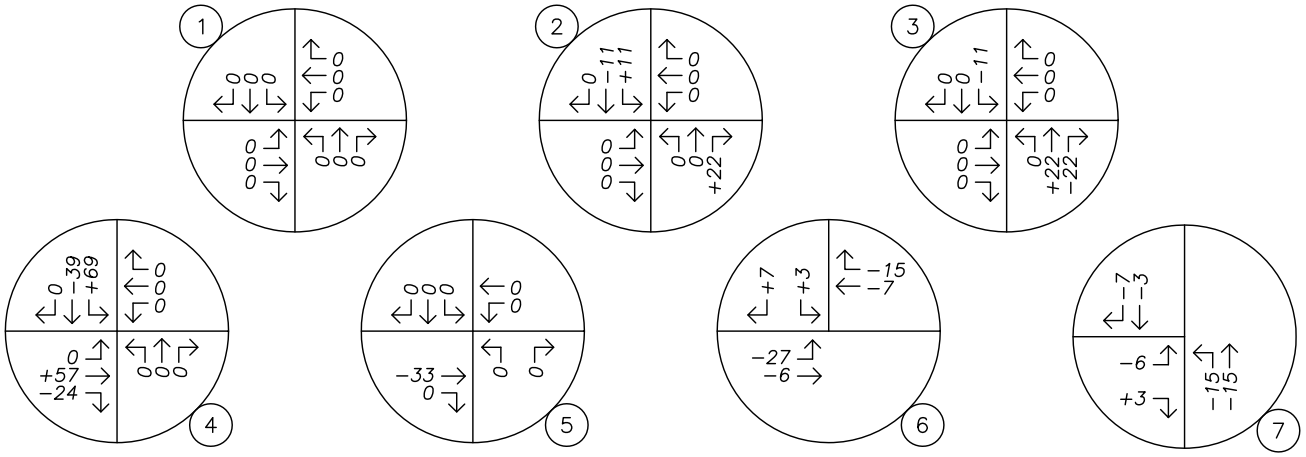
SITE TRIP DISTRIBUTION & ASSIGNMENT
Redistribution of Buses
PM Peak Hour

no scale

FIGURE APP 6

PAGE --



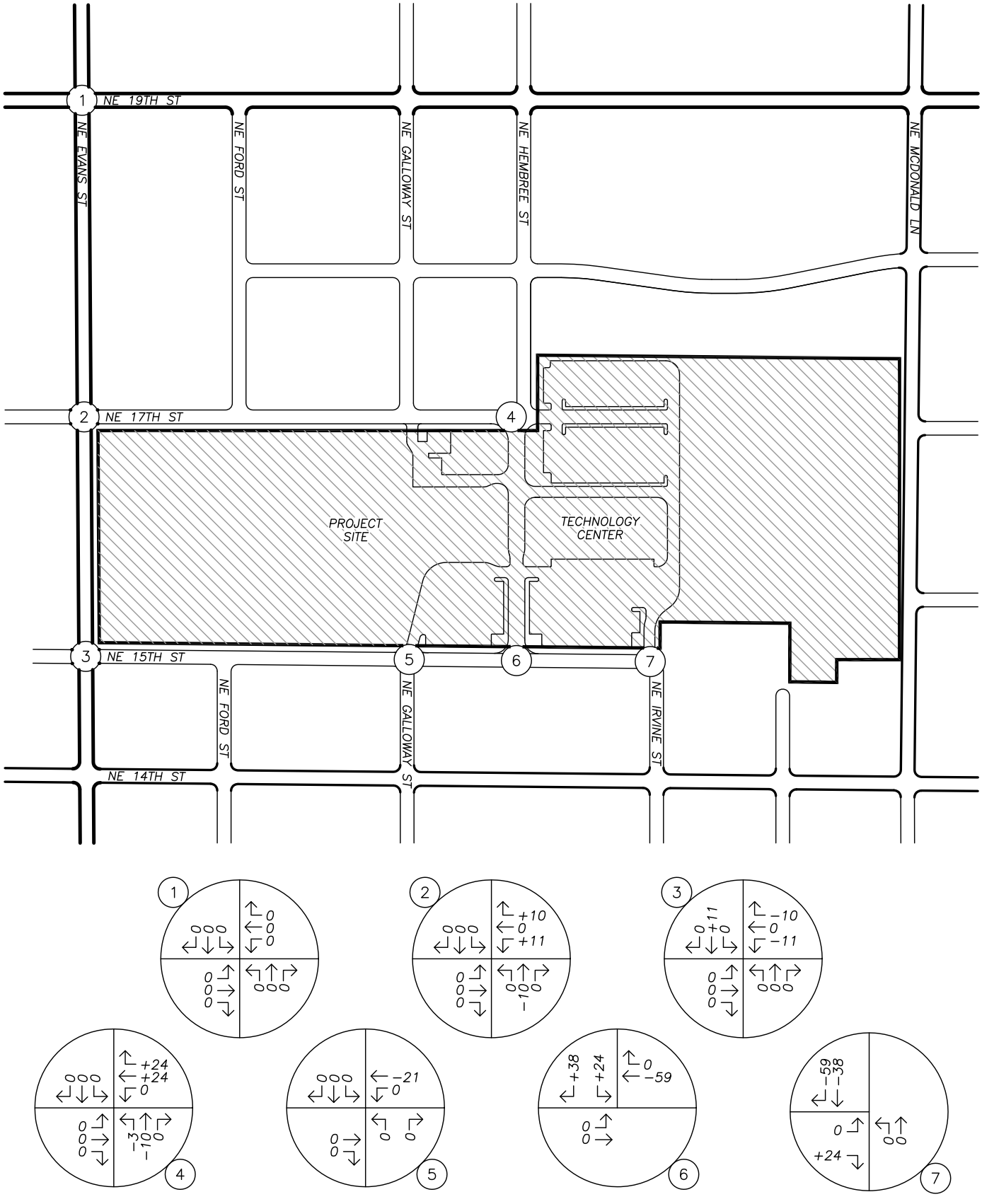


SITE TRIP DISTRIBUTION & ASSIGNMENT
Redistribution of Students/Faculty
AM Peak Hour

no scale

FIGURE APP 7

PAGE --

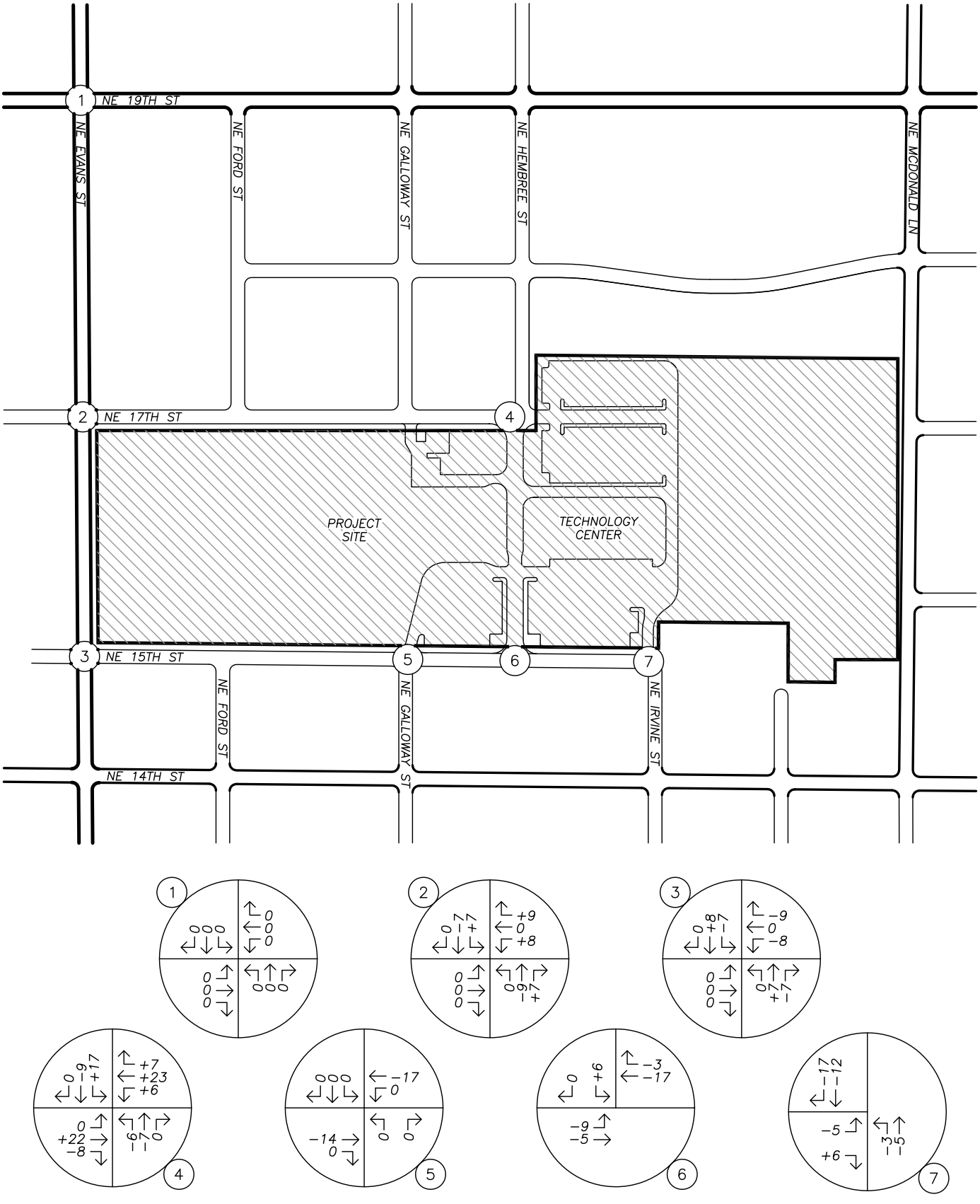


SITE TRIP DISTRIBUTION & ASSIGNMENT
Redistribution of Students/Faculty
Afternoon Peak Hour

no scale

FIGURE APP 8

PAGE --



SITE TRIP DISTRIBUTION & ASSIGNMENT
Redistribution of Students/Faculty
PM Peak Hour

no scale

FIGURE APP 9

PAGE --

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

EVANS ST at 19TH ST, City of McMinnville, Yamhill County, 01/01/2010 to 12/31/2014

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2014														
ANGLE	0	1	1	2	0	1	0	0	2	1	1	2	0	0
REAR-END	0	0	1	1	0	0	0	0	1	1	0	1	0	0
TURNING MOVEMENTS	0	1	0	1	0	2	0	0	1	1	0	1	0	0
YEAR 2014 TOTAL	**0**	**2**	**2**	**4**	**0**	**3**	**0**	**0**	**4**	**3**	**1**	**4**	**0**	**0**
YEAR: 2010														
ANGLE	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2010 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
FINAL TOTAL	**0**	**2**	**3**	**5**	**0**	**3**	**0**	**1**	**4**	**4**	**1**	**5**	**0**	**0**

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF MCMINNVILLE, YAMHILL COUNTY

EVANS ST at 19TH ST, City of McMinnville, Yamhill County, 01/01/2010 to 12/31/2014

Total crash records: 5

SER# / INVEST	S P E D	A L C	U G S	C H L	O R K	W	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00410	N	N	N				04/17/2014	16	EVANS ST	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE	STRGHT											07
NONE							TH	0	19TH ST	E		STOP SIGN	N	WET	REAR		PRVTE	S -N									000		00
							3P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	33	F	OR-Y OR<25		026	000		07
																02	NONE 0	STOP											
																	PRVTE	S -N									011		00
																	PSNGR CAR		01	DRVR	NONE	55	F	OR-Y OR<25		000	000		00
00097	N	N	N				02/16/2010	16	EVANS ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											02
NONE							TU	0	19TH ST	CN		STOP SIGN	N	DRY	ANGL		PRVTE	S -N									000		00
							3P			04	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK UNK		028	000		02
																02	NONE 0	STRGHT											
																	PRVTE	W -E									000		00
																	PSNGR CAR		01	DRVR	NONE	21	F	OR-Y OR<25		000	000		00
01141	N	N	N	N	N	N	10/24/2014	16	EVANS ST	INTER	CROSS	N	N	RAIN	O-OTHER	01	NONE 0	TURN-L											02
CITY							FR	0	19TH ST	CN		STOP SIGN	N	WET	TURN		PRVTE	S -W									000		00
							4P			01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	17	M	OR-Y OR<25		028	000		02
																01	NONE 0	TURN-L											
																	PRVTE	S -W									000		00
																	PSNGR CAR		02	PSNG	INJC	18	F			000	000		00
																02	NONE 0	TURN-R											
																	PRVTE	N -W									000		00
																	PSNGR CAR		01	DRVR	NONE	34	F	OR-Y OR<25		000	000		00
01189	N	N	N	N	N	N	11/06/2014	16	EVANS ST	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE 0	STRGHT											27,03
CITY							TH	0	19TH ST	CN		STOP SIGN	N	WET	ANGL		PRVTE	S -N									000		00
							9A			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	65	M	OR-Y OR<25		016,021	038		27,03
																01	NONE 0	STRGHT											
																	PRVTE	S -N									000		00
																	PSNGR CAR		02	PSNG	NO<5	02	M			000	000		00
																02	NONE 0	STRGHT											
																	PRVTE	E -W									015		00
																	PSNGR CAR		01	DRVR	NONE	29	M	OR-Y OR<25		000	000		00
01265	N	N	N				11/21/2014	16	EVANS ST	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT											02
NONE							FR	0	19TH ST	CN		STOP SIGN	N	WET	ANGL		PRVTE	E -W									015		00
							5P			04	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	59	F	OR-Y OR<25		028	000		02
																02	NONE 0	STRGHT											
																	PRVTE	S -N									015		00
																	PSNGR CAR		01	DRVR	NONE	64	M	OR-Y OR<25		000	000		00

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

EVANS ST at 17TH ST, City of McMinnville, Yamhill County, 01/01/2010 to 12/31/2014

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2014														
ANGLE	0	1	2	3	0	1	0	2	1	2	1	3	0	0
YEAR 2014 TOTAL	**0**	**1**	**2**	**3**	**0**	**1**	**0**	**2**	**1**	**2**	**1**	**3**	**0**	**0**
YEAR: 2013														
ANGLE	0	1	0	1	0	2	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	1	0	1	0	0
YEAR 2013 TOTAL	**0**	**1**	**1**	**2**	**0**	**2**	**0**	**1**	**1**	**2**	**0**	**2**	**0**	**0**
FINAL TOTAL	**0**	**2**	**3**	**5**	**0**	**3**	**0**	**3**	**2**	**4**	**1**	**5**	**0**	**0**

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF MCMINNVILLE, YAMHILL COUNTY

EVANS ST at 17TH ST, City of McMinnville, Yamhill County, 01/01/2010 to 12/31/2014

Total crash records: 5

SER# / INVEST	S P E D	A L C	D R S L	S G H	W O R K	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
00864	N	N	N	Y		10/01/2013	16	EVANS ST	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE 0	STRGHT										02
CITY						TU	0	17TH ST	CN		STOP SIGN	N	DRY	ANGL		PRVTE	S -N									000	00
						3P			04	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	17	M	OR-Y OR<25		000	000	00
															02	NONE 0	STRGHT										
																PRVTE	W -E									015	00
																PSNGR CAR		01	DRVR	INJC	37	F	SUSP OR<25		028	000	02
															02	NONE 0	STRGHT										
																PRVTE	W -E									015	00
																PSNGR CAR		02	PSNG	INJC	39	F			000	000	00
01082	N	N	N	Y		12/03/2013	16	EVANS ST	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT										08
CITY						TU	0	17TH ST	CN		STOP SIGN	N	WET	TURN		PRVTE	S -N									000	00
						10A			04	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	65	M	OR-Y OR<25		000	000	00
															02	NONE 0	TURN-L										
																PRVTE	N -E									000	00
																PSNGR CAR		01	DRVR	NONE	20	M	OR-Y OR<25		000	000	00
00159	N	N	N	Y	N	02/11/2014	16	EVANS ST	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT										04
CITY						TU	0	17TH ST	CN		STOP SIGN	N	WET	ANGL		PRVTE	E -W									000	00
						6P			01	0		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	30	M	OR-Y OR<25		020	000	04
															02	NONE 0	STRGHT										
																PRVTE	N -S									000	00
																PSNGR CAR		01	DRVR	NONE	37	M	OR-Y OR<25		000	000	00
															02	NONE 0	STRGHT										
																PRVTE	N -S									000	00
																PSNGR CAR		02	PSNG	NO<5	03	M			000	000	00
00909	N	N	N	N	N	08/23/2014	16	EVANS ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										02
CITY						SA	0	17TH ST	CN		STOP SIGN	N	DRY	ANGL		PRVTE	N -S									000	00
						9A			03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	57	F	OR-Y OR<25		000	000	00
															01	NONE 0	STRGHT										
																PRVTE	N -S									000	00
																PSNGR CAR		02	PSNG	NO<5	04	M			000	000	00
															02	NONE 0	STRGHT										
																PRVTE	W -E									015	00
																PSNGR CAR		01	DRVR	INJB	56	F	OR-Y OR<25		028	000	02
01127	N	N	N	Y	N	10/21/2014	19	EVANS ST	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE 0	STRGHT										02
CITY						TU	0	17TH ST	CN		STOP SIGN	N	DRY	ANGL		PRVTE	W -E									000	00
						4P			02	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	18	F	OR-Y OR<25		028	000	02
															02	NONE 0	STRGHT										
																PRVTE	S -N									000	00
																PSNGR CAR		01	DRVR	NONE	61	M	OR-Y		000	000	00

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EVANS ST at 17TH ST, City of McMinnville, Yamhill County, 01/01/2010 to 12/31/2014

Total crash records: 5

SER# / INVEST	S P E D	A L C	U G S	C H L	O R K	W	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES OR<25	PED LOC	ERROR	ACT	EVENT	CAUSE
15-0000	N	N	N	N	N	N	01/01/2010	4	17TH ST	1	0	0	0	1	1	01	0	1										
							0:00	0	EVANS ST	0	0	0	0	0	0		0	0										
15-0000	N	N	N	N	N	N	01/01/2010	4	17TH ST	1	0	0	0	1	1	01	0	1										
							0:00	0	EVANS ST	0	0	0	0	0	0		0	0										
15-0000	N	N	N	N	N	N	01/01/2010	4	17TH ST	1	0	0	0	1	1	01	0	1										
							0:00	0	EVANS ST	0	0	0	0	0	0		0	0										
15-0000	N	N	N	N	N	N	01/01/2010	4	17TH ST	1	0	0	0	1	1	01	0	1										
							0:00	0	EVANS ST	0	0	0	0	0	0		0	0										
15-0000	N	N	N	N	N	N	01/01/2010	4	17TH ST	1	0	0	0	1	1	01	0	1										
							0:00	0	EVANS ST	0	0	0	0	0	0		0	0										

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

EVANS ST at 15TH ST, City of McMinnville, Yamhill County, 01/01/2010 to 12/31/2014

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2013														
NON-COLLISION	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2013 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
FINAL TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF MCMINNVILLE, YAMHILL COUNTY

EVANS ST at 15TH ST, City of McMinnville, Yamhill County, 01/01/2010 to 12/31/2014

Total crash records: 1

SER# / INVEST	S P E D	A L C	U G S	C H L	S R N	W O K	DATE / DAY / TIME	CLASS / DIST / FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00799	Y	N	N	N	N	N	09/13/2013	16	EVANS ST	INTER	3-LEG	N	N	CLD	OVERTURN	01	NONE 0	TURN-L											01
CITY							FR	0	15TH ST	W		STOP SIGN	N	DRY	NCOL		PRVTE	S -W									000		00
							12P			05	0		N	DAY	INJ		MTRCYCLE		01	DRVR	INJA	55	M	OR-Y OR<25		047	000		01

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

17TH ST at HEMBREE ST, City of McMinnville, Yamhill County, 01/01/2010 to 12/31/2014

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
FINAL TOTAL														

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

15TH ST at GALLOWAY ST, City of McMinnville, Yamhill County, 01/01/2010 to 12/31/2014

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2012														
BACKING	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2012 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
FINAL TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF MCMINNVILLE, YAMHILL COUNTY

15TH ST at GALLOWAY ST, City of McMinnville, Yamhill County, 01/01/2010 to 12/31/2014

Total crash records: 1

SER# / INVEST	S P E D	A L C	U G S	C H L	O R K	W	DATE / DAY / TIME	CLASS / DIST FROM	CITY STREET / FIRST STREET / SECOND STREET	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00142	N	N	N	Y			02/16/2012	19	GALLOWAY ST	INTER	3-LEG	N	N	CLR	PRKD MV	01	NONE 0	BACK											02
CITY							TH	0	15TH ST	S		UNKNOWN	N	DRY	BACK		PRVTE	N -S										000		00
							3P			06	0		Y	DAY	PDO		PSNGR CAR		01	DRVR	NONE	20	M	NONE OR<25	011		000		02
																02	NONE 0	PRKD-P											
																	PRVTE	S -N										008		00
																	PSNGR CAR												

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

15TH ST at IRVINE ST, City of McMinnville, Yamhill County, 01/01/2010 to 12/31/2014

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
FINAL TOTAL														

LEVEL OF SERVICE

Level of service is used to describe the quality of traffic flow. Levels of service A to C are considered good, and rural roads are usually designed for level of service C. Urban streets and signalized intersections are typically designed for level of service D. Level of service E is considered to be the limit of acceptable delay. For unsignalized intersections, level of service E is generally considered acceptable. Here is a more complete description of levels of service:

Level of service A: Very low delay at intersections, with all traffic signal cycles clearing and no vehicles waiting through more than one signal cycle. On highways, low volume and high speeds, with speeds not restricted by other vehicles.

Level of service B: Operating speeds beginning to be affected by other traffic; short traffic delays at intersections. Higher average intersection delay than for level of service A resulting from more vehicles stopping.

Level of service C: Operating speeds and maneuverability closely controlled by other traffic; higher delays at intersections than for level of service B due to a significant number of vehicles stopping. Not all signal cycles clear the waiting vehicles. This is the recommended design standard for rural highways.

Level of service D: Tolerable operating speeds; long traffic delays occur at intersections. The influence of congestion is noticeable. At traffic signals many vehicles stop, and the proportion of vehicles not stopping declines. The number of signal cycle failures, for which vehicles must wait through more than one signal cycle, are noticeable. This is typically the design level for urban signalized intersections.

Level of service E: Restricted speeds, very long traffic delays at traffic signals, and traffic volumes near capacity. Flow is unstable so that any interruption, no matter how minor, will cause queues to form and service to deteriorate to level of service F. Traffic signal cycle failures are frequent occurrences. For unsignalized intersections, level of service E or better is generally considered acceptable.

Level of service F: Extreme delays, resulting in long queues which may interfere with other traffic movements. There may be stoppages of long duration, and speeds may drop to zero. There may be frequent signal cycle failures. Level of service F will typically result when vehicle arrival rates are greater than capacity. It is considered unacceptable by most drivers.

1e

LEVEL OF SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	<10
B	10-20
C	20-35
D	35-55
E	55-80
F	>80

LEVEL OF SERVICE CRITERIA
FOR UNSIGNALIZED INTERSECTIONS

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	<10
B	10-15
C	15-25
D	25-35
E	35-50
F	>50

Intersection	
Intersection Delay, s/veh	18.4
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	1	94	45	0	26	74	59	0	30	131	23
Future Vol, veh/h	0	1	94	45	0	26	74	59	0	30	131	23
Peak Hour Factor	0.92	0.68	0.68	0.68	0.92	0.68	0.68	0.68	0.92	0.68	0.68	0.68
Heavy Vehicles, %	2	11	11	11	2	4	4	4	2	6	6	6
Mvmt Flow	0	1	138	66	0	38	109	87	0	44	193	34
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	13.9	14.3	15.2
HCM LOS	B	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	1%	16%	17%
Vol Thru, %	71%	67%	47%	82%
Vol Right, %	12%	32%	37%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	184	140	159	302
LT Vol	30	1	26	50
Through Vol	131	94	74	248
RT Vol	23	45	59	4
Lane Flow Rate	271	206	234	444
Geometry Grp	1	1	1	1
Degree of Util (X)	0.478	0.383	0.423	0.742
Departure Headway (Hd)	6.36	6.695	6.509	6.015
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	566	535	552	600
Service Time	4.423	4.763	4.574	4.069
HCM Lane V/C Ratio	0.479	0.385	0.424	0.74
HCM Control Delay	15.2	13.9	14.3	24.5
HCM Lane LOS	C	B	B	C
HCM 95th-tile Q	2.6	1.8	2.1	6.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	50	248	4
Future Vol, veh/h	0	50	248	4
Peak Hour Factor	0.92	0.68	0.68	0.68
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	74	365	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	24.5
HCM LOS	C

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	22	14	16	0	20	8	158	15	115	196	11
Future Vol, veh/h	6	22	14	16	0	20	8	158	15	115	196	11
Conflicting Peds, #/hr	20	0	8	8	0	20	27	0	0	0	0	27
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	1	1	1	3	3	3	7	7	7	2	2	2
Mvmt Flow	9	32	21	24	0	29	12	232	22	169	288	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	964	940	331	936	937	263	331	0	0	254	0	0
Stage 1	662	662	-	267	267	-	-	-	-	-	-	-
Stage 2	302	278	-	669	670	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.13	6.53	6.23	4.17	-	-	4.12	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.527	4.027	3.327	2.263	-	-	2.218	-	-
Pot Cap-1 Maneuver	236	265	713	244	264	773	1201	-	-	1311	-	-
Stage 1	453	461	-	736	686	-	-	-	-	-	-	-
Stage 2	709	682	-	445	454	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	189	215	689	181	214	758	1192	-	-	1286	-	-
Mov Cap-2 Maneuver	189	215	-	181	214	-	-	-	-	-	-	-
Stage 1	436	378	-	727	678	-	-	-	-	-	-	-
Stage 2	660	674	-	329	372	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22.1	18.8	0.4	2.9
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1192	-	-	272	314	1286	-	-
HCM Lane V/C Ratio	0.01	-	-	0.227	0.169	0.132	-	-
HCM Control Delay (s)	8.1	0	-	22.1	18.8	8.2	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.9	0.6	0.5	-	-

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	1	1	2	0	87	1	92	0	9	86	164
Future Vol, veh/h	0	1	1	2	0	87	1	92	0	9	86	164
Peak Hour Factor	0.92	0.72	0.72	0.72	0.92	0.72	0.72	0.72	0.92	0.72	0.72	0.72
Heavy Vehicles, %	2	1	1	1	2	5	5	5	2	4	4	4
Mvmt Flow	0	1	1	3	0	121	1	128	0	13	119	228
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9	11.8	12.2
HCM LOS	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	25%	48%	32%
Vol Thru, %	33%	25%	1%	66%
Vol Right, %	63%	50%	51%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	259	4	180	229
LT Vol	9	1	87	73
Through Vol	86	1	1	151
RT Vol	164	2	92	5
Lane Flow Rate	360	6	250	318
Geometry Grp	1	1	1	1
Degree of Util (X)	0.481	0.009	0.378	0.459
Departure Headway (Hd)	4.809	5.847	5.44	5.195
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	755	610	660	693
Service Time	2.809	3.902	3.476	3.225
HCM Lane V/C Ratio	0.477	0.01	0.379	0.459
HCM Control Delay	12.2	9	11.8	12.6
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	2.6	0	1.8	2.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	73	151	5
Future Vol, veh/h	0	73	151	5
Peak Hour Factor	0.92	0.72	0.72	0.72
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	101	210	7
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.6
HCM LOS	B

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations									
Traffic Vol, veh/h	0	41	80	0	0	45	0	129	19
Future Vol, veh/h	0	41	80	0	0	45	0	129	19
Peak Hour Factor	0.92	0.52	0.52	0.92	0.52	0.52	0.92	0.52	0.52
Heavy Vehicles, %	2	1	1	2	13	13	2	13	13
Mvmt Flow	0	79	154	0	0	87	0	248	37
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9.3	8.7	10.5
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	34%	0%
Vol Thru, %	100%	0%	87%
Vol Right, %	0%	66%	13%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	45	121	148
LT Vol	0	41	0
Through Vol	45	0	129
RT Vol	0	80	19
Lane Flow Rate	87	233	285
Geometry Grp	1	1	1
Degree of Util (X)	0.12	0.29	0.371
Departure Headway (Hd)	5.001	4.481	4.692
Convergence, Y/N	Yes	Yes	Yes
Cap	714	800	766
Service Time	3.05	2.514	2.732
HCM Lane V/C Ratio	0.122	0.291	0.372
HCM Control Delay	8.7	9.3	10.5
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0.4	1.2	1.7

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	158	68	5	35	0	17	0	20	24	38	124
Future Vol, veh/h	0	158	68	5	35	0	17	0	20	24	38	124
Conflicting Peds, #/hr	3	0	6	6	0	3	55	0	148	148	0	55
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	3	3	3	3	3	3	4	4	4
Mvmt Flow	0	243	105	8	54	0	26	0	31	37	58	191

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	354	0	0	550	370	449	528	423	109
Stage 1	-	-	-	-	-	-	301	301	-	69	69	-
Stage 2	-	-	-	-	-	-	249	69	-	459	354	-
Critical Hdwy	-	-	-	4.13	-	-	7.13	6.53	6.23	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.14	5.54	-
Follow-up Hdwy	-	-	-	2.227	-	-	3.527	4.027	3.327	3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	1199	-	0	444	558	608	458	519	939
Stage 1	0	-	-	-	-	0	706	663	-	936	834	-
Stage 2	0	-	-	-	-	0	753	835	-	578	627	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1030	-	-	298	550	519	368	512	890
Mov Cap-2 Maneuver	-	-	-	-	-	-	298	550	-	368	512	-
Stage 1	-	-	-	-	-	-	706	659	-	936	827	-
Stage 2	-	-	-	-	-	-	517	828	-	467	623	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.1	15.9	12.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	387	-	-	1030	-	368	759
HCM Lane V/C Ratio	0.147	-	-	0.007	-	0.1	0.328
HCM Control Delay (s)	15.9	-	-	8.5	0	15.9	12
HCM Lane LOS	C	-	-	A	A	C	B
HCM 95th %tile Q(veh)	0.5	-	-	0	-	0.3	1.4

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	128	105	25	69	28	21
Future Vol, veh/h	128	105	25	69	28	21
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	3	3	6	6	35	35
Mvmt Flow	191	157	37	103	42	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	140	0	-	0	628	91
Stage 1	-	-	-	-	89	-
Stage 2	-	-	-	-	539	-
Critical Hdwy	4.13	-	-	-	6.75	6.55
Critical Hdwy Stg 1	-	-	-	-	5.75	-
Critical Hdwy Stg 2	-	-	-	-	5.75	-
Follow-up Hdwy	2.227	-	-	-	3.815	3.615
Pot Cap-1 Maneuver	1437	-	-	-	398	883
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	524	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1434	-	-	-	340	881
Mov Cap-2 Maneuver	-	-	-	-	340	-
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	447	-

Approach	EB	WB	SB
HCM Control Delay, s	4.3	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1434	-	-	-	461
HCM Lane V/C Ratio	0.133	-	-	-	0.159
HCM Control Delay (s)	7.9	0	-	-	14.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.6

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	85	86	73	3	7
Future Vol, veh/h	27	85	86	73	3	7
Conflicting Peds, #/hr	0	0	0	0	1	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	58	58	58	58	58	58
Heavy Vehicles, %	15	15	4	4	1	1
Mvmt Flow	47	147	148	126	5	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	274	0	-	0	452	214
Stage 1	-	-	-	-	211	-
Stage 2	-	-	-	-	241	-
Critical Hdwy	4.25	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.335	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1218	-	-	-	567	829
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	801	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1215	-	-	-	543	827
Mov Cap-2 Maneuver	-	-	-	-	543	-
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	767	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1215	-	-	-	715
HCM Lane V/C Ratio	0.038	-	-	-	0.024
HCM Control Delay (s)	8.1	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	14	72	36	0	27	98	53	0	33	188	27
Future Vol, veh/h	0	14	72	36	0	27	98	53	0	33	188	27
Peak Hour Factor	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	5	5	5	2	7	7	7	2	5	5	5
Mvmt Flow	0	18	91	46	0	34	124	67	0	42	238	34
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	10.9	12	13.6
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	11%	15%	18%
Vol Thru, %	76%	59%	55%	73%
Vol Right, %	11%	30%	30%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	248	122	178	203
LT Vol	33	14	27	37
Through Vol	188	72	98	149
RT Vol	27	36	53	17
Lane Flow Rate	314	154	225	257
Geometry Grp	1	1	1	1
Degree of Util (X)	0.479	0.251	0.36	0.4
Departure Headway (Hd)	5.497	5.851	5.745	5.597
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	653	610	622	640
Service Time	3.557	3.924	3.812	3.658
HCM Lane V/C Ratio	0.481	0.252	0.362	0.402
HCM Control Delay	13.6	10.9	12	12.4
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.6	1	1.6	1.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	37	149	17
Future Vol, veh/h	0	37	149	17
Peak Hour Factor	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	4	4	4
Mvmt Flow	0	47	189	22
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.4
HCM LOS	B

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	18	14	20	3	29	10	215	18	19	186	13
Future Vol, veh/h	8	18	14	20	3	29	10	215	18	19	186	13
Conflicting Peds, #/hr	25	0	4	4	0	25	57	0	12	12	0	57
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	5	5	5	4	4	4	6	6	6	4	4	4
Mvmt Flow	10	23	18	25	4	37	13	272	23	24	235	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	703	681	305	637	678	321	309	0	0	307	0	0
Stage 1	349	349	-	321	321	-	-	-	-	-	-	-
Stage 2	354	332	-	316	357	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.14	6.54	6.24	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.536	4.036	3.336	2.254	-	-	2.236	-	-
Pot Cap-1 Maneuver	348	369	728	387	372	715	1229	-	-	1242	-	-
Stage 1	661	628	-	687	648	-	-	-	-	-	-	-
Stage 2	657	639	-	691	625	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	293	333	686	342	335	690	1224	-	-	1212	-	-
Mov Cap-2 Maneuver	293	333	-	342	335	-	-	-	-	-	-	-
Stage 1	617	580	-	670	632	-	-	-	-	-	-	-
Stage 2	596	623	-	629	577	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.5	13.8	0.3	0.7
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1224	-	-	393	475	1212	-	-
HCM Lane V/C Ratio	0.01	-	-	0.129	0.139	0.02	-	-
HCM Control Delay (s)	8	0	-	15.5	13.8	8	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.5	0.1	-	-

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	4	2	11	0	58	2	59	0	6	176	67
Future Vol, veh/h	0	4	2	11	0	58	2	59	0	6	176	67
Peak Hour Factor	0.92	0.78	0.78	0.78	0.92	0.78	0.78	0.78	0.92	0.78	0.78	0.78
Heavy Vehicles, %	2	1	1	1	2	7	7	7	2	4	4	4
Mvmt Flow	0	5	3	14	0	74	3	76	0	8	226	86
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.4	9.8	10.8
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	24%	49%	19%
Vol Thru, %	71%	12%	2%	78%
Vol Right, %	27%	65%	50%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	249	17	119	217
LT Vol	6	4	58	41
Through Vol	176	2	2	169
RT Vol	67	11	59	7
Lane Flow Rate	319	22	153	278
Geometry Grp	1	1	1	1
Degree of Util (X)	0.407	0.031	0.22	0.371
Departure Headway (Hd)	4.595	5.181	5.203	4.803
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	779	682	683	746
Service Time	2.65	3.281	3.279	2.861
HCM Lane V/C Ratio	0.409	0.032	0.224	0.373
HCM Control Delay	10.8	8.4	9.8	10.7
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2	0.1	0.8	1.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	41	169	7
Future Vol, veh/h	0	41	169	7
Peak Hour Factor	0.92	0.78	0.78	0.78
Heavy Vehicles, %	2	4	4	4
Mvmt Flow	0	53	217	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.7
HCM LOS	B

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations									
Traffic Vol, veh/h	0	23	18	0	10	33	0	23	30
Future Vol, veh/h	0	23	18	0	10	33	0	23	30
Peak Hour Factor	0.92	0.57	0.57	0.92	0.57	0.57	0.92	0.57	0.57
Heavy Vehicles, %	2	7	7	2	23	23	2	15	15
Mvmt Flow	0	40	32	0	18	58	0	40	53
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.6	8.1	7.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	23%	56%	0%
Vol Thru, %	77%	0%	43%
Vol Right, %	0%	44%	57%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	43	41	53
LT Vol	10	23	0
Through Vol	33	0	23
RT Vol	0	18	30
Lane Flow Rate	75	72	93
Geometry Grp	1	1	1
Degree of Util (X)	0.095	0.083	0.103
Departure Headway (Hd)	4.536	4.157	3.999
Convergence, Y/N	Yes	Yes	Yes
Cap	785	849	888
Service Time	2.592	2.248	2.061
HCM Lane V/C Ratio	0.096	0.085	0.105
HCM Control Delay	8.1	7.6	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	0.3	0.3

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	89	20	29	61	0	11	0	17	19	19	46
Future Vol, veh/h	0	89	20	29	61	0	11	0	17	19	19	46
Conflicting Peds, #/hr	24	0	35	35	0	24	33	0	145	145	0	33
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	5	5	5	7	7	7	1	1	1	4	4	4
Mvmt Flow	0	178	40	58	122	0	22	0	34	38	38	92

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	253	0	0	569	471	378	598	491	155
Stage 1	-	-	-	-	-	-	233	233	-	238	238	-
Stage 2	-	-	-	-	-	-	336	238	-	360	253	-
Critical Hdwy	-	-	-	4.17	-	-	7.11	6.51	6.21	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.14	5.54	-
Follow-up Hdwy	-	-	-	2.263	-	-	3.509	4.009	3.309	3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	1284	-	0	434	492	671	411	475	886
Stage 1	0	-	-	-	-	0	772	714	-	761	705	-
Stage 2	0	-	-	-	-	0	680	710	-	654	694	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1107	-	-	324	449	559	318	433	858
Mov Cap-2 Maneuver	-	-	-	-	-	-	324	449	-	318	433	-
Stage 1	-	-	-	-	-	-	772	690	-	761	666	-
Stage 2	-	-	-	-	-	-	523	670	-	529	671	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.7	14.5	13.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	435	-	-	1107	-	318	667
HCM Lane V/C Ratio	0.129	-	-	0.052	-	0.119	0.195
HCM Control Delay (s)	14.5	-	-	8.4	0	17.9	11.7
HCM Lane LOS	B	-	-	A	A	C	B
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-	0.4	0.7

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	48	86	69	22	7	16
Future Vol, veh/h	48	86	69	22	7	16
Conflicting Peds, #/hr	0	0	0	0	3	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	4	4	10	10	48	48
Mvmt Flow	92	165	133	42	13	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	175	0	-	0	507	160
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	353	-
Critical Hdwy	4.14	-	-	-	6.88	6.68
Critical Hdwy Stg 1	-	-	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-	5.88	-
Follow-up Hdwy	2.236	-	-	-	3.932	3.732
Pot Cap-1 Maneuver	1389	-	-	-	452	778
Stage 1	-	-	-	-	774	-
Stage 2	-	-	-	-	620	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1381	-	-	-	419	774
Mov Cap-2 Maneuver	-	-	-	-	419	-
Stage 1	-	-	-	-	774	-
Stage 2	-	-	-	-	575	-

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1381	-	-	-	615
HCM Lane V/C Ratio	0.067	-	-	-	0.072
HCM Control Delay (s)	7.8	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	64	33	19	38	61
Future Vol, veh/h	31	64	33	19	38	61
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	40	40	40	40	40	40
Heavy Vehicles, %	4	4	17	17	2	2
Mvmt Flow	78	160	83	48	95	153

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	130	0	-	0	422	106
Stage 1	-	-	-	-	106	-
Stage 2	-	-	-	-	316	-
Critical Hdwy	4.14	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.236	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1443	-	-	-	588	948
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	739	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1443	-	-	-	553	948
Mov Cap-2 Maneuver	-	-	-	-	553	-
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	695	-

Approach	EB	WB	SB
HCM Control Delay, s	2.5	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1443	-	-	-	744
HCM Lane V/C Ratio	0.054	-	-	-	0.333
HCM Control Delay (s)	7.6	0	-	-	12.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.5

Intersection	
Intersection Delay, s/veh	11.7
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	14	72	29	0	26	81	32	0	22	223	25
Future Vol, veh/h	0	14	72	29	0	26	81	32	0	22	223	25
Peak Hour Factor	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85
Heavy Vehicles, %	2	5	5	5	2	4	4	4	2	2	2	2
Mvmt Flow	0	16	85	34	0	31	95	38	0	26	262	29
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	10.4	10.7	12.6
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	12%	19%	14%
Vol Thru, %	83%	63%	58%	80%
Vol Right, %	9%	25%	23%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	270	115	139	237
LT Vol	22	14	26	32
Through Vol	223	72	81	190
RT Vol	25	29	32	15
Lane Flow Rate	318	135	164	279
Geometry Grp	1	1	1	1
Degree of Util (X)	0.458	0.216	0.258	0.41
Departure Headway (Hd)	5.192	5.737	5.689	5.29
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	692	624	630	680
Service Time	3.233	3.788	3.739	3.332
HCM Lane V/C Ratio	0.46	0.216	0.26	0.41
HCM Control Delay	12.6	10.4	10.7	12
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.4	0.8	1	2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	32	190	15
Future Vol, veh/h	0	32	190	15
Peak Hour Factor	0.92	0.85	0.85	0.85
Heavy Vehicles, %	2	3	3	3
Mvmt Flow	0	38	224	18
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12
HCM LOS	B

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	18	29	9	3	22	11	242	5	20	212	11
Future Vol, veh/h	8	18	29	9	3	22	11	242	5	20	212	11
Conflicting Peds, #/hr	52	0	3	3	0	52	5	0	7	7	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	2	2	2
Mvmt Flow	8	19	30	9	3	23	11	252	5	21	221	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	616	560	235	581	564	314	237	0	0	264	0	0
Stage 1	273	273	-	285	285	-	-	-	-	-	-	-
Stage 2	343	287	-	296	279	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.12	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.218	-	-
Pot Cap-1 Maneuver	404	438	807	427	436	729	1336	-	-	1300	-	-
Stage 1	735	686	-	724	678	-	-	-	-	-	-	-
Stage 2	674	676	-	715	682	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	359	420	801	384	418	688	1332	-	-	1236	-	-
Mov Cap-2 Maneuver	359	420	-	384	418	-	-	-	-	-	-	-
Stage 1	724	669	-	712	667	-	-	-	-	-	-	-
Stage 2	610	665	-	654	665	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	12.1	0.3	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1332	-	-	543	543	1236	-	-
HCM Lane V/C Ratio	0.009	-	-	0.106	0.065	0.017	-	-
HCM Control Delay (s)	7.7	0	-	12.4	12.1	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.2	0.1	-	-

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	8	8	10	0	56	5	49	0	12	200	49
Future Vol, veh/h	0	8	8	10	0	56	5	49	0	12	200	49
Peak Hour Factor	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	1	1	1	2	1	1	1	2	1	1	1
Mvmt Flow	0	8	8	11	0	59	5	52	0	13	211	52
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.4	9	9.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	31%	51%	7%
Vol Thru, %	77%	31%	5%	84%
Vol Right, %	19%	38%	45%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	261	26	110	248
LT Vol	12	8	56	18
Through Vol	200	8	5	208
RT Vol	49	10	49	22
Lane Flow Rate	275	27	116	261
Geometry Grp	1	1	1	1
Degree of Util (X)	0.341	0.039	0.16	0.329
Departure Headway (Hd)	4.463	5.113	4.979	4.539
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	802	695	717	791
Service Time	2.503	3.179	3.034	2.579
HCM Lane V/C Ratio	0.343	0.039	0.162	0.33
HCM Control Delay	9.8	8.4	9	9.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.5	0.1	0.6	1.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	18	208	22
Future Vol, veh/h	0	18	208	22
Peak Hour Factor	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	1	1	1
Mvmt Flow	0	19	219	23
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.8
HCM LOS	A

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations									
Traffic Vol, veh/h	0	5	27	0	20	24	0	31	3
Future Vol, veh/h	0	5	27	0	20	24	0	31	3
Peak Hour Factor	0.92	0.76	0.76	0.92	0.76	0.76	0.92	0.76	0.76
Heavy Vehicles, %	2	1	1	2	1	1	2	6	6
Mvmt Flow	0	7	36	0	26	32	0	41	4
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.8	7.4	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	45%	16%	0%
Vol Thru, %	55%	0%	91%
Vol Right, %	0%	84%	9%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	44	32	34
LT Vol	20	5	0
Through Vol	24	0	31
RT Vol	0	27	3
Lane Flow Rate	58	42	45
Geometry Grp	1	1	1
Degree of Util (X)	0.066	0.042	0.051
Departure Headway (Hd)	4.115	3.618	4.065
Convergence, Y/N	Yes	Yes	Yes
Cap	872	982	881
Service Time	2.134	1.667	2.088
HCM Lane V/C Ratio	0.067	0.043	0.051
HCM Control Delay	7.4	6.8	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.1	0.2

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	65	2	3	57	0	3	0	7	16	6	55
Future Vol, veh/h	0	65	2	3	57	0	3	0	7	16	6	55
Conflicting Peds, #/hr	0	0	12	12	0	0	3	0	2	2	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	90	3	4	79	0	4	0	10	22	8	76

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	105	0	0	237	192	106	187	193	82
Stage 1	-	-	-	-	-	-	104	104	-	88	88	-
Stage 2	-	-	-	-	-	-	133	88	-	99	105	-
Critical Hdwy	-	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	-	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	0	-	-	1493	-	0	720	705	951	776	704	980
Stage 1	0	-	-	-	-	0	904	811	-	922	824	-
Stage 2	0	-	-	-	-	0	873	824	-	910	810	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1490	-	-	647	695	938	765	694	977
Mov Cap-2 Maneuver	-	-	-	-	-	-	647	695	-	765	694	-
Stage 1	-	-	-	-	-	-	904	802	-	922	822	-
Stage 2	-	-	-	-	-	-	792	822	-	899	801	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	9.4	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	826	-	-	1490	-	765	939
HCM Lane V/C Ratio	0.017	-	-	0.003	-	0.029	0.09
HCM Control Delay (s)	9.4	-	-	7.4	0	9.8	9.2
HCM Lane LOS	A	-	-	A	A	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-	0.1	0.3

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	45	23	9	9	39
Future Vol, veh/h	31	45	23	9	9	39
Conflicting Peds, #/hr	0	0	0	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	1	1	1	1	4	4
Mvmt Flow	48	69	35	14	14	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	49	0	-	0	208	43
Stage 1	-	-	-	-	42	-
Stage 2	-	-	-	-	166	-
Critical Hdwy	4.11	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.209	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1564	-	-	-	776	1022
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	859	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1563	-	-	-	751	1021
Mov Cap-2 Maneuver	-	-	-	-	751	-
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	832	-

Approach	EB	WB	SB
HCM Control Delay, s	3	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1563	-	-	-	957
HCM Lane V/C Ratio	0.031	-	-	-	0.077
HCM Control Delay (s)	7.4	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	24	23	17	12	17
Future Vol, veh/h	18	24	23	17	12	17
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	3	3	1	1
Mvmt Flow	24	32	31	23	16	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	53	0	-	0	123	42
Stage 1	-	-	-	-	42	-
Stage 2	-	-	-	-	81	-
Critical Hdwy	4.12	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.218	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1553	-	-	-	875	1032
Stage 1	-	-	-	-	983	-
Stage 2	-	-	-	-	945	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1553	-	-	-	861	1032
Mov Cap-2 Maneuver	-	-	-	-	861	-
Stage 1	-	-	-	-	983	-
Stage 2	-	-	-	-	930	-

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1553	-	-	-	954
HCM Lane V/C Ratio	0.015	-	-	-	0.041
HCM Control Delay (s)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	22.1
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	1	100	48	0	28	79	63	0	32	139	24
Future Vol, veh/h	0	1	100	48	0	28	79	63	0	32	139	24
Peak Hour Factor	0.92	0.68	0.68	0.68	0.92	0.68	0.68	0.68	0.92	0.68	0.68	0.68
Heavy Vehicles, %	2	11	11	11	2	4	4	4	2	6	6	6
Mvmt Flow	0	1	147	71	0	41	116	93	0	47	204	35
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	15.3	15.9	17.1
HCM LOS	C	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	1%	16%	17%
Vol Thru, %	71%	67%	46%	82%
Vol Right, %	12%	32%	37%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	195	149	170	320
LT Vol	32	1	28	53
Through Vol	139	100	79	263
RT Vol	24	48	63	4
Lane Flow Rate	287	219	250	471
Geometry Grp	1	1	1	1
Degree of Util (X)	0.53	0.427	0.473	0.818
Departure Headway (Hd)	6.656	7.011	6.81	6.26
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	539	511	525	574
Service Time	4.748	5.106	4.902	4.338
HCM Lane V/C Ratio	0.532	0.429	0.476	0.821
HCM Control Delay	17.1	15.3	15.9	31.7
HCM Lane LOS	C	C	C	D
HCM 95th-tile Q	3.1	2.1	2.5	8.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	53	263	4
Future Vol, veh/h	0	53	263	4
Peak Hour Factor	0.92	0.68	0.68	0.68
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	78	387	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	31.7
HCM LOS	D

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	22	14	16	0	20	8	168	15	115	208	11
Future Vol, veh/h	6	22	14	16	0	20	8	168	15	115	208	11
Conflicting Peds, #/hr	20	0	8	8	0	20	27	0	0	0	0	27
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	1	1	1	3	3	3	7	7	7	2	2	2
Mvmt Flow	9	32	21	24	0	29	12	247	22	169	306	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	995	972	349	969	969	278	349	0	0	269	0	0
Stage 1	679	679	-	282	282	-	-	-	-	-	-	-
Stage 2	316	293	-	687	687	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.13	6.53	6.23	4.17	-	-	4.12	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.527	4.027	3.327	2.263	-	-	2.218	-	-
Pot Cap-1 Maneuver	225	253	697	232	253	758	1183	-	-	1295	-	-
Stage 1	443	453	-	723	676	-	-	-	-	-	-	-
Stage 2	697	672	-	435	446	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	179	204	674	171	204	744	1174	-	-	1270	-	-
Mov Cap-2 Maneuver	179	204	-	171	204	-	-	-	-	-	-	-
Stage 1	426	370	-	714	668	-	-	-	-	-	-	-
Stage 2	649	664	-	320	364	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.2	19.6	0.3	2.8
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1174	-	-	259	299	1270	-	-
HCM Lane V/C Ratio	0.01	-	-	0.238	0.177	0.133	-	-
HCM Control Delay (s)	8.1	0	-	23.2	19.6	8.3	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.9	0.6	0.5	-	-

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	1	1	2	0	87	1	92	0	9	91	164
Future Vol, veh/h	0	1	1	2	0	87	1	92	0	9	91	164
Peak Hour Factor	0.92	0.72	0.72	0.72	0.92	0.72	0.72	0.72	0.92	0.72	0.72	0.72
Heavy Vehicles, %	2	1	1	1	2	5	5	5	2	4	4	4
Mvmt Flow	0	1	1	3	0	121	1	128	0	13	126	228
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9	11.9	12.4
HCM LOS	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	25%	48%	31%
Vol Thru, %	34%	25%	1%	67%
Vol Right, %	62%	50%	51%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	264	4	180	238
LT Vol	9	1	87	73
Through Vol	91	1	1	160
RT Vol	164	2	92	5
Lane Flow Rate	367	6	250	331
Geometry Grp	1	1	1	1
Degree of Util (X)	0.49	0.009	0.381	0.478
Departure Headway (Hd)	4.815	5.912	5.491	5.211
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	748	604	655	691
Service Time	2.842	3.961	3.522	3.239
HCM Lane V/C Ratio	0.491	0.01	0.382	0.479
HCM Control Delay	12.4	9	11.9	12.9
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	2.7	0	1.8	2.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	73	160	5
Future Vol, veh/h	0	73	160	5
Peak Hour Factor	0.92	0.72	0.72	0.72
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	101	222	7
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.9
HCM LOS	B

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations									
Traffic Vol, veh/h	0	41	80	0	0	45	0	129	19
Future Vol, veh/h	0	41	80	0	0	45	0	129	19
Peak Hour Factor	0.92	0.52	0.52	0.92	0.52	0.52	0.92	0.52	0.52
Heavy Vehicles, %	2	1	1	2	13	13	2	13	13
Mvmt Flow	0	79	154	0	0	87	0	248	37
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9.3	8.7	10.5
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	34%	0%
Vol Thru, %	100%	0%	87%
Vol Right, %	0%	66%	13%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	45	121	148
LT Vol	0	41	0
Through Vol	45	0	129
RT Vol	0	80	19
Lane Flow Rate	87	233	285
Geometry Grp	1	1	1
Degree of Util (X)	0.12	0.29	0.371
Departure Headway (Hd)	5.001	4.481	4.692
Convergence, Y/N	Yes	Yes	Yes
Cap	714	800	766
Service Time	3.05	2.514	2.732
HCM Lane V/C Ratio	0.122	0.291	0.372
HCM Control Delay	8.7	9.3	10.5
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0.4	1.2	1.7

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	158	68	5	35	0	17	0	20	24	38	124
Future Vol, veh/h	0	158	68	5	35	0	17	0	20	24	38	124
Conflicting Peds, #/hr	3	0	6	6	0	3	55	0	148	148	0	55
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	2	2	2	3	3	3	3	3	3	4	4	4
Mvmt Flow	0	243	105	8	54	0	26	0	31	37	58	191

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	354	0	0	550	370	449	528	423	109
Stage 1	-	-	-	-	-	-	301	301	-	69	69	-
Stage 2	-	-	-	-	-	-	249	69	-	459	354	-
Critical Hdwy	-	-	-	4.13	-	-	7.13	6.53	6.23	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.14	5.54	-
Follow-up Hdwy	-	-	-	2.227	-	-	3.527	4.027	3.327	3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	1199	-	0	444	558	608	458	519	939
Stage 1	0	-	-	-	-	0	706	663	-	936	834	-
Stage 2	0	-	-	-	-	0	753	835	-	578	627	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1030	-	-	298	550	519	368	512	890
Mov Cap-2 Maneuver	-	-	-	-	-	-	298	550	-	368	512	-
Stage 1	-	-	-	-	-	-	706	659	-	936	827	-
Stage 2	-	-	-	-	-	-	517	828	-	467	623	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.1	15.9	12.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	387	-	-	1030	-	368	759
HCM Lane V/C Ratio	0.147	-	-	0.007	-	0.1	0.328
HCM Control Delay (s)	15.9	-	-	8.5	0	15.9	12
HCM Lane LOS	C	-	-	A	A	C	B
HCM 95th %tile Q(veh)	0.5	-	-	0	-	0.3	1.4

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	128	105	25	69	28	21
Future Vol, veh/h	128	105	25	69	28	21
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	3	3	6	6	35	35
Mvmt Flow	191	157	37	103	42	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	140	0	-	0	628	91
Stage 1	-	-	-	-	89	-
Stage 2	-	-	-	-	539	-
Critical Hdwy	4.13	-	-	-	6.75	6.55
Critical Hdwy Stg 1	-	-	-	-	5.75	-
Critical Hdwy Stg 2	-	-	-	-	5.75	-
Follow-up Hdwy	2.227	-	-	-	3.815	3.615
Pot Cap-1 Maneuver	1437	-	-	-	398	883
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	524	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1434	-	-	-	340	881
Mov Cap-2 Maneuver	-	-	-	-	340	-
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	447	-

Approach	EB	WB	SB
HCM Control Delay, s	4.3	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1434	-	-	-	461
HCM Lane V/C Ratio	0.133	-	-	-	0.159
HCM Control Delay (s)	7.9	0	-	-	14.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.6

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	85	86	73	3	7
Future Vol, veh/h	27	85	86	73	3	7
Conflicting Peds, #/hr	0	0	0	0	1	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	58	58	58	58	58	58
Heavy Vehicles, %	15	15	4	4	1	1
Mvmt Flow	47	147	148	126	5	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	274	0	-	0	452	214
Stage 1	-	-	-	-	211	-
Stage 2	-	-	-	-	241	-
Critical Hdwy	4.25	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.335	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1218	-	-	-	567	829
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	801	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1215	-	-	-	543	827
Mov Cap-2 Maneuver	-	-	-	-	543	-
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	767	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1215	-	-	-	715
HCM Lane V/C Ratio	0.038	-	-	-	0.024
HCM Control Delay (s)	8.1	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	15	76	38	0	29	104	56	0	35	200	29
Future Vol, veh/h	0	15	76	38	0	29	104	56	0	35	200	29
Peak Hour Factor	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	5	5	5	2	7	7	7	2	5	5	5
Mvmt Flow	0	19	96	48	0	37	132	71	0	44	253	37
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	11.4	12.8	14.8
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	12%	15%	18%
Vol Thru, %	76%	59%	55%	73%
Vol Right, %	11%	29%	30%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	264	129	189	215
LT Vol	35	15	29	39
Through Vol	200	76	104	158
RT Vol	29	38	56	18
Lane Flow Rate	334	163	239	272
Geometry Grp	1	1	1	1
Degree of Util (X)	0.523	0.274	0.393	0.435
Departure Headway (Hd)	5.637	6.035	5.91	5.749
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	635	589	605	621
Service Time	3.713	4.128	3.994	3.83
HCM Lane V/C Ratio	0.526	0.277	0.395	0.438
HCM Control Delay	14.8	11.4	12.8	13.2
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	3	1.1	1.9	2.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	39	158	18
Future Vol, veh/h	0	39	158	18
Peak Hour Factor	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	4	4	4
Mvmt Flow	0	49	200	23
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	13.2
HCM LOS	B

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	18	14	20	3	29	10	228	18	19	197	13
Future Vol, veh/h	8	18	14	20	3	29	10	228	18	19	197	13
Conflicting Peds, #/hr	25	0	4	4	0	25	57	0	12	12	0	57
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	5	5	5	4	4	4	6	6	6	4	4	4
Mvmt Flow	10	23	18	25	4	37	13	289	23	24	249	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	734	712	319	667	708	337	323	0	0	323	0	0
Stage 1	363	363	-	337	337	-	-	-	-	-	-	-
Stage 2	371	349	-	330	371	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.14	6.54	6.24	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.536	4.036	3.336	2.254	-	-	2.236	-	-
Pot Cap-1 Maneuver	332	354	715	370	357	701	1215	-	-	1226	-	-
Stage 1	650	619	-	673	638	-	-	-	-	-	-	-
Stage 2	643	628	-	679	616	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	279	319	674	326	322	676	1210	-	-	1197	-	-
Mov Cap-2 Maneuver	279	319	-	326	322	-	-	-	-	-	-	-
Stage 1	607	571	-	657	623	-	-	-	-	-	-	-
Stage 2	582	613	-	617	569	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16	14.2	0.3	0.7
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1210	-	-	378	458	1197	-	-
HCM Lane V/C Ratio	0.01	-	-	0.134	0.144	0.02	-	-
HCM Control Delay (s)	8	0	-	16	14.2	8.1	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.5	0.1	-	-

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	4	2	11	0	58	2	59	0	6	187	67
Future Vol, veh/h	0	4	2	11	0	58	2	59	0	6	187	67
Peak Hour Factor	0.92	0.78	0.78	0.78	0.92	0.78	0.78	0.78	0.92	0.78	0.78	0.78
Heavy Vehicles, %	2	1	1	1	2	7	7	7	2	4	4	4
Mvmt Flow	0	5	3	14	0	74	3	76	0	8	240	86
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.5	9.9	11.1
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	24%	49%	18%
Vol Thru, %	72%	12%	2%	79%
Vol Right, %	26%	65%	50%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	260	17	119	227
LT Vol	6	4	58	41
Through Vol	187	2	2	179
RT Vol	67	11	59	7
Lane Flow Rate	333	22	153	291
Geometry Grp	1	1	1	1
Degree of Util (X)	0.428	0.032	0.223	0.39
Departure Headway (Hd)	4.622	5.359	5.265	4.824
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	773	672	676	742
Service Time	2.683	3.359	3.349	2.888
HCM Lane V/C Ratio	0.431	0.033	0.226	0.392
HCM Control Delay	11.1	8.5	9.9	11
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.2	0.1	0.8	1.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	41	179	7
Future Vol, veh/h	0	41	179	7
Peak Hour Factor	0.92	0.78	0.78	0.78
Heavy Vehicles, %	2	4	4	4
Mvmt Flow	0	53	229	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11
HCM LOS	B

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations									
Traffic Vol, veh/h	0	23	18	0	10	33	0	23	30
Future Vol, veh/h	0	23	18	0	10	33	0	23	30
Peak Hour Factor	0.92	0.57	0.57	0.92	0.57	0.57	0.92	0.57	0.57
Heavy Vehicles, %	2	7	7	2	23	23	2	15	15
Mvmt Flow	0	40	32	0	18	58	0	40	53
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.6	8.1	7.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	23%	56%	0%
Vol Thru, %	77%	0%	43%
Vol Right, %	0%	44%	57%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	43	41	53
LT Vol	10	23	0
Through Vol	33	0	23
RT Vol	0	18	30
Lane Flow Rate	75	72	93
Geometry Grp	1	1	1
Degree of Util (X)	0.095	0.083	0.103
Departure Headway (Hd)	4.536	4.157	3.999
Convergence, Y/N	Yes	Yes	Yes
Cap	785	849	888
Service Time	2.592	2.248	2.061
HCM Lane V/C Ratio	0.096	0.085	0.105
HCM Control Delay	8.1	7.6	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	0.3	0.3

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	89	20	29	61	0	11	0	17	19	19	46
Future Vol, veh/h	0	89	20	29	61	0	11	0	17	19	19	46
Conflicting Peds, #/hr	24	0	35	35	0	24	33	0	145	145	0	33
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	5	5	5	7	7	7	1	1	1	4	4	4
Mvmt Flow	0	178	40	58	122	0	22	0	34	38	38	92

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	253	0	0	569	471	378	598	491	155
Stage 1	-	-	-	-	-	-	233	233	-	238	238	-
Stage 2	-	-	-	-	-	-	336	238	-	360	253	-
Critical Hdwy	-	-	-	4.17	-	-	7.11	6.51	6.21	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.14	5.54	-
Follow-up Hdwy	-	-	-	2.263	-	-	3.509	4.009	3.309	3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	1284	-	0	434	492	671	411	475	886
Stage 1	0	-	-	-	-	0	772	714	-	761	705	-
Stage 2	0	-	-	-	-	0	680	710	-	654	694	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1107	-	-	324	449	559	318	433	858
Mov Cap-2 Maneuver	-	-	-	-	-	-	324	449	-	318	433	-
Stage 1	-	-	-	-	-	-	772	690	-	761	666	-
Stage 2	-	-	-	-	-	-	523	670	-	529	671	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.7	14.5	13.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	435	-	-	1107	-	318	667
HCM Lane V/C Ratio	0.129	-	-	0.052	-	0.119	0.195
HCM Control Delay (s)	14.5	-	-	8.4	0	17.9	11.7
HCM Lane LOS	B	-	-	A	A	C	B
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-	0.4	0.7

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	48	86	69	22	7	16
Future Vol, veh/h	48	86	69	22	7	16
Conflicting Peds, #/hr	0	0	0	0	3	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	4	4	10	10	48	48
Mvmt Flow	92	165	133	42	13	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	175	0	-	0	507	160
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	353	-
Critical Hdwy	4.14	-	-	-	6.88	6.68
Critical Hdwy Stg 1	-	-	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-	5.88	-
Follow-up Hdwy	2.236	-	-	-	3.932	3.732
Pot Cap-1 Maneuver	1389	-	-	-	452	778
Stage 1	-	-	-	-	774	-
Stage 2	-	-	-	-	620	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1381	-	-	-	419	774
Mov Cap-2 Maneuver	-	-	-	-	419	-
Stage 1	-	-	-	-	774	-
Stage 2	-	-	-	-	575	-

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1381	-	-	-	615
HCM Lane V/C Ratio	0.067	-	-	-	0.072
HCM Control Delay (s)	7.8	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	64	33	19	38	61
Future Vol, veh/h	31	64	33	19	38	61
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	40	40	40	40	40	40
Heavy Vehicles, %	4	4	17	17	2	2
Mvmt Flow	78	160	83	48	95	153

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	130	0	-	0	422	106
Stage 1	-	-	-	-	106	-
Stage 2	-	-	-	-	316	-
Critical Hdwy	4.14	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.236	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1443	-	-	-	588	948
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	739	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1443	-	-	-	553	948
Mov Cap-2 Maneuver	-	-	-	-	553	-
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	695	-

Approach	EB	WB	SB
HCM Control Delay, s	2.5	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1443	-	-	-	744
HCM Lane V/C Ratio	0.054	-	-	-	0.333
HCM Control Delay (s)	7.6	0	-	-	12.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.5

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	15	76	31	0	28	86	34	0	23	237	27
Future Vol, veh/h	0	15	76	31	0	28	86	34	0	23	237	27
Peak Hour Factor	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85
Heavy Vehicles, %	2	5	5	5	2	4	4	4	2	2	2	2
Mvmt Flow	0	18	89	36	0	33	101	40	0	27	279	32
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	10.8	11.2	13.6
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	12%	19%	13%
Vol Thru, %	83%	62%	58%	80%
Vol Right, %	9%	25%	23%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	287	122	148	252
LT Vol	23	15	28	34
Through Vol	237	76	86	202
RT Vol	27	31	34	16
Lane Flow Rate	338	144	174	296
Geometry Grp	1	1	1	1
Degree of Util (X)	0.498	0.235	0.283	0.446
Departure Headway (Hd)	5.314	5.902	5.846	5.417
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	675	606	613	664
Service Time	3.363	3.966	3.907	3.469
HCM Lane V/C Ratio	0.501	0.238	0.284	0.446
HCM Control Delay	13.6	10.8	11.2	12.8
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.8	0.9	1.2	2.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	34	202	16
Future Vol, veh/h	0	34	202	16
Peak Hour Factor	0.92	0.85	0.85	0.85
Heavy Vehicles, %	2	3	3	3
Mvmt Flow	0	40	238	19
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.8
HCM LOS	B

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	18	29	9	3	22	11	257	5	20	225	11
Future Vol, veh/h	8	18	29	9	3	22	11	257	5	20	225	11
Conflicting Peds, #/hr	52	0	3	3	0	52	5	0	7	7	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	2	2	2
Mvmt Flow	8	19	30	9	3	23	11	268	5	21	234	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	645	590	248	609	593	329	251	0	0	280	0	0
Stage 1	287	287	-	300	300	-	-	-	-	-	-	-
Stage 2	358	303	-	309	293	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.12	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.218	-	-
Pot Cap-1 Maneuver	387	422	793	409	420	715	1320	-	-	1283	-	-
Stage 1	723	676	-	711	667	-	-	-	-	-	-	-
Stage 2	662	665	-	703	672	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	344	405	787	367	403	675	1316	-	-	1219	-	-
Mov Cap-2 Maneuver	344	405	-	367	403	-	-	-	-	-	-	-
Stage 1	712	659	-	699	656	-	-	-	-	-	-	-
Stage 2	599	654	-	642	655	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	12.3	0.3	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1316	-	-	526	527	1219	-	-
HCM Lane V/C Ratio	0.009	-	-	0.109	0.067	0.017	-	-
HCM Control Delay (s)	7.8	0	-	12.7	12.3	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.2	0.1	-	-

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	8	8	10	0	56	5	49	0	12	212	49
Future Vol, veh/h	0	8	8	10	0	56	5	49	0	12	212	49
Peak Hour Factor	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	1	1	1	2	1	1	1	2	1	1	1
Mvmt Flow	0	8	8	11	0	59	5	52	0	13	223	52
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.5	9.1	10
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	31%	51%	7%
Vol Thru, %	78%	31%	5%	85%
Vol Right, %	18%	38%	45%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	273	26	110	261
LT Vol	12	8	56	18
Through Vol	212	8	5	221
RT Vol	49	10	49	22
Lane Flow Rate	287	27	116	275
Geometry Grp	1	1	1	1
Degree of Util (X)	0.358	0.039	0.162	0.348
Departure Headway (Hd)	4.488	5.176	5.037	4.559
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	799	686	707	786
Service Time	2.529	3.248	3.097	2.601
HCM Lane V/C Ratio	0.359	0.039	0.164	0.35
HCM Control Delay	10	8.5	9.1	10
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.6	0.1	0.6	1.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	18	221	22
Future Vol, veh/h	0	18	221	22
Peak Hour Factor	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	1	1	1
Mvmt Flow	0	19	233	23
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10
HCM LOS	A

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations									
Traffic Vol, veh/h	0	5	27	0	20	24	0	31	3
Future Vol, veh/h	0	5	27	0	20	24	0	31	3
Peak Hour Factor	0.92	0.76	0.76	0.92	0.76	0.76	0.92	0.76	0.76
Heavy Vehicles, %	2	1	1	2	1	1	2	6	6
Mvmt Flow	0	7	36	0	26	32	0	41	4
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.8	7.4	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	45%	16%	0%
Vol Thru, %	55%	0%	91%
Vol Right, %	0%	84%	9%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	44	32	34
LT Vol	20	5	0
Through Vol	24	0	31
RT Vol	0	27	3
Lane Flow Rate	58	42	45
Geometry Grp	1	1	1
Degree of Util (X)	0.066	0.042	0.051
Departure Headway (Hd)	4.115	3.618	4.065
Convergence, Y/N	Yes	Yes	Yes
Cap	872	982	881
Service Time	2.134	1.667	2.088
HCM Lane V/C Ratio	0.067	0.043	0.051
HCM Control Delay	7.4	6.8	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.1	0.2

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	65	2	3	57	0	3	0	7	16	6	55
Future Vol, veh/h	0	65	2	3	57	0	3	0	7	16	6	55
Conflicting Peds, #/hr	0	0	12	12	0	0	3	0	2	2	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	90	3	4	79	0	4	0	10	22	8	76

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	105	0	0	237	192	106	187	193	82
Stage 1	-	-	-	-	-	-	104	104	-	88	88	-
Stage 2	-	-	-	-	-	-	133	88	-	99	105	-
Critical Hdwy	-	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	-	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	0	-	-	1493	-	0	720	705	951	776	704	980
Stage 1	0	-	-	-	-	0	904	811	-	922	824	-
Stage 2	0	-	-	-	-	0	873	824	-	910	810	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1490	-	-	647	695	938	765	694	977
Mov Cap-2 Maneuver	-	-	-	-	-	-	647	695	-	765	694	-
Stage 1	-	-	-	-	-	-	904	802	-	922	822	-
Stage 2	-	-	-	-	-	-	792	822	-	899	801	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	9.4	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	826	-	-	1490	-	765	939
HCM Lane V/C Ratio	0.017	-	-	0.003	-	0.029	0.09
HCM Control Delay (s)	9.4	-	-	7.4	0	9.8	9.2
HCM Lane LOS	A	-	-	A	A	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-	0.1	0.3

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	45	23	9	9	39
Future Vol, veh/h	31	45	23	9	9	39
Conflicting Peds, #/hr	0	0	0	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	1	1	1	1	4	4
Mvmt Flow	48	69	35	14	14	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	49	0	-	0	208	43
Stage 1	-	-	-	-	42	-
Stage 2	-	-	-	-	166	-
Critical Hdwy	4.11	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.209	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	1564	-	-	-	776	1022
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	859	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1563	-	-	-	751	1021
Mov Cap-2 Maneuver	-	-	-	-	751	-
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	832	-

Approach	EB	WB	SB
HCM Control Delay, s	3	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1563	-	-	-	957
HCM Lane V/C Ratio	0.031	-	-	-	0.077
HCM Control Delay (s)	7.4	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	24	23	17	12	17
Future Vol, veh/h	18	24	23	17	12	17
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	3	3	1	1
Mvmt Flow	24	32	31	23	16	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	53	0	-	0	123	42
Stage 1	-	-	-	-	42	-
Stage 2	-	-	-	-	81	-
Critical Hdwy	4.12	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.218	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1553	-	-	-	875	1032
Stage 1	-	-	-	-	983	-
Stage 2	-	-	-	-	945	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1553	-	-	-	861	1032
Mov Cap-2 Maneuver	-	-	-	-	861	-
Stage 1	-	-	-	-	983	-
Stage 2	-	-	-	-	930	-

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1553	-	-	-	954
HCM Lane V/C Ratio	0.015	-	-	-	0.041
HCM Control Delay (s)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	23.5
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	1	87	62	0	28	79	63	0	33	142	24
Future Vol, veh/h	0	1	87	62	0	28	79	63	0	33	142	24
Peak Hour Factor	0.92	0.68	0.68	0.68	0.92	0.68	0.68	0.68	0.92	0.68	0.68	0.68
Heavy Vehicles, %	2	11	11	11	2	4	4	4	2	6	6	6
Mvmt Flow	0	1	128	91	0	41	116	93	0	49	209	35
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	15.6	16.4	18
HCM LOS	C	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	1%	16%	15%
Vol Thru, %	71%	58%	46%	83%
Vol Right, %	12%	41%	37%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	199	150	170	326
LT Vol	33	1	28	50
Through Vol	142	87	79	272
RT Vol	24	62	63	4
Lane Flow Rate	293	221	250	479
Geometry Grp	1	1	1	1
Degree of Util (X)	0.554	0.437	0.485	0.838
Departure Headway (Hd)	6.814	7.129	6.989	6.416
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	533	505	518	571
Service Time	4.83	5.16	5.006	4.416
HCM Lane V/C Ratio	0.55	0.438	0.483	0.839
HCM Control Delay	18	15.6	16.4	34.2
HCM Lane LOS	C	C	C	D
HCM 95th-tile Q	3.3	2.2	2.6	8.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	50	272	4
Future Vol, veh/h	0	50	272	4
Peak Hour Factor	0.92	0.68	0.68	0.68
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	74	400	6
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	34.2
HCM LOS	D

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	22	14	18	0	23	8	169	38	130	216	11
Future Vol, veh/h	6	22	14	18	0	23	8	169	38	130	216	11
Conflicting Peds, #/hr	20	0	8	8	0	20	27	0	0	0	0	27
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	1	1	1	8	8	8	6	6	6	7	7	7
Mvmt Flow	9	32	21	26	0	34	12	249	56	191	318	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1072	1063	361	1043	1043	296	361	0	0	304	0	0
Stage 1	735	735	-	300	300	-	-	-	-	-	-	-
Stage 2	337	328	-	743	743	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.18	6.58	6.28	4.16	-	-	4.17	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.572	4.072	3.372	2.254	-	-	2.263	-	-
Pot Cap-1 Maneuver	199	224	686	202	224	729	1176	-	-	1229	-	-
Stage 1	413	427	-	696	655	-	-	-	-	-	-	-
Stage 2	679	649	-	398	413	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	153	174	663	141	174	715	1167	-	-	1206	-	-
Mov Cap-2 Maneuver	153	174	-	141	174	-	-	-	-	-	-	-
Stage 1	398	335	-	688	647	-	-	-	-	-	-	-
Stage 2	627	641	-	278	324	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	26.9	23.2	0.3	3.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1167	-	-	225	257	1206	-	-
HCM Lane V/C Ratio	0.01	-	-	0.275	0.235	0.159	-	-
HCM Control Delay (s)	8.1	0	-	26.9	23.2	8.5	0	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.1	0.9	0.6	-	-

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	1	1	2	0	88	1	93	0	9	114	148
Future Vol, veh/h	0	1	1	2	0	88	1	93	0	9	114	148
Peak Hour Factor	0.92	0.72	0.72	0.72	0.92	0.72	0.72	0.72	0.92	0.72	0.72	0.72
Heavy Vehicles, %	2	1	1	1	2	4	4	4	2	4	4	4
Mvmt Flow	0	1	1	3	0	122	1	129	0	13	158	206
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.1	12.2	13.1
HCM LOS	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	25%	48%	33%
Vol Thru, %	42%	25%	1%	65%
Vol Right, %	55%	50%	51%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	271	4	182	248
LT Vol	9	1	88	81
Through Vol	114	1	1	162
RT Vol	148	2	93	5
Lane Flow Rate	376	6	253	344
Geometry Grp	1	1	1	1
Degree of Util (X)	0.514	0.009	0.391	0.514
Departure Headway (Hd)	4.912	6.034	5.565	5.376
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	734	591	647	672
Service Time	2.945	4.094	3.602	3.41
HCM Lane V/C Ratio	0.512	0.01	0.391	0.512
HCM Control Delay	13.1	9.1	12.2	14
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	3	0	1.9	3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	81	162	5
Future Vol, veh/h	0	81	162	5
Peak Hour Factor	0.92	0.72	0.72	0.72
Heavy Vehicles, %	2	9	9	9
Mvmt Flow	0	113	225	7
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	14
HCM LOS	B

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	41	60	58	0	15	2	6	0	3	42	0	0	72	76	19
Future Vol, veh/h	0	41	60	58	0	15	2	6	0	3	42	0	0	72	76	19
Peak Hour Factor	0.92	0.52	0.52	0.52	0.92	0.52	0.52	0.52	0.92	0.52	0.52	0.52	0.92	0.52	0.52	0.52
Heavy Vehicles, %	2	1	1	1	2	100	100	100	2	1	1	1	2	1	1	1
Mvmt Flow	0	79	115	112	0	29	4	12	0	6	81	0	0	138	146	37
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.3	10.8	9.2	11.9
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	26%	65%	43%
Vol Thru, %	93%	38%	9%	46%
Vol Right, %	0%	36%	26%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	159	23	167
LT Vol	3	41	15	72
Through Vol	42	60	2	76
RT Vol	0	58	6	19
Lane Flow Rate	87	306	44	321
Geometry Grp	1	1	1	1
Degree of Util (X)	0.129	0.411	0.088	0.441
Departure Headway (Hd)	5.358	4.84	7.137	4.943
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	672	737	505	719
Service Time	3.362	2.926	5.143	3.028
HCM Lane V/C Ratio	0.129	0.415	0.087	0.446
HCM Control Delay	9.2	11.3	10.8	11.9
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.4	2	0.3	2.3

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	150	68	5	34	0	17	0	23	24	39	127
Future Vol, veh/h	0	150	68	5	34	0	17	0	23	24	39	127
Conflicting Peds, #/hr	3	0	6	6	0	3	55	0	148	148	0	55
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	9	9	9	1	1	1	3	3	3	4	4	4
Mvmt Flow	0	231	105	8	52	0	26	0	35	37	60	195

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	341	0	0	539	357	437	517	409	107
Stage 1	-	-	-	-	-	-	289	289	-	68	68	-
Stage 2	-	-	-	-	-	-	250	68	-	449	341	-
Critical Hdwy	-	-	-	4.11	-	-	7.13	6.53	6.23	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.14	5.54	-
Follow-up Hdwy	-	-	-	2.209	-	-	3.527	4.027	3.327	3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	1224	-	0	452	567	617	466	529	942
Stage 1	0	-	-	-	-	0	716	671	-	937	834	-
Stage 2	0	-	-	-	-	0	752	836	-	585	635	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1051	-	-	302	559	527	371	522	893
Mov Cap-2 Maneuver	-	-	-	-	-	-	302	559	-	371	522	-
Stage 1	-	-	-	-	-	-	716	667	-	937	827	-
Stage 2	-	-	-	-	-	-	512	829	-	469	631	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.1	15.6	12.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	400	-	-	1051	-	371	765
HCM Lane V/C Ratio	0.154	-	-	0.007	-	0.1	0.334
HCM Control Delay (s)	15.6	-	-	8.5	0	15.8	12
HCM Lane LOS	C	-	-	A	A	C	B
HCM 95th %tile Q(veh)	0.5	-	-	0	-	0.3	1.5

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	107	121	18	54	34	27
Future Vol, veh/h	107	121	18	54	34	27
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	10	10	3	3	31	31
Mvmt Flow	160	181	27	81	51	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	107	0	-	0	567	69
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	500	-
Critical Hdwy	4.2	-	-	-	6.71	6.51
Critical Hdwy Stg 1	-	-	-	-	5.71	-
Critical Hdwy Stg 2	-	-	-	-	5.71	-
Follow-up Hdwy	2.29	-	-	-	3.779	3.579
Pot Cap-1 Maneuver	1435	-	-	-	439	919
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	554	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1432	-	-	-	385	917
Mov Cap-2 Maneuver	-	-	-	-	385	-
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	485	-

Approach	EB	WB	SB
HCM Control Delay, s	3.7	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1432	-	-	-	518
HCM Lane V/C Ratio	0.112	-	-	-	0.176
HCM Control Delay (s)	7.8	0	-	-	13.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.6

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	91	71	87	0	0
Future Vol, veh/h	43	91	71	87	0	0
Conflicting Peds, #/hr	0	0	0	0	1	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	58	58	58	58	58	58
Heavy Vehicles, %	31	31	4	4	1	1
Mvmt Flow	74	157	122	150	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	272	0	-	0	503	200
Stage 1	-	-	-	-	197	-
Stage 2	-	-	-	-	306	-
Critical Hdwy	4.41	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.479	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1141	-	-	-	530	843
Stage 1	-	-	-	-	839	-
Stage 2	-	-	-	-	749	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1138	-	-	-	492	841
Mov Cap-2 Maneuver	-	-	-	-	492	-
Stage 1	-	-	-	-	839	-
Stage 2	-	-	-	-	696	-

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1138	-	-	-	-
HCM Lane V/C Ratio	0.065	-	-	-	-
HCM Control Delay (s)	8.4	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	-

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	15	70	45	0	29	104	56	0	36	204	29
Future Vol, veh/h	0	15	70	45	0	29	104	56	0	36	204	29
Peak Hour Factor	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	5	5	5	2	7	7	7	2	5	5	5
Mvmt Flow	0	19	89	57	0	37	132	71	0	46	258	37
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	11.5	12.9	15.1
HCM LOS	B	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	12%	15%	18%
Vol Thru, %	76%	54%	55%	74%
Vol Right, %	11%	35%	30%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	269	130	189	217
LT Vol	36	15	29	38
Through Vol	204	70	104	161
RT Vol	29	45	56	18
Lane Flow Rate	341	165	239	275
Geometry Grp	1	1	1	1
Degree of Util (X)	0.535	0.276	0.395	0.44
Departure Headway (Hd)	5.651	6.036	5.942	5.768
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	633	589	600	618
Service Time	3.729	4.133	4.029	3.852
HCM Lane V/C Ratio	0.539	0.28	0.398	0.445
HCM Control Delay	15.1	11.5	12.9	13.4
HCM Lane LOS	C	B	B	B
HCM 95th-tile Q	3.2	1.1	1.9	2.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	38	161	18
Future Vol, veh/h	0	38	161	18
Peak Hour Factor	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	4	4	4
Mvmt Flow	0	48	204	23
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	13.4
HCM LOS	B

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	18	14	34	3	47	10	215	17	19	207	13
Future Vol, veh/h	8	18	14	34	3	47	10	215	17	19	207	13
Conflicting Peds, #/hr	25	0	4	4	0	25	57	0	12	12	0	57
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	5	5	5	17	17	17	3	3	3	7	7	7
Mvmt Flow	10	23	18	43	4	59	13	272	22	24	262	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	740	706	331	663	704	320	335	0	0	306	0	0
Stage 1	375	375	-	320	320	-	-	-	-	-	-	-
Stage 2	365	331	-	343	384	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.27	6.67	6.37	4.13	-	-	4.17	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.27	5.67	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.27	5.67	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.653	4.153	3.453	2.227	-	-	2.263	-	-
Pot Cap-1 Maneuver	329	357	704	355	344	687	1219	-	-	1227	-	-
Stage 1	640	612	-	661	626	-	-	-	-	-	-	-
Stage 2	648	640	-	642	586	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	266	322	663	313	310	663	1214	-	-	1198	-	-
Mov Cap-2 Maneuver	266	322	-	313	310	-	-	-	-	-	-	-
Stage 1	597	565	-	645	611	-	-	-	-	-	-	-
Stage 2	565	624	-	583	541	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.1	15.6	0.3	0.6
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1214	-	-	374	444	1198	-	-
HCM Lane V/C Ratio	0.01	-	-	0.135	0.239	0.02	-	-
HCM Control Delay (s)	8	0	-	16.1	15.6	8.1	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.9	0.1	-	-

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	4	2	11	0	48	2	46	0	6	186	70
Future Vol, veh/h	0	4	2	11	0	48	2	46	0	6	186	70
Peak Hour Factor	0.92	0.78	0.78	0.78	0.92	0.78	0.78	0.78	0.92	0.78	0.78	0.78
Heavy Vehicles, %	2	1	1	1	2	1	1	1	2	4	4	4
Mvmt Flow	0	5	3	14	0	62	3	59	0	8	238	90
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.5	9.5	11
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	24%	50%	20%
Vol Thru, %	71%	12%	2%	77%
Vol Right, %	27%	65%	48%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	262	17	96	251
LT Vol	6	4	48	51
Through Vol	186	2	2	193
RT Vol	70	11	46	7
Lane Flow Rate	336	22	123	322
Geometry Grp	1	1	1	1
Degree of Util (X)	0.426	0.032	0.179	0.431
Departure Headway (Hd)	4.567	5.274	5.247	4.827
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	783	671	678	743
Service Time	2.622	3.371	3.324	2.884
HCM Lane V/C Ratio	0.429	0.033	0.181	0.433
HCM Control Delay	11	8.5	9.5	11.5
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	2.1	0.1	0.6	2.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	51	193	7
Future Vol, veh/h	0	51	193	7
Peak Hour Factor	0.92	0.78	0.78	0.78
Heavy Vehicles, %	2	9	9	9
Mvmt Flow	0	65	247	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11.5
HCM LOS	B

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	23	0	17	0	6	34	36	0	8	15	0	0	0	17	30
Future Vol, veh/h	0	23	0	17	0	6	34	36	0	8	15	0	0	0	17	30
Peak Hour Factor	0.92	0.57	0.57	0.57	0.92	0.57	0.57	0.57	0.92	0.57	0.57	0.57	0.92	0.57	0.57	0.57
Heavy Vehicles, %	2	1	1	1	2	30	30	30	2	1	1	1	2	1	1	1
Mvmt Flow	0	40	0	30	0	11	60	63	0	14	26	0	0	0	30	53
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	8.4	7.8	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	35%	57%	8%	0%
Vol Thru, %	65%	0%	45%	36%
Vol Right, %	0%	42%	47%	64%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	23	40	76	47
LT Vol	8	23	6	0
Through Vol	15	0	34	17
RT Vol	0	17	36	30
Lane Flow Rate	40	70	133	82
Geometry Grp	1	1	1	1
Degree of Util (X)	0.051	0.082	0.163	0.093
Departure Headway (Hd)	4.54	4.202	4.409	4.046
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	792	858	803	890
Service Time	2.547	2.202	2.495	2.052
HCM Lane V/C Ratio	0.051	0.082	0.166	0.092
HCM Control Delay	7.8	7.6	8.4	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.6	0.3

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	102	20	29	35	0	11	0	18	19	21	49
Future Vol, veh/h	0	102	20	29	35	0	11	0	18	19	21	49
Conflicting Peds, #/hr	24	0	35	35	0	24	33	0	145	145	0	33
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	14	14	14	1	1	1	1	1	1	4	4	4
Mvmt Flow	0	204	40	58	70	0	22	0	36	38	42	98

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	279	0	0	548	445	404	573	465	103
Stage 1	-	-	-	-	-	-	259	259	-	186	186	-
Stage 2	-	-	-	-	-	-	289	186	-	387	279	-
Critical Hdwy	-	-	-	4.11	-	-	7.11	6.51	6.21	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.14	5.54	-
Follow-up Hdwy	-	-	-	2.209	-	-	3.509	4.009	3.309	3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	1289	-	0	449	509	649	427	492	946
Stage 1	0	-	-	-	-	0	748	695	-	811	742	-
Stage 2	0	-	-	-	-	0	721	748	-	633	676	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1111	-	-	334	465	541	329	450	916
Mov Cap-2 Maneuver	-	-	-	-	-	-	334	465	-	329	450	-
Stage 1	-	-	-	-	-	-	748	672	-	811	702	-
Stage 2	-	-	-	-	-	-	555	708	-	509	653	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.8	14.5	12.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	438	-	-	1111	-	329	699
HCM Lane V/C Ratio	0.132	-	-	0.052	-	0.116	0.2
HCM Control Delay (s)	14.5	-	-	8.4	0	17.4	11.4
HCM Lane LOS	B	-	-	A	A	C	B
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-	0.4	0.7

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	48	100	8	17	35	51
Future Vol, veh/h	48	100	8	17	35	51
Conflicting Peds, #/hr	0	0	0	0	3	6
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	11	11	1	1	26	26
Mvmt Flow	92	192	15	33	67	98

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	48	0	-	0	412	38
Stage 1	-	-	-	-	32	-
Stage 2	-	-	-	-	380	-
Critical Hdwy	4.21	-	-	-	6.66	6.46
Critical Hdwy Stg 1	-	-	-	-	5.66	-
Critical Hdwy Stg 2	-	-	-	-	5.66	-
Follow-up Hdwy	2.299	-	-	-	3.734	3.534
Pot Cap-1 Maneuver	1503	-	-	-	553	969
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	642	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1494	-	-	-	515	963
Mov Cap-2 Maneuver	-	-	-	-	515	-
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	598	-

Approach	EB	WB	SB
HCM Control Delay, s	2.5	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1494	-	-	-	711
HCM Lane V/C Ratio	0.062	-	-	-	0.233
HCM Control Delay (s)	7.6	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	92	28	27	0	0
Future Vol, veh/h	45	92	28	27	0	0
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	40	40	40	40	40	40
Heavy Vehicles, %	19	19	19	19	1	1
Mvmt Flow	113	230	70	68	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	138	0	-	0	560	104
Stage 1	-	-	-	-	104	-
Stage 2	-	-	-	-	456	-
Critical Hdwy	4.29	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.371	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1348	-	-	-	491	953
Stage 1	-	-	-	-	923	-
Stage 2	-	-	-	-	640	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1348	-	-	-	444	953
Mov Cap-2 Maneuver	-	-	-	-	444	-
Stage 1	-	-	-	-	923	-
Stage 2	-	-	-	-	579	-

Approach	EB	WB	SB
HCM Control Delay, s	2.6	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1348	-	-	-	-
HCM Lane V/C Ratio	0.083	-	-	-	-
HCM Control Delay (s)	7.9	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	-	-

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	15	76	31	0	28	86	34	0	23	239	27
Future Vol, veh/h	0	15	76	31	0	28	86	34	0	23	239	27
Peak Hour Factor	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85
Heavy Vehicles, %	2	5	5	5	2	4	4	4	2	2	2	2
Mvmt Flow	0	18	89	36	0	33	101	40	0	27	281	32
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	10.8	11.3	13.7
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	12%	19%	13%
Vol Thru, %	83%	62%	58%	81%
Vol Right, %	9%	25%	23%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	289	122	148	254
LT Vol	23	15	28	33
Through Vol	239	76	86	205
RT Vol	27	31	34	16
Lane Flow Rate	340	144	174	299
Geometry Grp	1	1	1	1
Degree of Util (X)	0.502	0.236	0.284	0.45
Departure Headway (Hd)	5.32	5.917	5.862	5.423
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	677	604	611	660
Service Time	3.372	3.982	3.923	3.477
HCM Lane V/C Ratio	0.502	0.238	0.285	0.453
HCM Control Delay	13.7	10.8	11.3	12.9
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.8	0.9	1.2	2.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	33	205	16
Future Vol, veh/h	0	33	205	16
Peak Hour Factor	0.92	0.85	0.85	0.85
Heavy Vehicles, %	2	3	3	3
Mvmt Flow	0	39	241	19
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.9
HCM LOS	B

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	18	29	17	3	33	11	248	12	28	220	11
Future Vol, veh/h	8	18	29	17	3	33	11	248	12	28	220	11
Conflicting Peds, #/hr	52	0	3	3	0	52	5	0	7	7	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	1	1	1	3	3	3	1	1	1	2	2	2
Mvmt Flow	8	19	30	18	3	34	11	258	13	29	229	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	656	599	243	616	599	324	246	0	0	278	0	0
Stage 1	298	298	-	295	295	-	-	-	-	-	-	-
Stage 2	358	301	-	321	304	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.13	6.53	6.23	4.11	-	-	4.12	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.527	4.027	3.327	2.209	-	-	2.218	-	-
Pot Cap-1 Maneuver	380	417	798	401	414	715	1326	-	-	1285	-	-
Stage 1	713	669	-	711	667	-	-	-	-	-	-	-
Stage 2	662	667	-	689	661	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	330	397	792	358	394	675	1322	-	-	1221	-	-
Mov Cap-2 Maneuver	330	397	-	358	394	-	-	-	-	-	-	-
Stage 1	703	648	-	699	656	-	-	-	-	-	-	-
Stage 2	588	656	-	624	640	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	12.9	0.3	0.9
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1322	-	-	518	510	1221	-	-
HCM Lane V/C Ratio	0.009	-	-	0.111	0.108	0.024	-	-
HCM Control Delay (s)	7.7	0	-	12.8	12.9	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.4	0.1	-	-

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	8	8	10	0	50	5	40	0	12	219	43
Future Vol, veh/h	0	8	8	10	0	50	5	40	0	12	219	43
Peak Hour Factor	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	1	1	1	2	1	1	1	2	1	1	1
Mvmt Flow	0	8	8	11	0	53	5	42	0	13	231	45
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.4	9	10
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	31%	53%	5%
Vol Thru, %	80%	31%	5%	87%
Vol Right, %	16%	38%	42%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	274	26	95	264
LT Vol	12	8	50	13
Through Vol	219	8	5	229
RT Vol	43	10	40	22
Lane Flow Rate	288	27	100	278
Geometry Grp	1	1	1	1
Degree of Util (X)	0.357	0.039	0.141	0.348
Departure Headway (Hd)	4.461	5.155	5.059	4.514
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	805	690	706	795
Service Time	2.499	3.219	3.113	2.553
HCM Lane V/C Ratio	0.358	0.039	0.142	0.35
HCM Control Delay	10	8.4	9	10
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.6	0.1	0.5	1.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	13	229	22
Future Vol, veh/h	0	13	229	22
Peak Hour Factor	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	1	1	1
Mvmt Flow	0	14	241	23
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10
HCM LOS	A

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	5	23	19	0	7	25	8	0	14	17	0	0	18	21	3
Future Vol, veh/h	0	5	23	19	0	7	25	8	0	14	17	0	0	18	21	3
Peak Hour Factor	0.92	0.76	0.76	0.76	0.92	0.76	0.76	0.76	0.92	0.76	0.76	0.76	0.92	0.76	0.76	0.76
Heavy Vehicles, %	2	1	1	1	2	5	5	5	2	1	1	1	2	1	1	1
Mvmt Flow	0	7	30	25	0	9	33	11	0	18	22	0	0	24	28	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.4	7.5	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	45%	11%	17%	43%
Vol Thru, %	55%	49%	62%	50%
Vol Right, %	0%	40%	20%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	47	40	42
LT Vol	14	5	7	18
Through Vol	17	23	25	21
RT Vol	0	19	8	3
Lane Flow Rate	41	62	53	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.048	0.067	0.06	0.064
Departure Headway (Hd)	4.249	3.902	4.113	4.19
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	836	908	863	848
Service Time	2.311	1.966	2.177	2.249
HCM Lane V/C Ratio	0.049	0.068	0.061	0.065
HCM Control Delay	7.5	7.3	7.4	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.2	0.2

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	54	2	3	40	0	3	0	8	16	7	57
Future Vol, veh/h	0	54	2	3	40	0	3	0	8	16	7	57
Conflicting Peds, #/hr	0	0	12	12	0	0	3	0	2	2	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	75	3	4	56	0	4	0	11	22	10	79

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	90	0	0	199	152	90	148	154	59
Stage 1	-	-	-	-	-	-	88	88	-	64	64	-
Stage 2	-	-	-	-	-	-	111	64	-	84	90	-
Critical Hdwy	-	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	-	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	0	-	-	1512	-	0	762	742	971	822	740	1010
Stage 1	0	-	-	-	-	0	922	824	-	949	844	-
Stage 2	0	-	-	-	-	0	897	844	-	927	822	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1509	-	-	683	731	958	809	729	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	683	731	-	809	729	-
Stage 1	-	-	-	-	-	-	922	815	-	949	841	-
Stage 2	-	-	-	-	-	-	812	841	-	915	813	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	9.2	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	863	-	-	1509	-	809	967
HCM Lane V/C Ratio	0.018	-	-	0.003	-	0.027	0.092
HCM Control Delay (s)	9.2	-	-	7.4	0	9.6	9.1
HCM Lane LOS	A	-	-	A	A	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-	0.1	0.3

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	42	6	6	16	39
Future Vol, veh/h	24	42	6	6	16	39
Conflicting Peds, #/hr	0	0	0	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	37	65	9	9	25	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	18	0	-	0	153	15
Stage 1	-	-	-	-	14	-
Stage 2	-	-	-	-	139	-
Critical Hdwy	4.11	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.209	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1605	-	-	-	839	1065
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	888	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1603	-	-	-	819	1064
Mov Cap-2 Maneuver	-	-	-	-	819	-
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	867	-

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1603	-	-	-	979
HCM Lane V/C Ratio	0.023	-	-	-	0.086
HCM Control Delay (s)	7.3	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	31	20	13	0	0
Future Vol, veh/h	15	31	20	13	0	0
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	5	5	3	3	1	1
Mvmt Flow	20	41	27	17	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	44	0	-	0	117	35
Stage 1	-	-	-	-	35	-
Stage 2	-	-	-	-	82	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1545	-	-	-	881	1041
Stage 1	-	-	-	-	990	-
Stage 2	-	-	-	-	944	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1545	-	-	-	870	1041
Mov Cap-2 Maneuver	-	-	-	-	870	-
Stage 1	-	-	-	-	990	-
Stage 2	-	-	-	-	932	-

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1545	-	-	-	-
HCM Lane V/C Ratio	0.013	-	-	-	-
HCM Control Delay (s)	7.4	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-