City of West Linn
Planning & Development • 22500 Salamo Rd #1000 • West Linn, Oregon 97068
Telephone 503.656.4211 • Fax 503.656.4106 • westlinnoregon.gov

DEVELOPMENT REVIEW APPLICATION

For Office Use Only		
STAFF CONTACT: Darren Wyss	PROJECT NO(S).: DR-16-01	
NON-REFUNDABLE FEE(S): 300-	REFUNDABLE DEPOSIT(S): 20,000-	TOTAL: 20,300-

Type of Review (Please check all that apply):

- [ ] Annexation (ANX)
- [ ] Appeal and Review (AP) *
- [ ] Conditional Use (CUP)
- [x] Design Review (DR) CLASS II
- [ ] Easement Vacation
- [ ] Extraterritorial Ext. of Utilities
- [ ] Final Plat or Plan (FP)
- [ ] Flood Management Area
- [ ] Hillside Protection & Erosion Control
- [x] Historic Review
- [ ] Legislative Plan or Change
- [ ] Lot Line Adjustment (LLA) */**
- [ ] Minor Partition (MIP) (Preliminary Plat or Plan)
- [ ] Non-Conforming Lots, Uses & Structures
- [ ] Planned Unit Development (PUD)
- [ ] Pre-Application Conference (PA) */**
- [ ] Street Vacation
- [ ] Subdivision (SUB)
- [ ] Temporary Uses *
- [ ] Time Extension *
- [ ] Variance (VAR)
- [ ] Water Resource Area Protection/Single Lot (WAP)
- [ ] Water Resource Area Protection/Wetland (WAP)
- [ ] Willamette & Tualatin River Greenway (WRG)
- [ ] Zone Change

Home Occupation, Pre-Application, Sidewalk Use, Sign Review Permit, and Temporary Sign Permit applications require different or additional application forms, available on the City website or at City Hall.

Site Location/Address: 1969 WILLAMETTE FALLS DRIVE

Assessor's Map No.: 3S,1E,02BA
Tax Lot(s): 4100
Total Land Area: 15,000 SF.

Brief Description of Proposal: CONSTRUCTION OF A NEW TWO-STORY MIXED-USE BUILDING. APPROX. 25,000 SF OF OFFICE/RETAIL + BELOW GRADE PARKING STRUCTURE. 43 NEW PARKING STALLS.

Applicant Name: (please print) ICON CONSTRUCTION — Phone: 503-657-0406
Address: 1980 WILLAMETTE FALLS DR #200 — Email: MARK@ICONCONSTRUCTION.NET
City State Zip: WEST LINN, OR 97068 — DARREN@ICONCONSTRUCTION.NET

Owner Name (required): (please print) ICON CONSTRUCTION — Phone:
Address: 1980 WILLAMETTE FALLS DRIVE #200 — Email: MARK@ICONCONSTRUCTION.NET
City State Zip: WEST LINN, OR 97068 — DARREN@ICONCONSTRUCTION.NET

Consultant Name: (please print) SG ARCHITECTURE, LLC — Phone: 503-201-0725
Address: 10940 SW BARNES RD #364 — Email: KGODWIN@SG-ARCH.NET
City State Zip: PORTLAND, OR 97225

1. All application fees are non-refundable (excluding deposit). Any overruns to deposit will result in additional billing.
2. The owner/applicant or their representative should be present at all public hearings.
3. A denial or approval may be reversed on appeal. No permit will be in effect until the appeal period has expired.
4. Three (3) complete hard-copy sets (single sided) of application materials must be submitted with this application. One (1) complete set of digital application materials must also be submitted on CD in PDF format. If large sets of plans are required in application please submit only two sets.

* No CD required / ** Only one hard-copy set needed

RECEIVED
FEB 10 2016
PLANNING & BUILDING
CITY OF WEST LINN

The undersigned property owner(s) hereby authorizes the filing of this application, and authorizes on site review by authorized staff. I hereby agree to comply with all code requirements applicable to my application. Acceptance of this application does not infer a complete submittal. All amendments to the Community Development Code and to other regulations adopted after the application is approved shall be enforced where applicable. Approved applications and subsequent development is not vested under the provisions in place at the time of the initial application.

Applicant's signature — Date: 2/9/16
Owner's signature *(required)* — Date: 2/9/16

Willamette Falls Mixed Use

West Linn, Oregon

Design Review Class II Submittal – Chapter 58

February 2016

A. Introduction

The following Narrative, Plans and Supplemental materials will demonstrate that the proposed project is in compliance with the applicable site plan and design *review* standards set forth in the West Linn Community Development Code.

B. Narrative

Icon Development is proposing a new two-story development located at 1912 Willamette Falls Drive- east of 12'" Street. The site has one temporary existing structure that will be demolished and is boarded primarily by commercial development with some residential development to the north.

The proposed mixed use development is two-story office/retail with an underground parking facility. The total building area is approximately 24,510 s.f. of leasable building area and 42 on-site parking spaces have been provided behind and under the building. Spring/Summer 2016 construction start is anticipated.

C. Conformance

I

58.90 STANDARDS

A. Standards are needed to provide a clear and objective list of design elements that are needed to bring new construction and remodels into conformance with 80c1915 architecture. Buildings of the period saw relatively few deviations in design. Consequently, the Historic Review Board will require conformance with the standards. Deviations or deletions from the standards are addressed in the variance procedure of this chapter.

B. The use of "neo-designs" or simply contextual designs which only attempt to capture the basic or generalized elements such as building line, massing and form, etc. is not acceptable.

C. The following standards shall apply to new construction and remodels.

1. Dimensional standards:

   a. Front: zero-foot setback. Building may not be set back from the property line unless it is consistent with predominant building line.

   RESPONSE: The proposed building frontage (north elevation) is located on this property line.

   b. Side and Side Street: zero-foot setback. Building may not be set back from the side property line except for side passageway, accessway, or stairway unless fire codes dictate otherwise. The setback shall not exceed six feet. The setback should be consistent with the rhythm of adjacent structures, or at least not deleterious to it. (ORD. 1391)

   RESPONSE: West (side) building elevation is setback 2'0" from the existing property line to allow for the building to have reliefs and pilasters without extending into the adjacent property.

c. Rear: 20-foot setback. Setbacks between 0-20 feet are permitted only if the applicant can demonstrate that he can successfully mitigate any impacts associated with the building in current and future uses as they would relate to abutting residential and other properties.
RESPONSE: South (rear) building elevation is on the property line, and fronts onto Knapp's Alley The alley provides the separation from adjacent properties to mitigate the impact of this project. Access to employee parking and the trash enclosure will occur from Knapp's Alley as well.

d. Lot coverage: Up to 100 percent of lot may be developed depending upon ability to mitigate impacts upon abutting residential and other uses.
RESPONSE: The proposed lot coverage based on the street level ground floor area is 66.33%.
Site area = .0344 acres = 15,000 s.f.

2. Minimum landscaping required: Structures in this area are exempt from landscaping requirements as identified in Section 55.1OO(A)(l l)(b), Design Review. The provision of CDC Section 55.1OO(A)(l l)(c)(l-8) shall still apply where parking lots are proposed.
RESPONSE: There is no landscaping required for this project. There will be landscaping provided at the proposed water quality facility at the west property line.

3. Building height limitations: Maximum building height shall be 35feet (as measured by this Code), and two stories. False fronts shall be considered as the peak of the building if it exceeds the gable roof ridgeline.
RESPONSE: All proposed building heights are at or below the maximum allowable by code (35'0" high)
Front (north) parapet = 32-35 feet
Rear (south) parapet= 30-33 feet
Side (west) parapet = 26 feet
Side (east) parapet= 32-35 feet

4. External ground level or first story minimum height: 10feet to allow transoms.
RESPONSE: The ground level first story height is 14'0" A.F.F to allow for window transoms.

5. Roof form: Flat or pitched roofs. Pitched roof ridgeline shall run from the front of the building to the back.
RESPONSE: All proposed flat sloped roofs run from front to back of the building.

6. Building form, scale and depth: Building shall emphasize the vertical through narrow, tall windows (especially on second floor), vertical awning supports, engaged columns, and exaggerated facades creating a height-to-width ratio of l.5:l. Building depth shall be flat, only relieved by awning and cornice projections and the indented doorway.

RESPONSE: The proposed exterior elevations emphasize many vertical elements using tall windows, cornices, and awnings. The second floor has been provided with many windows that align with the main floor below that enhance the "verticality" of each building elevation. Building reliefs have been incorporated throughout the overall design by off- setting the building footprint and providing awnings and cornice projections.

7. Spacing and rhythm: Buildings shall follow a regular rhythm. Strong vertical breaks or lines should be regularly spaced every 25 to 50 feet.

RESPONSE: Appropriate spacing and vertical breaks in the building vernacular, have been incorporated into all the building elevations. No vertical spacing exceeds 50'-0" in length (see elevation sheet).

8. Facades: No gables, hipped, or pitched roofs shall be exposed to the street at the front. The "Western false front" shall be the preferred style although variations shall be allowed.

RESPONSE: All roofs are 'flat' for the entire building, and are concealed by "Western False Front" facades (see elevations sheet).

9. Cornice: Cornices shall be broad and may include regularly spaced supporting brackets. A cornice is not required, but preferred.

RESPONSE: The cornice at the northeast corner is enhanced with supporting brackets. All other cornices are enhanced with framed panel decoration (see elevations & wall section sheets.)

10. Building materials and orientation: Wood shall be the principal building material. Horizontal wood siding in l" X 8" dimensions shall be used for siding. Brick and certain concrete configurations are permitted only by a variance under Section 58.090.

RESPONSE: The primary materials list will be wood:

Siding:	**1x8 horizontal siding minimum (hardiplank)**
Cornices/trim:	**2x wood trim - painted**
Ornamental trim:	**Wood – painted**

The applicant requests a variance under the terms of Section 55.100 for a brick masonry base and partial elevation.

11. Awnings: All buildings shall have awnings extending out from building/ace. Awnings are preferred for micro-climate benefits. Ideally, the building will have both transom and awnings, although transoms are not required. Awnings shall be either canvas or vinyl, or similar approved material, supported by an internal metal framework or metal or wood supported by a curved metal support, either attached to the building or a simple 4" X 4" wood post extending down to the outside of the sidewalk. Awnings shall, therefore, extend beyond the front property line to the outside edge of the sidewalk, and shall possess a seven-foot clearance to the valance or any other part. The pitch of the awning shall be I 0-40 degrees. No "bubble-type" awnings are permitted. No backlit awnings are permitted. Canvas or matte finish vinyl, or similar approved ·material awnings may be one color or striped and shall have afree-hangi.ng plain or crenelated valance. Canvas or matte finish vinyl, or similar approved material awnings should not be shared between two structures. Each structure should have its own awning. (ORD. 1401)

RESPONSE: Building awnings will be a combination of fabric awnings and metal canopies that extend beyond the building and above the existing sidewalk. However, due to the possibility of vehicles damaging the awnings, the applicant would petition to reducing the awnings depth to 7'-0" instead of the full sidewalk width of 8'-6". All supports will be fastened to the building by metal supports and have a minimum clearance height of 7'-0". Each building window facade will have a separate awning with a slope between 10 - 40 degrees (see elevations.)

12. Extruded roofs: As a substitute for an awning, extruded roofs have a 10-40 degree pitch and extend l-2feetfrom the building face just above the transom windows where the first and second stories meet. The roof runs along the entire building frontage. Standard roofing materials are used. Transoms are required with extruded roofs.

RESPONSE: No "extruded roofs" are being proposed. Transom windows will be provided beneath both the fabric awnings and metal canopies.

13. Doors and entryways: The entryway shall be centered in the middle of the building at grade. The buildings on street corners may position their door on the corner at an angle as depicted in the illustration. The doors may be single or double doors. The doors shall be recessed 3-5feet back from the building line. Doors shall have glazing in the upper two-thirds to half of the door. Panels should decorate the lower portions. The entryway shall have windows all the way around at the same level as the other display windows. Wood doors are preferable although alternatives with a dark matte finish may be acceptable.

RESPONSE: Recessed double entrance doors have been provided at the center of the building along with additional recessed entry doors at each end of the building (see elevation and floor plan). The door styles will be full glass light style and will meet the intent of the code.

14. Glazing: Clear glass only. No mirrored or tinted glass. No films applied to glass. Lettering on glass is permitted (see item 25(b) of this section).

RESPONSE: Clear glass is proposed for all windows.

15. Display or pedestrian level windows: Shall extend across at least 80 percent of building front. The windows shall start 1-112 - 2-l/2feet above grade to a height of 7-8 feet, and shall be level with the top of the height of the adjacent entryway area, excluding transom. A single sheet of glass is not permitted. The window shall be broken up into numerous sections, also known as lights. From 1880 onwards, the number of lights

was generally no more than six in a pedestrian level window. The frames may be wood or vinyl clad wood, or other materials so long as a matte finish impossible.

RESPONSE: The proposed street level windows and storefronts extend across the entire front elevation and meets or exceeds the intent of the code (see elevation sheet).

16. Second floor and other windows: Double and single hung windows proportionately spaced and centered should be used. Smaller square shaped windows may be permitted (1-112' - 2' per side). A typical window should have a 3:1 height to width ratio for the glass area. There should be a minimum of two lights: "one over one" of equal size. "Two over one" or "four over one" is appropriate.

RESPONSE: The proposed upper level windows have a double-hung appearance that meets or exceeds the intent of the code (see elevation sheet).

17. Wainscoting: Wainscoting shall be consistent with primary material of the building, typically wood.

RESPONSE: The applicant would like to propose an alternate brick masonry wainscoting instead of the primary wood material used on the building (see 55.090.10). This alternative provides for a more durable building longevity and is consistent with other buildings in the district (see attached photo for example).

18. Shutters: Shutters are not allowed.

RESPONSE: No shutters are proposed.

19. Balconies: No balconies are permitted except on rear of building.

RESPONSE: No balconies are proposed.

20. Exterior stairs: Simple stairs are permitted on the rear or side of the building only.

RESPONSE: All exit stairs are fully enclosed within the building envelope design (see elevation sheet).

21. Roof mounted mechanical equipment: Equipment shall be screened from view on all sides by normal and consistent architectural features of the building. Section 55.100(A)(4), "Privacy and Noise, "shall apply.

RESPONSE: The mechanical rooftop units (RTUs) will be located in a structurally designed"mechanical zone" that is located at the middle of the building. This location will allow the parapets to provide adequate screening from below to hide the units (see roof plan sheet). A preliminary noise study has been provided with this application.

22. Air conditioning: No window type on avenue or street side are permitted. Window mounted air conditioners are not allowed at rear where abutting residential.

RESPONSE: All air conditioning/units will be mounted on the roof (see Item 21).

23. Exterior lighting fixtures: Any lighting fixtures that can be traced to 1880-1915 period is permitted. Simple modern fixtures that are screened and/or do not attract attention are acceptable. Overlay ornate fixtures of the Victorian era are to be discouraged.

RESPONSE: All exterior light fixtures will meet the intent of the code "period fixtures 1880-1915". A cutsheet of the light fixture can be provided to the city at a later date.

24. Transoms: Transom windows are required with extruded roofs and optional with awnings. Transom windows shall cover the front of the building above, but not beyond, the main

display windows and the entryway area. Transoms should be broken up into sections every six inches to three feet in a consistent and equal pattern. Height should not exceed three feet. Transoms may or may not open. False ceilings are allowed behind the transoms.

RESPONSE: The storefront windows proposed will have a metal canopies or fabric awnings above their entire width. No upper separate transom windows are proposed, however the window style will have transom influence by the use of grids and mullions. All window sizes will meet the intent of the code (see elevations).

25. Signs:

a. Signs shall not exceed 10 percent of the square footage of the front elevation. The calculation of allowable signage is explained in Section 52.300. The sign(s) shall be proportionate to buildings and signs on adjacent buildings. The "10percent" shall be broken up into multiple signs. The sign(s) shall be mounted or painted on the second floor, on the valance of the awning, on the windows at pedestrian level, or on 4 X 4 awning posts. Signs shall not be of the internally lit "can" type or channel light type. No backlit awnings are allowed. Illumination by spotlight is permitted. Neon signs are permitted only inside the windows. No flashing signs are allowed. By temporary sign permit only, neon colored lettering or designs painted on windows or on paper or banners in the windows are allowed, but discouraged. Small signs or plaques which describe the building in a historical sense are exempt from the allowable square footage restrictions. Signs cannot project out from building face.

b. Sign typeface: Antique lettering as shown in the illustration is required. Variations are permitted where the lettering would not clash with the predominant font or style. "Gay Nineties or P. T Barnum" type styles and other exaggerated styles are discouraged. Lettering may be horizontal, vertical, or slanting up from lower left to upper right. Semi-circle designs on windows are permitted. Window lettering should be either white, black, or gold with black shading.

c. Temporary signs: Temporary sandwich board signs are permitted and shall be designed to be consistent with the aforementioned sign and typeface provision.

RESPONSE: All signage shall meet the intent of the code. A separate sign permit will be obtained from the City prior to the installation of any tenant or building signage.

26. Planters: No planters are allowed.

RESPONSE: The proposed site/plaza plan provides for "no planters."

27. Paint colors: Body color typically included white, cream, or a light warm color of low intensity. Accents, trims, windows, etc. should be dark colored. Contrasting colors should be compatible. Existing colors shall not enjoy protected status when repainting is proposed. A palette or color wheel of acceptable 1880-1915 period colors shall be the basis for color selection. No other colors are allowed. The palette is available at the Planning Department.

RESPONSE: A material and color board has been submitted with this application. The applicant was told by the city that a color palette that was referenced in the city code was not available at this time. The City will review the proposed colors/materials submitted by the applicant. The colored elevations provided indicate the proposed color locations.

28. Ornamental or advertising flags, pennants, or banners: Not permitted on buildings.

RESPONSE: No flags, pennants, or banners are being proposed.

29. New materials: Permitted where it is demonstrated that new material visually replicates originally required material, except siding, which must be wood.

RESPONSE: The only 'new' material being proposed is the brick masonry on the north and east walls of the building. This material will help provide longevity to the building

for years to come due to the amount of pedestrian traffic, and is consistent with similar materials on buildings along Willamette Falls Drive.

58.100 VARIANCE PROCEDURES

In those circumstances where a design proposal cannot meet the standards, or proposes an alternative to the standard, the Historic Review Board may grant a variance in those cases where one of the following criteria is met:

1. The applicant can demonstrate by review of historical records or photographs that the alternative is correct and appropriate to architecture in the region, and especially West Linn, in 1880-1915.

2. The applicant is incorporating exceptional 1880-1915 architecture into the building which overcompensates for an omission. The emphasis is upon superior design, detail, or workmanship.

RESPONSE: A variance to the standards is requested to allow the lower portion of the north and east walls, along with a full height portion of the north wall, to be brick masonry. This alternative provides superior design and detail to the wood standard by helping to break up the elevations in a more attractive way than strictly wood and pain. It also provides a more durable base to the building which will withstand ongoing pedestrian traffic and the elements.

Willamette Falls Mixed Use

West Linn, Oregon

Design Review Class II - Chapter 55

February 2016

55.010 PURPOSE AND INTENT - GENERAL
No response required.

55.020 CLASSES OF DESIGN REVIEW
No response required.

55.025 EXEMPTIONS
No response required.

55.030 ADMINISTRATION AND APPROVAL PROCESS
No response required.

55.040 EXPIRATION OR EXTENSION OF APPROVAL
No response required.

55.050 DESIGN REVIEW AMENDMENT TRIGGER
No response required.

55.060 STAGED OR PHASED DEVELOPMENT
No response required.

55.070 SUBMITTAL REQUIREMENTS
No response required.

55.085 ADDITIONAL INFORMATION REQUIRED AND WAIVER OF REQUIREMENTS
No response required.

55.090 APPROVAL STANDARDS – CLASS I DESIGN REVIEW
No response required.

55.100 APPROVAL STANDARDS – CLASS II DESIGN REVIEW
The approval authority shall make findings with respect to the following criteria when approving, approving with conditions, or denying a Class II design review application.

A. The provisions of the following chapters shall be met:

1. Chapter 34 CDC, Accessory Structures, Accessory Dwelling Units, and Accessory Uses.

RESPONSE: There are no accessory structures included as part of this proposal. The requirements of this chapter do not apply.

2. Chapter 38 CDC, Additional Yard Area Required; Exceptions to Yard Requirements; Storage in Yards; Projections into Yards.

RESPONSE: Per 38.020, no sideyard setback is required. The west wall of the building is set back 3'0" per the standard. The other sections of this chapter do not apply.

3. Chapter 40 CDC, Building Height Limitations, Exceptions.

RESPONSE: This chapter has been repealed by ordinance.

4. Chapter 42 CDC, Clear Vision Areas.

RESPONSE: The building and property line sit approximately 48 feet behind the curb at the intersection of 11th Street and Willamette Falls Drive. The requirement of the chapter are met.

5. Chapter 44 CDC, Fences.

RESPONSE: There are no fences or retaining walls planned as part of this proposal. The requirements of this chapter do not apply.

6. Chapter 46 CDC, Off-Street Parking, Loading and Reservoir Areas.

RESPONSE: Per section 46.140, no off-street parking spaces are required in the Willamette Falls Drive Commercial Design District. Spaces provided in the garage and along Knapps Alley comply with the design standards of this chapter. Bicycle parking complying with the standards of this chapter are located in the garage.

7. Chapter 48 CDC, Access, Egress and Circulation.

RESPONSE: The subject property is a legal lot of record (T3S, R1E, Sec. 2, TL4100) and has direct access to 11th Street on the east, a platted alley to the south, and fronts Willamette Falls Drive on the north. Vehicle access is proposed via the alley for street parking and a driveway cut to underground parking with access to 11th Street at a point as far removed as possible from the intersection with Willamette Falls Drive as possible. An existing 8-foot sidewalk on 11th Street and on Willamette Falls Drive provides pedestrian access. Street parking exists along Willamette Falls Drive and bicycle parking is provided on site.

8. Chapter 52 CDC, Signs.

RESPONSE: All signs will be building wall signs and will be submitted by the tenants under separate permits. All signs will meet the standards for the Willamette Falls Drive Commercial Design District per 52.210.

9. Chapter 54 CDC, Landscaping.

RESPONSE: Per 58.090, projects in the Willamette Falls Drive Commercial Design District are exempt from the requirement of chapter 54.

B. Relationship to the natural and physical environment.

1. The buildings and other site elements shall be designed and located so that all heritage trees, as defined in the municipal code, shall be saved. Diseased heritage trees, as determined by the City Arborist, may be removed at his/her direction.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

2. All heritage trees, as defined in the municipal code, all trees and clusters of trees ("cluster" is defined as three or more trees with overlapping driplines; however, native oaks need not

have an overlapping dripline) that are considered significant by the City Arborist, either individually or in consultation with certified arborists or similarly qualified professionals, based on accepted arboricultural standards including consideration of their size, type, location, health, long term survivability, and/or numbers, shall be protected pursuant to the criteria of subsections (B)(2)(a) through (f) of this section. In cases where there is a difference of opinion on the significance of a tree or tree cluster, the City Arborist's findings shall prevail. It is important to acknowledge that all trees are not significant and, further, that this code section will not necessarily protect all trees deemed significant.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

a. Non-residential and residential projects on Type I and II lands shall protect all heritage trees and all significant trees and tree clusters by either the dedication of these areas or establishing tree conservation easements. Development of Type I and II lands shall require the careful layout of streets, driveways, building pads, lots, and utilities to avoid heritage trees and significant trees and tree clusters, and other natural resources pursuant to this code. The method for delineating the protected trees or tree clusters ("dripline + 10 feet") is explained in subsection (B)(2)(b) of this section. Exemptions of subsections (B)(2)(c), (e), and (f) of this section shall apply.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

b. Non-residential and residential projects on non-Type I and II lands shall set aside up to 20 percent of the area to protect trees and tree clusters that are determined to be significant, plus any heritage trees. Therefore, in the event that the City Arborist determines that a significant tree cluster exists at a development site, then up to 20 percent of the non-Type I and II lands shall be devoted to the protection of those trees, either by dedication or easement. The exact percentage is determined by establishing the driplines of the trees or tree clusters that are to be protected. In order to protect the roots which typically extend further, an additional 10-foot measurement beyond the dripline shall be added. The square footage of the area inside this "dripline plus 10 feet" measurement shall be the basis for calculating the percentage (see figure below). The City Arborist will identify which tree(s) are to be protected. Development of non-Type I and II lands shall also require the careful layout of streets, driveways, building pads, lots, and utilities to avoid significant trees, tree clusters, heritage trees, and other natural resources pursuant to this code. Exemptions of subsections (B)(2)(c), (e), and (f) of this section shall apply. Please note that in the event that more than 20 percent of the non-Type I and II lands comprise significant trees or tree clusters, the developer shall not be required to save the excess trees, but is encouraged to do so.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

c. Where stubouts of streets occur on abutting properties, and the extension of those streets will mean the loss of significant trees, tree clusters, or heritage trees, it is understood that tree loss may be inevitable. In these cases, the objective shall be to minimize tree loss. These provisions shall also apply in those cases where access, per construction code standards, to a lot or parcel is blocked by a row or screen of significant trees or tree clusters.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

d. For both non-residential and residential development, the layout shall achieve at least 70 percent of maximum density for the developable net area. The developable net area excludes all Type I and II lands and up to 20 percent of the remainder of the site for the purpose of protection of stands or clusters of trees as defined in subsection (B)(2) of this section.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

e. For arterial and collector street projects, including Oregon Department of Transportation street improvements, the roads and graded areas shall avoid tree clusters where possible. Significant trees, tree clusters, and heritage tree loss may occur, however, but shall be minimized.

RESPONSE: There are no heritage or otherwise significant trees existing on the site. The standards of this section do not apply.

f. If the protection of significant tree(s) or tree clusters is to occur in an area of grading that is necessary for the development of street grades, per City construction codes, which will result in an adjustment in the grade of over or under two feet, which will then threaten the health of the tree(s), the applicant will submit evidence to the Planning Director that all reasonable alternative grading plans have been considered and cannot work. The applicant will then submit a mitigation plan to the City Arborist to compensate for the removal of the tree(s) on an "inch by inch" basis (e.g., a 48-inch Douglas fir could be replaced by 12 trees, each four-inch). The mix of tree sizes and types shall be approved by the City Arborist.

3. The topography and natural drainage shall be preserved to the greatest degree possible.

RESPONSE: The site slopes at less than 5% and generally from southwest to northeast. Since this is a commercial property almost the entire site will be covered with a building no surface flow will exist after construction. The flow from the new impervious roof will be collected and detained on site and meted with a control structure to the pre-development rates and connected to the public system in the same local drainage basin.

4. The structures shall not be located in areas subject to slumping and sliding. The Comprehensive Plan Background Report's Hazard Map, or updated material as available and as deemed acceptable by the Planning Director, shall be the basis for preliminary determination.

RESPONSE: The West Linn geologic hazard maps (SLIDO) indicates no slumping or sliding in this area.

5. There shall be adequate distance between on-site buildings and on-site and off-site buildings on adjoining properties to provide for adequate light and air circulation and for fire protection.

RESPONSE: On the north, east, and south property boundaries, the proposed building faces onto public ways. On the west property boundary, a 3'-0" setback has been provided (no sideyard setback is required in the district), per section 38.020. There shall be adequate distance between on-site buildings and on-site and off-site building on adjoining properties to provide adequate light and air circulation and for fire protection

6. Architecture.

a. The proposed structure(s) scale shall be compatible with the existing structure(s) on site and on adjoining sites. Contextual design is required. Contextual design means respecting and

incorporating prominent architectural styles, building lines, roof forms, rhythm of windows, building scale and massing of surrounding buildings in the proposed structure. The materials and colors shall be complementary to the surrounding buildings.

RESPONSE: The architecture for this building meets the standards for the Willamette Falls Drive Commercial Design District found in chapter 58 and thus complies with the standards of this section. Please refer to the building elevations.

b. While there has been discussion in Chapter 24 CDC about transition, it is appropriate that new buildings should architecturally transition in terms of bulk and mass to work with, or fit, adjacent existing buildings. This transition can be accomplished by selecting designs that "step down" or "step up" from small to big structures and vice versa (see figure below). Transitions may also take the form of carrying building patterns and lines (e.g., parapets, windows, etc.) from the existing building to the new one.

RESPONSE: The subject property is adjacent to a single story residential style structure housing a commercial use. The adjacent buildings on the opposite side of Willamette Falls Drive are two-story commercial structures. The planned building design is similar in height, size, and style to those structures across the street, while maintaining individual window openings on the first floor that are similar in shape, sill, and head heights.

c. Contrasting architecture shall only be permitted when the design is manifestly superior to adjacent architecture in terms of creativity, design, and workmanship, and/or it is adequately separated from other buildings by distance, screening, grade variations, or is part of a development site that is large enough to set its own style of architecture.

RESPONSE: The building's architecture contrasts with the adjacent neighbors to the west, but is in accordance with the standards of chapter 58 and is consistent with other buildings in the Willamette Falls Drive Commercial Design District.

d. Human scale is a term that seeks to accommodate the users of the building and the notion that buildings should be designed around the human scale (i.e., their size and the average range of their perception). Human scale shall be accommodated in all designs by, for example, multi-light windows that are broken up into numerous panes, intimately scaled entryways, and visual breaks (exaggerated eaves, indentations, ledges, parapets, awnings, engaged columns, etc.) in the facades of buildings, both vertically and horizontally.

The human scale is enhanced by bringing the building and its main entrance up to the edge of the sidewalk. It creates a more dramatic and interesting streetscape and improves the "height and width" ratio referenced in this section.

RESPONSE: The project design achieves human scale through the use of multi-light windows, intimately scaled entryways, parapets, awnings, and the building's location at the edge of the sidewalk. The façade is divided into distinct sections that emphasize a pleasing height-to-width ratio.

e. The main front elevation of commercial and office buildings shall provide at least 60 percent windows or transparency at the pedestrian level to create more interesting streetscape and window shopping opportunities. One side elevation shall provide at least 30 percent transparency. Any additional side or rear elevation, which is visible from a collector road or greater classification, shall also have at least 30 percent transparency. Transparency on other elevations is optional. The transparency is measured in lineal fashion. For example, a

100-foot-long building elevation shall have at least 60 feet (60 percent of 100 feet) in length of windows. The window height shall be, at minimum, three feet tall. The exception to transparency would be cases where demonstrated functional constraints or topography restrict that elevation from being used. When this exemption is applied to the main front elevation, the square footage of transparency that would ordinarily be required by the above formula shall be installed on the remaining elevations at pedestrian level in addition to any transparency required by a side elevation, and vice versa. The rear of the building is not required to include transparency. The transparency must be flush with the building elevation.

RESPONSE: The front elevation is 147'0" long with 112'6" of windows, or 76.7%. The east elevation is 99'8" long, with 59'0" of window or other openings, or 59%. The remaining south and west elevations are exempt from the requirement.

f. Variations in depth and roof line are encouraged for all elevations.
To vary the otherwise blank wall of most rear elevations, continuous flat elevations of over 100 feet in length should be avoided by indents or variations in the wall. The use of decorative brick, masonry, or stone insets and/or designs is encouraged. Another way to vary or soften this elevation is through terrain variations such as an undulating grass area with trees to provide vertical relief.

RESPONSE: The rear elevation is divided into five distinct segments through the use of plaster trim and varying parapet heights.

g. Consideration of the micro-climate (e.g., sensitivity to wind, sun angles, shade, etc.) shall be made for building users, pedestrians, and transit users, including features like awnings.

RESPONSE: On the north and east sides, pedestrians are protected by nearly continuous awnings and canopies. On the south side, awnings provide shade for building users. There are no openings on the west side.

h. The vision statement identified a strong commitment to developing safe and attractive pedestrian environments with broad sidewalks, canopied with trees and awnings.

RESPONSE: The existing 10'0" wide sidewalk is tree lined via the existing street trees in the median separating Willamette Falls Drive from the existing surface parking area. See the site plan. The building has awnings and canopies over the sidewalk.

i. Sidewalk cafes, kiosks, vendors, and street furniture are encouraged. However, at least a four-foot-wide pedestrian accessway must be maintained per Chapter 53 CDC, Sidewalk Use.

RESPONSE: It is not known at this time if there will be a sidewalk café'. However, the 10'0" walkway would provide plenty of room for one while maintaining at least 4'0" feet of pedestrian area.

7. Transportation Planning Rule (TPR) compliance. The automobile shall be shifted from a dominant role, relative to other modes of transportation, by the following means:

a. Commercial and office development shall be oriented to the street. At least one public entrance shall be located facing an arterial street; or, if the project does not front on an arterial, facing a collector street; or, if the project does not front on a collector, facing the local

street with highest traffic levels. Parking lots shall be placed behind or to the side of commercial and office development. When a large and/or multi-building development is occurring on a large undeveloped tract (three plus acres), it is acceptable to focus internally; however, at least 20 percent of the main adjacent right-of-way shall have buildings contiguous to it unless waived per subsection (B)(7)(c) of this section. These buildings shall be oriented to the adjacent street and include pedestrian-oriented transparencies on those elevations.

For individual buildings on smaller individual lots, at least 30 lineal feet or 50 percent of the building must be adjacent to the right-of-way unless waived per subsection (B)(7)(c) of this section. The elevations oriented to the right-of-way must incorporate pedestrian-oriented transparency.

RESPONSE: 100% of the building elevation fronting on streets are located at the lot line, with multiple entry points along the north (front) elevation.

b. Multi-family projects shall be required to keep the parking at the side or rear of the buildings or behind the building line of the structure as it would appear from the right-of-way inside the multi-family project. For any garage which is located behind the building line of the structure, but still facing the front of the structure, architectural features such as patios, patio walls, trellis, porch roofs, overhangs, pergolas, etc., shall be used to downplay the visual impact of the garage, and to emphasize the rest of the house and front entry.

The parking may be positioned inside small courtyard areas around which the units are built. These courtyard spaces encourage socialization, defensible space, and can provide a central location for landscaping, particularly trees, which can provide an effective canopy and softening effect on the courtyard in only a few years. Vehicular access and driveways through these courtyard areas is permitted.

RESPONSE: This project is not multi-family so this standard does not apply.

c. Commercial, office, and multi-family projects shall be built as close to the adjacent main right-of-way as practical to facilitate safe pedestrian and transit access. Reduced frontages by buildings on public rights-of-way may be allowed due to extreme topographic (e.g., slope, creek, wetlands, etc.) conditions or compelling functional limitations, not just inconveniences or design challenges.

RESPONSE: 100% of the building elevations fronting onto public rights-of-way are located on the lot lines. Please refer to the site plan.

d. Accessways, parking lots, and internal driveways shall accommodate pedestrian circulation and access by specially textured, colored, or clearly defined footpaths at least six feet wide. Paths shall be eight feet wide when abutting parking areas or travel lanes. Paths shall be separated from parking or travel lanes by either landscaping, planters, curbs, bollards, or raised surfaces. Sidewalks in front of storefronts on the arterials and main store entrances on the arterials identified in CDC 85.200(A)(3) shall be 12 feet wide to accommodate pedestrians, sidewalk sales, sidewalk cafes, etc. Sidewalks in front of storefronts and main store entrances in commercial/OBC zone development on local streets and collectors shall be eight feet wide.

RESPONSE: The sidewalks at the north and east retail elevations are existing. 10'0" and 8'0" respectively.

e. Paths shall provide direct routes that pedestrians will use between buildings, adjacent rights-of-way, and adjacent commercial developments. They shall be clearly identified. They

shall be laid out to attract use and to discourage people from cutting through parking lots and impacting environmentally sensitive areas.

RESPONSE: The pedestrian access walkways along the north and east sides of the site are existing public walks that directly connect to adjacent properties.

f. At least one entrance to the building shall be on the main street, or as close as possible to the main street. The entrance shall be designed to identify itself as a main point of ingress/egress.

RESPONSE: There are three primary entries fronting on Willamette Falls Drive, along with one facing onto 11th Street.

g. Where transit service exists, or is expected to exist, there shall be a main entrance within a safe and reasonable distance of the transit stop. A pathway shall be provided to facilitate a direct connection.

RESPONSE: There is a bus stop at the corner of Willamette Falls Drive and 11th Street, with access to a main entry to the building on the same corner.

h. Projects shall bring at least part of the project adjacent to or near the main street right-of-way in order to enhance the height-to-width ratio along that particular street. (The "height-to-width ratio" is an architectural term that emphasizes height or vertical dimension of buildings adjacent to streets. The higher and closer the building is, and the narrower the width of the street, the more attractive and intimate the streetscape becomes.) For every one foot in street width, the adjacent building ideally should be one to two feet higher. This ratio is considered ideal in framing and defining the streetscape.

RESPONSE: The building is located on the lot line along both Willamette Falls Drive and 11th Street. At its tallest point (at the corner of Willamette Falls Drive and 11th Street), the building is 35'0" tall, which is the height limit allowed in the district.

i. These architectural standards shall apply to public facilities such as reservoirs, water towers, treatment plants, fire stations, pump stations, power transmission facilities, etc. It is recognized that many of these facilities, due to their functional requirements, cannot readily be configured to meet these architectural standards. However, attempts shall be made to make the design sympathetic to surrounding properties by landscaping, setbacks, buffers, and all reasonable architectural means.

RESPONSE: This project is a private mixed-use building. The requirements of this standard do not apply.

j. Parking spaces at trailheads shall be located so as to preserve the view of, and access to, the trailhead entrance from the roadway. The entrance apron to the trailhead shall be marked: "No Parking," and include design features to foster trail recognition.

RESPONSE: This project is not located at a trailhead. The requirements of this standard do not apply.

C. Compatibility between adjoining uses, buffering, and screening.

1. In addition to the compatibility requirements contained in Chapter 24 CDC, buffering shall be provided between different types of land uses; for example, buffering between single-family homes and apartment blocks. However, no buffering is required between single-family homes and duplexes or single-family attached units. The following factors shall be considered in determining the adequacy of the type and extent of the buffer:

a. The purpose of the buffer, for example to decrease noise levels, absorb air pollution, filter dust, or to provide a visual barrier.

b. The size of the buffer required to achieve the purpose in terms of width and height.

c. The direction(s) from which buffering is needed.

d. The required density of the buffering.

e. Whether the viewer is stationary or mobile.

RESPONSE: This project has public rights-of-way on three sides. The lot to the west is the same land use as the project site.

2. On-site screening from view from adjoining properties of such things as service areas, storage areas, and parking lots shall be provided and the following factors will be considered in determining the adequacy of the type and extent of the screening:

a. What needs to be screened?

b. The direction from which it is needed.

c. How dense the screen needs to be.

d. Whether the viewer is stationary or mobile.

e. Whether the screening needs to be year-round.

RESPONSE: All trash, storage, and parking are screened or enclosed by building walls.

3. Rooftop air cooling and heating systems and other mechanical equipment shall be screened from view from adjoining properties.

RESPONSE: Rooftop HVAC units are screened by parapets on all sides that will keep the units from being visible from the street.

D. Privacy and noise.

1. Structures which include residential dwelling units shall provide private outdoor areas for each ground floor unit which is screened from view from adjoining units.

2. Residential dwelling units shall be placed on the site in areas having minimal noise exposure to the extent possible. Natural-appearing sound barriers shall be used to lessen noise impacts where noise levels exceed the noise standards contained in West Linn Municipal Code Section 5.487.

3. Structures or on-site activity areas which generate noise, lights, or glare shall be buffered from adjoining residential uses in accordance with the standards in subsection C of this section where applicable.

4. Businesses or activities that can reasonably be expected to generate noise in excess of the noise standards contained in West Linn Municipal Code Section 5.487 shall undertake and submit appropriate noise studies and mitigate as necessary to comply with the code. (See CDC 55.110(B)(11) and 55.120(M).)

If the decision-making authority reasonably believes a proposed use may generate noise exceeding the standards specified in the municipal code, then the authority may require the applicant to supply professional noise studies from time to time during the user's first year of operation to monitor compliance with City standards and permit requirements.

RESPONSE: There are no residential dwelling units planned as part of this project. The requirements of parts 1 and 2 of this standard do not apply. There are no businesses or uses proposed at the time of the submittal that are anticipated to generate noise in excess of the allowable in the requirements. Therefore, parts 3 and 4 of this standard do not apply.

E. Private outdoor area. This section only applies to multi-family projects.

1. In addition to the requirements of residential living, unit shall have an outdoor private area (patio, terrace, porch) of not less than 48 square feet in area;

2. The outdoor space shall be oriented towards the sun where possible; and

3. The area shall be screened or designed to provide privacy for the users of the space.

4. Where balconies are added to units, the balconies shall not be less than 48 square feet, if they are intended to be counted as private outdoor areas.

RESPONSE: This project is not multi-family use. The requirements of this standard do not apply.

F. Shared outdoor recreation areas. This section only applies to multi-family projects and projects with 10 or more duplexes or single-family attached dwellings on lots under 4,000 square feet. In those cases, shared outdoor recreation areas are calculated on the duplexes or single-family attached dwellings only. It also applies to qualifying PUDs under the provisions of CDC 24.170.

1. In addition to the requirements of subsection E of this section, usable outdoor recreation space shall be provided in residential developments for the shared or common use of all the residents in the following amounts:

a. Studio up to and including two-bedroom units: 200 square feet per unit.

b. Three or more bedroom units: 300 square feet per unit.

2. The required recreation space may be provided as follows:

a. It may be all outdoor space; or

b. It may be part outdoor space and part indoor space; for example, an outdoor tennis court and indoor recreation room; and

c. Where some or all of the required recreation area is indoor, such as an indoor recreation room, then these indoor areas must be readily accessible to all residents of the development subject to clearly posted restrictions as to hours of operation and such regulations necessary for the safety of minors.

d. In considering the requirements of this subsection F, the emphasis shall be on usable recreation space. No single area of outdoor recreational space shall encompass an area of less than 250 square feet. All common outdoor recreational space shall be clearly delineated

and readily identifiable as such. Small, marginal, and incidental lots or parcels of land are not usable recreation spaces. The location of outdoor recreation space should be integral to the overall design concept of the site and be free of hazards or constraints that would interfere with active recreation.

3. The shared space shall be readily observable to facilitate crime prevention and safety.

RESPONSE: This project is not multi-family use. The requirements of this standard do not apply.

G. Demarcation of public, semi-public, and private spaces. The structures and site improvements shall be designed so that public areas such as streets or public gathering places, semi-public areas, and private outdoor areas are clearly defined in order to establish persons having a right to be in the space, to provide for crime prevention, and to establish maintenance responsibility. These areas may be defined by:

1. A deck, patio, fence, low wall, hedge, or draping vine;

2. A trellis or arbor;

3. A change in level;

4. A change in the texture of the path material;

5. Sign; or

6. Landscaping.

Use of gates to demarcate the boundary between a public street and a private access driveway is prohibited.

RESPONSE: This project is not multi-family use. The requirements of this standard do not apply.

H. Public transit.

1. Provisions for public transit may be required where the site abuts an existing or planned public transit route. The required facilities shall be based on the following:

a. The location of other transit facilities in the area.

b. The size and type of the proposed development.

c. The rough proportionality between the impacts from the development and the required facility.

2. The required facilities shall be limited to such facilities as the following:

a. A waiting shelter with a bench surrounded by a three-sided covered structure, with transparency to allow easy surveillance of approaching buses.

b. A turnout area for loading and unloading designed per regional transit agency standards.

c. Hard-surface paths connecting the development to the waiting and boarding areas.

d. Regional transit agency standards shall, however, prevail if they supersede these standards.

3. The transit stop shall be located as close as possible to the main entrance to the shopping center, public or office building, or multi-family project. The entrance shall not be more than 200 feet from the transit stop with a clearly identified pedestrian link.

4. All commercial business centers (over three acres) and multi-family projects (over 40 units) may be required to provide for the relocation of transit stops to the front of the site if the existing stop is within 200 to 400 yards of the site and the exaction is roughly proportional to the impact of the development. The commercial or multi-family project may be required to provide new facilities in those cases where the nearest stop is over 400 yards away. The transit stop shall be built per subsection (H)(2) of this section.

5. If a commercial business center or multi-family project is adjacent to an existing or planned public transit stop, the parking requirement may be reduced by the multiplier of 0.9, or 10 percent. If a commercial center is within 200 feet of a multi-family project, with over 80 units and pedestrian access, the parking requirement may be reduced by 10 percent or by a 0.90 multiplier.

6. Standards of CDC 85.200(D), Transit Facilities, shall also apply.

RESPONSE: There is an existing bus stop at the corner of Willamette Falls Drive and 11th Street, which is immediately adjacent to the main entry of the building at the northeast corner and is within 200 feet of all primary entries to the building. The stop is constructed with a bench, but without a shelter, consistent with other bus stops in the Willamette Falls Drive Commercial Design District. There is no parking requirement in the district, so parts 4 and 5 of the standard do not apply.

I. Public facilities. An application may only be approved if adequate public facilities will be available to provide service to the property prior to occupancy.

1. Streets. Sufficient right-of-way and slope easement shall be dedicated to accommodate all abutting streets to be improved to the City's Improvement Standards and Specifications. The City Engineer shall determine the appropriate level of street and traffic control improvements to be required, including any off-site street and traffic control improvements, based upon the transportation analysis submitted. The City Engineer's determination of developer obligation, the extent of road improvement and City's share, if any, of improvements and the timing of improvements shall be made based upon the City's systems development charge ordinance and capital improvement program, and the rough proportionality between the impact of the development and the street improvements.

In determining the appropriate sizing of the street in commercial, office, multi-family, and public settings, the street should be the minimum necessary to accommodate anticipated traffic load and needs and should provide substantial accommodations for pedestrians and bicyclists. Road and driveway alignment should consider and mitigate impacts on adjacent properties and in neighborhoods in terms of increased traffic loads, noise, vibrations, and glare.

The realignment or redesign of roads shall consider how the proposal meets accepted engineering standards, enhances public safety, and favorably relates to adjacent lands and land uses. Consideration should also be given to selecting an alignment or design that minimizes or avoids hazard areas and loss of significant natural features (drainageways, wetlands, heavily forested areas, etc.) unless site mitigation can clearly produce a superior landscape in terms of shape, grades, and reforestation, and is fully consistent with applicable code restrictions regarding resource areas.

Streets shall be installed per Chapter 85 CDC standards. The City Engineer has the authority to require that street widths match adjacent street widths. Sidewalks shall be installed per CDC 85.200(A)(3) for commercial and office projects, and CDC 85.200(A)(16) and 92.010(H) for residential projects, and applicable provisions of this chapter. Where streets bisect or traverse water resource areas (WRAs) the street width shall be reduced to the minimum standard of 20 feet (two 10-foot travel lanes) plus four-foot-wide curb flush sidewalks or alternate configurations which are appropriate to site conditions, minimize WRA disturbance or are consistent with an adopted transportation system plan. The street design shall also be consistent with habitat friendly provisions of CDC 32.060(H).

Based upon the City Manager's or Manager's designee's determination, the applicant shall construct or cause to be constructed, or contribute a proportionate share of the costs, for all necessary off-site improvements identified by the transportation analysis commissioned to address CDC 55.125 that are required to mitigate impacts from the proposed development. Proportionate share of the costs shall be determined by the City Manager or Manager's designee, who shall assume that the proposed development provides improvements in rough proportion to identified impacts of the development.

RESPONSE: All streets adjacent to the project are existing public streets that will remain.

2. Repealed by Ord. 1635.

3. Municipal water. A registered civil engineer shall prepare a plan for the provision of water which demonstrates to the City Engineer's satisfaction the availability of sufficient volume, capacity, and pressure to serve the proposed development's domestic, commercial, and industrial fire flows. All plans will then be reviewed by the City Engineer.

RESPONSE: Water facilities serving the project site are existing and will remain.

4. Sanitary sewers. A registered civil engineer shall prepare a sewerage collection system plan which demonstrates sufficient on-site capacity to serve the proposed development. The City Engineer shall determine whether the existing City system has sufficient capacity to serve the development.

RESPONSE: Sewer facilities serving the project site are existing and will remain.

5. Solid waste and recycling storage areas. Appropriately sized and located solid waste and recycling storage areas shall be provided. Metro standards shall be used.

RESPONSE: An appropriately sized solid waste and recycling storage area is provided inside the southwest corner of the building and is accessed from Knapps Alley.

J. Crime prevention and safety/defensible space.

1. Windows shall be located so that areas vulnerable to crime can be surveyed by the occupants.

RESPONSE: Windows overlook the public walks and Knapps Alley. There are no windows on the west elevation due to fire ratings.

2. Interior laundry and service areas shall be located in a way that they can be observed by others.

RESPONSE: No interior laundry is planned for the project.

3. Mailboxes, recycling, and solid waste facilities shall be located in lighted areas having vehicular or pedestrian traffic.

RESPONSE: Mailboxes and trash containers will be located inside the building lobby.

4. The exterior lighting levels shall be selected and the angles shall be oriented towards areas vulnerable to crime.

RESPONSE: Wall mounted sconces and gooseneck style lights will provide lighting consistent with the other buildings in the district.

5. Light fixtures shall be provided in areas having heavy pedestrian or vehicular traffic and in potentially dangerous areas such as parking lots, stairs, ramps, and abrupt grade changes.

RESPONSE: Wall mounted sconces and gooseneck style lights will provide lighting consistent with the other buildings in the district.

6. Fixtures shall be placed at a height so that light patterns overlap at a height of seven feet which is sufficient to illuminate a person. All commercial, industrial, residential, and public facility projects undergoing design review shall use low or high pressure sodium bulbs and be able to demonstrate effective shielding so that the light is directed downwards rather than omni-directional. Omni-directional lights of an ornamental nature may be used in general commercial districts only.

RESPONSE: Wall mounted sconces and gooseneck style lights will provide lighting consistent with the other buildings in the district.

7. Lines of sight shall be reasonably established so that the development site is visible to police and residents.

RESPONSE: The entire project is located at the property lines. Public sidewalks and Knapps Alley allow for adequate lines of sight.

8. Security fences for utilities (e.g., power transformers, pump stations, pipeline control equipment, etc.) or wireless communication facilities may be up to eight feet tall in order to protect public safety. No variances are required regardless of location.

RESPONSE: No utility fences are planned for the project.

K. Provisions for persons with disabilities.

1. The needs of a person with a disability shall be provided for. Accessible routes shall be provided between all buildings and accessible site facilities. The accessible route shall be the most practical direct route between accessible building entries, accessible site facilities, and the accessible entry to the site. An accessible route shall connect to the public right-of-way and to at least one on-site or adjacent transit stop (if the area is served by transit). All facilities shall conform to, or exceed, the Americans with Disabilities Act (ADA) standards, including those included in the Uniform Building Code.

RESPONSE: Accessible parking spaces are provided both in the surface parking area and in the garage and connect to accessible building entries which lead to a fully accessible interior. Additionally, the central entry at the lobby exits onto a public sidewalk that connects to public transit stops. All facilities will comply with ADD requirements.

L. Signs.

1. Based on considerations of crime prevention and the needs of emergency vehicles, a system of signs for identifying the location of each residential unit, store, or industry shall be established.

RESPONSE: Building identification signage will be provided to meet the requirements of local emergency service providers.

2. The signs, graphics, and letter styles shall be designed to be compatible with surrounding development, to contribute to a sense of project identity, or, when appropriate, to reflect a sense of the history of the area and the architectural style.

RESPONSE: Signs are shown for reference only. All signs shall be submitted by the tenant under a separate sign permit prior to installation. Sign styles will comply with the Willamette Falls Drive Commercial Design District.

3. The sign graphics and letter styles shall announce, inform, and designate particular areas or uses as simply and clearly as possible.

RESPONSE: Signs are shown for reference only. All signs shall be submitted by the tenant under a separate sign permit prior to installation. Sign styles will comply with the Willamette Falls Drive Commercial Design District.

4. The signs shall not obscure vehicle driver's sight distance.

RESPONSE: Signs are shown for reference only. All signs shall be submitted by the tenant under a separate sign permit prior to installation. Sign styles will comply with the Willamette Falls Drive Commercial Design District.

5. Signs indicating future use shall be installed on land dedicated for public facilities (e.g., parks, water reservoir, fire halls, etc.).

RESPONSE: Signs are shown for reference only. All signs shall be submitted by the tenant under a separate sign permit prior to installation. Sign styles will comply with the Willamette Falls Drive Commercial Design District.

6. Signs and appropriate traffic control devices and markings shall be installed or painted in the driveway and parking lot areas to identify bicycle and pedestrian routes.

RESPONSE: Signs are shown for reference only. All signs shall be submitted by the tenant under a separate sign permit prior to installation. Sign styles will comply with the Willamette Falls Drive Commercial Design District.

M. Utilities. The developer shall make necessary arrangements with utility companies or other persons or corporations affected for the installation of underground lines and facilities. Electrical lines and other wires, including but not limited to communication, street lighting, and cable television, shall be placed

underground, as practical. The design standards of Tables 1 and 2 above, and of subsection 5.487 of the West Linn Municipal Code relative to existing high ambient noise levels shall apply to this section.

RESPONSE: All utilities to the site are existing and will remain. The secondary feeds from the main lines to the building will be the only new work.

N. Wireless communication facilities (WCFs). (This section only applicable to WCFs.) WCFs as defined in Chapter 57 CDC may be required to go through Class I or Class II design review. The approval criteria for Class I design review is that the visual impact of the WCF shall be minimal to the extent allowed by Chapter 57 CDC. Stealth designs shall be sufficiently camouflaged so that they are not easily seen by passersby in the public right-of-way or from any adjoining residential unit. WCFs that are classified as Class II design review must respond to all of the approval criteria of this chapter.

RESPONSE: Not applicable – none proposed.

O. Refuse and recycling standards.

1. All commercial, industrial and multi-family developments over five units requiring Class II design review shall comply with the standards set forth in these provisions. Modifications to these provisions may be permitted if the Planning Commission determines that the changes are consistent with the purpose of these provisions and the City receives written evidence from the local franchised solid waste and recycling firm that they are in agreement with the proposed modifications.

RESPONSE: No modifications proposed for this development

2. Compactors, containers, and drop boxes shall be located on a level Portland cement concrete pad, a minimum of four inches thick, at ground elevation or other location compatible with the local franchise collection firm's equipment at the time of construction. The pad shall be designed to discharge surface water runoff to avoid ponding.

RESPONSE: A min. 4" thick concrete slab will be constructed in the trash enclosures where the containers will be placed on.

3. Recycling and solid waste service areas.

a. Recycling receptacles shall be designed and located to serve the collection requirements for the specific type of material.

b. The recycling area shall be located in close proximity to the garbage container areas and be accessible to the local franchised collection firm's equipment.

c. Recycling receptacles or shelters located outside a structure shall have lids and be covered by a roof constructed of water and insect-resistive material. The maintenance of enclosures, receptacles and shelters is the responsibility of the property owner.

d. The location of the recycling area and method of storage shall be approved by the local fire marshal.

e. Recycling and solid waste service areas shall be at ground level and/or otherwise accessible to the franchised solid waste and recycling collection firm.

f. Recycling and solid waste service areas shall be used only for purposes of storing solid waste and recyclable materials and shall not be a general storage area to store personal belongings of tenants, lessees, property management or owners of the development or premises.

g. Recyclable material service areas shall be maintained in a clean and safe condition.

RESPONSE: Solid waste containers will be for the storage of trash and recycling containers provided by the local waste management company. These containers will be provided in a screened enclosures with swing gates. Size of containers and frequency of pick-ups will be determined by the Building Owner and the waste management company.

4. Special wastes or recyclable materials.

a. Environmentally hazardous wastes defined in ORS 466.005 shall be located, prepared, stored, maintained, collected, transported, and disposed in a manner acceptable to the Oregon Department of Environmental Quality.

RESPONSE: Hazardous wastes will be handled and disposed of per state law. Cooking grease, if any, will be stored in approved containers within the restaurant.

b. Containers used to store cooking oils, grease or animal renderings for recycling or disposal shall not be located in the principal recyclable materials or solid waste storage areas. These materials shall be stored in a separate storage area designed for such purpose.

RESPONSE: Hazardous wastes will be handled and disposed of per state law. Cooking grease, if any, will be stored in approved containers within the restaurant.

5. Screening and buffering.

a. Enclosures shall include a curbed landscape area at least three feet in width on the sides and rear. Landscaping shall include, at a minimum, a continuous hedge maintained at a height of 36 inches.

RESPONSE: The enclosure is fully contained within the building structure. Other screening requirements of this section do not apply.

b. Placement of enclosures adjacent to residentially zoned property and along street frontages is strongly discouraged. They shall be located so as to conceal them from public view to the maximum extent possible.

RESPONSE: The enclosure is fully contained within the building structure. Other screening requirements of this section do not apply.

c. All dumpsters and other trash containers shall be completely screened on all four sides with an enclosure that is comprised of a durable material such as masonry with a finish that is architecturally compatible with the project. Chain link fencing, with or without slats, will not be allowed.

RESPONSE: The enclosure is fully contained within the building structure. Other screening requirements of this section do not apply.

6. Litter receptacles.

a. Location. Litter receptacles may not encroach upon the minimum required walkway widths.

RESPONSE: Site furnishings, such as litter receptacles, have not been selected at the time of this application. Future selections will be submitted for approval.

b. Litter receptacles may not be located within public rights-of-way except as permitted through an agreement with the City in a manner acceptable to the City Attorney or his/her designee.

RESPONSE: Site furnishings, such as litter receptacles, have not been selected at the time of this application. Future selections will be submitted for approval.

c. Number. The number and location of proposed litter receptacles shall be based on the type and size of the proposed uses. However, at a minimum, for non-residential uses, at least one external litter receptacle shall be provided for every 25 parking spaces for first 100 spaces, plus one receptacle for every additional 100 spaces. (Ord. 1547, 2007; Ord. 1604 § 52, 2011; Ord. 1613 § 12, 2013; amended during July 2014 supplement; Ord. 1623 § 6, 2014; Ord. 1635 § 26, 2014; Ord. 1636 § 37, 2014)

RESPONSE: Site furnishings, such as litter receptacles, have not been selected at the time of this application. Future selections will be submitted for approval.

55.110 SITE ANALYSIS

The site analysis shall include:

A. A vicinity map showing the location of the property in relation to adjacent properties, roads, pedestrian and bike ways, transit stops and utility access.

RESPONSE: See Civil drawings for this information.

B. A site analysis on a drawing at a suitable scale (in order of preference, one inch equals 10 feet to one inch equals 30 feet) which shows:

1. The property boundaries, dimensions, and gross area.

RESPONSE: See Civil drawings for this information.

2. Contour lines at the following minimum intervals:

a. Two-foot intervals for slopes from zero to 25 percent; and

b. Five- or 10-foot intervals for slopes in excess of 25 percent.

RESPONSE: See Civil drawings for this information.

3. A slope analysis which identifies portions of the site according to the slope ranges as follows:

a. Type I (under 15 percent);

b. Type II (between 15 to 25 percent);

c. Type III (between 25 to 35 percent);

d. Type IV (over 35 percent).

RESPONSE: See Civil drawings for this information.

4. The location and width of adjoining streets.

RESPONSE: See Civil drawings for this information and Existing Conditions plan (Survey).

5. The drainage patterns and drainage courses on the site and on adjacent lands.

RESPONSE: See Civil drawings for this information.

6. Potential natural hazard areas including:

a. Floodplain areas pursuant to the site's applicable FEMA Flood Map panel;

b. Water resource areas as defined by Chapter 32 CDC;

c. Landslide areas designated by the Natural Hazard Mitigation Plan, Map 16; and

d. Landslide vulnerable analysis areas, designated by the Natural Hazard Mitigation Plan, Map 17.

RESPONSE: See Civil drawings for this information.

7. Resource areas including:

a. Wetlands;

b. Riparian corridors;

c. Streams, including intermittent and ephemeral streams;

d. Habitat conservation areas; and

e. Large rock outcroppings.

RESPONSE: See Civil drawings for this information.

8. Potential historic landmarks and registered archaeological sites. The existence of such sites on the property shall be verified from records maintained by the Community Development Department and other recognized sources.

RESPONSE: None exist on the site. Further documentation will be provided to the City if requested.

9. Identification information including the name and address of the owner, developer, project designer, lineal scale and north arrow.

RESPONSE: See Civil & Architectural drawings for this information.

10. Identify Type I and II lands in map form. Provide a table which identifies square footage of Type I and II lands also as percentage of total site square footage. (Ord. 1408, 1998; Ord. 1425, 1998; Ord. 1442, 1999; Ord. 1463, 2000; Ord. 1526, 2005; Ord. 1544, 2007; Ord. 1565, 2008; Ord. 1590 § 1, 2009; Ord. 1613 § 13, 2013; Ord. 1621 § 25, 2014; Ord. 1635 § 27, 2014; Ord. 1636 § 38, 2014)

55.120 SITE PLAN

The site plan shall be at the same scale as the site analysis (CDC 55.110) and shall show:

A. The applicant's entire property and the surrounding property to a distance sufficient to determine the relationship between the applicant's property and proposed development and adjacent property and development.

RESPONSE: See provided site plan.

B. Boundary lines and dimensions for the perimeter of the property and the dimensions for all proposed lot or parcel lines.

RESPONSE: See provided site plan.

C. Streams and stream corridors.

RESPONSE: See provided site plan.

D. Identification information, including the name and address of the owner, developer, project designer, lineal scale and north arrow.

RESPONSE: See provided site plan.

E. The location, dimensions, and names of all existing and proposed streets, public pathways, easements on adjacent properties and on the site, and all associated rights-of-way.

RESPONSE: See provided site plan.

F. The location, dimensions and setback distances of all:

1. Existing and proposed structures, improvements, and utility facilities on site; and

2. Existing structures and driveways on adjoining properties.

RESPONSE: See provided site plan.

G. The location and dimensions of:

1. The entrances and exits to the site;

2. The parking and circulation areas;

3. Areas for waste disposal, recycling, loading, and delivery;

4. Pedestrian and bicycle routes, including designated routes, through parking lots and to adjacent rights-of-way;

5. On-site outdoor recreation spaces and common areas;

6. All utilities, including stormwater detention and treatment; and

7. Sign locations.

RESPONSE: See provided site plan.

H. The location of areas to be landscaped. (Ord. 1442, 1999; Ord. 1613 § 14, 2013; Ord. 1622 § 28, 2014; Ord. 1636 § 39, 2014)

RESPONSE: See provided site plan.

55.125 TRANSPORTATION ANALYSIS

Certain development proposals required that a Traffic Impact Analysis (TIA) be provided which may result in modifications to the site plan or conditions of approval to address or minimize any adverse impacts created by the proposal. The purpose, applicability and standards of this analysis are found in CDC 85.170(B)(2). (Ord. 1584, 2008)

RESPONSE: A Traffic Impact Analysis has been prepared by Lancaster Engineering on February 9th 2016 and included in this application.

55.130 GRADING PLAN

The grading and drainage plan shall be at a scale sufficient to evaluate all aspects of the proposal and shall include the following:

A. The location and extent to which grading will take place indicating general contour lines, slope ratios, slope stabilization proposals, and location and height of retaining walls, if proposed.

RESPONSE: The civil site drawings show the existing contours. The proposed building will match the existing grades along the frontages and on the property line to the west. Finish grades are shown on the civil and architectural plans to demonstrate how the building fits with the existing grades

B. A registered civil engineer shall prepare a plan and statement that shall be supported by factual data that clearly shows that there will be no adverse impacts from increased intensity of runoff off site, or the plan and statement shall identify all off-site impacts and measures to mitigate those impacts. The plan and statement shall, at a minimum, determine the off-site impacts from a 10-year storm.

RESPONSE: A preliminary storm report has been prepared to demonstrate how the impervious roof area will be collected into a detention tanks with orifices that release storm water at the pre-development rates for the 2 through 25 year events. The storm water from this site will be connected to the public system with a 8-inch line at a point where the public system has a larger 12-inch line with a capacity approximately 35 times the 25-year flow from this development.

C. Storm detention and treatment plans may be required.

RESPONSE: A storm detention tank is proposed as shown on the site utility plan which will detain the developed flows and discharge at the pre-developed rates for storm events of 2-though 25 years. Because the building covers almost this entire site no infiltration or water quality swales or rain gardens are possible. A storm water pollution control manhole will provide treatment. Roof water generally does not contain harmful pollutants and in most cases is exempt from DEQ regulations for water quality.

D. Identification, information, including the name and address of the owner, developer, project designer, and the project engineer. (Ord. 1463, 2000; Ord. 1613 § 15, 2013; Ord. 1622 § 28, 2014)

RESPONSE: The civil plans provide a listing of the owner/developer, architect, engineer and surveyor with names and contact information.

55.140 ARCHITECTURAL DRAWINGS

This section does not apply to single-family residential subdivisions or partitions, or up to two duplexes or single-family attached dwellings.

Architectural drawings shall be submitted showing:

A. Building elevations and sections tied to curb elevation;

RESPONSE: See provided plans.

B. Building materials: color and type; and

RESPONSE: See provided plans.

C. The name of the architect or designer. (Ord. 1408, 1998; Ord. 1613 § 16, 2013)

RESPONSE: See provided plans.

55.150 LANDSCAPE PLAN

This section does not apply to detached single-family residential subdivisions or partitions, or up to two duplexes or single-family attached dwellings.

A. The landscape plan shall be prepared and shall show the following:

1. Preliminary underground irrigation system, if proposed;

2. The location and height of fences and other buffering of screening materials, if proposed;

3. The location of terraces, decks, patios, shelters, and play areas, if proposed;

4. The location, size, and species of the existing and proposed plant materials, if proposed; and

5. Building and pavement outlines.

RESPONSE: Due to the allowable site coverage of 100% the proposed development will only be providing concrete raised planters along the front entrances of the major Tenants. Any plantings would adhere to the list of City approved species.

B. The landscape plan shall be accompanied by:

1. The erosion controls that will be used, if necessary;

2. Planting list; and

3. Supplemental information as required by the Planning Director or City Arborist. (Ord. 1408, 1998; Ord. 1613 § 17, 2013)

RESPONSE: No erosion control measures required for this development. A planting list will be provided to the City Arborist prior to any installation.

55.170 EXCEPTIONS TO UNDERLYING ZONE, YARD, PARKING, SIGN PROVISIONS, AND LANDSCAPING PROVISIONS

A. The Planning Director may grant an exception to the dimensional building setback or yard requirements in the applicable zone based on findings that the approval will satisfy the following criteria:

1. A minor exception that is not greater than 20 percent of the required setback.

2. A more efficient use of the site.

3. The preservation of natural features that have been incorporated into the overall design of the project.

4. No adverse affect to adjoining properties in terms of light, air circulation, noise levels, privacy, and fire hazard.

5. Safe vehicular and pedestrian access to the site and safe on-site vehicular and pedestrian circulation.

RESPONSE: No exceptions are being requested as part of this application.

B. The Planning Director may grant an exception to the off-street parking dimensional and minimum number of space requirements in the applicable zone so long as the following criteria are met:

1. The minor exception is not greater than 10 percent of the required parking;

2. The application is for a use designed for a specific purpose which is intended to be permanent in nature (for example, a nursing home) and which has a low demand for off-street parking; or

3. There is an opportunity for sharing parking and there is written evidence that the property owners are willing to enter into a legal agreement; or

4. Public transportation is available to the site reducing the standards and will not adversely affect adjoining uses, and there is a community interest in the preservation of particular natural feature(s) of the site which make it in the public interest to grant an exception to parking standards.

RESPONSE: No exceptions are being requested as part of this application.

C. The Planning Director may grant an exception to the sign dimensional requirements in the applicable zone when the following criteria are met:

1. The minor exception is not greater than 10 percent of the required applicable dimensional standard for signs;

2. The exception is necessary for adequate identification of the use on the property; and

3. The sign will be compatible with the overall site plan, the structural improvements, and with the structures and uses on adjoining properties.

RESPONSE: No exceptions are being requested as part of this application.

D. The Planning Director may grant an exception to the landscaping requirements in the applicable zone based on findings that the following criteria will be met:

1. A minor exception that is not greater than 10 percent of the required landscaped area.

2. A more efficient use of the site.

3. The preservation of natural features that have been incorporated into the overall design of the project.

4. No adverse effect to adjoining property.

RESPONSE: No exceptions are being requested as part of this application.

55.180 MAINTENANCE

All on-site improvements shall be the ongoing responsibility of the property owner or occupant.

RESPONSE: The applicant acknowledges this responsibility.

55.190 SHARED OPEN SPACE

Where the open space is designated on the plan as common open space, the following shall apply:

A. The open space area shall be shown on the final plan and recorded with the Planning Director.

RESPONSE: There is no shared open space planned as part of this application.

B. The open space shall be conveyed in accordance with one of the following methods:

1. By dedication to the City as publicly owned and maintained as open space. Open space proposed for dedication to the City must be acceptable to it with regard to the size, shape, location, improvement, and budgetary and maintenance limitations.

RESPONSE: There is no shared open space planned as part of this application.

2. By leasing or conveying title (including beneficial ownership) to a corporation, home association, or other legal entity with the City retaining the development rights to the property. The terms of such lease or other instrument of conveyance must include provisions suitable to the City Attorney for guaranteeing the following:

a. The continued use of such land for intended purposes.

b. Continuity of property maintenance.

c. When appropriate, the availability of funds required for such maintenance.

d. Adequate insurance protection.

e. Recovery for loss sustained by casualty and condemnation, or otherwise.

RESPONSE: There is no shared open space planned as part of this application.

3. By any method that achieves the objectives set forth in subsection (B)(2) of this section.

RESPONSE: There is no shared open space planned as part of this application.

55.195 ANNEXATION AND STREET LIGHTS

As a condition of approval for design review for any project that is being annexed to the City, the developer and/or homeowners association shall pay for all expenses related to street light energy and maintenance costs until annexed into the City. The approval for any property annexed must state: "This approval is contingent on voter approval of annexation of the subject property." This means that no permit, final plat, or certificate of occupancy may be issued or approved until annexation is complete. (Ord. 1442, 1999; Ord. 1604 § 53, 2011).

RESPONSE: The subject property is located within the city limits. The requirements of this section do not apply.

End of Chapter Responses

Willamette Neighborhood NA
Minutes of November 11, 2015

7pm West Linn Police Station

The meeting was called to order by president, Gail Holmes, at 7pm. Minutes from last month's meeting were summarized and approved.

Treasury has a balance of $4,299.35 with obligations of appx $800for a wooden Willamette sign, $150 for Halloween treats and $200 for Main Street seasonal banners.

Transportation: Midge Pierce reported on the considerations of the TSP plan. The Planning Commission will address this subject Wednesday November 18 and Midge urges WNA to attend.
Traffic calming devices for Willamette Falls Drive are:

1. curb extensions
2. pavement textures and striped crosswalks
3. stop signs at 14th at bus stop(will affect Dollar Street also)

Signage considerations:
"No parking" on roadway at Field's Bridge Park
Final decisions are yet to occur. WNA urged to attend and testify.

Main Street: Jody Carson mentioned a new manager, Noelle Brooks, who will work 10 to 15 hours a week and work with local merchants. With a manager in place, Main Street will then be eligible to apply for grants.

The Holiday Parade on Willamette Falls Drive will occur December 5th followed by Santa at the Fire Station.

Red decorative seasonal banners will soon appear on posts along WF Drive.

Plans are developing for median strip improvements, flower bed revitalizing and reshaping plus future "period" light standards.

Willamette entrance signs: WNA has chosen the south end of 10th Street in the median strip plus the east end of Field's Bridge as appropriate locations. A third sign would be nice at Johnson Road and Blankenship. Suggestions will be forwardrd to Parks and Rec who will install signs.

Annual WNA Report: Gail will organize a report including accomplishments and goals.
A tri-fold flyer about the WNA would be a priority. In addition, a goal will be to support the Main Street Design Committee's efforts to improve WF Drive.

Historic Review Board: Jody Carson described a sculpture planned for the entrance to the river path along the Willamette. It will include original grinding stones and an interpretation of paper shredding and manufacture. Donations encouraged.
iCon Construction: Scot Sutton and Kevin Godwin of SGR Architects presented plans for an office building at 11th and WF Drive. The building will be 25,000sf with underground parking plus alley parking totally 42 slots. Office and retail space is planned with a possible boutique hotel on the second floor.

Members of the WNA were very pleased with design and offered suggestions.

Dogs in Mary Young Park: David Baker described a petition circulating which requests Mary Young Park be open in entirety for off leash dogs at certain hours. The Parks Advisory Board unanimously voted down this petition of 500 persons. An existing off leash area near the parking area could be fenced.

The WNA voted to support the decision of the Parks Advisory Board and urged a negative vote among the City Council for the following reasons:

1. safety to humans and other dogs
2. detriment to vegetation and wildlife in this natural area
3. liability should someone be hurt
4. potential unsanitary effect on play fields
5. a poor president for other city parks

The WNA will meet December 9th at the police station if room is available.
Meeting adjourned 8:30pm

Elizabeth Rocchia

SGA
SG ARCHITECTURE, LLC

Code Analysis
February 2016

Willamette Falls Drive Mixed Use
1969 Willamette Falls Drive, West Linn, OR

Planner: Peter Spir
Development Engineer: Khoi Le

GENERAL

A two story mixed use building at the corner of Willamette Falls Drive and 11th Street, West Linn, OR. Possible uses include retail, restaurant, office, or hotel.

Codes:
2014 Oregon Structural Specialty Code
2014 Oregon Mechanical Specialty Code
2014 Oregon Plumbing Specialty Code
2014 Oregon Energy Efficiency Specialty Code cover

Zoning:
Jurisdiction: City of West Linn
Code: Community Development Code
Zone: GC (General Commercial - CDC Chapter 19)
Zone Overlays: Willamette Commercial Historic Overlay Zone

Utilities:
Water/Sewer: West Linn Public Works - 503 656-6081 (Operations)
Trash: West Linn Refuse - 503-557-3900
Electric: Portland General Electric - 800-542-8818
Gas: NW Natural - 800-422-4012

ZONING ANALYSIS

Legal Description:
Lots 1,2, & 3, Block 10, City of West Linn, Clackamas County, Oregon

Tax Lot Number:
31E02BA04100

10940 SW Barnes Rd #364
Portland, OR 97225
503.201.0725

Parcel Number:
00749168

Restrictions/Easements:
None known

Adjacent Zones:
MU (North & East), R-5 medium density residential (South), GC (West)

Permitted Uses (19.030, anticipated uses):
Business uses, restaurant, retail, hotel, professional/medical services.

Dimensional Requirements (19.070):
Minimum Front Lot Line Width: 35'
Average Minimum Front Lot Line Width: 50'
Average Minimum Lot Depth: 90'
Building Height (CDC): 2 stories/35'
Building Height (OSSC):
Ground Level Minimum Height: 10'
Setbacks: Front - 0' min./0' max., Side - 0'/0', Rear 20'/20'
Lot Coverage: 100% max.

Site Landscaping:
None required.

Parking lot landscaping:
5% + perimeter at surface parking

Site Access (information based on City's 2005 review of the project):
Knapps Alley may be used for parking access and may be backed into from parking stalls, but 20' width of alley must be paved for entire length of site. On-site parking that is accessed from Knapps Alley can only be used by employees of the building and not by visitors. Even high volume employee use may not be allowed.

On-site parking access from 11th Street may be allowed, but curb cut must be 35' away from the corner.

46.140 PARKING

Exemptions:
To facilitate the design requirements of Chapter 58 CDC, properties in the Willamette Falls Drive Commercial District/Overlay Zone, located between 10th and 16th Streets, shall be exempt from the requirements for off-street parking as identified in this chapter. *Any off-street parking spaces provided shall be designed and installed per the dimensional standards of this code.*

Standards:
Standard Stall: 9' x 18'
Compact Stall: 8' x 16'
ADA Stalls: (1) Van Accessible 9' x 18' space with 8' x 18' access aisle required.
Drive Aisle: 23' drive aisle required for 90° head-in parking (City has previously agreed that the 20' alley may be used in lieu of the required 23' aisle.
Parallel (on-street): 9' x 23'

On-Street parking:
Existing on Willamette Falls Drive and 11th Avenue.

Bicycle parking (varies by occupancy):
Retail: 1/3000 s.f., 50% covered
Office, Medical: 2 + 0.5/1000 s.f., 10% covered
Restaurant: 1/1000 s.f., 25% covered
Hotel (residential): 1/unit, 50% covered

Off-street loading required:
Retail: first stall required when area > 10,000s.f.
Restaurant: first stall required when area > 5,000s.f.
Office: first stall required when area > 10,000s.f.
Hotel: first stall required when area > 10,000s.f.

Off-street loading area:
Size: 14' x 20'

52.000 SIGNS

Sign Permit:
A separate sign permit is required.

Sign Exemptions:
Signs placed inside windows are exempt from the chapter provisions. Parking lot signs up to three square feet in area with a maximum height no greater than five feet above grade and directed to the interior of a parking lot and not to a right-of-way shall not require a sign permit.

Sign Variances:
Sign height and area variances shall be a Class II variance procedure, reviewed pursuant to the provisions of subsection C of this section and Chapter 75 CDC. All other sign variances shall be Class I variance procedures, and shall be reviewed pursuant to the provisions of subsection C of this section and CDC 75.050.

Signs in the Willamette Falls Drive Commercial District:
Signs shall not exceed 10 percent of the square footage of the front elevation. The sign(s) shall be proportionate to buildings and signs on adjacent buildings. The "10 percent" shall be broken up into multiple signs. The sign(s) shall be mounted or painted on the second floor, on the valance of the awning, on the windows at pedestrian level, or on four-by-four awning posts.

Signs shall not be of the internally lit can type or channel light type. No backlit awnings are allowed. Illumination by spotlight is permitted. Neon signs are permitted only inside the windows. No flashing signs are allowed. Small signs or plaques which describe the building in a historical sense are exempt from the allowable square footage restrictions.

Sign fonts: Antique lettering is required. Variations are permitted where the lettering would not clash with the predominant font or style. "Gay Nineties" or "P.T. Barnum" type styles, and other exaggerated styles are discouraged. Lettering may be horizontal, vertical, or slanting up from lower left to upper right. Semi-circle designs on windows are permitted. Window lettering should be white, black, or gold with black shading.

Signs Quantity:
Maximum of 3 on-wall signs.

58.090 WILLAMETTE FALLS DRIVE COMMERCIAL DISTRICT DESIGN STANDARDS

Building form, scale and depth:
Emphasize the vertical through narrow, tall windows (especially on second floor), vertical awning supports, engaged columns, and exaggerated facades creating a height-to-width ratio of 1.5:1. Building depth shall be flat, only relieved by awning and cornice projections and the indented doorway.

Spacing and rhythm:
Provide strong vertical breaks or lines should be regularly spaced every 25 to 50 feet.

Facades:
No gables, hipped, or pitched roofs shall be exposed to the street at the front. The "Western false front" shall be the preferred style although variations shall be allowed.

Cornice:
Broad and may include regularly spaced supporting brackets. A cornice is not required, but preferred.

Building materials:
1 x 8 horizontal wood siding. Brick and certain concrete configurations are permitted only by a variance under CDC 58.090.

Awnings:
All buildings shall have awnings extending out from building face. Transoms are preferred but not required. Awnings shall be either canvas or vinyl, with internal metal framework, curved metal supports, or a 4 x 4 wood post at the outside of the sidewalk. Minimum clearance of 7', 10 to 40 degree angle slope.

Extruded roofs:
Extruded roofs may be substituted for awnings, must have a 10- to 40-degree pitch and extend one to two feet from the building face just above the transom windows where the first and second stories meet. The roof runs along the entire building frontage.
Standard roofing materials are used. Transoms are required with extruded roofs.

Doors and entryways:
The entryway shall be centered in the middle of the building at grade. The buildings on street corners may position their entries on the corner at an angle. Doors may be single or double,

and shall be recessed three to five feet back from the building line. Doors shall have glazing in the upper two-thirds to half of the door, with panels below. The entryway shall have windows on all sides at the same level as the other display windows. Wood doors are preferred.

Glazing:
Clear glass only. Lettering on glass is permitted.

Display or pedestrian level windows:
Shall extend across at least 80 percent of building front. The windows shall start one and one-half to two and one-half feet above grade to a height of seven to eight feet, and shall be level with the top of the height of the adjacent entryway area, excluding transom. The window shall be broken up into numerous lights. From 1880 onwards, the number of lights was generally no more than six in a pedestrian-level window. The frames may be wood or vinyl-clad wood, or other materials so long as a matte finish is possible.

Second floor and other windows:
Double- and single-hung windows proportionately spaced and centered. Smaller square shaped windows may be permitted (one and one-half feet to two feet per side). A typical window should have a 3:1 height to width ratio for the glass area. There should be a minimum of two lights: "one over one" of equal size. "Two over one" or "four over one" is appropriate.

Wainscoting:
Where provided, wainscoting shall be consistent with primary material of the building, typically wood.

Shutters:
Shutters are not allowed.

Balconies:
No balconies are permitted except on rear of building.

Exterior stairs:
Exposed exterior stairs are permitted on the rear or side of the building only.

Roof mounted mechanical equipment:
Equipment shall be screened from view on all sides by normal and consistent architectural features of the building. CDC 55.100(D), Privacy and noise restrictions apply.

Exterior lighting fixtures:
Any lighting fixtures that can be traced to 1880 – 1915 period are permitted. Simple modern fixtures that are screened and/or do not attract attention are acceptable. Overly ornate fixtures of the Victorian era are not acceptable.

Transoms:
Transom windows are required with extruded roofs and optional with awnings. Transom windows shall cover the front of the building above the main display windows and the entryway area. Transoms should be broken up into sections every six inches to three feet in a

consistent and equal pattern. Height should not exceed three feet. Transoms may or may not open. False (drop) ceilings are allowed behind the transoms.

Planters:
No planters are allowed.

Paint colors:
Typical body colors include white, cream, or a light, warm color of low intensity. Accents, trims, windows, etc., should be dark-colored. Contrasting colors should be compatible. Existing colors shall not enjoy protected status when repainting is proposed. A palette or color wheel of acceptable 1880 – 1915 period colors, available at the Community Development Department, shall be the basis for color selection. No other colors are allowed. The palette is.

Flags, pennants, or banners: Ornamental or advertising flags, pennants, or banners are not permitted.

BUILDING CODE ANALYSIS
Note that many aspects of the Building Code analysis cannot be determined until building plans are more definitive. The following analysis describes the limits in the Code for the various occupancies anticipated.

Possible Occupancy Groups:
A-2: Restaurant
B: Business
M: Retail
R-1: Hotel
S-2: Parking Garage

Construction Type:
Projected Construction Type - Ground & Second Floors: V-B Sprinklered (frame construction).
Projected Construction Type - Garage: Type 1 or 2 (concrete or masonry construction).

Allowable Areas by Occupancy Group (includes increases for sprinkler and separations)*:
A-2: Restaurant - 6000 + [6000 x 2 (sprinkler)] + [6000 x .17 (separation)] = 19,020 s.f.
B: Business - 9000 + [9000 x 2 (sprinkler)] + [9000 x .17 (separation)] = 28,530 s.f.
M: Retail - 9000 + [9000 x 2 (sprinkler)] + [9000 x .17 (separation)] = 28,530 s.f.
R-1: Hotel - 7000 + [7000 x 2 (sprinkler)] + [7000 x .17 (separation)] = 22,190s.f.
S-2: Garage - 13,500 + [13,500 x 2 (sprinkler)] + [13,500 x .17 (separation)] = 42,795 s.f.
**Subject to the 'Sum of the Ratios' limitation: the combined areas of each occupancy divided by the overall building area must result in a ratio of less than 1.0.*

Allowable Building Height Above Grade:
By Construction Type: 40'

By Zone: 35' (The height limitation in the zone governs)

Occupancy Separations (vertical and horizontal):
A-2: Restaurant / B: Business, M: Retail, or R-1: Hotel = 1-hour
R-1: Hotel / B: Business, M: Retail, or A-2: Restaurant = 1-hour
S-2: Garage / B: Business & M: Retail = 1-hour
S-2: Garage / R-1: Hotel = none

Fire Resistive Requirements:
Primary Structural Frame: None
Bearing & non-bearing walls (exterior, north/east/south): None
Bearing & non-bearing walls (exterior, west): 2 hour at ground floor retail / 1 hour at 2nd floor
Bearing & non-bearing walls (interior): None
Floor & Roof construction: None
Shaft Enclosures (Stairs & Elevator): 1-hour

Parapets:
Per OSSC Section 705.11

Openings in Rated Walls (based upon separation from property line):
0' to less than 3': Not permitted
3' to less than 5': 15% of wall area per story
5' to less than 10': 25% of wall area per story
10' to less than 15': 45% of wall area per story
15' to less than 20': 75% of wall area per story
20'+: Unlimited

Exiting:
Elevator: Required
Stairs: Two Stairs will be required. At least one stair must be enclosed on the upper floors, with both enclosed at the garage level.
All required exits must meet accessibility standards per Chapters 10 & 11.

Sincerely,
SG Architecture, LLC

WILLAMETTE FALLS DRIVE MIXED-USE BUILDING
TRAFFIC IMPACT STUDY

WEST LINN, OREGON

DATE:
February 9, 2016

PREPARED FOR:
Mark Handris

PREPARED BY:
William Farley, PE

REGISTERED PROFESSIONAL ENGINEER
54983PE
OREGON
JULY 10, 2002
MICHAEL T. ARD

EXPIRES 12/31/17

LANCASTER ENGINEERING

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

TABLE OF CONTENTS

EXECUTIVE SUMMARY

1. A two-story mixed-use commercial building has been proposed for the lot located at 1969 Willamette Falls Drive in West Linn, Oregon. The new building will consist of 10,511 square feet of ground-floor retail and 14,560 square feet of second floor office space or a second floor 19-room hotel.

2. The proposed mixed-use building, assuming that the second floor is used for office space, is projected to generate up to 33 trips during the morning peak hour and up to 61 trips during the evening peak hour. If the second floor of the building is used for a 19-room hotel, the trip generation would be reduced to 20 trips during the morning peak hour and 50 trips during the evening peak hour.

3. A detailed examination of the crash history at the study intersections shows no significant safety concerns and no trends that are indicative of design deficiencies. No safety mitigations are recommended.

4. Warrant 1, Eight-Hour Vehicular Volume, was found to be met for the intersection of Willamette Falls Drive at 10th Street under existing conditions. However, since plans impacting the intersection are being evaluated by the City of West Linn regarding the 10th Street corridor and considering the fact that the signal is warranted under existing conditions, the installation of a traffic signal is not recommended as mitigation for the proposed development.

5. Left-turn lane warrants were found to be met for the intersection of Willamette Falls Drive at 11th Street under existing conditions. Installation of a westbound left-turn lane can be considered; however, since the intersection is operating safely and is projected to continue operating within the City's standards, the installation of a left-turn refuge does not appear to be necessary for safety or operations.

6. The intersection of Willamette Falls Drive at 10th Street is projected to operate at LOS E following completion of the proposed development.

7. The intersections of 10th Street at 8th Avenue/8th Court and Willamette Falls Drive at 12th Street are currently operating above the City's performance standard of LOS D. Since the proposed development does not add any trips to the critical movements at these intersections, no mitigation is recommended in conjunction with the proposed development.

8. The intersections of 10th Street at Blankenship Road/Salamo Road, 10th Street at the Interstate 205 southbound ramps, and 10th Street at the Interstate 205 northbound ramps are projected to continue operating within the Oregon Department of Transportations required performance standards either with or without the addition of site trips from the proposed development.

PROJECT DESCRIPTION

INTRODUCTION

This Transportation Impact Study (TIS) addresses the development of a proposed mixed-use commercial building located at 1969 Willamette Falls Drive in West Linn, Oregon. The two-story development will comprise 10,511 square feet of ground-floor retail space and either 14,560 square feet of second-floor office or a 19-room hotel.

This report looks at the traffic impacts of the proposed development on the transportation system in the vicinity of the site and addresses concerns raised by the City of West Linn, Clackamas County, and the Oregon Department of Transportation. The purpose of this report is to provide an analysis that addresses the impacts on adjacent streets as well as the operation of nearby study intersections to ensure safe and efficient performance.

All supporting data and calculations are included in the appendix to this report.

PROJECT LOCATION

The subject property is located on the southwest corner of the intersection of Willamette Falls Drive at 11th Street in West Linn, Oregon. The proposed mixed-use development will take access to the transportation network via a driveway ramp to an underground parking garage on 11th Street, as well as additional access and parking from Knapp's Alley. The building frontage will face Williamette Falls Drive where there is additional head-in on-street parking.

To identify impacts resulting from the proposed development, the following intersections were selected for full analysis during the weekday AM and PM peak hours:

- Willamette Falls Drive at 12th Street
- Willamette Falls Drive at 11th Street
- Willamette Falls Drive at 10th Street
- 10th Street at 8th Avenue/8th Court
- 10th Street at Interstate 205 Eastbound ramp access
- 10th Street at Interstate 205 westbound ramp access
- 10th Street at Blankenship Road/Salamo Road

VICINITY STREETS

Willamette Falls Drive is under the jurisdiction of the City of West Linn and is classified as a Minor Arterial. It is generally a two-lane roadway with one standard lane in each direction and has a posted speed of 20 mph in the site vicinity within the central business district. East of the central business district, Willamette Falls Drive is classified as a principal arterial and the speed limit is increased to 40 mph. The roadway has on-street parking on both sides of the street as well as head-in parking

served by frontage streets separated by raised medians. There are curb and sidewalks on both sides of the roadway, as well as frequent pedestrian bulb-outs located on the corners of most cross streets.

12th Street is under the jurisdiction of the City of West Linn and is classified as a Minor Arterial south of Willamette Falls Drive and a Local Road to the north. It is a two-lane facility with no posted speed limit. There are curbs, sidewalks, and on-street parking areas along both sides of the roadway.

11th Street is under the jurisdiction of the City of West Linn and is classified as a Local Road. It is a two-lane facility with a statutory residential speed limit of 25 mph. Intermittent curbs and sidewalks are provided along both sides of the street. On-street parking is permitted in areas with sufficient width where vehicles can park without impeding the flow of through traffic.

10th Street is classified by the City of West Linn as a Minor Arterial. The road cross-section varies between three and four lanes for two-way traffic and does not have a posted speed limit. There are curbs along both sides of the street and continuous sidewalks along the west side. On-street parking is not available.

8th Avenue and 8th Court are under the jurisdiction of the City of West Linn and are classified as Local Roads. Both are two-lane facilities with one standard lane in each direction and each has a statutory residential speed limit of 25 mph. Curbs and sidewalks are provided intermittently on both sides of the streets. On-street parking is permitted in areas with sufficient width as to not impede the flow of through traffic.

Interstate 205 is under the jurisdiction of the Oregon Department of Transportation. It is generally a four-lane divided freeway with a posted speed of 65 mph to the west of 10th Street and 55 mph to the east.

Salamo Road is under the jurisdiction of the City of West Linn and is classified as a Minor Arterial. It is generally a two-lane roadway with a posted speed of 40 mph west of 10th Street. No curbs or sidewalks are provided near the intersection with 10th Street. On-street parking is not permitted on either side of the roadway.

West of 10th Street, Salamo Road becomes Blankship Road. Blankenship Road is under the jurisdiction of the City of West Linn and is classified as a Collector west of Tannler Drive. It generally is a three-lane roadway, including a center two-way left-turn lane, and has a posted speed limit of 25 mph. Curbs and sidewalks are provided continuously along the southern side of the street and intermittently along the northern side. On-street parking is not permitted on either side of the roadway.

STUDY INTERSECTIONS

The intersection of Willamette Falls Drive at 12th Street if a four-legged intersection under all-way stop control. The eastbound and westbound approaches on Willamette Falls Drive each have a dedi-

cated left-turn lane and a shared through/right-turn lane. The northbound and southbound approaches have a single, shared lane for all turning movements.

The intersection of Willamette Falls Drive at 11th Street is a four-legged intersection with stop control for the northbound approach on 11th Street and for the southbound approach from a frontage street. Each approach at the intersection has a single, shared lane for all turning movements. Access to a frontage street with additional on-street parking is available on the north side of the intersection.

The intersection of Willamette Falls Drive at 10th Street is a three-legged intersection operating under all-way stop control. The eastbound approach on Willamette Falls Drive has a dedicated left-turn lane and a through lane while the westbound approach has a single, shared lane for all turning movements. The southbound approach has dedicated lanes for left and right turns.

The intersection of 10th Street at 8th Avenue/8th Court is a four-legged intersection operating under two-way stop control for the eastbound and westbound approaches. The northbound approach on 10th Street has a single, shared lane for all turning movements and a left-turn restriction weekdays from 4PM to 6PM. The southbound approach has a dedicated left-turn lane and a shared through/right-turn lane. The eastbound approach on 8th Avenue has a dedicated left-turn lane and a shared through/right-turn lane while the westbound approach on 8th Court has a dedicated right-turn lane and a shared through/left-turn lane.

The intersection of 10th Street at the Interstate 205 northbound ramps is a four-legged, signalized intersection. The northbound approach on 10th Street has a dedicated right-turn lane and a through lane while the southbound approach has a dedicated left-turn lane served with flashing-yellow-arrow phasing and a through lane. The eastbound approach from northbound Interstate 205 has a shared through/left-turn lane and a dedicated right-turn lane.

The intersection of 10th Street at the Interstate 205 southbound ramps is a four-legged, signalized intersection. The northbound approach on 10th Street has a dedicated left-turn lane served by flashing-yellow-arrow phasing and a through lane while the southbound approach has a through lane and a shared through/right-turn lane. The westbound approach from southbound Interstate 205 has a shared through/left-turn lane and a dedicated right-turn lane.

The intersection of 10th Street at Blankenship Road/Salamo Road is a three-legged intersection controlled by a traffic signal. The northbound approach on 10th Street has a dedicated left and a channelized right-turn lane. The westbound approach on Salamo Road has a dedicated left-turn lane and a through lane. The eastbound approach on Blankenship Road has a through lane and a channelized right-turn lane. It should be noted that a single controller operates this intersection and the intersection of 10th Street at the Interstate 205 southbound ramps.

A vicinity map showing the project site and the study area intersections is shown in Figure 1 on page eight.

PUBLIC TRANSIT

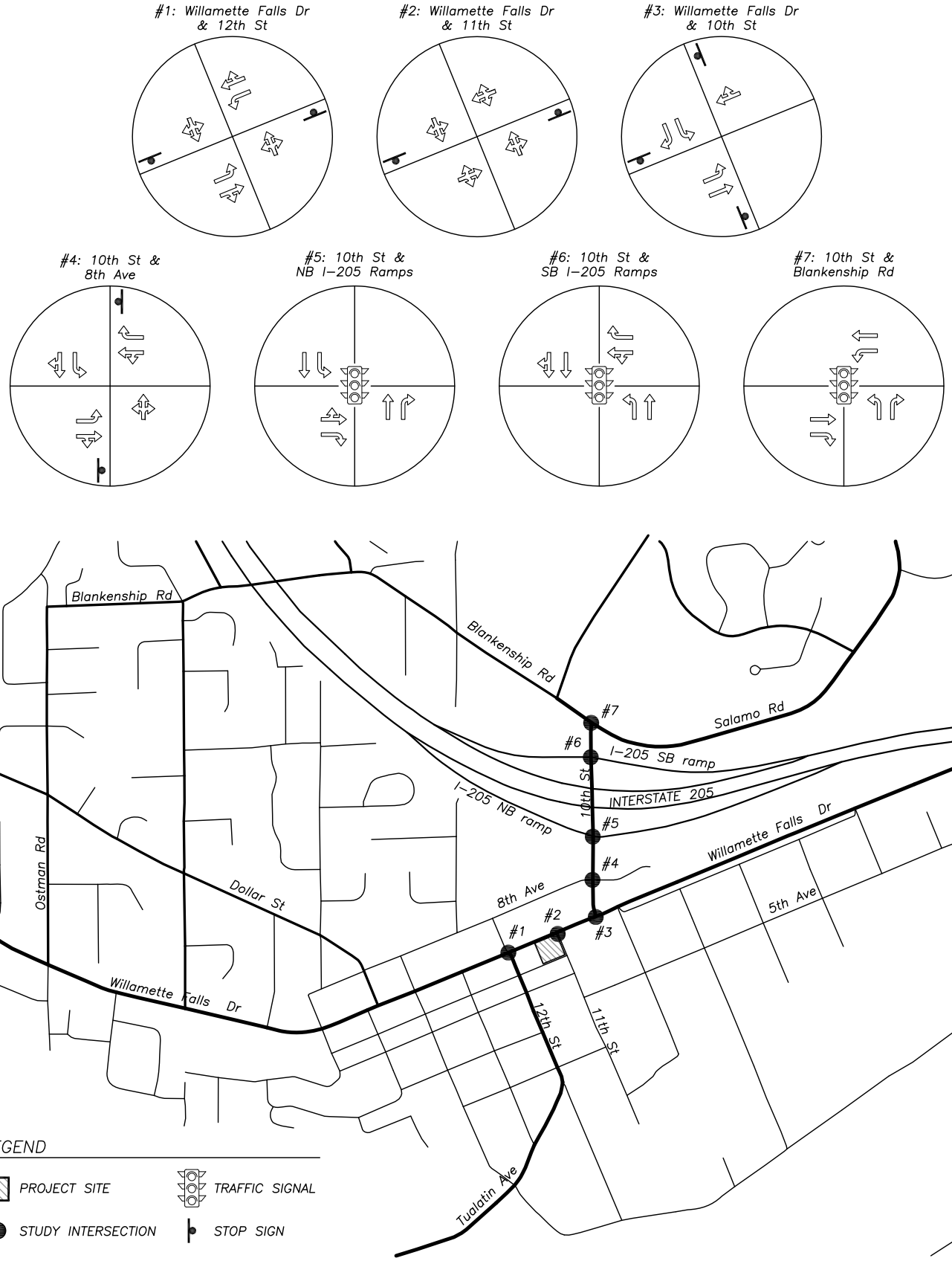
TriMet Bus *Line 154-Willamette/Clackamas Heights* provides bus service along Willamette Falls Drive, 10th Street, and Blankenship Road on its route from Oregon City. The bus provides weekday service from 6 AM to 7 PM with headways of approximately 60 minutes. The bus route has no weekend service.

TRAFFIC COUNTS

Traffic counts were conducted for the study intersections along 10th Street on April 14th, 2015, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM to capture the weekday peak periods. Traffic counts were conducted for the intersections of Willamette Falls Drive at 11th Street and Willamette Falls Drive at 12th Street on July 21st, 2015, for the same periods. Data was used for the system-wide peaks of 7:20 AM to 8:20 AM for the morning and from 4:15 PM to 5:15 PM for the evening.

Since the counts along Willamette Falls Drive were collected at different periods, one of which was when a nearby school was not in session, adjustments were made to the traffic counts at 11th Street and 12th Street. Traffic volumes observed at the intersections of Willamette Falls Drive at 11th Street and Willamette Falls Drive at 12th Street were increased to balance with the traffic counts collected at Willamette Falls Drive at 10th Street.

Figure 2 on page nine shows the existing traffic volumes at each of the study intersections for the AM peak hour and Figure 3 on page ten shows the existing traffic volumes for the PM peak hour.

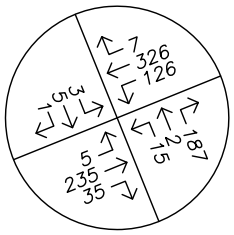


VICINITY MAP

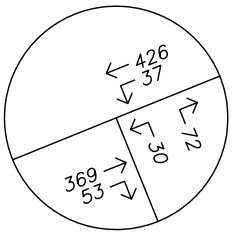
no scale

FIGURE 1

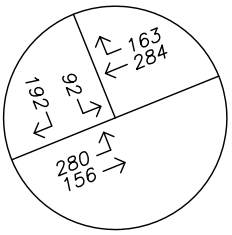
#1: Willamette Falls Dr & 12th St



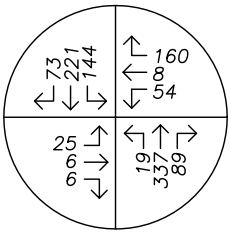
#2: Willamette Falls Dr & 11th St



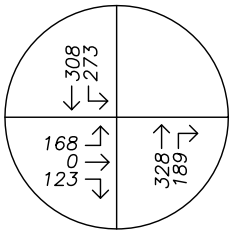
#3: Willamette Falls Dr & 10th St



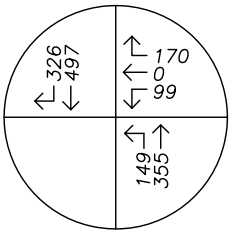
#4: 10th St & 8th Ave



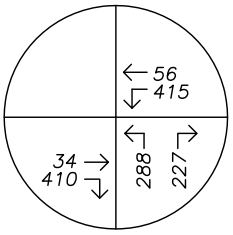
#5: 10th St & NB I–205 Ramps

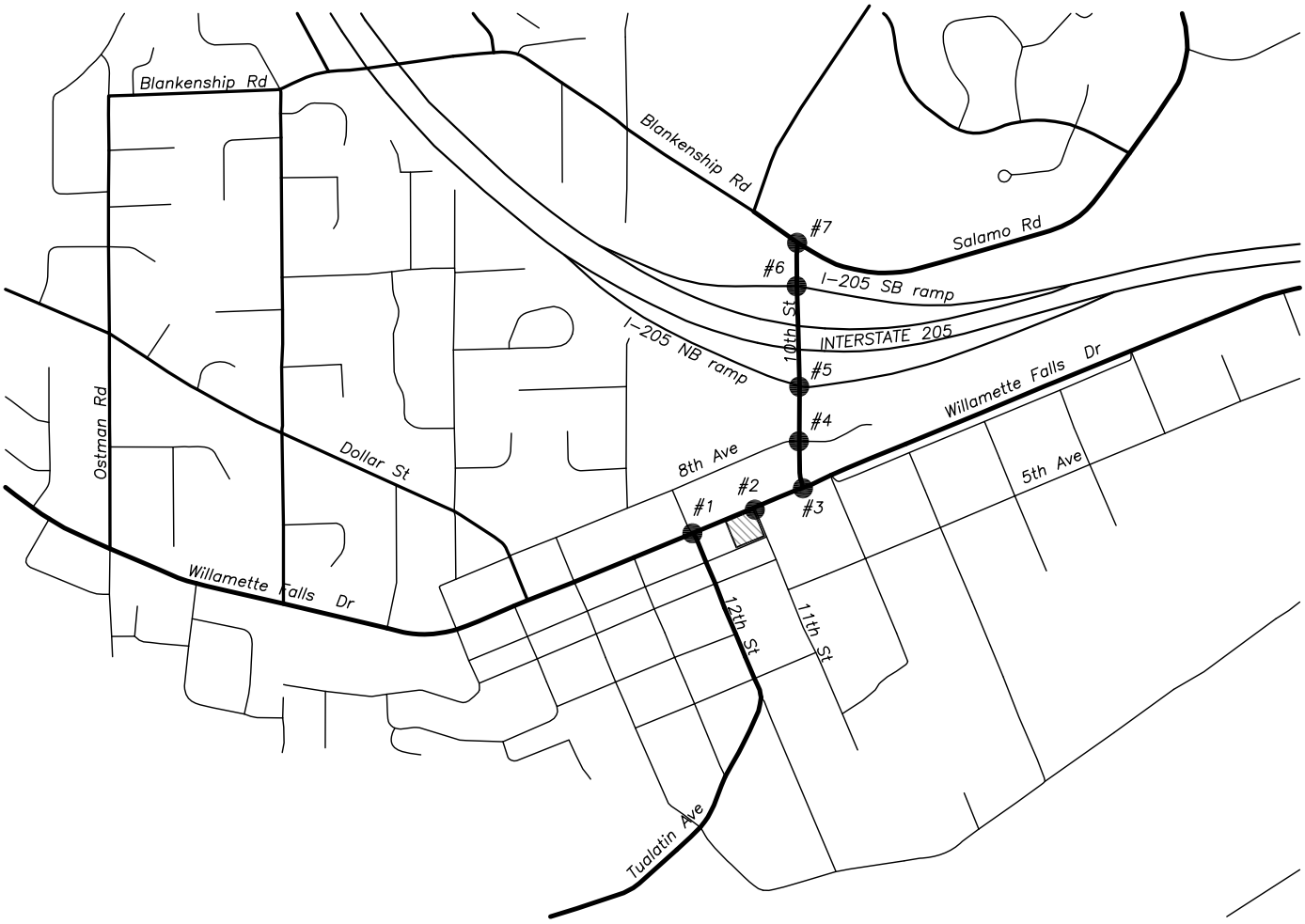


#6: 10th St & SB I–205 Ramps



#7: 10th St & Blankenship Rd



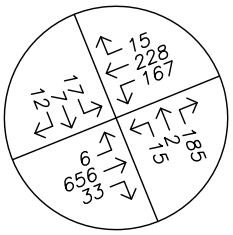


TRAFFIC VOLUMES
Existing Conditions
AM Peak Hour

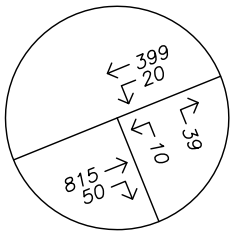
no scale

FIGURE 2

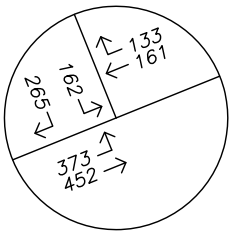
#1: Willamette Falls Dr & 12th St



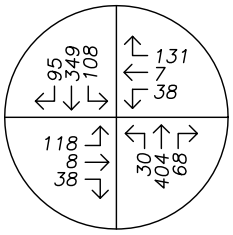
#2: Willamette Falls Dr & 11th St



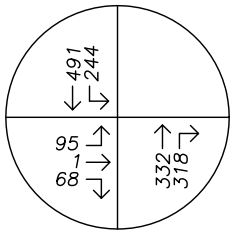
#3: Willamette Falls Dr & 10th St



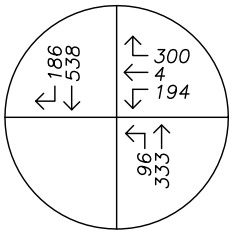
#4: 10th St & 8th Ave



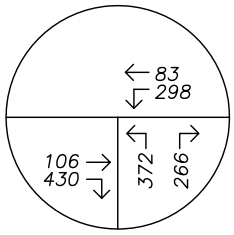
#5: 10th St & NB I–205 Ramps

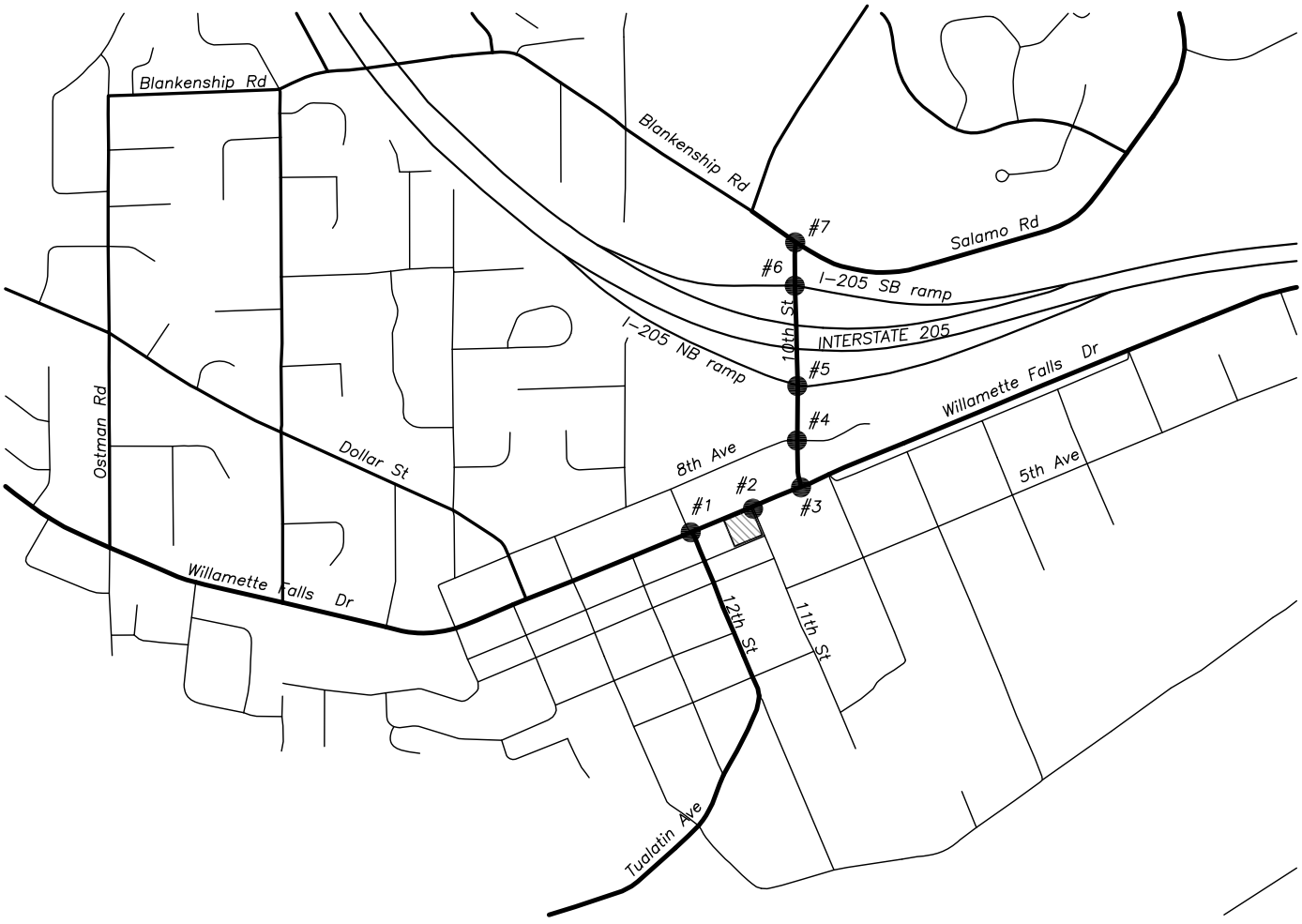


#6: 10th St & SB I–205 Ramps



#7: 10th St & Blankenship Rd





TRAFFIC VOLUMES
Existing Conditions
PM Peak Hour

no scale

FIGURE 3

TRIP GENERATION & DISTRIBUTION

TRIP GENERATION

The ground floor of the proposed mixed-use commercial building will consist of 10,511 square-feet of retail space. The second floor is proposed as either 14,560 square-feet of office space or a 19-room hotel. To ensure a conservative analysis, it was assumed that the second floor would be occupied by office space, since this use results in the highest traffic volumes of the potential uses.

To estimate the number of trips that will be generated by the proposed mixed-use building, trip rates from *TRIP GENERATION MANUAL*, Ninth Edition, published by the Institute of Transportation Engineers (ITE), were used. Land use code #820, *Shopping Center*, and land use code #710, *General Office*, were used to calculate the total trip generation of the proposed development.

The trip generation calculations show that the proposed mixed-use building will generate up to 33 trips during the morning peak hour with 26 entering the site and 7 exiting. During the evening peak hour, the development will generate up to 61 trips with 23 entering and 38 exiting the site. Up to a total of 608 daily trips will be generated by the project.

The following table offers a summary of the trip generation. Detailed ITE trip generation calculations are included in the appendix to this report.

TRIP GENERATION SUMMARY

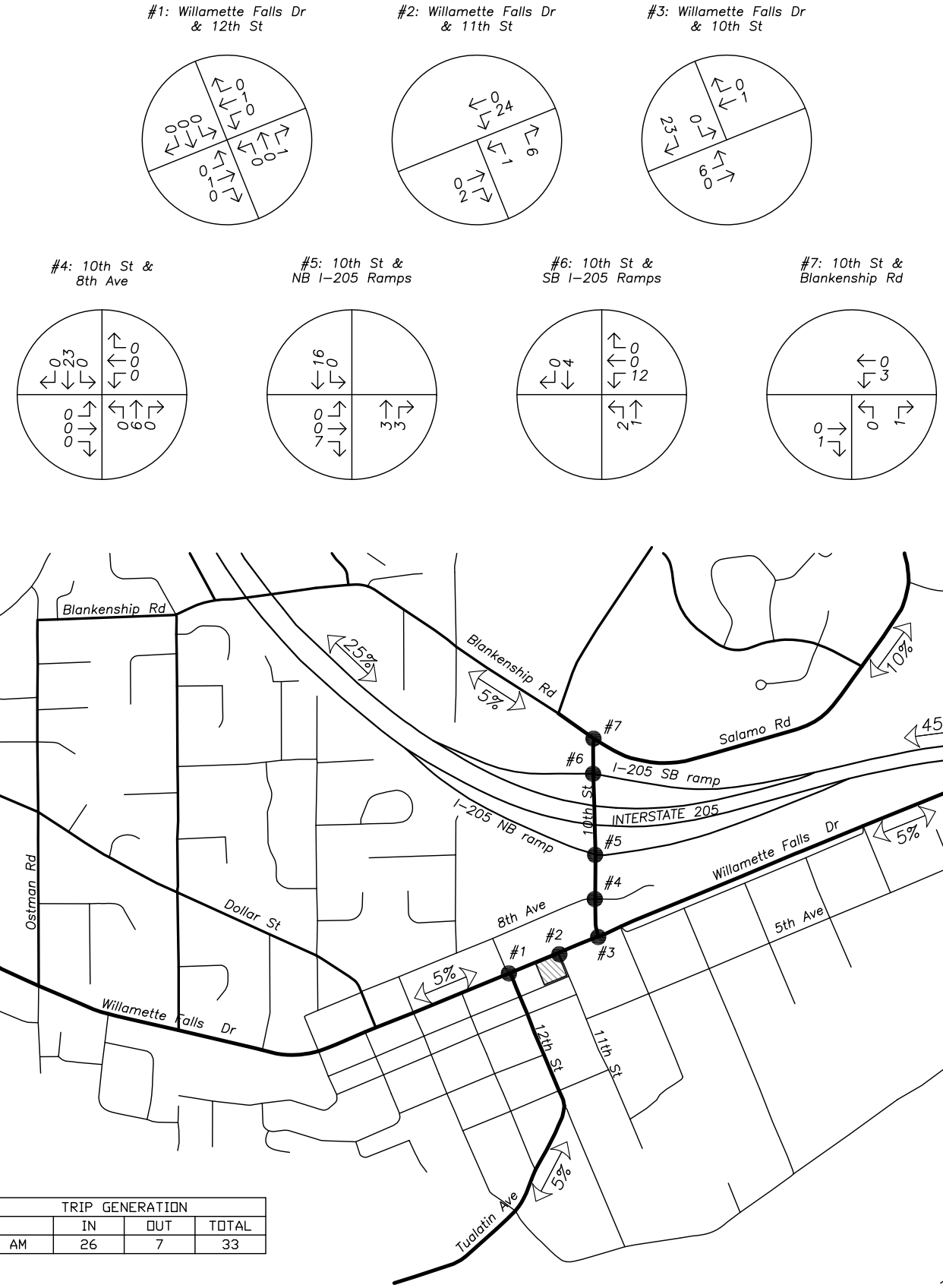
		Morning Peak Hour			Evening Peak Hour			Weekday
	Size	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**Total**
Retail	10.511 ksf	6	4	10	19	20	39	448
Office	14.560 ksf	20	3	23	4	18	22	160
Total	**25.071 ksf**	**26**	**7**	**33**	**23**	**38**	**61**	**608**

It should be noted that the above trip generation calculations do not account for any reductions due to internalization or pass-by trips.

TRIP DISTRIBUTION

It is projected that majority of the trips generated by the proposed mixed-use building will arrive and depart using Interstate 205. Based on the observed traffic trends, it is projected that approximately 45 percent of the trips will travel to and from the east on Interstate 205 while 25 percent will travel to and from the west. Approximately 10 percent of the trips to and from the site will use Salamo Road and 5 percent will each use Blankenship Road to the north, Willamette Falls Drive to the east or west, or Tualatin Avenue to the south.

The trip distribution and assignment for the mixed-use commercial building is shown in Figure 4 on page 13 for the AM peak hour and Figure 5 on page 14 for the PM peak hour.

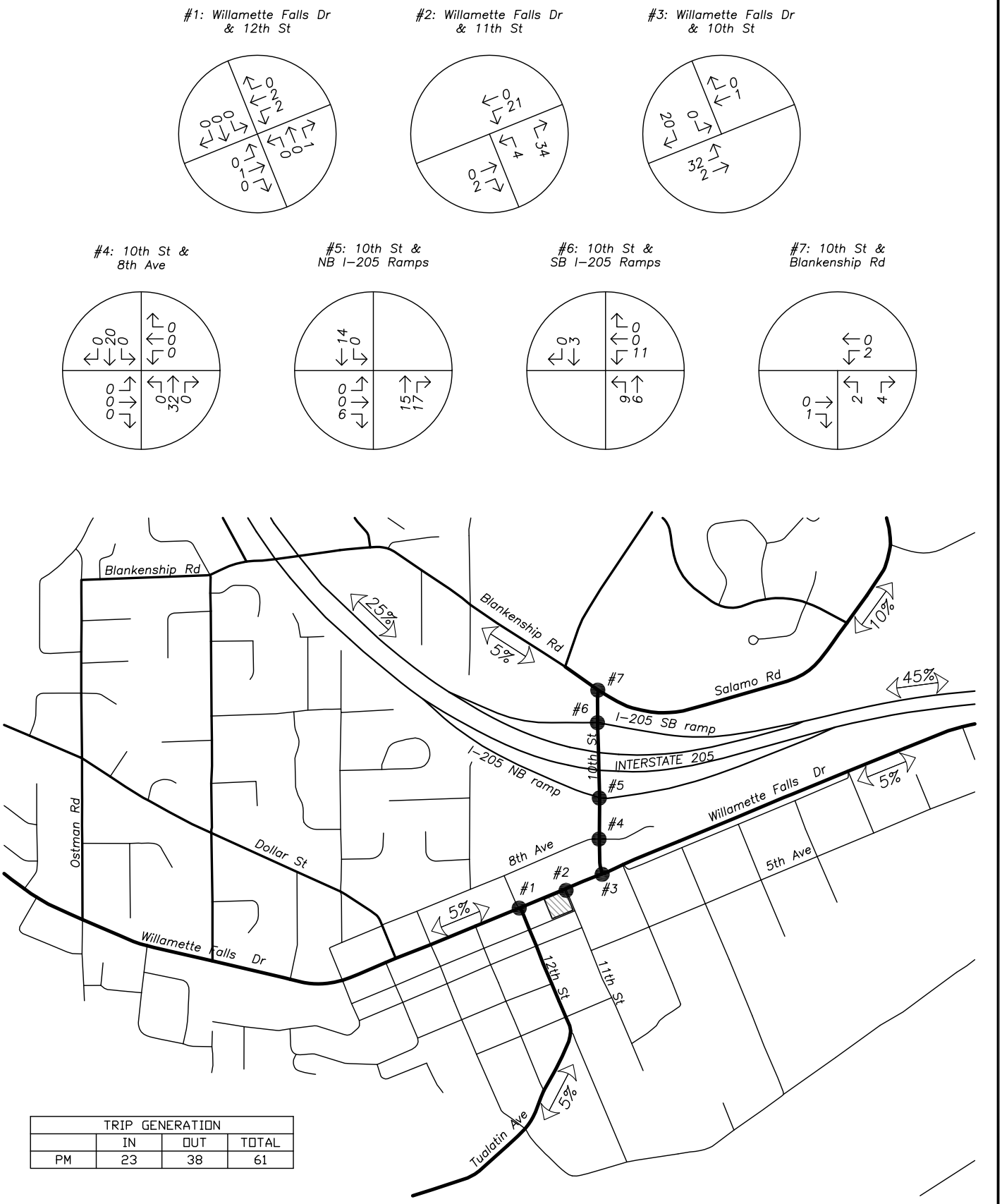


TRIP GENERATION			
	IN	OUT	TOTAL
AM	26	7	33

SITE TRIP DISTRIBUTION & ASSIGNMENT
Proposed Development Plan – Site Trips
AM Peak Hour

no scale

FIGURE 4



TRIP GENERATION			
	IN	OUT	TOTAL
PM	23	38	61

SITE TRIP DISTRIBUTION & ASSIGNMENT
Proposed Development Plan – Site Trips
PM Peak Hour

no scale

FIGURE 5

SAFETY ANALYSIS

CRASH DATA ANALYSIS

Using data obtained from the Oregon Department of Transportation's Crash Analysis and Reporting Unit, a review was performed for the most recent available five years of crash data (January 2010 to December 2014) for each of the study intersections. A crash rate was calculated under the common assumption that traffic counted during the PM peak period represents 10 percent of the average daily traffic (ADT) at the intersection. Crash rates greater than 1.0 crashes per million entering vehicles (CMEV) are generally indicative of a need for further investigation and possible mitigation.

The intersection of Willamette Falls Drive at 12th Street had a total of four reported crashes during the analysis period. Of the reported crashes, two were rear-end collisions, one was an angle collision involving a bicyclist, and one occurred during a turning movement. Two of the crashes resulted in property damage only (*PDO*) while the remaining two resulted in possible injuries or complaints of pain (*Injury-C*). The calculated crash rate for the intersection was 0.16 CMEV.

The crash involving a bicyclist occurred when a westbound vehicle failed to give right-of-way to a bicyclist who was making a left-turn through the intersection. The crash resulted in the bicyclist sustaining possible injuries.

The intersection of Willamette Falls Drive at 11th Street had one reported crash during the analysis period. The crash was a rear-end collision that resulted in non-incapacitating injuries (*Injury-B*). The crash rate for the intersection was calculated to be 0.04 CMEV.

The intersection of Willamette Falls Drive at 10th Street had five crashes reported during the five-year analysis period. Three were rear-end collisions while the remaining two involved vehicles making a turning movement. All five crashes resulted in only property damage. The intersection's crash rate was calculated at 0.18 CMEV.

The intersection of 10th Street at 8th Avenue/8th Court had 13 crashes reported during the analysis period. Seven of the crashes reported involved turning vehicles, five were angle-type collisions, and one crash was with a fixed object. Nine of these crashes resulted in property damage only while four resulted in possible injuries or complaints of pain. The crash rate was calculated to be 0.31 CMEV.

The intersection of 10th Street at the Interstate 205 northbound ramps had 13 crashes reported during the five-year period. Of the reported crashes, eight were rear-end collisions, three occurred during a turning movement, one was a sideswipe collision while overtaking, and one involved a vehicle backing up in traffic. Eight of the crashes resulted in only property damage while three resulted in possible injuries, one in a non-incapacitating injury, and one in an incapacitating injury (*Injury-A*). The crash rate for the intersection was calculated to be 0.46 CMEV.

The incapacitating injury that occurred at the intersection of 10th Street at Interstate 205 northbound ramps was a result from a rear-end collision between two vehicles traveling eastbound exiting from the Interstate. The driver at fault was following too closely and collided with the stopped vehicle.

The intersection of 10th Street at the Interstate 205 southbound ramps had 13 reported crashes during the analysis period. These crashes included eleven rear-end collisions, one turning crash, and one with a fixed object. Eight crashes resulted in property damage only while four resulted in possible injuries or complaints of pain and one resulted in a non-incapacitating injury. The crash rate for the intersection was calculated to be 0.43 CMEV.

The intersection of 10th Street at Blankenship Road/Salamo Road had nine crashes reported during the analysis period. These crashes included four rear-end collisions, two sideswipe-meeting collisions, one non-collision, one involving a fixed object, and one pedestrian collision. Four of the crashes resulted in property damage only, four resulted in possible injuries or complaints of pain, and one crash resulted in a non-incapacitating injury. The intersection's crash rate was calculated to be 0.32 CMEV.

The crash involving a pedestrian at the intersection of 10th Street at Blankenship Road/Salamo Road occurred between an pedestrian walking on the shoulder and a westbound vehicle and resulted in the pedestrian suffering a possible injury or complaining of pain.

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

WARRANT ANALYSIS

Left-turn lane warrants and traffic signal warrants were examined for the applicable study intersections.

Warrant 1, Eight-Hour Vehicular Volume, was examined for the intersection of Willamette Falls Drive at 10th Street and was found to be met under existing conditions. However, since the City of West Linn is considering other treatments to the 10th Street corridor that could divert traffic or change the operation of the intersection, installation of a traffic signal is not recommended at this time.

Traffic signal warrants were also examined for the intersections of 10th Street at 8th Avenue/8th Court and Willamette Falls Drive at 12th Street. Due to low volumes on the minor street approaches, traffic signal warrants are not projected to be met under year 2017 traffic conditions, regardless of trips resulting from the proposed mixed-use building.

Left-turn lane warrants were examined for the intersection of Willamette Falls Drive at 11th Street. A left-turn refuge is primarily a safety consideration for the major street, removing left-turning vehicles from the through traffic stream. The left-turn lane warrants examined for facilities under the

jurisdiction of West Linn used the methodology outlined in the NCHRP Report #457, published by the Transportation Research Board. These turn-lane warrants are evaluated based on the number of left-turning vehicles, the number of advancing and opposing vehicles, and the roadway travel speed.

Due to the significant amount of traffic along Willamette Falls Drive, left-turn lane warrants were found to be met during the PM peak period under existing conditions for a westbound left-turn lane. The warrant is projected to continue to be met as traffic increases from growth as well as the proposed development.

Although the left-turn lane warrant is met for the intersection, the crash history and operational analysis of Willamette Falls Drive at 11th Street indicates that the intersection is operating safely and efficiently under the existing configuration. Installation of a westbound left-turn lane can be considered; however, since the intersection is operating safely and is projected to continue operating within the City's standards, the installation of a left-turn refuge does not appear to be necessary for safety or operations.

OPERATIONAL ANALYSIS

BACKGROUND TRAFFIC

To provide analysis of the traffic impact resulting from the construction of the proposed mixed-use commercial building, an estimate of future traffic volumes is required. In order to calculate the future traffic volumes, a compounded growth rate of two percent per year for an assumed build-out condition of two years was applied to the measured existing traffic volumes to approximate year 2017 background conditions.

In addition to the projected growth, in-process trips associated with the Tannler Mixed-Use Project, located northwest of the intersection of Blankenship Road at Tannler Drive, as well as trips associated with a 61 single-family dwellings that are part of other projects located north of Interstate 205, were incorporated into the year 2017 background traffic volumes.

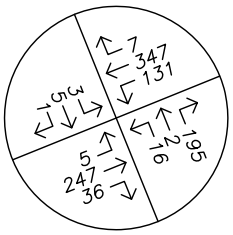
Figure 6 on page 19 and Figure 7 on page 20 show the projected year 2017 background volumes during the AM and PM peak hours, respectively.

BACKGROUND TRAFFIC

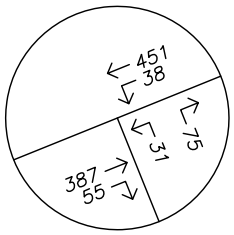
Peak hour trips calculated to be generated from the proposed development of 10,511 square feet of ground-floor retail and 14,560 square-feet of second-floor office, as described earlier within the Trip Generation section, were added to the projected year 2017 background traffic volumes to obtain the expected 2017 background plus site trips.

Figure 8 on page 21 and Figure 9 on page 22 show the projected year 2017 peak hour background traffic volumes with the addition of site trips from the proposed development.

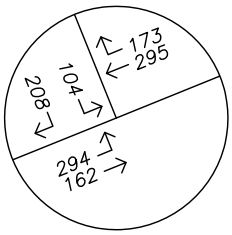
#1: Willamette Falls Dr & 12th St



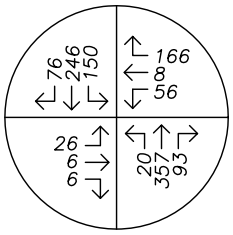
#2: Willamette Falls Dr & 11th St



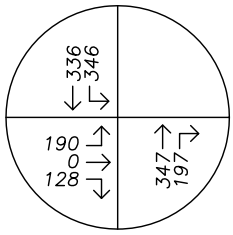
#3: Willamette Falls Dr & 10th St



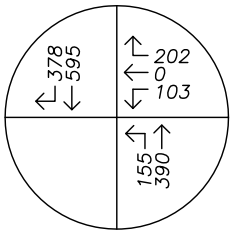
#4: 10th St & 8th Ave



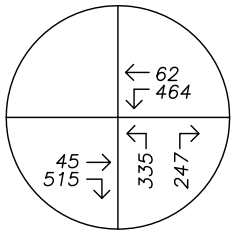
#5: 10th St & NB I–205 Ramps

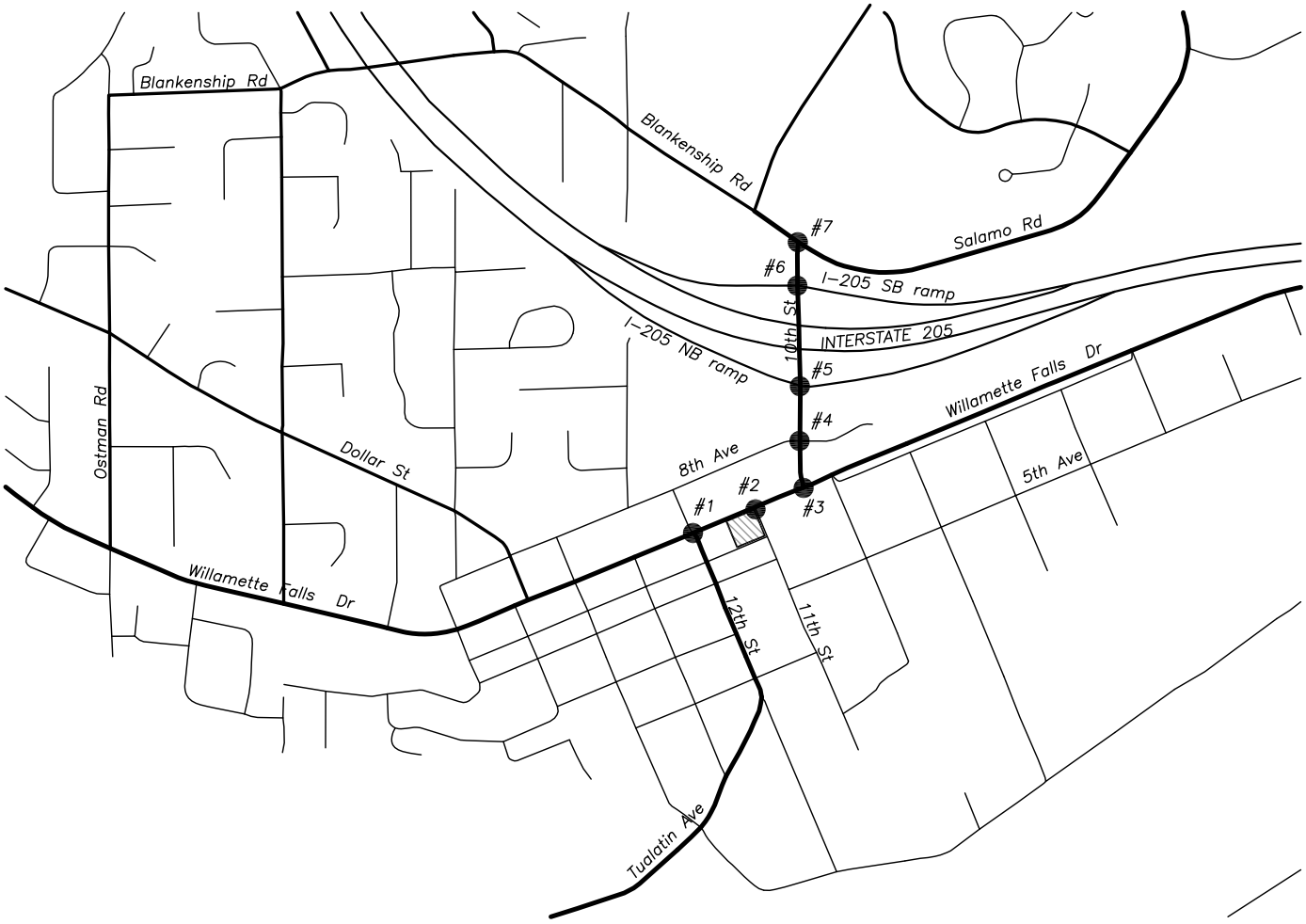


#6: 10th St & SB I–205 Ramps



#7: 10th St & Blankenship Rd



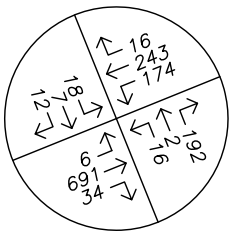


TRAFFIC VOLUMES
Year 2017 Background Conditions
AM Peak Hour

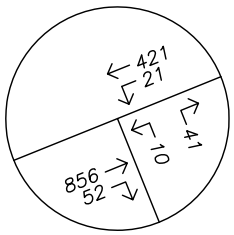
no scale

FIGURE 6

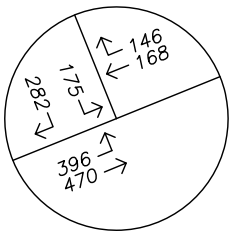
#1: Willamette Falls Dr & 12th St



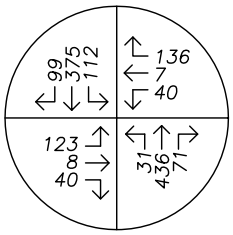
#2: Willamette Falls Dr & 11th St



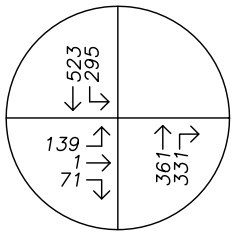
#3: Willamette Falls Dr & 10th St



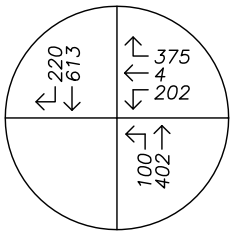
#4: 10th St & 8th Ave



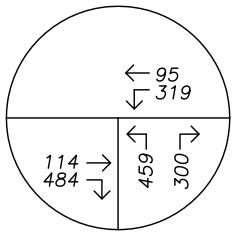
#5: 10th St & NB I–205 Ramps

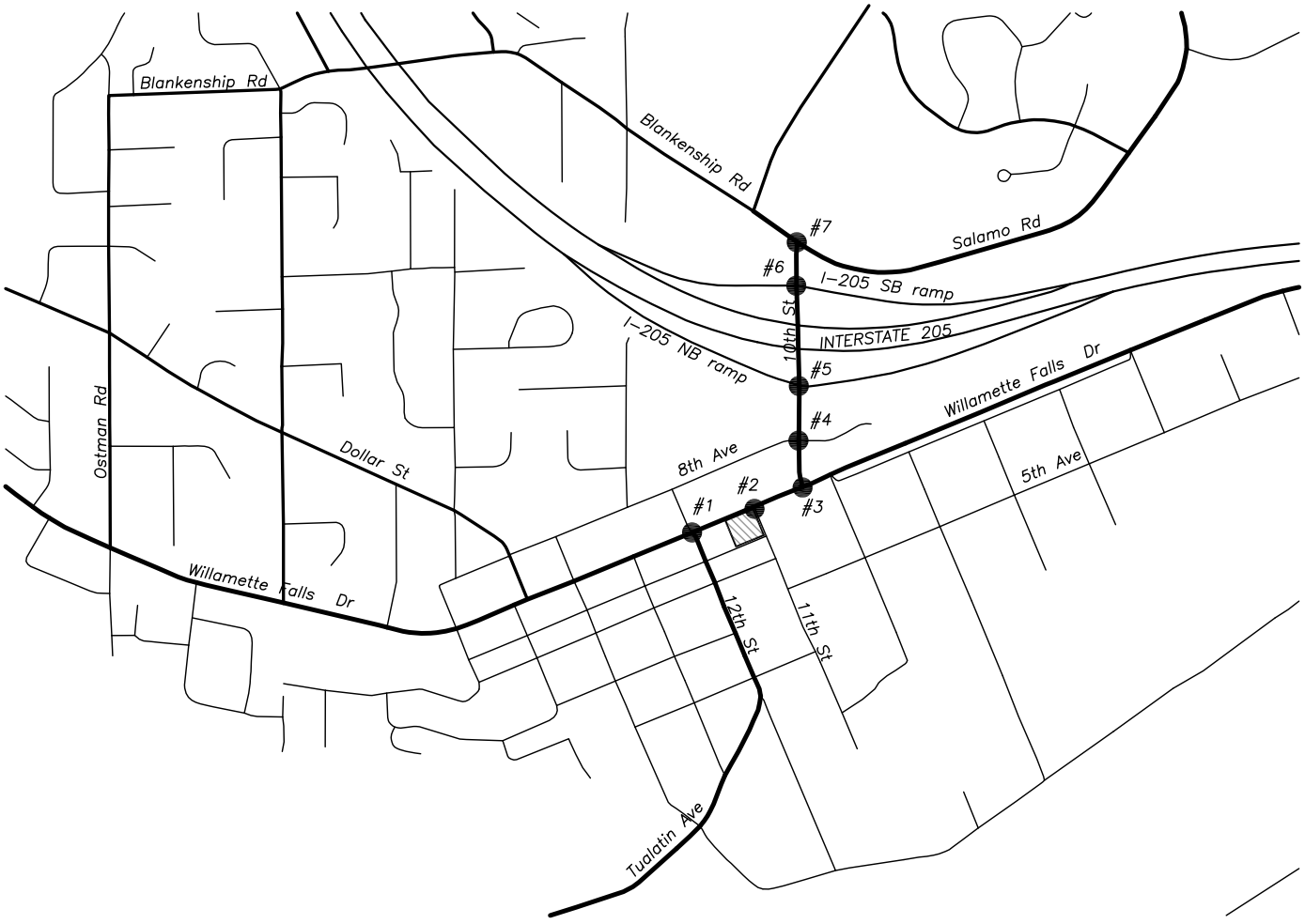


#6: 10th St & SB I–205 Ramps



#7: 10th St & Blankenship Rd



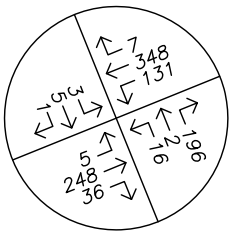


TRAFFIC VOLUMES
Year 2017 Background Conditions
PM Peak Hour

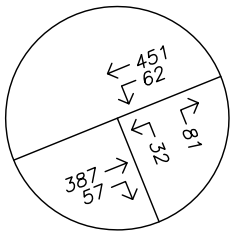
no scale

FIGURE 7

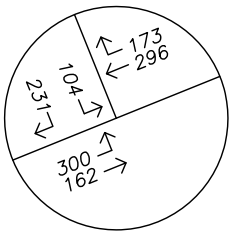
#1: Willamette Falls Dr & 12th St



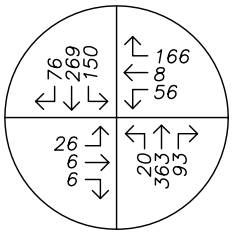
#2: Willamette Falls Dr & 11th St



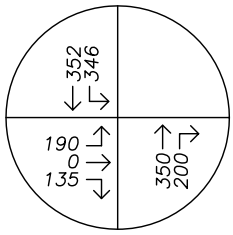
#3: Willamette Falls Dr & 10th St



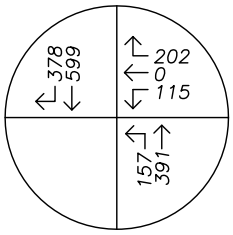
#4: 10th St & 8th Ave



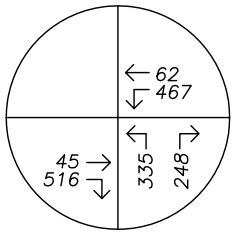
#5: 10th St & NB I–205 Ramps

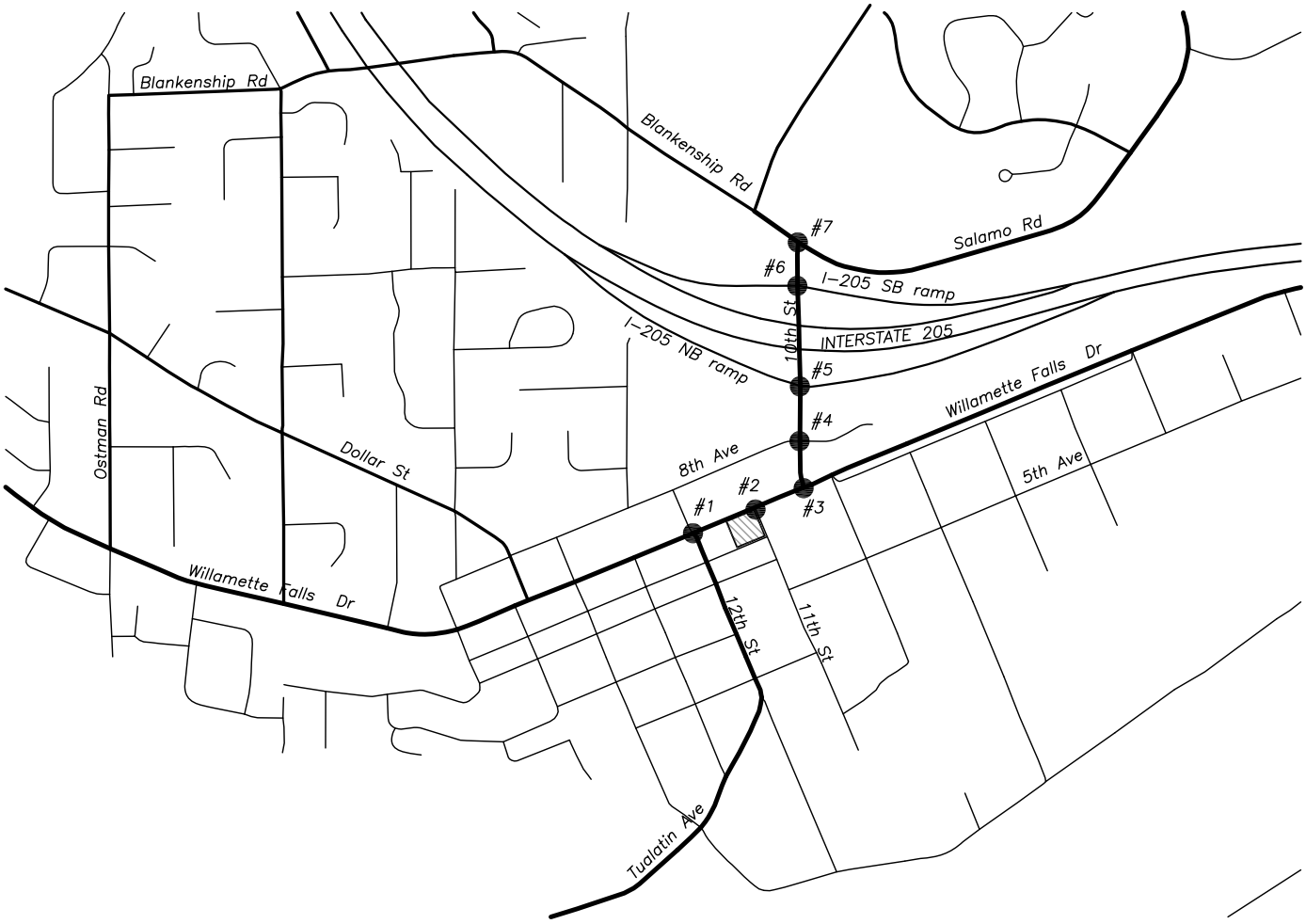


#6: 10th St & SB I–205 Ramps



#7: 10th St & Blankenship Rd



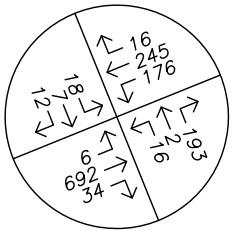


TRAFFIC VOLUMES
Year 2017 Background Plus Site Trips
AM Peak Hour

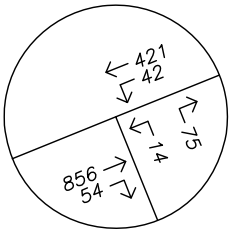
no scale

FIGURE 8

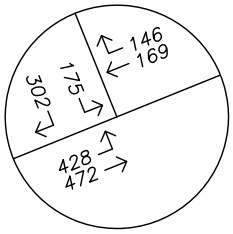
#1: Willamette Falls Dr & 12th St



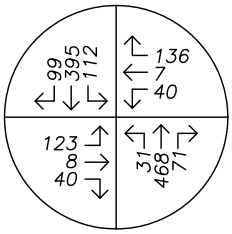
#2: Willamette Falls Dr & 11th St



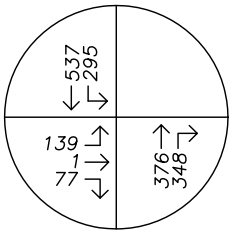
#3: Willamette Falls Dr & 10th St



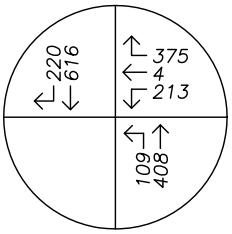
#4: 10th St & 8th Ave



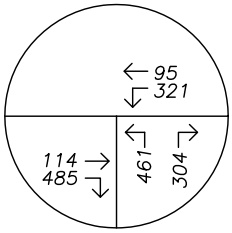
#5: 10th St & NB I–205 Ramps

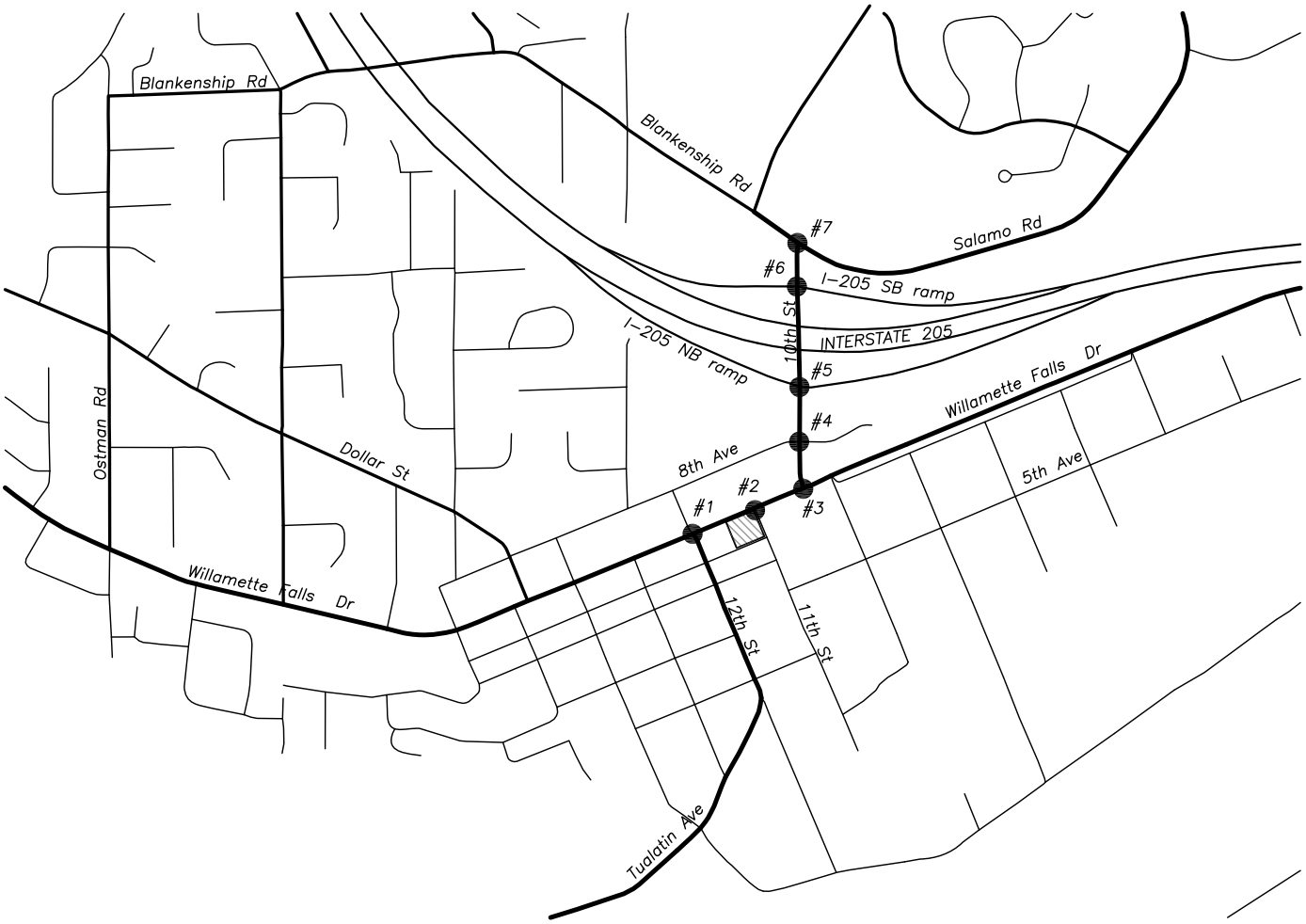


#6: 10th St & SB I–205 Ramps



#7: 10th St & Blankenship Rd





TRAFFIC VOLUMES
Year 2017 Background Plus Site Trips
PM Peak Hour

no scale

FIGURE 9

CAPACITY ANALYSIS

To determine traffic impacts resulting from the proposed development of the mixed-use commercial building, an operational analysis was conducted for each of the study-area intersections. The analysis was conducted according to the signalized and unsignalized intersection methodologies provided in the *HIGHWAY CAPACITY MANUAL*, published by the Transportation Research Board. The analysis periods include morning and evening peak hours for existing conditions, year 2017 background conditions, and year 2017 background plus trips generated by the proposed mixed-use building.

The intersections of 10th Street at the Interstate 205 northbound and southbound ramps, in addition to the intersection of 10th Street at Blankenship Road/Salamo Road which runs on the same controller as the southbound ramps, are under the jurisdiction of the Oregon Department of Transportation (ODOT). The applicable minimum operation standards for ODOT facilities are established under the Oregon Highway Plan and are based on the volume-to-capacity (v/c) ratio. The v/c ratio compares the actual traffic demand to the potential capacity to determine the portion that is utilized by traffic. ODOT's v/c operating standard for the Interstate 205 interchange ramps and the intersection of 10th Street at Blankenship Road/Salamo Road is 0.85.

Since the intersection of 10th Street at the Interstate 205 southbound ramp operates on the same traffic signal controller with 10th Street at Blankenship Road/Salamo Road, analysis was conducted using signal timing information obtained from ODOT staff. The signal timing details for the intersection are provided in the appendix.

The City of West Linn's Comprehensive Plan requires intersections to operate at level of service (LOS) D or better. Levels of service can range from A, which indicates very little or no delay, to F, which indicates a high degree of congestion and delay.

The intersection of Willamette Falls Drive at 12th Street is currently operating at LOS E during the evening peak hour. Under year 2017 traffic conditions, the intersection is projected to continue operating at LOS E, regardless of additional trips from the proposed development. Since the traffic impact to the intersection from the proposed development is negligible, no mitigations are recommended.

The intersection of Willamette Falls Drive at 11th Street is projected to operate at LOS D or better under all analysis scenarios, with or without additional trips from the proposed development.

The intersection of Willamette Falls Drive at 10th Street is currently operating at LOS D with significant delays being experienced by the eastbound left-turning vehicles during the evening peak hour. Under year 2017 traffic conditions, the intersection is projected to continue operating at LOS D with approximately 29 percent longer delays for the same approach. With the addition of up to 32 trips from the proposed development to the eastbound left-turn approach, the intersection is projected to operate at LOS E.

The intersection of 10th Street at 8th Avenue/8th Court is presently operating at LOS F during the evening peak hour due to significant delays to the minor street approaches. The intersection is projected to continue operating at LOS F under year 2017 conditions, regardless of additional trips from the proposed development.

Since traffic signal warrants are not met due to low traffic volumes associated with the minor street approaches, the city is currently evaluating possible mitigations for the intersection including extending 8th Court to Willamette Falls Drive and limiting the intersection to right turns only. Since the proposed development does not contribute trips to the minor street approaches, no mitigations associated with the mixed-use building are recommended.

The intersections of 10th Street at the Interstate 205 northbound and southbound ramps and the intersection of 10th Street at Blankenship Road/Salamo Road are projected to operate within ODOT's performance standard, regardless of trips associated with the proposed development.

The results of the capacity analysis for the weekday AM and PM peak hours, along with the levels of service, delay, and v/c 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.

CAPACITY ANALYSIS SUMMARY

	Morning Peak Hour			Evening Peak Hour		
	LOS	**Delay (s)**	**v/c**	**LOS**	**Delay (s)**	**v/c**
Willamette Falls Dr at 12th St						
2015 Existing	B	12	-	E	37	-
2017 Background	B	13	-	E	37	-
2017 Background + Site	B	13	-	E	37	-
Willamette Falls Dr at 11th St						
2015 Existing	C	16	0.27	C	22	0.55
2017 Background	C	17	0.28	C	23	0.57
2017 Background + Site	C	18	0.30	D	27	0.58
Willamette Falls Dr at 10th St						
2015 Existing	C	24	-	D	26	-
2017 Background	D	30	-	D	32	-
2017 Background + Site	D	32	-	E	37	-
10th St at 8th Ave/8th Ct						
2015 Existing	F	62	0.45	F	>120	>1.0
2017 Background	F	81	0.52	F	>120	>1.0
2017 Background + Site	F	89	0.56	F	>120	>1.0
10th St at I-205 NB Ramps						
2015 Existing	B	15	0.57	B	10	0.50
2017 Background	B	17	0.66	B	13	0.57
2017 Background + Site	B	17	0.66	B	13	0.58
10th St at I-205 SB Ramps						
2015 Existing	D	38	0.63	C	34	0.66
2017 Background	D	42	0.71	D	41	0.75
2017 Background + Site	D	43	0.73	D	43	0.77
10th St at Blankenship/Salamo						
2015 Existing	C	34	0.68	C	26	0.63
2017 Background	D	46	0.82	C	29	0.72
2017 Background + Site	D	47	0.83	C	29	0.72

CONCLUSIONS

The proposed mixed-use building consisting of 10,511 square feet of ground-floor retail and either 14,560 square feet of office space or a 19-room hotel is projected to have acceptable impacts to the surrounding transportation system.

The intersections of 10th Street at Blankenship Road/Salamo Road, 10th Street at the Interstate 205 southbound ramps, and 10th Street at the Interstate 205 northbound ramps are projected to continue operating within the Oregon Department of Transportations required performance standards either with or without the addition of site trips from the proposed development.

The intersections of 10th Street at 8th Avenue/8th Court and Willamette Falls Drive at 12th Street are currently operating above the City's performance standard of LOS D. Since the proposed development does not add any trips to the critical movements at these intersections, no mitigation is recommended in conjunction with the proposed development.

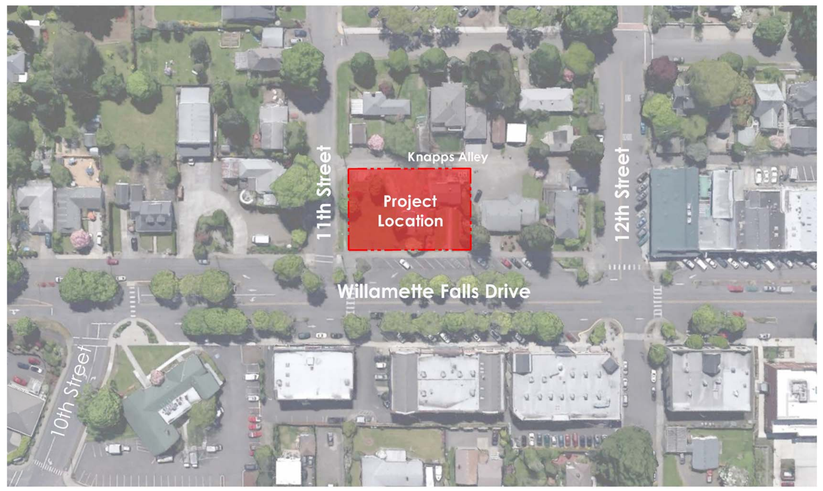
The intersection of Willamette Falls Drive at 10th Street is projected to operate at LOS E following completion of the proposed development.

Left-turn lane warrants were found to be met for the intersection of Willamette Falls Drive at 11th Street under existing conditions. Installation of a westbound left-turn lane can be considered; however, since the intersection is operating safely and is projected to continue operating within the City's standards, the installation of a left-turn refuge does not appear to be necessary for safety or operations.

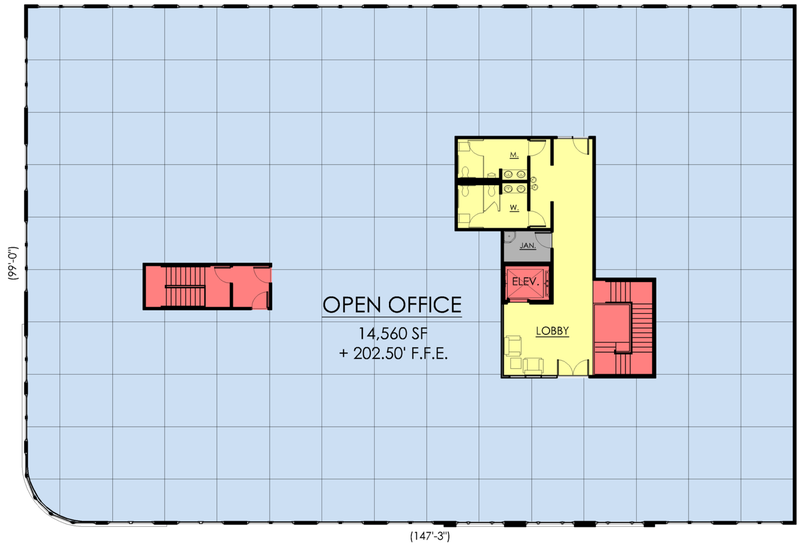
Warrant 1, Eight-Hour Vehicular Volume, was found to be met for the intersection of Willamette Falls Drive at 10th Street under existing conditions. However, since plans impacting the intersection are being evaluated by the City of West Linn that involve the 10th Street corridor and considering the fact that the signal is warranted under existing conditions, the installation of a traffic signal is not recommended as mitigation for the proposed development.

A detailed examination of the crash history at the study intersections shows no significant safety concerns and no trends that are indicative of design deficiencies. No safety mitigations are recommended.

APPENDIX

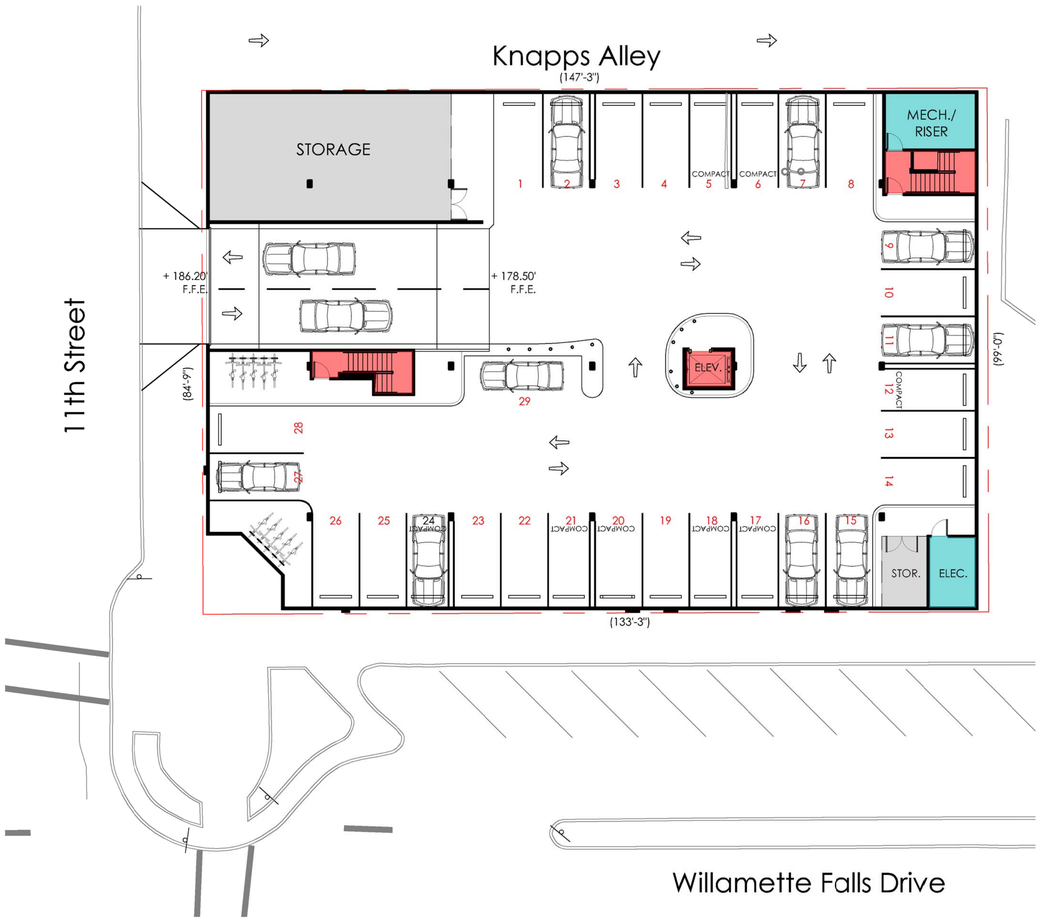


Project Location



UPPER PLAN (offices)

14,560 SF



GARAGE LEVEL PLAN (parking)

14,415 SF

STREET LEVEL PLAN (shops)

9,950 SF

SGA
SG ARCHITECTURE, LLC.

10940 SW Barnes Road #364
Portland, Oregon 97225
www.sg-arch.net

Willamette Falls Mixed -Use

Willamette Falls Drive & 11th ST.
West Linn, OR

WILLAMETTE NEIGHBORHOOD ASSOCIATION MEETING
NOVEMBER 2015

ICON CONSTRUCTION & DEVELOPMENT
1980 Willamette Falls Drive
Suite 200
West Linn, Oregon 97068
Phone: 503-657-0406

PROJECT NUMBER: 15-104
ISSUE DATE: November 2015
DRAWN BY:

Revisions:

north

0 20' 60'
20' 10'

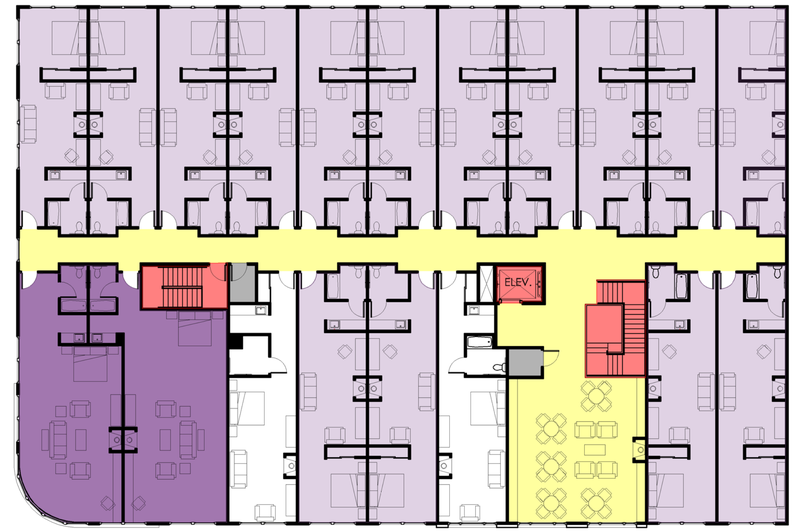
Sheet Number:

Floor Plan (retail /office)

Project Location

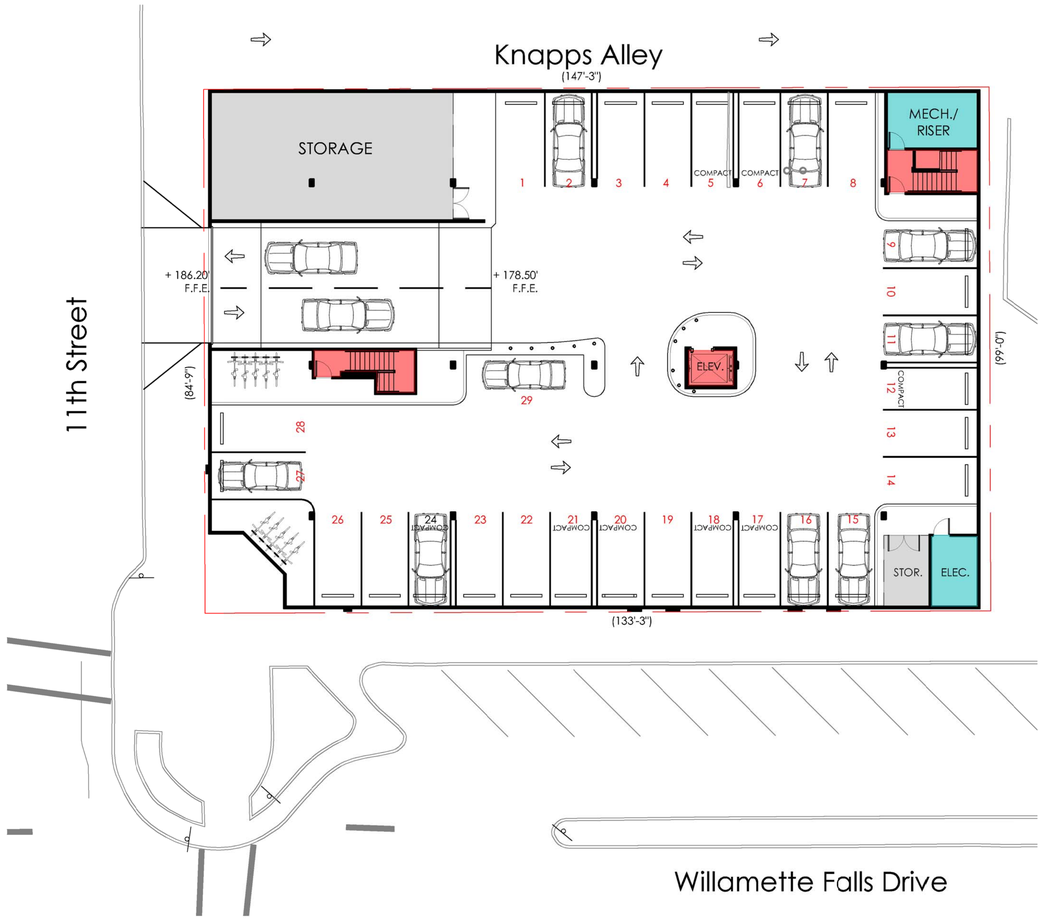
KEY PLAN

- SUITE - A — 2 ROOMS
- SUITE - B — 15 ROOMS
- SUITE - C — 2 ROOMS



UPPER PLAN (hotel)

14,560 SF



GARAGE LEVEL PLAN (parking)

14,415 SF

STREET LEVEL PLAN (shops)

9,950 SF

SGA
SG ARCHITECTURE, LLC.

10940 SW Barnes Road #364
Portland, Oregon 97225
www.sg-arch.net

Willamette Falls Mixed -Use

Willamette Falls Drive & 11th ST.
West Linn, OR

WILLAMETTE NEIGHBORHOOD ASSOCIATION MEETING
NOVEMBER 2015

ICON CONSTRUCTION & DEVELOPMENT
1980 Willamette Falls Drive
Suite 200
West Linn, Oregon 97068
Phone: 503-657-0406

PROJECT NUMBER: 15-104
ISSUE DATE: November 2015
DRAWN BY:

Revisions:

north

0 20' 60'
20' 10'

Sheet Number:

Floor Plan (retail /hotel)

Type of peak hour being reported: User-Defined

Method for determining peak hour: Total Entering Volume

LOCATION: 10th St -- Salamo Rd

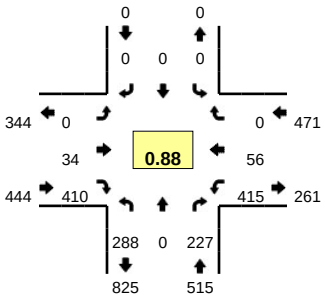
CITY/STATE: West Linn, OR

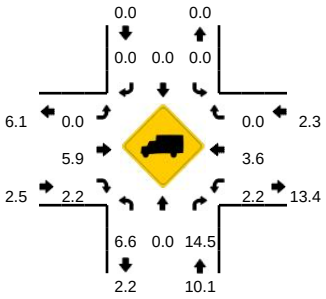
QC JOB #: 13358509

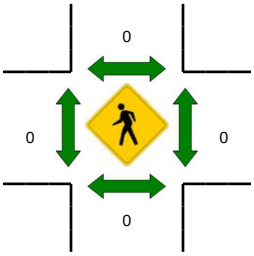
DATE: Tue, Apr 14 2015

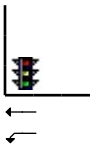
Peak-Hour: 7:20 AM -- 8:20 AM

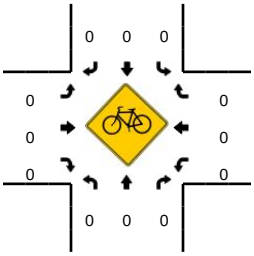
Peak 15-Min: 7:35 AM -- 7:50 AM

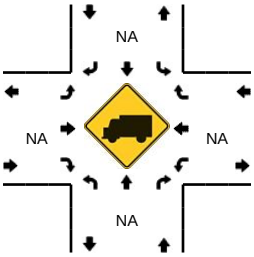


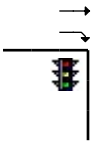


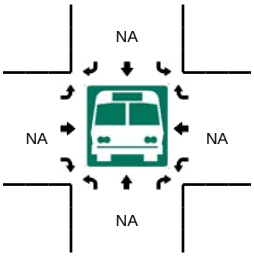












5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				Salamo Rd (Eastbound)				Salamo Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	14	0	16	0	0	0	0	0	0	2	30	0	26	1	0	0	89	
7:05 AM	15	0	9	0	0	0	0	0	0	1	33	0	24	2	0	0	84	
7:10 AM	8	0	10	0	0	0	0	0	0	1	26	0	19	3	0	0	67	
7:15 AM	9	0	9	0	0	0	0	0	0	3	19	0	28	7	0	0	75	
7:20 AM	16	0	16	0	0	0	0	0	0	2	32	0	24	4	0	0	94	
7:25 AM	27	0	14	0	0	0	0	0	0	1	32	0	28	3	0	0	105	
7:30 AM	19	0	12	0	0	0	0	0	0	1	36	0	37	6	0	0	111	
7:35 AM	26	0	20	0	0	0	0	0	0	4	47	0	42	2	0	0	141	
7:40 AM	21	0	19	0	0	0	0	0	0	2	39	0	44	2	0	0	127	
7:45 AM	19	0	25	0	0	0	0	0	0	4	39	0	44	6	0	0	137	
7:50 AM	26	0	27	0	0	0	0	0	0	5	26	0	29	13	0	0	126	
7:55 AM	39	0	21	0	0	0	0	0	0	0	17	0	37	9	0	0	123	1279
8:00 AM	31	0	22	0	0	0	0	0	0	4	37	0	28	2	0	0	124	1314
8:05 AM	21	0	15	0	0	0	0	0	0	6	32	0	40	2	0	0	116	1346
8:10 AM	24	0	15	0	0	0	0	0	0	3	32	0	32	4	0	0	110	1389
8:15 AM	19	0	21	0	0	0	0	0	0	2	41	0	30	3	0	0	116	1430
8:20 AM	24	0	21	0	0	0	0	0	0	1	22	0	31	3	0	0	102	1438
8:25 AM	28	0	11	0	0	0	0	0	0	4	29	0	33	7	0	0	112	1445
8:30 AM	28	0	17	0	0	0	0	0	0	0	26	0	27	4	0	0	102	1436
8:35 AM	32	0	22	0	0	0	0	0	0	3	32	0	36	9	0	0	134	1429
8:40 AM	24	0	19	0	0	0	0	0	0	4	22	0	42	1	0	0	112	1414
8:45 AM	17	0	10	0	0	0	0	0	0	5	40	0	37	5	0	0	114	1391
8:50 AM	32	0	23	0	0	0	0	0	0	6	36	0	18	4	0	0	119	1384
8:55 AM	22	0	15	0	0	0	0	0	0	4	37	0	26	6	0	0	110	1371

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	264	0	256	0	0	0	0	0	0	40	500	0	520	40	0	0	1620
Heavy Trucks	32	0	60		0	0	0		0	0	20		12	0	0		124
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/29/2015 12:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: User-Defined

Method for determining peak hour: Total Entering Volume

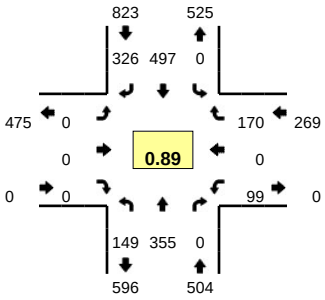
LOCATION: 10th St -- I-205 SB Ramps

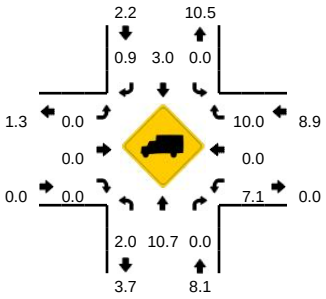
QC JOB #: 13358507

CITY/STATE: West Linn, OR

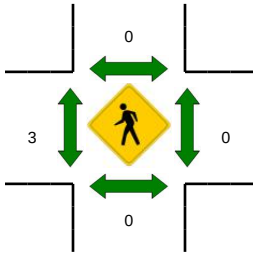
DATE: Tue, Apr 14 2015

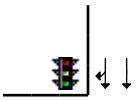
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

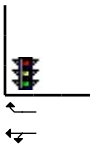


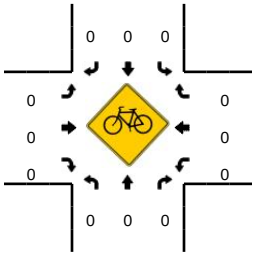


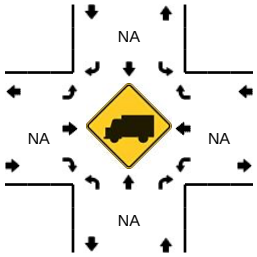
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

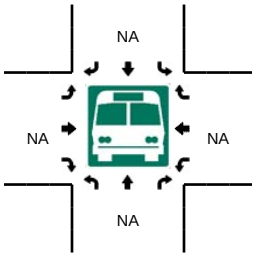












5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				I-205 SB Ramps (Eastbound)				I-205 SB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	8	20	0	0	0	26	25	0	0	0	0	0	8	0	9	0	96	
7:05 AM	11	18	0	0	0	35	26	0	0	0	0	0	7	0	6	0	103	
7:10 AM	11	15	0	0	0	27	18	0	0	0	0	0	15	0	3	0	89	
7:15 AM	19	17	0	0	0	27	22	0	0	0	0	0	9	0	0	0	94	
7:20 AM	8	22	0	0	0	28	27	0	0	0	0	0	9	0	10	0	104	
7:25 AM	16	29	0	0	0	46	15	0	0	0	0	0	6	0	11	0	123	
7:30 AM	9	16	0	0	0	40	28	0	0	0	0	0	7	0	17	0	117	
7:35 AM	11	34	0	0	0	56	36	0	0	0	0	0	9	0	11	0	157	
7:40 AM	21	30	0	0	0	51	31	0	0	0	0	0	8	0	11	0	152	
7:45 AM	20	27	0	0	0	37	33	0	0	0	0	0	8	0	15	0	140	
7:50 AM	7	42	0	0	0	42	24	0	0	0	0	0	12	0	16	0	143	
7:55 AM	15	41	0	0	0	33	15	0	0	0	0	0	12	0	19	0	135	1453
8:00 AM	9	36	0	0	0	43	28	0	0	0	0	0	3	0	16	0	135	1492
8:05 AM	13	26	0	0	0	48	31	0	0	0	0	0	7	0	12	0	137	1526
8:10 AM	6	25	0	0	0	33	28	0	0	0	0	0	8	0	19	0	119	1556
8:15 AM	14	27	0	0	0	40	30	0	0	0	0	0	10	0	13	0	134	1596
8:20 AM	12	25	0	0	0	28	26	0	0	0	0	0	14	0	18	0	123	1615
8:25 AM	13	22	0	0	0	36	24	0	0	0	0	0	8	0	18	0	121	1613
8:30 AM	19	34	0	0	0	29	29	0	0	0	0	0	3	0	9	0	123	1619
8:35 AM	7	31	0	0	0	36	27	0	0	0	0	0	8	0	20	0	129	1591
8:40 AM	9	24	0	0	0	31	33	0	0	0	0	0	11	0	23	0	131	1570
8:45 AM	12	15	0	0	0	43	32	0	0	0	0	0	8	0	10	0	120	1550
8:50 AM	7	32	0	0	0	38	22	0	0	0	0	0	9	0	26	0	134	1541
8:55 AM	16	21	0	0	0	37	30	0	0	0	0	0	10	0	15	0	129	1535

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	208	364	0	0	0	576	400	0	0	0	0	0	100	0	148	0	1796
Heavy Trucks	0	56	0		0	20	8		0	0	0		4	0	36		124
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/29/2015 12:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

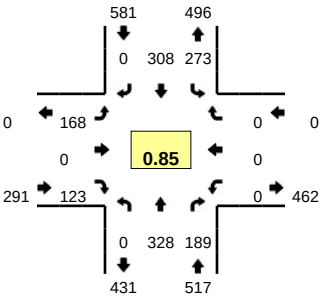
Type of peak hour being reported: User-Defined

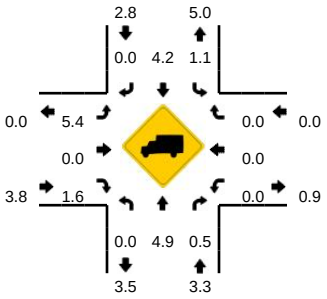
Method for determining peak hour: Total Entering Volume

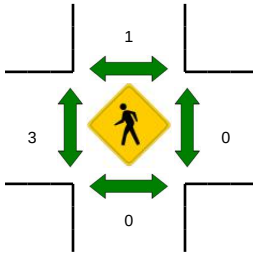
LOCATION: 10th St -- I-205 NB Ramps
CITY/STATE: West Linn, OR

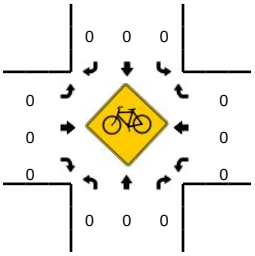
QC JOB #: 13358505
DATE: Tue, Apr 14 2015

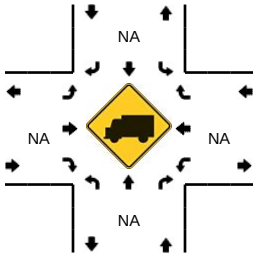
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

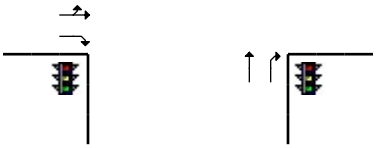


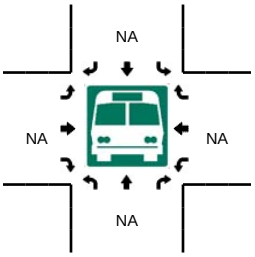












5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				I-205 NB Ramps (Eastbound)				I-205 NB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	16	12	0	19	17	0	0	11	0	9	0	0	0	0	0	84	
7:05 AM	0	21	24	0	22	19	0	0	8	0	5	0	0	0	0	0	99	
7:10 AM	0	22	14	0	15	25	0	0	7	0	6	0	0	0	0	0	89	
7:15 AM	0	24	14	0	22	15	0	0	8	0	11	0	0	0	0	0	94	
7:20 AM	0	29	21	0	18	19	0	0	10	0	12	0	0	0	0	0	109	
7:25 AM	0	27	20	0	26	22	0	0	13	0	13	0	0	0	0	0	121	
7:30 AM	0	12	11	0	16	19	0	0	5	0	9	0	0	0	0	0	72	
7:35 AM	0	38	23	0	27	37	0	0	11	0	7	0	0	0	0	0	143	
7:40 AM	0	32	18	0	31	29	0	0	19	0	6	0	0	0	0	0	135	
7:45 AM	0	38	20	0	22	26	0	0	13	0	10	0	0	0	0	0	129	
7:50 AM	0	36	20	0	23	29	0	0	15	0	4	0	0	0	0	0	127	
7:55 AM	0	32	12	0	17	24	0	0	25	0	14	0	0	0	0	0	124	1326
8:00 AM	0	18	11	0	23	27	0	0	16	0	11	0	0	0	0	0	106	1348
8:05 AM	0	20	9	0	23	26	0	0	18	0	14	0	0	0	0	0	110	1359
8:10 AM	0	27	10	0	22	26	0	0	13	0	12	0	0	0	0	0	110	1380
8:15 AM	0	19	14	0	25	24	0	0	10	0	11	0	0	0	0	0	103	1389
8:20 AM	0	26	27	0	21	25	0	0	21	0	5	0	0	0	0	0	125	1405
8:25 AM	0	30	13	0	17	29	0	0	10	0	8	0	0	0	0	0	107	1391
8:30 AM	0	27	11	0	18	11	0	0	14	0	9	0	0	0	0	0	90	1409
8:35 AM	0	24	19	0	21	24	0	0	21	0	13	0	0	0	0	0	122	1388
8:40 AM	0	23	17	0	14	25	0	0	11	0	11	0	0	0	0	0	101	1354
8:45 AM	0	21	19	0	26	28	0	0	4	0	11	0	0	0	0	0	109	1334
8:50 AM	0	25	14	0	17	27	0	0	20	0	8	0	0	0	0	0	111	1318
8:55 AM	0	25	6	0	25	26	0	0	10	0	6	0	0	0	0	0	98	1292

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	432	244	0	320	368	0	0	172	0	92	0	0	0	0	0	1628
Heavy Trucks	0	32	0		0	20	0		16	0	0		0	0	0		68
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/29/2015 12:02 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

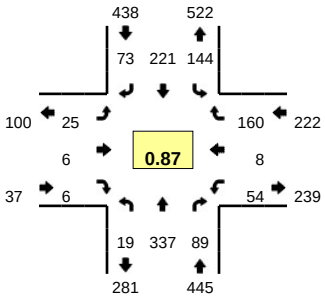
Type of peak hour being reported: User-Defined

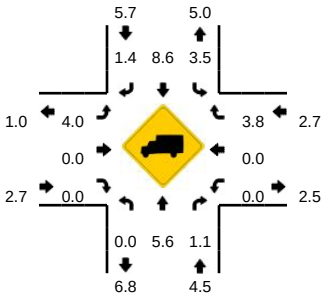
Method for determining peak hour: Total Entering Volume

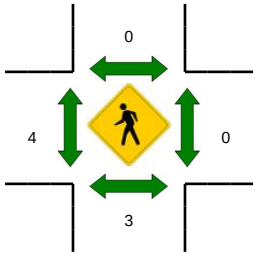
LOCATION: 10th St -- 8th Ave
CITY/STATE: West Linn, OR

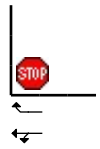
QC JOB #: 13358503
DATE: Tue, Apr 14 2015

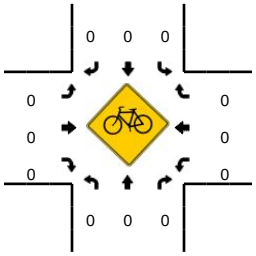
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

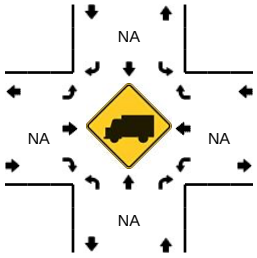


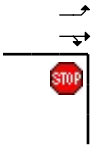


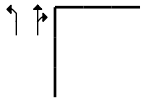


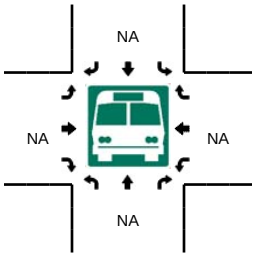












5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				8th Ave (Eastbound)				8th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	16	5	0	16	5	4	0	0	0	0	0	2	0	10	0	58	
7:05 AM	0	31	9	0	14	8	3	0	0	1	1	0	4	0	12	0	83	
7:10 AM	1	24	6	0	10	15	6	0	1	2	0	0	5	2	13	0	85	
7:15 AM	0	25	6	0	14	8	4	0	2	1	0	0	3	0	11	0	74	
7:20 AM	0	32	8	0	7	20	4	0	4	0	0	0	5	0	13	0	93	
7:25 AM	0	27	6	0	15	11	8	0	2	0	0	0	5	0	17	0	91	
7:30 AM	1	27	11	0	15	19	4	0	1	0	1	0	4	0	10	0	93	
7:35 AM	2	37	9	0	13	24	7	0	4	1	0	0	5	0	15	0	117	
7:40 AM	0	36	4	0	6	26	3	0	1	0	1	0	6	2	18	0	103	
7:45 AM	0	42	10	0	13	17	7	0	1	0	0	0	6	1	10	0	107	
7:50 AM	4	39	9	0	7	17	8	0	2	1	0	0	2	0	14	0	103	
7:55 AM	5	27	9	0	10	20	8	0	2	0	0	0	2	2	18	0	103	1110
8:00 AM	6	16	5	0	9	18	9	0	0	1	1	0	5	0	11	0	81	1133
8:05 AM	0	16	5	0	16	18	8	0	1	0	2	0	4	1	10	0	81	1131
8:10 AM	0	21	6	0	14	18	4	0	4	2	0	0	5	2	11	0	87	1133
8:15 AM	1	17	7	0	19	13	3	0	3	1	1	0	5	0	13	0	83	1142
8:20 AM	1	31	9	0	6	11	7	0	2	0	2	0	5	0	23	0	97	1146
8:25 AM	1	23	7	0	16	19	1	0	2	0	0	0	2	1	13	0	85	1140
8:30 AM	1	19	9	0	13	9	1	0	3	1	0	0	2	2	17	0	77	1124
8:35 AM	3	22	2	0	19	10	9	0	6	1	0	0	7	0	18	0	97	1104
8:40 AM	1	19	3	0	11	17	7	0	3	0	0	0	3	1	16	0	81	1082
8:45 AM	1	16	5	0	15	18	5	0	6	3	0	0	1	0	14	0	84	1059
8:50 AM	0	25	6	0	12	13	9	0	2	0	1	0	1	1	15	0	85	1041
8:55 AM	2	12	2	0	14	11	6	0	3	1	1	0	6	2	13	0	73	1011

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	460	92	0	128	268	68	0	24	4	4	0	68	12	172	0	1308
Heavy Trucks	0	32	0		4	28	0		0	0	0		0	0	4		68
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/29/2015 12:02 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: User-Defined

Method for determining peak hour: Total Entering Volume

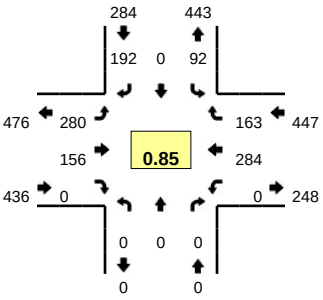
LOCATION: 10th St -- Willamette Falls Dr

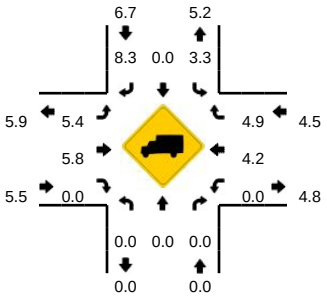
QC JOB #: 13358501

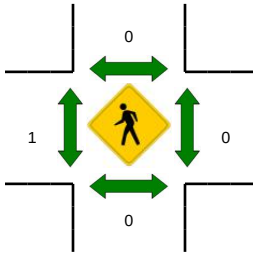
CITY/STATE: West Linn, OR

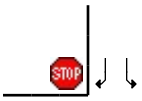
DATE: Tue, Apr 14 2015

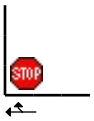
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

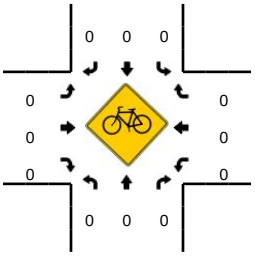


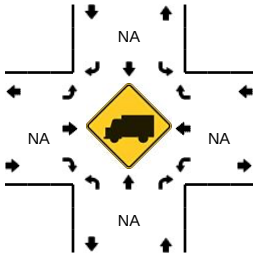


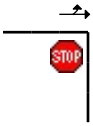


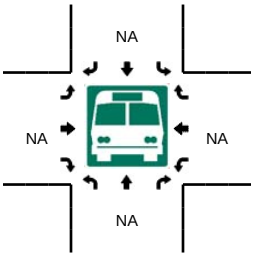












5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				Willamette Falls Dr (Eastbound)				Willamette Falls Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	5	0	11	5	0	0	0	18	10	0	49	
7:05 AM	0	0	0	0	7	0	7	0	25	7	0	0	0	22	14	0	82	
7:10 AM	0	0	0	0	9	0	12	0	20	7	0	0	0	27	12	0	87	
7:15 AM	0	0	0	0	2	0	8	0	15	9	0	0	0	30	17	0	81	
7:20 AM	0	0	0	0	6	0	19	0	22	14	0	0	0	23	18	0	102	
7:25 AM	0	0	0	0	8	0	9	0	18	9	0	0	0	29	14	0	87	
7:30 AM	0	0	0	0	9	0	16	0	25	12	0	0	0	24	14	0	100	
7:35 AM	0	0	0	0	5	0	25	0	32	9	0	0	0	27	16	0	114	
7:40 AM	0	0	0	0	9	0	21	0	31	16	0	0	0	29	8	0	114	
7:45 AM	0	0	0	0	5	0	21	0	40	16	0	0	0	20	12	0	114	
7:50 AM	0	0	0	0	1	0	18	0	35	15	0	0	0	22	16	0	107	
7:55 AM	0	0	0	0	9	0	12	0	20	10	0	0	0	20	20	0	91	1128
8:00 AM	0	0	0	0	9	0	16	0	15	15	0	0	0	23	12	0	90	1169
8:05 AM	0	0	0	0	11	0	12	0	12	16	0	0	0	13	9	0	73	1160
8:10 AM	0	0	0	0	12	0	13	0	15	12	0	0	0	22	14	0	88	1161
8:15 AM	0	0	0	0	8	0	10	0	15	12	0	0	0	32	10	0	87	1167
8:20 AM	0	0	0	0	10	0	11	0	24	14	0	0	0	20	17	0	96	1161
8:25 AM	0	0	0	0	3	0	18	0	11	6	0	0	0	32	17	0	87	1161
8:30 AM	0	0	0	0	3	0	6	0	16	8	0	0	0	23	15	0	71	1132
8:35 AM	0	0	0	0	8	0	10	0	12	7	0	0	0	29	13	0	79	1097
8:40 AM	0	0	0	0	4	0	14	0	14	6	0	0	0	17	9	0	64	1047
8:45 AM	0	0	0	0	4	0	15	0	17	10	0	0	0	16	7	0	69	1002
8:50 AM	0	0	0	0	3	0	13	0	19	6	0	0	0	14	10	0	65	960
8:55 AM	0	0	0	0	3	0	16	0	6	4	0	0	0	15	12	0	56	925

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	76	0	268	0	412	164	0	0	0	304	144	0	1368
Heavy Trucks	0	0	0		0	0	28		32	16	0		0	12	4		92
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/29/2015 12:02 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: User-Defined

Method for determining peak hour: Total Entering Volume

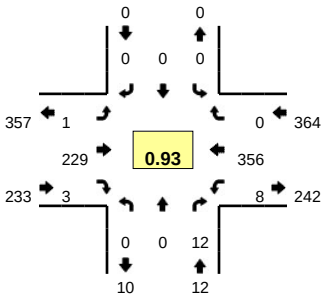
LOCATION: 11th St -- Willamette Falls Dr

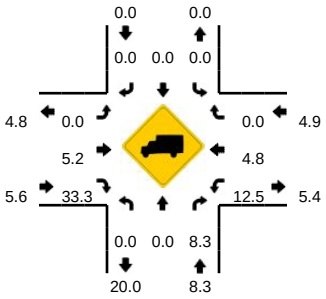
QC JOB #: 13543303

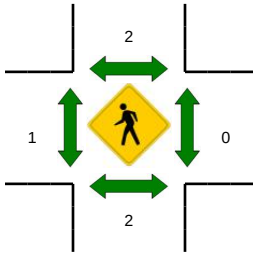
CITY/STATE: West Linn, OR

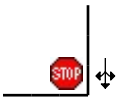
DATE: Tue, Jul 21 2015

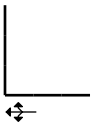
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:25 AM -- 7:40 AM

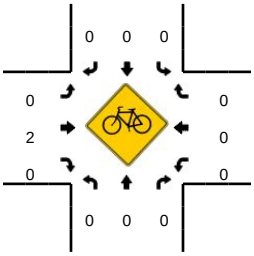


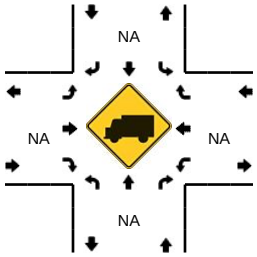


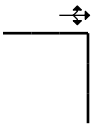


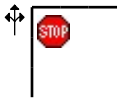


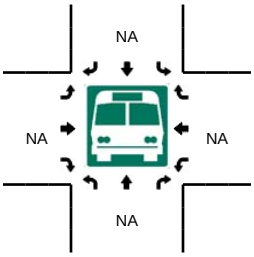












5-Min Count Period Beginning At	11th St (Northbound)				11th St (Southbound)				Willamette Falls Dr (Eastbound)				Willamette Falls Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	2	0	0	0	0	0	0	13	0	0	0	22	0	0	37	
7:05 AM	0	0	0	0	0	0	0	0	0	20	0	2	0	20	0	0	42	
7:10 AM	0	0	0	0	0	0	0	0	0	14	0	0	0	21	0	0	35	
7:15 AM	0	0	0	0	0	0	0	0	0	17	0	0	0	29	0	0	46	
7:20 AM	0	0	1	0	0	0	0	0	0	16	0	0	0	27	0	0	44	
7:25 AM	0	0	3	0	0	0	0	0	0	18	0	0	0	38	0	0	59	
7:30 AM	0	0	0	0	0	0	0	0	0	18	0	1	2	34	0	0	55	
7:35 AM	0	0	1	0	0	0	0	0	0	22	0	0	1	26	0	0	50	
7:40 AM	0	0	1	0	0	0	0	0	0	20	1	0	2	27	0	1	52	
7:45 AM	0	0	1	0	0	0	0	0	0	23	0	0	1	31	0	0	56	
7:50 AM	0	0	0	0	0	0	0	0	0	21	0	0	0	25	0	0	46	
7:55 AM	0	0	1	0	0	0	0	0	0	15	0	0	0	29	0	0	45	567
8:00 AM	0	0	1	0	0	0	0	0	0	14	0	0	1	41	0	0	57	587
8:05 AM	0	0	2	0	0	0	0	0	0	21	0	0	0	27	0	0	50	595
8:10 AM	0	0	1	0	0	0	0	0	0	22	0	0	0	25	0	0	48	608
8:15 AM	0	0	0	0	0	0	0	0	0	19	2	0	0	26	0	0	47	609
8:20 AM	0	0	0	0	0	0	0	0	0	26	0	0	0	26	0	0	52	617
8:25 AM	0	0	1	0	0	0	0	0	0	20	0	1	0	27	0	0	49	607
8:30 AM	0	0	2	0	0	0	0	0	0	12	0	0	0	33	0	0	47	599
8:35 AM	0	0	2	0	0	0	0	0	0	24	0	0	1	31	0	0	58	607
8:40 AM	0	0	0	0	0	0	0	0	0	14	0	0	1	28	0	0	43	598
8:45 AM	0	0	1	0	0	0	0	0	0	17	0	0	1	30	0	0	49	591
8:50 AM	0	0	0	0	0	0	0	0	0	24	0	0	0	31	0	0	55	600
8:55 AM	0	0	2	0	0	0	0	0	0	18	1	0	0	30	0	0	51	606

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	16	0	0	0	0	0	0	232	0	4	12	392	0	0	656
Heavy Trucks	0	0	0		0	0	0		0	16	0		4	16	0		36
Pedestrians		8				0				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/28/2015 3:07 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: User-Defined

Method for determining peak hour: Total Entering Volume

LOCATION: 12th St -- Willamette Falls Dr

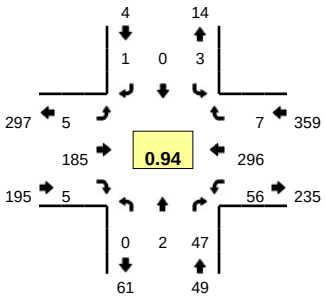
QC JOB #: 13543301

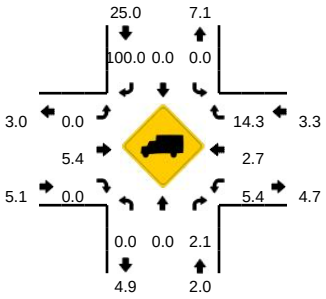
CITY/STATE: West Linn, OR

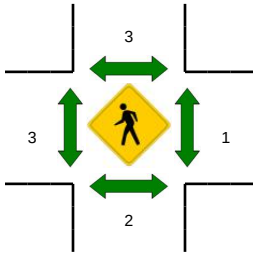
DATE: Tue, Jul 21 2015

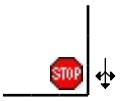
Peak-Hour: 7:20 AM -- 8:20 AM

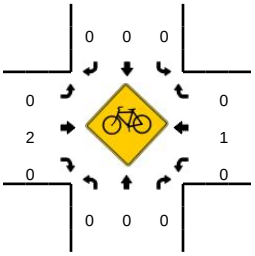
Peak 15-Min: 7:25 AM -- 7:40 AM

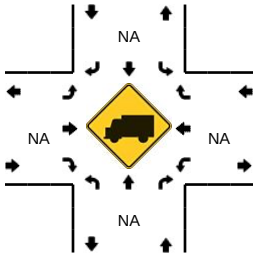


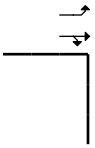


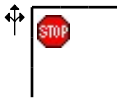


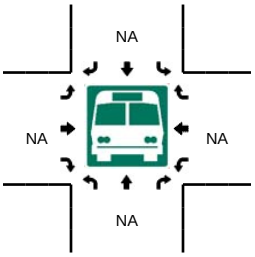












5-Min Count Period Beginning At	12th St (Northbound)				12th St (Southbound)				Willamette Falls Dr (Eastbound)				Willamette Falls Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	2	0	0	0	0	0	0	10	0	0	0	23	0	0	35	
7:05 AM	1	0	7	0	0	0	0	0	0	16	0	0	2	20	0	0	46	
7:10 AM	0	0	4	0	0	0	0	0	0	9	0	0	5	15	0	0	33	
7:15 AM	0	0	2	0	0	0	1	0	0	15	0	0	2	28	0	0	48	
7:20 AM	0	0	2	0	0	0	0	0	0	15	0	0	4	19	1	0	41	
7:25 AM	0	0	3	0	0	0	0	0	0	15	0	0	3	33	1	0	55	
7:30 AM	0	0	4	0	0	0	0	0	0	15	0	0	3	31	1	0	54	
7:35 AM	0	0	4	0	1	0	0	0	0	21	0	0	5	22	0	0	53	
7:40 AM	0	0	2	0	0	0	0	0	0	18	0	0	7	19	1	0	47	
7:45 AM	0	0	5	0	0	0	0	0	1	17	0	0	6	27	0	0	56	
7:50 AM	0	0	2	0	1	0	0	0	1	19	3	0	8	17	1	0	52	
7:55 AM	0	0	5	0	0	0	0	0	1	10	0	0	3	25	1	0	45	565
8:00 AM	0	1	4	0	0	0	0	0	0	10	1	0	5	36	0	0	57	587
8:05 AM	0	1	2	0	1	0	0	0	0	19	0	0	7	22	0	0	52	593
8:10 AM	0	0	12	0	0	0	0	0	2	11	0	0	3	23	1	0	52	612
8:15 AM	0	0	2	0	0	0	1	0	0	15	1	0	2	22	0	0	43	607
8:20 AM	0	1	8	0	0	0	0	0	1	20	0	0	6	17	3	0	56	622
8:25 AM	0	1	5	0	1	0	0	0	0	15	1	0	6	21	1	0	51	618
8:30 AM	1	0	2	0	0	0	1	0	0	9	1	0	5	24	2	0	45	609
8:35 AM	1	1	6	0	0	0	0	0	1	17	0	0	10	20	0	0	56	612
8:40 AM	0	0	4	0	0	0	0	0	2	12	0	0	9	17	1	0	45	610
8:45 AM	1	0	4	0	1	1	1	0	0	12	1	0	4	25	1	0	51	605
8:50 AM	2	1	10	0	0	1	0	0	0	15	0	0	8	21	1	0	59	612
8:55 AM	0	0	1	0	0	0	0	0	1	14	0	0	7	23	0	0	46	613

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	44	0	4	0	0	0	0	204	0	0	44	344	8	0	648
Heavy Trucks	0	0	4		0	0	0		0	16	0		0	4	4		28
Pedestrians		8				0				8				0			16
Bicycles	0	0	0		0	0	0		0	0	0		0	1	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/28/2015 3:07 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: User-Defined

Method for determining peak hour: Total Entering Volume

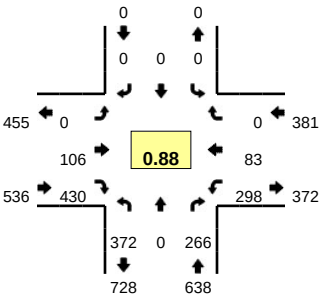
LOCATION: 10th St -- Salamo Rd

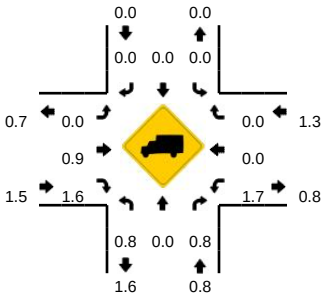
QC JOB #: 13358510

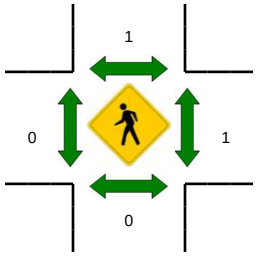
CITY/STATE: West Linn, OR

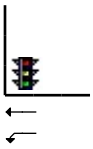
DATE: Tue, Apr 14 2015

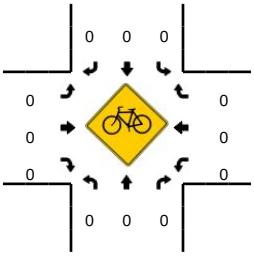
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

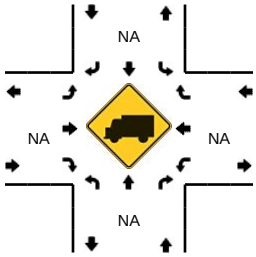


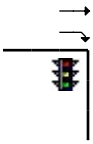


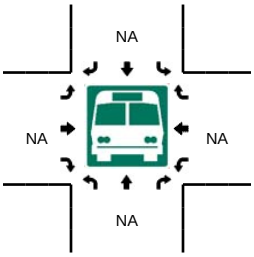












5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				Salamo Rd (Eastbound)				Salamo Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	18	0	13	0	0	0	0	0	0	9	24	0	16	10	0	0	90	
4:05 PM	24	0	29	0	0	0	0	0	0	7	38	0	23	3	0	0	124	
4:10 PM	25	0	14	0	0	0	0	0	0	11	29	0	38	3	0	0	120	
4:15 PM	35	0	22	0	0	0	0	0	0	7	31	0	22	5	0	0	122	
4:20 PM	29	0	19	0	0	0	0	0	0	10	43	0	17	5	0	0	123	
4:25 PM	28	0	20	0	0	0	0	0	0	7	35	0	19	5	0	0	114	
4:30 PM	25	0	22	0	0	0	0	0	0	5	30	0	28	7	0	0	117	
4:35 PM	40	0	11	0	0	0	0	0	0	8	37	0	18	5	0	0	119	
4:40 PM	40	0	16	0	0	0	0	0	0	7	35	0	29	8	0	0	135	
4:45 PM	25	0	15	0	0	0	0	0	0	12	29	0	28	14	0	0	123	
4:50 PM	37	0	24	0	0	0	0	0	0	6	31	0	29	4	0	0	131	
4:55 PM	27	0	20	0	0	0	0	0	0	11	34	0	30	8	0	0	130	1448
5:00 PM	26	0	30	0	0	0	0	0	0	7	41	0	14	6	0	0	124	1482
5:05 PM	24	0	36	0	0	0	0	0	0	18	50	0	29	5	0	0	162	1520
5:10 PM	36	0	31	0	0	0	0	0	0	8	34	0	35	11	0	0	155	1555
5:15 PM	34	0	31	0	0	0	0	0	0	6	32	0	28	2	0	0	133	1566
5:20 PM	23	0	24	0	0	0	0	0	0	14	36	0	40	15	0	0	152	1595
5:25 PM	27	0	27	0	0	0	0	0	0	8	26	0	24	7	0	0	119	1600
5:30 PM	22	0	19	0	0	0	0	0	0	4	30	0	27	5	0	0	107	1590
5:35 PM	26	0	32	0	0	0	0	0	0	4	35	0	29	8	0	0	134	1605
5:40 PM	28	0	32	0	0	0	0	0	0	9	31	0	41	7	0	0	148	1618
5:45 PM	34	0	31	0	0	0	0	0	0	7	34	0	20	8	0	0	134	1629
5:50 PM	32	0	28	0	0	0	0	0	0	11	32	0	36	7	0	0	146	1644
5:55 PM	33	0	21	0	0	0	0	0	0	7	31	0	14	5	0	0	111	1625

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	344	0	388	0	0	0	0	0	0	132	500	0	312	88	0	0	1764
Heavy Trucks	0	0	4		0	0	0		0	0	4		0	0	0		8
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/29/2015 12:04 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: User-Defined

Method for determining peak hour: Total Entering Volume

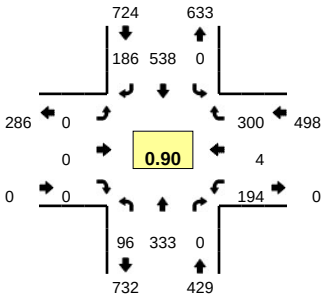
LOCATION: 10th St -- I-205 SB Ramps

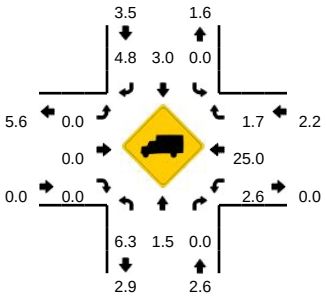
QC JOB #: 13358508

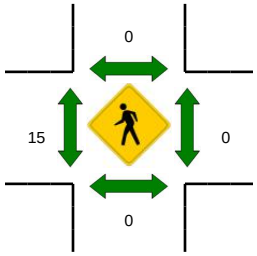
CITY/STATE: West Linn, OR

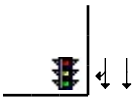
DATE: Tue, Apr 14 2015

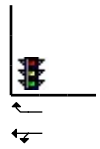
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

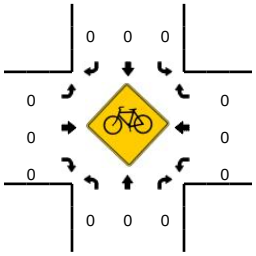


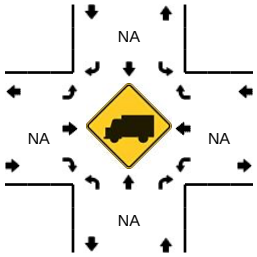


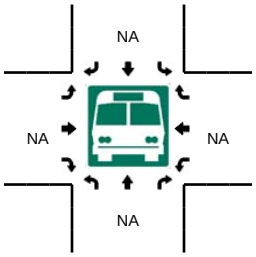












5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				I-205 SB Ramps (Eastbound)				I-205 SB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	10	17	0	0	0	28	11	0	0	0	0	0	11	1	15	0	93	
4:05 PM	8	29	0	0	0	43	21	0	0	0	0	0	10	1	23	0	135	
4:10 PM	12	14	0	0	0	43	21	0	0	0	0	0	12	0	27	0	129	
4:15 PM	10	31	0	0	0	43	18	0	0	0	0	0	10	1	25	0	138	
4:20 PM	11	26	0	0	0	44	12	0	0	0	0	0	6	0	19	0	118	
4:25 PM	7	24	0	0	0	46	13	0	0	0	0	0	18	0	27	0	135	
4:30 PM	5	24	0	0	0	35	16	0	0	0	0	0	25	0	26	0	131	
4:35 PM	9	23	0	0	0	40	21	0	0	0	0	0	16	0	27	0	136	
4:40 PM	10	26	0	0	0	45	18	0	0	0	0	0	6	0	26	0	131	
4:45 PM	11	20	0	0	0	40	12	0	0	0	0	0	18	0	18	0	119	
4:50 PM	8	27	0	0	0	43	10	0	0	0	0	0	23	0	35	0	146	
4:55 PM	7	22	0	0	0	56	11	0	0	0	0	0	20	0	24	0	140	1551
5:00 PM	10	36	0	0	0	49	8	0	0	0	0	0	24	3	21	0	151	1609
5:05 PM	2	31	0	0	0	56	20	0	0	0	0	0	14	0	27	0	150	1624
5:10 PM	6	43	0	0	0	41	27	0	0	0	0	0	14	0	25	0	156	1651
5:15 PM	17	35	0	0	0	46	21	0	0	0	0	0	12	0	30	0	161	1674
5:20 PM	4	25	0	0	0	51	19	0	0	0	0	0	14	1	23	0	137	1693
5:25 PM	4	27	0	0	0	31	17	0	0	0	0	0	15	0	28	0	122	1680
5:30 PM	5	21	0	0	0	37	18	0	0	0	0	0	26	0	17	0	124	1673
5:35 PM	5	27	0	0	0	46	20	0	0	0	0	0	11	0	31	0	140	1677
5:40 PM	6	33	0	0	0	48	26	0	0	0	0	0	12	0	30	0	155	1701
5:45 PM	10	35	0	0	0	35	15	0	0	0	0	0	19	1	26	0	141	1723
5:50 PM	10	29	0	0	0	48	20	0	0	0	0	0	10	0	26	0	143	1720
5:55 PM	7	31	0	0	0	35	8	0	0	0	0	0	23	0	28	0	132	1712

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	72	440	0	0	0	584	220	0	0	0	0	0	208	12	292	0	1828
Heavy Trucks	0	4	0		0	0	12		0	0	0		4	4	8		32
Pedestrians		0				0				16				0			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/29/2015 12:04 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: User-Defined

Method for determining peak hour: Total Entering Volume

LOCATION: 10th St -- I-205 NB Ramps

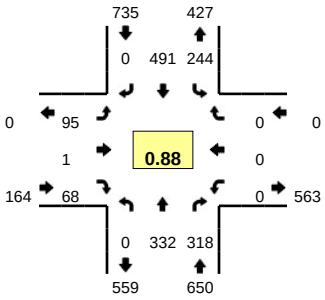
CITY/STATE: West Linn, OR

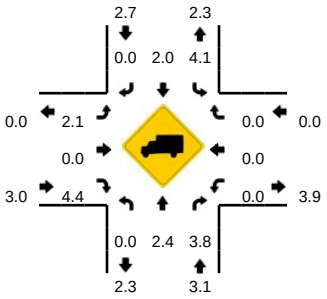
QC JOB #: 13358506

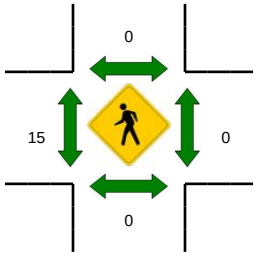
DATE: Tue, Apr 14 2015

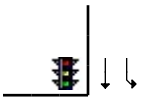
Peak-Hour: 4:15 PM -- 5:15 PM

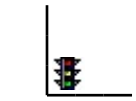
Peak 15-Min: 4:55 PM -- 5:10 PM

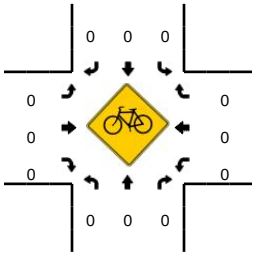


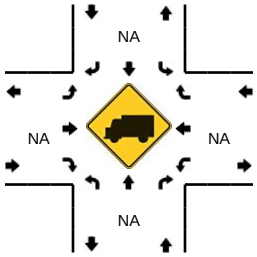


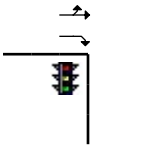


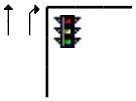


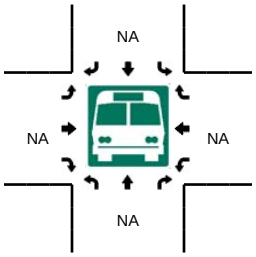












5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				I-205 NB Ramps (Eastbound)				I-205 NB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	28	17	0	20	21	0	0	2	0	8	0	0	0	0	0	96	
4:05 PM	0	25	25	0	17	30	0	0	9	0	4	0	0	0	0	0	110	
4:10 PM	0	31	15	0	28	30	0	0	2	0	10	0	0	0	0	0	116	
4:15 PM	0	28	22	0	18	36	0	0	6	0	3	0	0	0	0	0	113	
4:20 PM	0	30	28	0	19	35	0	0	4	0	2	0	0	0	0	0	118	
4:25 PM	0	24	24	0	24	38	0	0	9	0	4	0	0	0	0	0	123	
4:30 PM	0	27	23	0	15	41	0	0	5	1	5	0	0	0	0	0	117	
4:35 PM	0	25	28	0	20	35	0	0	6	0	4	0	0	0	0	0	118	
4:40 PM	0	32	22	0	18	34	0	0	6	0	7	0	0	0	0	0	119	
4:45 PM	0	30	28	0	21	43	0	0	5	0	7	0	0	0	0	0	134	
4:50 PM	0	28	29	0	18	42	0	0	5	0	5	0	0	0	0	0	127	
4:55 PM	0	25	34	0	20	55	0	0	6	0	7	0	0	0	0	0	147	1438
5:00 PM	0	30	33	0	19	55	0	0	9	0	7	0	0	0	0	0	153	1495
5:05 PM	0	19	23	0	32	43	0	0	16	0	7	0	0	0	0	0	140	1525
5:10 PM	0	34	24	0	20	34	0	0	18	0	10	0	0	0	0	0	140	1549
5:15 PM	0	39	27	0	24	33	0	0	11	0	12	0	0	0	0	0	146	1582
5:20 PM	0	27	28	0	29	38	0	0	7	0	10	0	0	0	0	0	139	1603
5:25 PM	0	19	27	0	15	31	0	0	6	0	2	0	0	0	0	0	100	1580
5:30 PM	0	19	22	0	11	48	0	0	8	0	5	0	0	0	0	0	113	1576
5:35 PM	0	31	24	0	21	44	0	0	3	0	4	0	0	0	0	0	127	1585
5:40 PM	0	34	22	0	24	37	0	0	6	0	9	0	0	0	0	0	132	1598
5:45 PM	0	32	12	0	25	26	0	0	12	0	4	0	0	0	0	0	111	1575
5:50 PM	0	35	24	0	15	47	0	0	8	1	4	0	0	0	0	0	134	1582
5:55 PM	0	30	15	0	20	36	0	0	14	0	12	0	0	0	0	0	127	1562

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	296	360	0	284	612	0	0	124	0	84	0	0	0	0	0	1760
Heavy Trucks	0	0	16		8	12	0		0	0	8		0	0	0		44
Pedestrians		0				0				20				0			20
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/29/2015 12:04 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

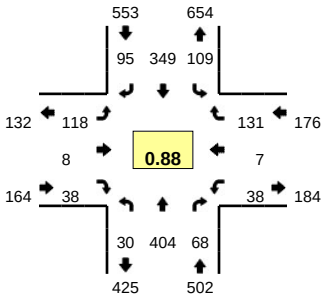
Type of peak hour being reported: User-Defined

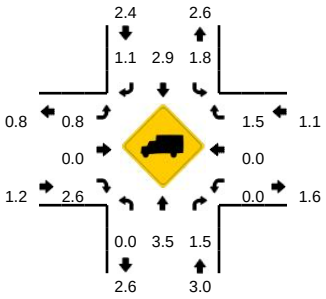
Method for determining peak hour: Total Entering Volume

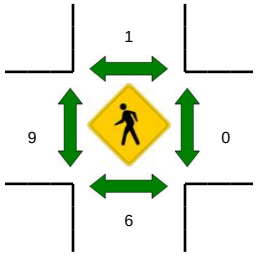
LOCATION: 10th St -- 8th Ave
CITY/STATE: West Linn, OR

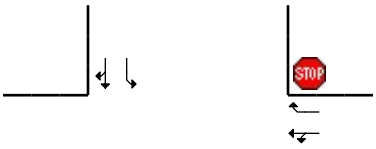
QC JOB #: 13358504
DATE: Tue, Apr 14 2015

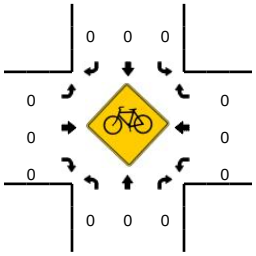
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:50 PM -- 5:05 PM

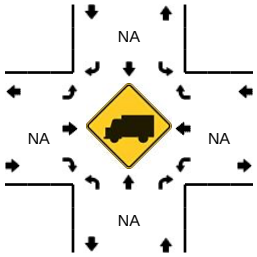


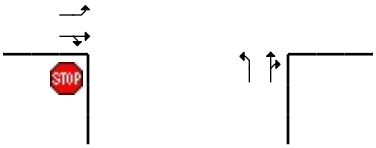


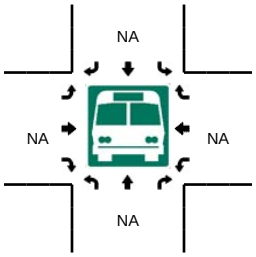












5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				8th Ave (Eastbound)				8th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	27	5	0	9	16	4	0	10	1	1	0	4	0	9	0	89	
4:05 PM	3	28	4	0	7	17	7	0	9	0	2	0	0	1	14	0	92	
4:10 PM	0	26	5	0	5	22	14	0	8	0	3	0	1	0	13	0	97	
4:15 PM	4	33	7	0	7	20	10	0	12	0	3	0	3	0	4	0	103	
4:20 PM	3	32	8	0	7	23	7	0	11	0	3	0	4	0	16	0	114	
4:25 PM	2	26	2	0	9	28	5	0	10	2	1	0	3	0	11	0	99	
4:30 PM	2	33	6	0	12	23	7	1	9	0	0	0	2	0	8	0	103	
4:35 PM	3	31	11	0	10	21	9	0	5	1	5	0	4	1	13	0	114	
4:40 PM	2	35	3	0	2	34	4	0	8	1	3	0	4	1	10	0	107	
4:45 PM	3	33	5	0	13	31	5	0	9	1	4	0	0	1	17	0	122	
4:50 PM	3	41	3	0	6	24	16	0	9	1	0	0	1	1	10	0	115	
4:55 PM	0	42	5	0	11	40	10	0	12	1	3	0	6	2	11	0	143	1298
5:00 PM	3	34	7	0	9	45	10	0	11	0	5	0	2	0	14	0	140	1349
5:05 PM	2	26	6	0	13	31	8	0	7	1	3	0	5	1	5	0	108	1365
5:10 PM	3	38	5	0	9	29	4	0	15	0	8	0	4	0	12	0	127	1395
5:15 PM	3	37	5	0	11	30	6	0	10	1	2	0	3	1	16	0	125	1417
5:20 PM	2	31	7	0	10	26	11	0	4	4	2	0	1	0	14	0	112	1415
5:25 PM	3	26	8	0	4	23	7	0	6	1	3	0	8	2	12	0	103	1419
5:30 PM	3	28	6	0	5	29	11	0	5	1	1	0	5	2	9	0	105	1421
5:35 PM	4	38	4	0	13	31	8	0	9	1	2	0	3	0	7	0	120	1427
5:40 PM	3	33	3	0	9	22	12	0	9	0	0	0	4	0	16	0	111	1431
5:45 PM	1	19	4	0	5	19	6	0	8	1	3	0	2	1	12	0	81	1390
5:50 PM	1	33	5	0	13	26	11	0	9	0	3	0	0	2	16	0	119	1394
5:55 PM	1	28	5	0	9	29	9	0	7	0	1	0	5	3	10	0	107	1358

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	468	60	0	104	436	144	0	128	8	32	0	36	12	140	0	1592
Heavy Trucks	0	8	0		8	8	4		0	0	0		0	0	4		32
Pedestrians		8				0				24				0			32
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/29/2015 12:04 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: User-Defined

Method for determining peak hour: Total Entering Volume

LOCATION: 10th St -- Willamette Falls Dr

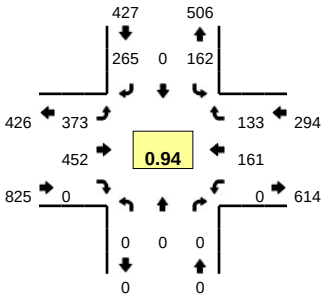
CITY/STATE: West Linn, OR

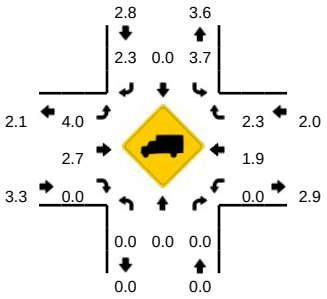
QC JOB #: 13358502

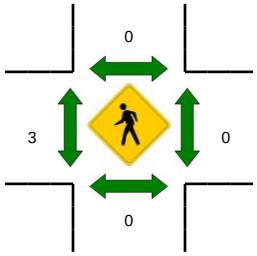
DATE: Tue, Apr 14 2015

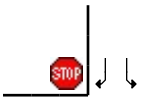
Peak-Hour: 4:15 PM -- 5:15 PM

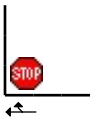
Peak 15-Min: 5:00 PM -- 5:15 PM

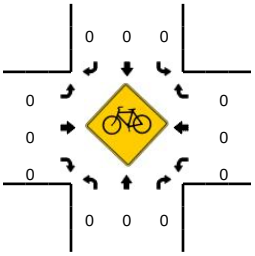


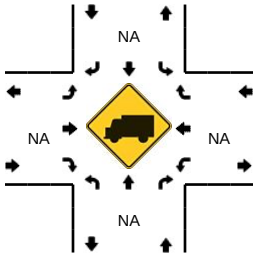


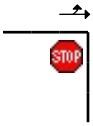


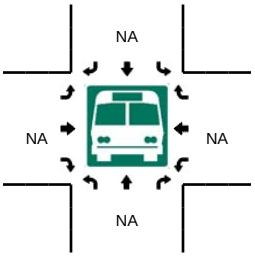












5-Min Count Period Beginning At	10th St (Northbound)				10th St (Southbound)				Willamette Falls Dr (Eastbound)				Willamette Falls Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	8	0	16	0	28	37	0	0	0	5	5	0	99	
4:05 PM	0	0	0	0	11	0	8	0	24	40	0	0	0	18	12	0	113	
4:10 PM	0	0	0	0	14	0	13	0	23	35	0	0	0	10	7	0	102	
4:15 PM	0	0	0	0	20	0	7	0	28	37	0	0	0	12	17	0	121	
4:20 PM	0	0	0	0	11	0	17	0	32	40	0	0	0	15	12	0	127	
4:25 PM	0	0	0	0	15	0	19	0	21	43	0	0	0	13	11	0	122	
4:30 PM	0	0	0	0	7	0	18	0	28	42	0	0	0	7	12	0	114	
4:35 PM	0	0	0	0	14	0	16	0	33	34	0	0	0	10	12	0	119	
4:40 PM	0	0	0	0	17	0	25	0	30	42	0	0	0	15	10	0	139	
4:45 PM	0	0	0	0	13	0	21	0	31	36	0	0	0	20	9	0	130	
4:50 PM	0	0	0	0	5	0	24	0	39	34	0	0	0	16	10	0	128	
4:55 PM	0	0	0	0	13	0	32	0	34	33	0	0	0	10	11	0	133	1447
5:00 PM	0	0	0	0	11	0	37	0	34	38	0	0	0	14	12	0	146	1494
5:05 PM	0	0	0	0	14	0	24	0	29	39	0	0	0	18	3	0	127	1508
5:10 PM	0	0	0	0	22	0	25	0	34	34	0	0	0	11	14	0	140	1546
5:15 PM	0	0	0	0	16	0	18	0	36	28	0	0	0	18	7	0	123	1548
5:20 PM	0	0	0	0	12	0	18	0	26	37	0	0	0	10	15	0	118	1539
5:25 PM	0	0	0	0	10	0	22	0	24	20	0	0	0	25	12	0	113	1530
5:30 PM	0	0	0	0	15	0	22	0	26	35	0	0	0	23	11	0	132	1548
5:35 PM	0	0	0	0	11	0	27	0	39	14	0	0	0	13	9	0	113	1542
5:40 PM	0	0	0	0	13	0	13	0	28	34	0	0	0	13	9	0	110	1513
5:45 PM	0	0	0	0	9	0	16	0	21	28	0	0	0	11	6	0	91	1474
5:50 PM	0	0	0	0	12	0	16	0	33	28	0	0	0	11	6	0	106	1452
5:55 PM	0	0	0	0	12	0	24	0	24	36	0	0	0	12	11	0	119	1438

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	188	0	344	0	388	444	0	0	0	172	116	0	1652
Heavy Trucks	0	0	0		4	0	4		8	12	0		0	4	0		32
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/29/2015 12:04 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: User-Defined

Method for determining peak hour: Total Entering Volume

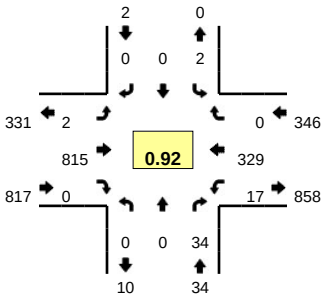
LOCATION: 11th St -- Willamette Falls Dr

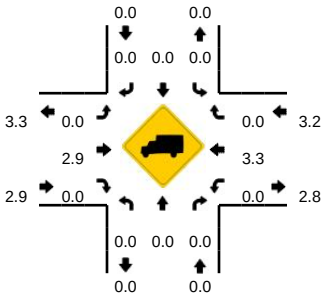
QC JOB #: 13543304

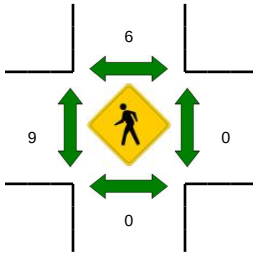
CITY/STATE: West Linn, OR

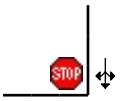
DATE: Tue, Jul 21 2015

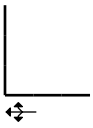
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

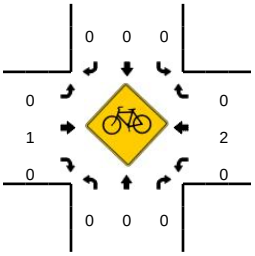


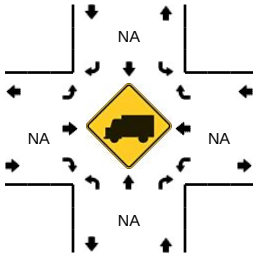


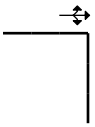


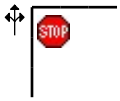


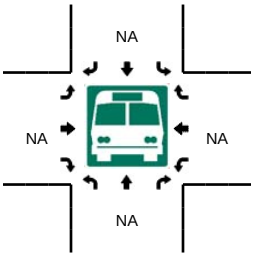












5-Min Count Period Beginning At	11th St (Northbound)				11th St (Southbound)				Willamette Falls Dr (Eastbound)				Willamette Falls Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	2	0	0	0	0	0	0	56	0	1	2	22	0	0	83	
4:05 PM	0	0	0	0	0	0	0	0	0	58	0	0	1	21	0	3	83	
4:10 PM	0	0	0	0	1	0	0	0	0	72	0	0	4	20	0	1	98	
4:15 PM	0	0	1	0	0	0	0	0	0	64	0	0	1	21	0	0	87	
4:20 PM	0	0	4	0	0	0	0	0	0	67	0	0	0	26	0	0	97	
4:25 PM	0	0	4	0	0	0	0	0	0	70	0	1	0	30	0	0	105	
4:30 PM	0	0	2	0	0	0	0	0	0	66	0	0	0	26	0	1	95	
4:35 PM	0	0	1	0	0	0	0	0	0	74	0	0	1	42	0	1	119	
4:40 PM	0	0	3	0	0	0	0	0	0	61	0	0	1	26	0	0	91	
4:45 PM	0	0	2	0	0	0	0	0	0	63	0	0	2	26	0	0	93	
4:50 PM	0	0	1	0	0	0	0	0	0	66	0	0	0	24	0	1	92	
4:55 PM	0	0	4	0	2	0	0	0	0	63	0	0	1	25	0	0	95	1138
5:00 PM	0	0	3	0	0	0	0	0	0	76	0	0	1	23	0	0	103	1158
5:05 PM	0	0	5	0	0	0	0	0	0	72	0	1	3	34	0	0	115	1190
5:10 PM	0	0	4	0	0	0	0	0	0	73	0	0	0	26	0	4	107	1199
5:15 PM	0	0	2	0	0	0	0	0	0	75	0	0	1	35	0	0	113	1225
5:20 PM	0	0	4	0	0	0	0	0	0	74	0	1	1	40	0	1	121	1249
5:25 PM	0	0	3	0	0	0	0	0	0	81	0	0	1	28	0	1	114	1258
5:30 PM	0	0	4	0	0	0	0	0	0	69	0	0	1	27	0	0	101	1264
5:35 PM	0	0	3	0	0	0	0	0	0	67	0	0	1	29	0	0	100	1245
5:40 PM	0	0	3	0	0	0	0	0	0	71	0	0	0	40	0	0	114	1268
5:45 PM	1	0	1	0	0	0	0	0	0	68	0	0	0	29	0	0	99	1274
5:50 PM	0	0	0	0	0	0	0	0	0	69	0	0	2	35	0	0	106	1288
5:55 PM	0	0	1	0	0	0	0	0	0	65	0	1	1	22	0	0	90	1283

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	48	0	0	0	0	0	0	884	0	4	16	332	0	16	1300
Heavy Trucks	0	0	0		0	0	0		0	24	0		0	4	0		28
Pedestrians		0				12				0				0			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/28/2015 3:08 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: User-Defined

Method for determining peak hour: Total Entering Volume

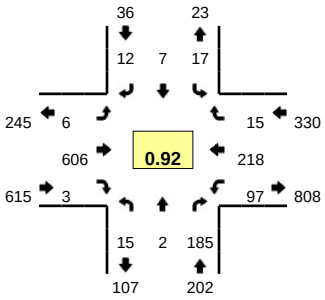
LOCATION: 12th St -- Willamette Falls Dr

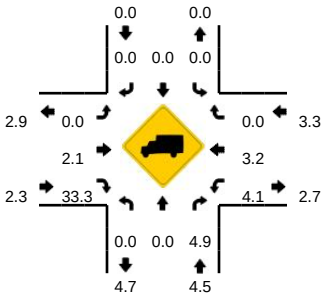
QC JOB #: 13543302

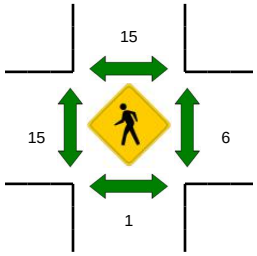
CITY/STATE: West Linn, OR

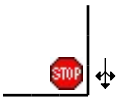
DATE: Tue, Jul 21 2015

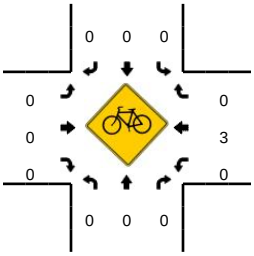
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:25 PM -- 4:40 PM

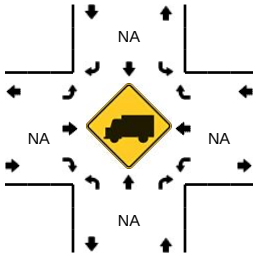


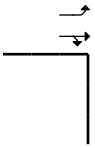


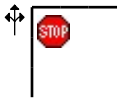


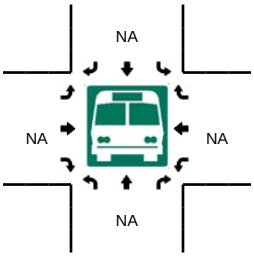












5-Min Count Period Beginning At	12th St (Northbound)				12th St (Southbound)				Willamette Falls Dr (Eastbound)				Willamette Falls Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	1	10	0	1	0	1	0	1	47	2	0	8	15	0	0	86	
4:05 PM	1	0	14	0	1	0	0	0	1	44	0	0	5	18	0	0	84	
4:10 PM	0	0	15	0	5	0	0	0	1	49	1	0	5	16	0	0	92	
4:15 PM	3	0	15	0	3	0	3	0	2	47	0	0	7	11	1	0	92	
4:20 PM	1	0	16	0	3	1	2	0	0	47	1	0	9	16	0	0	96	
4:25 PM	0	0	16	0	0	0	0	0	0	54	0	0	10	22	1	0	103	
4:30 PM	1	0	15	0	0	4	0	0	2	54	0	0	5	20	2	0	103	
4:35 PM	2	0	16	0	2	0	4	0	0	51	0	0	5	34	0	0	114	
4:40 PM	0	0	6	0	2	0	0	0	0	55	1	0	9	15	2	0	90	
4:45 PM	0	1	15	0	1	1	0	0	2	49	1	0	8	18	3	0	99	
4:50 PM	2	0	9	0	1	0	0	0	0	53	0	0	8	16	0	0	89	
4:55 PM	0	0	14	0	1	0	1	0	0	49	0	0	9	14	1	0	89	1137
5:00 PM	3	0	23	0	2	1	0	0	0	49	0	0	8	16	2	0	104	1155
5:05 PM	1	0	18	0	1	0	1	0	0	50	0	0	9	21	2	0	103	1174
5:10 PM	2	1	22	0	1	0	1	0	0	48	0	0	10	15	1	0	101	1183
5:15 PM	0	0	22	0	3	0	0	0	0	51	2	0	6	25	3	0	112	1203
5:20 PM	0	0	27	0	3	0	0	0	2	45	0	0	9	31	1	0	118	1225
5:25 PM	1	0	29	0	2	0	2	0	0	48	1	0	8	19	1	0	111	1233
5:30 PM	1	0	20	0	2	0	0	0	0	47	0	0	9	17	1	0	97	1227
5:35 PM	1	0	21	0	1	0	1	0	0	48	0	0	8	20	1	0	101	1214
5:40 PM	2	0	21	0	0	5	2	0	0	49	0	0	11	26	2	0	118	1242
5:45 PM	0	2	20	0	0	1	1	0	2	48	0	0	13	20	1	0	108	1251
5:50 PM	2	1	20	0	0	0	1	0	1	48	1	0	13	16	2	0	105	1267
5:55 PM	2	0	15	0	0	1	1	0	0	53	0	0	8	11	2	0	93	1271

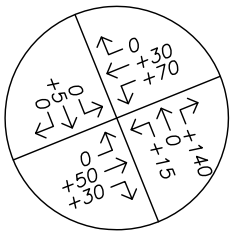
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	0	188	0	8	16	16	0	8	636	0	0	80	304	12	0	1280
Heavy Trucks	0	0	8		0	0	0		0	4	0		4	16	0		32
Pedestrians		0				16				0				0			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

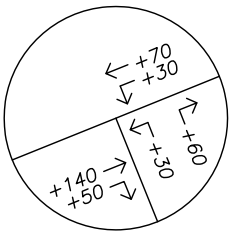
Report generated on 7/28/2015 3:08 PM

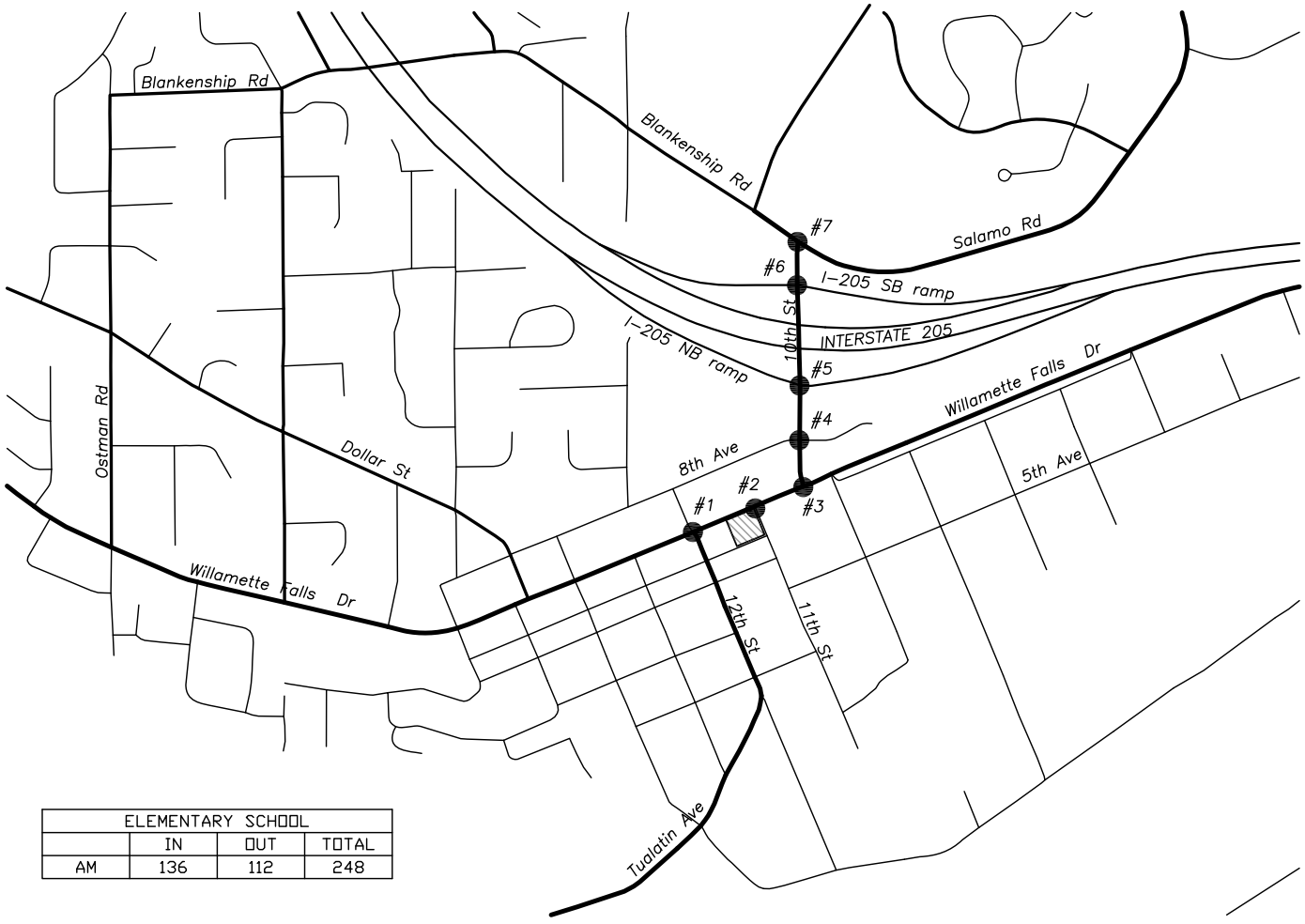
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

#1: Willamette Falls Dr & 12th St



#2: Willamette Falls Dr & 11th St





ELEMENTARY SCHOOL			
	IN	OUT	TOTAL
AM	136	112	248

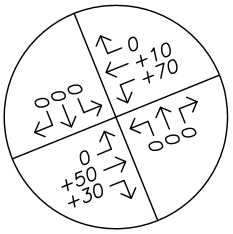
TRAFFIC VOLUMES
Willamette Primary School Adjustments
AM Peak Hour

no scale

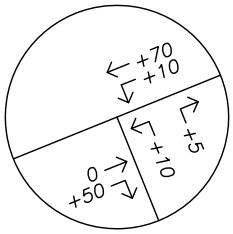
FIGURE 10

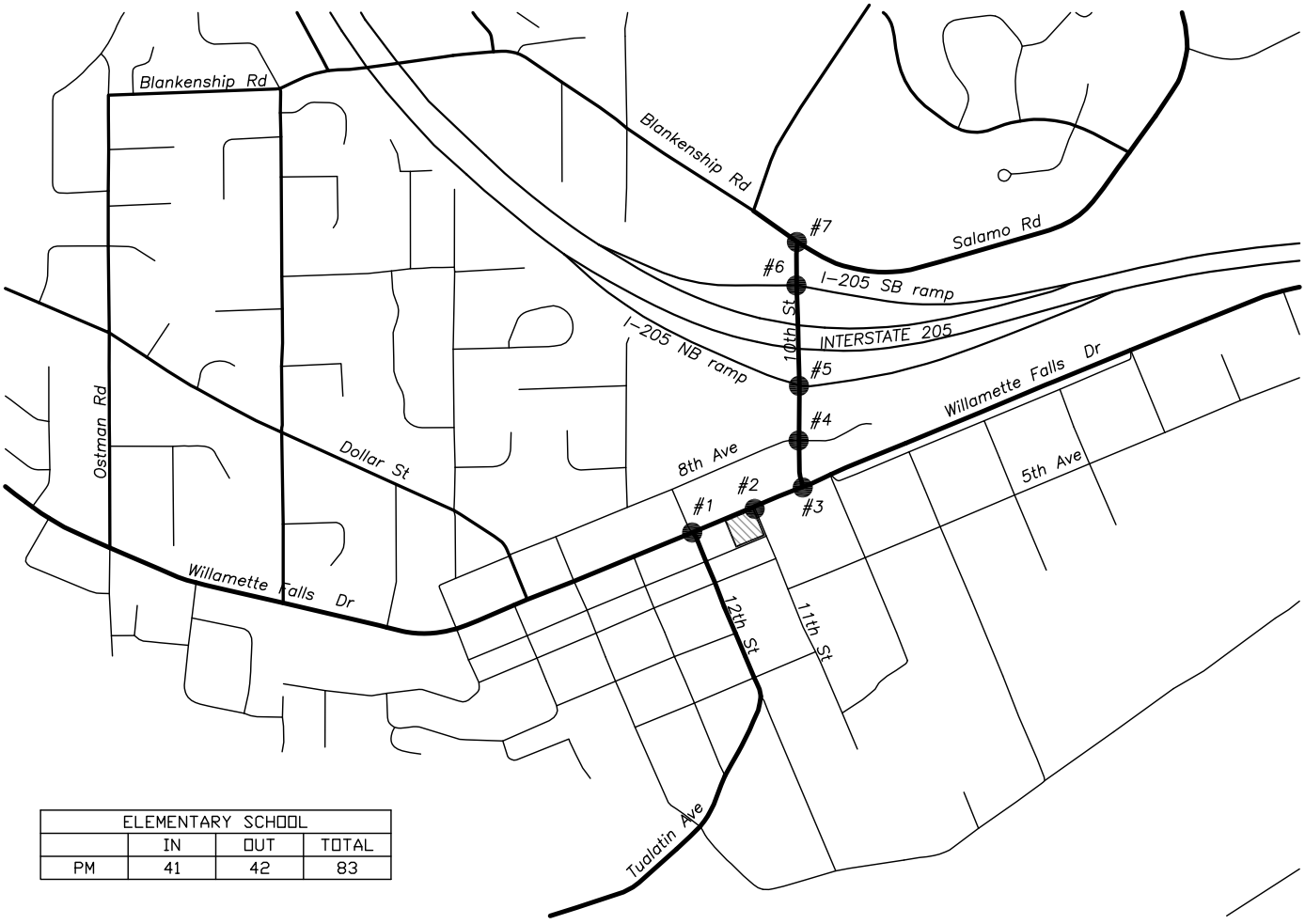
PAGE APPENDIX

#1: Willamette Falls Dr & 12th St



#2: Willamette Falls Dr & 11th St





ELEMENTARY SCHOOL			
	IN	OUT	TOTAL
PM	41	42	83

TRAFFIC VOLUMES
Willamette Primary School Adjustments
PM Peak Hour

no scale

FIGURE 11

PAGE APPENDIX

TRIP GENERATION CALCULATIONS

Land Use: Shopping Center
Land Use Code: 820
Variable: 1,000 Sq Ft Gross Leasable Area
Variable Value: 10.51

AM PEAK HOUR

Trip Rate: 0.96

	Enter	Exit	Total
Directional Distribution	62%	38%	
Trip Ends	**6**	**4**	**10**

PM PEAK HOUR

Trip Rate: 3.71

	Enter	Exit	Total
Directional Distribution	48%	52%	
Trip Ends	**19**	**20**	**39**

WEEKDAY

Trip Rate: 42.7

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**224**	**224**	**448**

SATURDAY

Trip Rate: 49.97

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**263**	**263**	**526**

Source: TRIP GENERATION, Ninth Edition

TRIP GENERATION CALCULATIONS

Land Use: General Office Building
Land Use Code: 710
Variable: 1000 Sq Ft Gross Floor Area
Variable Value: 14.6

AM PEAK HOUR

Trip Rate: 1.56

	Enter	Exit	Total
Directional Distribution	88%	12%	
Trip Ends	**20**	**3**	**23**

PM PEAK HOUR

Trip Rate: 1.49

	Enter	Exit	Total
Directional Distribution	17%	83%	
Trip Ends	**4**	**18**	**22**

WEEKDAY

Trip Rate: 11.03

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**80**	**80**	**160**

SATURDAY

Trip Rate: 2.46

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**18**	**18**	**36**

Source: TRIP GENERATION, Ninth Edition

TRIP GENERATION CALCULATIONS

Land Use: Hotel
Land Use Code: 310
Variable: Rooms
Variable Value: 19

AM PEAK HOUR

Trip Rate: 0.53

	Enter	Exit	Total
Directional Distribution	59%	41%	
Trip Ends	**6**	**4**	**10**

PM PEAK HOUR

Trip Rate: 0.6

	Enter	Exit	Total
Directional Distribution	51%	49%	
Trip Ends	**6**	**5**	**11**

WEEKDAY

Trip Rate: 8.17

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**78**	**78**	**156**

SATURDAY

Trip Rate: 8.19

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	**78**	**78**	**156**

Source: TRIP GENERATION, Ninth Edition

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

WILLAMETTE FALLS DR and 12TH ST, City of West Linn, Clackamas 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														
REAR-END	0	0	1	1	0	0	0	0	0	1	0	0	0	0
YEAR 2012 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
YEAR: 2011														
REAR-END	0	1	0	1	0	1	0	0	1	0	1	0	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2011 TOTAL	**0**	**1**	**1**	**2**	**0**	**1**	**0**	**1**	**1**	**1**	**1**	**1**	**0**	**0**
YEAR: 2010														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2010 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
FINAL TOTAL	**0**	**2**	**2**	**4**	**0**	**2**	**0**	**2**	**1**	**3**	**1**	**2**	**0**	**0**

CITY OF WEST LINN, CLACKAMAS COUNTY

WILLAMETTE FALLS DR and 12TH ST, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 4

SER# / INVEST	S P E D	A L C	R U G S	S C H L	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 / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
03816	N	N	N			10/19/2010	16	WILLAMETTE FALLS DR	INTER	CROSS	N	N	CLR	BIKE	01	NONE 0	TURN-L											02
CITY						TU	0	12TH ST	NE		STOP SIGN	N	DRY	ANGL		PRVTE	SE-SW									015		00
						3P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	38	F	OR-Y OR<25		027	000		02
																	- STRGHT SW NE	01	BIKE	INJC	43	M		I XWLK	000	035		00
03006	N	N	N			08/18/2011	16	WILLAMETTE FALLS DR	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											02
NONE						TH	0	12TH ST	CN		STOP SIGN	N	DRY	TURN		PRVTE	SW-NE									000		00
						10A			04	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	60	F	OR-Y OR<25		000	000		00
															02	NONE 0	TURN-L									015		00
																PRVTE	SE-SW											
																PSNGR CAR		01	DRVR	NONE	00	F	UNK UNK		028	000		02
03447	N	N	N			09/06/2012	16	WILLAMETTE FALLS DR	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						TH	83	12TH ST	SW	(NONE)	UNKNOWN	N	UNK	REAR		PRVTE	SW-NE									000		00
						5P			08			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	38	M	OR-Y OR<25		026	000		07
										(02)																		
															02	NONE 0	STOP									011		00
																PRVTE	SW-NE											
																PSNGR CAR		01	DRVR	NONE	56	M	OR-Y OR<25		000	000		00
01108	N	Y	N	N	N	04/01/2011	16	WILLAMETTE FALLS DR	GRADE		N	N	RAIN	PRKD MV	01	NONE 0	STRGHT										013	10
CITY						FR	150	12TH ST	NE	(NONE)	NONE	N	WET	REAR		PRVTE	SW-NE									000		00
						10P			07			N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	43	M	OR-Y OR<25		080	000		10
										(02)																		
															02	NONE 0	PRKD-P									008	013	00
																PRVTE	SW-NE											
																PSNGR CAR												
															03	NONE 0	PRKD-P									008		00
																PRVTE	SW-NE											
																PSNGR CAR												

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

WILLAMETTE FALLS DR and 11TH ST, City of West Linn, Clackamas 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														
REAR-END	0	1	0	1	0	1	0	0	0	1	0	0	0	0
YEAR 2013 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
FINAL TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

WILLAMETTE FALLS DR and 11TH ST, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 1

SER# / INVEST	S P E D	A L C	R U G S	S H L	W C 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 / OWNER	QTY	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
03417	Y	N	N	N	N	06/13/2013	16	WILLAMETTE FALLS DR	STRGHT		N	N	UNK	PRKD MV	01	NONE	0	STRGHT											01,32
CITY						TH	86	11TH ST	SW	(NONE)	UNKNOWN	N	UNK	REAR		PRVTE		NE-SW									000		00
						8A			07			N	DAY	INJ		PSNGR CAR			01	DRVR	INJB	43	M	OR-Y		047,080	000		01,32
										(02)														OR<25					
															02	NONE	0	PRKD-P											
																PRVTE		NE-SW									008		00
																PSNGR CAR													

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and WILLAMETTE FALLS DR, City of West Linn, Clackamas 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														
REAR-END	0	0	1	1	0	0	0	1	0	0	1	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2014 TOTAL	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**2**	**0**	**1**	**1**	**2**	**0**	**0**
YEAR: 2011														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2011 TOTAL	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**2**	**0**	**2**	**0**	**2**	**0**	**0**
YEAR: 2010														
REAR-END	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**	**0**	**5**	**5**	**0**	**0**	**0**	**5**	**0**	**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 WEST LINN, CLACKAMAS COUNTY

10TH ST and WILLAMETTE FALLS DR, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 5

SER# / INVEST	S P E D	A L C	D R S G	S W H S	C 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 TRLR OWNER	USE QTY TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS / RES / LOC	PED ERROR	ACT	EVENT	CAUSE
04581	N	N	N			11/30/2011	16	WILLAMETTE FALLS DR	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE	0	STRGHT										07
NONE						WE	0	10TH ST	SW		STOP SIGN	N	DRY	REAR		PRVTE		SW-NE								000		00
						4P			06	0		N	DAY	PDO		PSNGR CAR			01	DRVR	NONE	00	M	UNK	026	000		07
																								UNK				
															02	NONE	0	STOP										
																PRVTE		SW-NE								011		00
																PSNGR CAR			01	DRVR	NONE	46	M	OR-Y	000	000		00
																								OR<25				
00394	N	N	N			01/30/2014	16	WILLAMETTE FALLS DR	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT										07
NONE						TH	0	10TH ST	W		STOP SIGN	N	DRY	REAR		PRVTE		SW-NE								000		00
						6A			06	0		N	DLIT	PDO		PSNGR CAR			01	DRVR	NONE	00	M	OR-Y	026	000		07
																								UNK				
															02	NONE	0	STOP										
																PRVTE		SW-NE								012		00
																PSNGR CAR			01	DRVR	NONE	31	F	OR-Y	000	000		00
																								OR<25				
02189	N	N	N			06/28/2010	16	WILLAMETTE FALLS DR	INTER	3-LEG	N	N	CLR	S-1TURN	01	NONE	0	STRGHT										004	07
NONE						MO	0	10TH ST	CN		STOP SIGN	N	DRY	REAR		PRVTE		NE-SW								000		00
						12P			02	0		N	DAY	PDO		PSNGR CAR			01	DRVR	NONE	38	F	OR-Y	026	000		07
																								OR<25				
															02	NONE	0	STOP										
																PRVTE		NE-N								013	004	00
																PSNGR CAR			01	DRVR	NONE	65	F	OR-Y	000	000		00
																								OR<25				
															02	NONE	0	STOP										
																PRVTE		NE-N								013	004	00
																PSNGR CAR			02	PSNG	NO<5	04	M		000	000		00
02637	N	N	N			07/23/2011	16	WILLAMETTE FALLS DR	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE	0	TURN-R										02
NONE						SA	0	10TH ST	CN		STOP SIGN	N	DRY	TURN		PRVTE		N -SW								015		00
						7P			01	0		N	DAY	PDO		PSNGR CAR			01	DRVR	NONE	00	M	OR-Y	028	000		02
																								OR<25				
															02	NONE	0	STRGHT										
																PRVTE		NE-SW								000		00
																PSNGR CAR			01	DRVR	NONE	18	F	OR-Y	000	000		00
																								OR<25				
01104	N	N	N	N	N	03/19/2014	16	WILLAMETTE FALLS DR	INTER	3-LEG	N	N	CLD	ANGL-OTH	01	NONE	0	TURN-R										02
CITY						WE	0	10TH ST	CN		STOP SIGN	N	DRY	TURN		PRVTE		N -SW								015		00
						10A			01	0		N	DAY	PDO		PSNGR CAR			01	DRVR	NONE	66	M	OR-Y	028	000		02
																								OR<25				
															02	NONE	0	STRGHT										
																PRVTE		NE-SW								000		00
																PSNGR CAR			01	DRVR	NONE	50	F	OR-Y	000	000		00
																								OR<25				

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and 8TH AVE, City of West Linn, Clackamas 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	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR 2014 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
YEAR: 2013														
FIXED / OTHER OBJECT	0	0	1	1	0	0	0	0	1	0	1	0	0	1
YEAR 2013 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**1**
YEAR: 2012														
ANGLE	0	0	1	1	0	0	0	0	1	0	1	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	0	1	1	0	0
YEAR 2012 TOTAL	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**1**	**1**	**0**	**2**	**2**	**0**	**0**
YEAR: 2010														
ANGLE	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2010 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**0**	**0**
FINAL TOTAL	**0**	**0**	**5**	**5**	**0**	**0**	**0**	**2**	**3**	**1**	**4**	**4**	**0**	**1**

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and 8TH AVE, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 5

SER# / INVEST	S P E D	A L C	R U S	S G L	W C H	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
00143	N	N	N				01/12/2012	17	8TH AVE	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L											08
NONE							TH		10TH ST	N		STOP SIGN	N	DRY	TURN		PRVTE	W -N									015		00
							7P			05	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	80	M	OR-Y OR<25		007	000		08
																02	NONE 0	STRGHT											
																	PRVTE	S -N									000		00
																	PSNGR CAR		01	DRVR	NONE	20	M	OR-Y OR<25		000	000		00
04522	N	N	N	N	N		11/29/2010	17	8TH AVE	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE	STRGHT											02
CITY							MO		10TH ST	CN		STOP SIGN	N	WET	ANGL		PRVTE	W -E									015		00
							5P			04	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	60	F	OR-Y OR<25		028	000		02
																02	NONE	STRGHT											
																	PRVTE	S -N									000		00
																	PSNGR CAR		01	DRVR	NONE	43	F	OR-Y OR<25		000	000		00
04173	N	N	N	N	N		11/06/2012	17	8TH AVE	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE 0	STRGHT											02
CITY							TU	0	10TH ST	CN		STOP SIGN	N	WET	ANGL		PRVTE	W -E									015		00
							8A			03	0		N	DAWN	PDO		PSNGR CAR		01	DRVR	NONE	25	M	OR-Y OR<25		028	000		02
																02	NONE 0	STRGHT											
																	PRVTE	N -S									015		00
																	PSNGR CAR		01	DRVR	NONE	42	F	OR-Y OR<25		000	000		00
02513	N	N	N	N	N		07/01/2014	17	8TH AVE	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											02
CITY							TU	0	10TH ST	CN		STOP SIGN	N	DRY	ANGL		PRVTE	E -W									015		00
							1P			01	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	68	M	OR-Y OR<25		028	000		02
																02	NONE 0	STRGHT											
																	PRVTE	N -S									000		00
																	PSNGR CAR		01	DRVR	NONE	61	M	OR-Y OR<25		000	000		00
04978	Y	Y	N	N	N		12/22/2013	19	8TH AVE	STRGHT		N	Y	CLD	FIX OBJ	01	NONE 0	STRGHT										042,088	01,33
CITY							SU	325	10TH ST	SE	(NONE)	NONE	N	WET	FIX		PRVTE	E -W									000	042,088	00
							2A			07			Y	DARK	PDO		PSNGR CAR		01	DRVR	NONE	34	M	OR-Y OR<25		047,081,051	000		01,33
											(02)																			

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and 8TH CT, City of West Linn, Clackamas 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														
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	0	1	1	0	0
YEAR 2014 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**0**
YEAR: 2013														
ANGLE	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	2	0	2	0	3	0	2	0	1	1	2	0	0
YEAR 2013 TOTAL	**0**	**2**	**1**	**3**	**0**	**3**	**0**	**3**	**0**	**2**	**1**	**3**	**0**	**0**
YEAR: 2012														
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2012 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**0**	**0**
YEAR: 2011														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2011 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
YEAR: 2010														
TURNING MOVEMENTS	0	0	2	2	0	0	0	1	1	1	1	2	0	0
YEAR 2010 TOTAL	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**2**	**0**	**0**
FINAL TOTAL	**0**	**4**	**4**	**8**	**0**	**5**	**0**	**6**	**2**	**4**	**4**	**8**	**0**	**0**

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and 8TH CT, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 8

SER# / INVEST	S P E D	A L C	R U G S	S C H L	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 / LOC	PED ERROR	ACT	EVENT	CAUSE
02649	N	N	N			07/29/2010	19	8TH CT	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L										02
NONE						TH		10TH ST	CN		STOP SIGN	N	DRY	TURN		PRVTE	NE-SE								000		00
						4P			03	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	UNK	028	000		02
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	NW-SE								000		00
																PSNGR CAR		01	DRVR	NONE	38	M	OR-Y	000	000		00
																							OR<25				
03642	N	N	N			10/09/2010	17	8TH CT	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE 0	STRGHT										02
CITY						SA		10TH ST	CN		TRF SIGNAL	N	WET	TURN		PRVTE	S -N								000		00
						9P			04	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	46	M	OR-Y	000	000		00
																							OR<25				
															02	NONE 0	TURN-L										
																PRVTE	E -S								015		00
																PSNGR CAR		01	DRVR	NONE	20	F	OR-Y	028	000		02
																							OR>25				
03280	N	N	N	N	N	09/06/2011	19	8TH CT	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT									013	02
CITY						TU		10TH ST	CN		STOP SIGN	N	DRY	ANGL		PRVTE	NW-SE								015		00
						3P			04	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	78	M	OR-Y	028	000		02
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	SW-NE								000	013	00
																PSNGR CAR		01	DRVR	NONE	19	M	OR-Y	000	000		00
																							OR<25				
															03	NONE 0	STOP										
																PRVTE	SE-NW								011	013	00
																PSNGR CAR		01	DRVR	INJC	30	M	OR-Y	000	000		00
																							OR<25				
															04	NONE 0	STOP										
																PRVTE	SE-NW								022		00
																PSNGR CAR		01	DRVR	NONE	43	M	OR-Y	000	000		00
																							OR>25				
04201	N	N	N			11/07/2012	17	8TH CT	INTER	CROSS	N	N	UNK	ANGL-OTH	01	NONE 0	TURN-L										02
NONE						WE	0	10TH ST	CN		STOP SIGN	N	WET	TURN		PRVTE	E -S								000		00
						6P			03	0		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	16	F	OR-Y	028	000		02
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	N -S								000		00
																PSNGR CAR		01	DRVR	NONE	00	M	OR-Y	000	000		00
																							OR<25				
01337	N	N	N	N	N	04/19/2013	19	8TH CT	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										02
CITY						FR	0	10TH ST	CN		STOP SIGN	N	DRY	ANGL		PRVTE	E -W								015		00
						4P			01	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	62	F	OR-Y	028	000		02
																							OR<25				
															02	NONE 0	STRGHT										
																PRVTE	N -S								000		00
																PSNGR CAR		01	DRVR	NONE	19	M	OR-Y	000	000		00
																							OR<25				
01621	N	N	N			05/10/2013	17	8TH CT	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L										02
NONE						FR	0	10TH ST	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	E -S								015		00
						11A			01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	65	M	OR-Y	028	000		02

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and 8TH CT, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 8

SER# / INVEST	S P E D	A L C	R U G S	S C H L	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 / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																							OR<25					
															02	NONE 0	TURN-L											
																PRVTE	N -E									000		00
																PSNGR CAR		01	DRVR	NONE	58	M	OR-Y		000	000		00
																							OR<25					
04802	N	N	N	N	N	12/05/2013	17	8TH CT	INTER	CROSS	N	N	CLR	O-1TURN	01	NONE 0	STRGHT											02,08
CITY						TH	0	10TH ST	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	S -N									000		00
						7P			04	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	46	M	OR-Y		000	000		00
																							OR<25					
															02	NONE 0	TURN-L											
																PRVTE	N -E									000		00
																PSNGR CAR		01	DRVR	INJC	17	M	OR-Y		028,004	000		02,08
																							OR<25					
00175	N	N	N	N	N	01/14/2014	17	8TH CT	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L											02
CITY						TU	0	10TH ST	CN		STOP SIGN	N	DRY	TURN		PRVTE	W -N									000		00
						7P			04	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	34	F	OR-Y		028	000		02
																							OR<25					
															02	NONE 0	STRGHT											
																PRVTE	S -N									000		00
																PSNGR CAR		01	DRVR	NONE	20	M	OR-Y		000	000		00
																							OR<25					

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and EB ENFR 10TH, City of West Linn, Clackamas 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														
REAR-END	0	1	1	2	0	4	0	2	0	2	0	0	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2014 TOTAL	**0**	**1**	**2**	**3**	**0**	**4**	**0**	**2**	**1**	**2**	**1**	**1**	**0**	**0**
YEAR: 2013														
REAR-END	0	0	1	1	0	0	0	1	0	0	1	0	1	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	0	1	1	0	0
YEAR 2013 TOTAL	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**1**	**1**	**0**	**2**	**1**	**1**	**0**
YEAR: 2012														
REAR-END	0	0	1	1	0	0	0	0	1	0	1	0	0	0
YEAR 2012 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**
YEAR: 2010														
REAR-END	0	0	1	1	0	0	0	1	0	0	1	1	0	0
YEAR 2010 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**0**
FINAL TOTAL	**0**	**1**	**6**	**7**	**0**	**4**	**0**	**4**	**3**	**2**	**5**	**3**	**1**	**0**

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and EB ENFR 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 7

SER# / INVEST	SPE	ALC	DRS	SWC	OHR	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	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
04320	N	N	N			11/11/2010	19	10TH ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											27
NONE						TH		EB ENFR 10TH	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
						8P			06	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	46	F	OR-Y		016	000		27
																								OR<25				
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	NONE	91	M	OR-Y		000	000		00
																								OR<25				
00121	N	N	N			01/10/2013	11	10TH ST	INTER	CROSS	N	N	RAIN	O-1TURN	01	NONE 0	STRGHT											04
NONE						TH		EB ENFR 10TH	CN		TRF SIGNAL	N	WET	TURN		PRVTE	S -N									000		00
						8P			03	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	45	F	OR-Y		000	000		00
																								OR<25				
															02	NONE 0	TURN-L											
																PRVTE	N -E									000		00
																PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		020,004	000		04
																								OR<25				
04702	N	N	N	N	N	11/20/2014	17	10TH ST	INTER	CROSS	N	N	RAIN	O-1TURN	01	NONE 0	STRGHT											02,08
CITY						TH		EB ENFR 10TH	CN		TRF SIGNAL	N	WET	TURN		PRVTE	S -N									000		00
						7A			04	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	58	F	OR-Y		000	000		00
																								OR<25				
															02	NONE 0	TURN-L											
																PRVTE	N -E									000		00
																PSNGR CAR		01	DRVR	NONE	46	F	EXP		028,004	000		02,08
																								OR<25				
02427	N	N	N	N	N	06/25/2014	17	10TH ST	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY						WE		EB ENFR 10TH	N	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	S -N									000		00
						1P			03			N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	30	F	OR-Y		043,026	000		07
										(02)														OR<25				
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	INJC	16	F	OR-Y		000	000		00
																								OR<25				
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		02	PSNG	INJC	00	F			000	000		00
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		03	PSNG	INJC	11	F			000	000		00
03248	N	N	N	N	N	08/21/2014	17	10TH ST	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
CITY						TH		EB ENFR 10TH	N	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	S -N									000		00
						1P			03			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	27	F	OR-Y		026	000		29
										(02)														OR<25				
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	NONE	86	F	OR-Y		000	000		00
																								OR<25				
04934	Y	N	N	N	N	12/19/2012	17	10TH ST	STRGHT		N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											01,07,32
CITY						WE		EB ENFR 10TH	S	(NONE)	TRF SIGNAL	N	WET	REAR		PRVTE	S -N									000		00
						4P			03			N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	48	M	OR-Y		047,026,052	000		01,07,32

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and EB ENFR 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 7

SER# / INVEST	S P E D	A L C	R U G S	S C H L	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 / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
										(02)					02	NONE 0	STOP						OR>25				
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	NONE	50	F	OR-Y		000	000		00
																							OR<25					
04284	N	N	N	N	N	11/05/2013	17	10TH ST	STRGHT		Y	N	CLD	S-1STOP	01	NONE 0	STRGHT											07
CITY						TU		EB ENFR 10TH	S	(NONE)	TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
						5P			03			N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	43	M	UNK		026	000		07
										(02)													UNK					
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	NONE	66	F	OR-Y		000	000		00
																							OR<25					

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and EB EXTO 10TH, City of West Linn, Clackamas 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														
REAR-END	0	1	0	1	0	1	0	0	1	1	0	1	0	0
SIDESWIPE - OVERTAKING	0	0	1	1	0	0	0	1	0	1	0	0	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	0	1	0	1	1	0	0
YEAR 2014 TOTAL	**0**	**2**	**1**	**3**	**0**	**2**	**0**	**1**	**2**	**2**	**1**	**2**	**0**	**0**
YEAR: 2013														
REAR-END	0	1	0	1	0	1	0	1	0	0	1	1	0	0
YEAR 2013 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**0**
YEAR: 2012														
BACKING	0	0	1	1	0	0	0	1	0	1	0	0	0	0
YEAR 2012 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**
YEAR: 2011														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	0	0	0
YEAR 2011 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**
FINAL TOTAL	**0**	**4**	**2**	**6**	**0**	**4**	**0**	**4**	**2**	**4**	**2**	**3**	**0**	**0**

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and EB EXTO 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 6

SER# / INVEST	S P E D	A L C	R U S	S C H L	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 / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
04461	N	N	N			11/05/2014	11	10TH ST	INTER	CROSS	N	N	UNK	S-1STOP	01	NONE 0	STRGHT											29
NONE						WE		EB EXTO 10TH	NW		TRF SIGNAL	N	WET	REAR		PRVTE	W -E									000		00
						11A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	62	M	OR-Y		026	000		29
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	W -E									011	00
																PSNGR CAR		01	DRVR	INJC	30	F	OR-Y		000	000	00
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	W -E									011	00
																PSNGR CAR		02	PSNG	NO<5	02	M			000	000	00
04883	N	N	N			12/17/2013	11	10TH ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						TU		EB EXTO 10TH	CN		TRF SIGNAL	N	DRY	REAR		PRVTE	W -E									000		00
						6P			03	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	46	F	OR-Y		026	000		07
																							OR<25				
															02	NONE 0	STOP										
																PRVTE	W -E									013	00
																PSNGR CAR		01	DRVR	INJA	41	F	OR-Y		000	000	00
																							OR<25				
01764	N	N	N	N	N	05/08/2014	17	10TH ST	INTER	CROSS	N	N	RAIN	O-1TURN	01	NONE 0	TURN-L											02
CITY						TH		EB EXTO 10TH	CN		TRF SIGNAL	N	WET	TURN		UNKN	N -SE									000		00
						9P			04	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		028	000		02
																							UNK				
															02	NONE 0	STRGHT										
																PRVTE	S -N									000	00
																PSNGR CAR		01	DRVR	INJC	16	F	OR-Y		000	000	00
																							OR<25				
03344	N	N	N			09/10/2011	17	10TH ST	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						SA		EB EXTO 10TH	N	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	N -S									000		00
						4P			03			N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	24	F	OR-Y		026	000		07
										(02)													OR<25				
															02	NONE 0	STOP										
																PRVTE	N -S									011	00
																PSNGR CAR		01	DRVR	INJC	48	F	OR-Y		000	000	00
																							OR<25				
02397	N	N	N	N	N	06/22/2014	17	10TH ST	STRGHT		N	N	CLR	S-STRGHT	01	NONE 0	STRGHT											13
CITY						SU		EB EXTO 10TH	N	(NONE)	L-TURN REF	N	DRY	SS-O		UNKN	S -N									000		00
						5P			05			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK		045	000		13
										(03)													UNK				
															02	NONE 0	STRGHT										
																PRVTE	S -N									000	00
																PSNGR CAR		01	DRVR	NONE	54	M	OR-Y		000	000	00
																							OR<25				
91693	N	N	N			03/24/2012	11	EB EXTO 10TH	STRGHT		N	N	CLR	O-1STOP	01	NONE 0	BACK											10
NONE						SA		10TH ST	NW	(NONE)	TRF SIGNAL	N	DRY	BACK		UNKN	E -W									000		00
						11A			03			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		011	000		10
										(01)													UNK				
															02	NONE 0	STOP										
																PRVTE	E -W									011	00
																PSNGR CAR		01	DRVR	NONE	52	M	OR-Y		000	000	00

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and EB EXTO 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 6

SER# / INVEST	SPEED	ALCHL	DRUGS	CMV	SCHL BUS	HAZMT	WORK ZONE	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	SPCL USE / TRLR QTY / OWNER V#	MOVE / FROM / TO	PRTC P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES OR<25	PED LOC	ERROR	ACT	EVENT	CAUSE

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and WB ENFR 10TH, City of West Linn, Clackamas 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														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	0	0	0
YEAR 2013 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**
YEAR: 2012														
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2012 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**
YEAR: 2010														
REAR-END	0	0	1	1	0	0	0	1	0	0	1	0	0	0
YEAR 2010 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**
FINAL TOTAL	**0**	**1**	**2**	**3**	**0**	**1**	**0**	**3**	**0**	**2**	**1**	**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 WEST LINN, CLACKAMAS COUNTY

10TH ST and WB ENFR 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 3

SER# / INVEST	S P E D	A L C	R U G S	S C H L	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 / TYPE	MOVE / FROM / TO	P#	PRTC / INJ / SVRTY	A G E	S E X	LICNS / RES / LOC	PED / ERROR	ACT	EVENT	CAUSE
03497	N	N	N	N	N	09/20/2012	17	10TH ST	INTER	CROSS	N	N	CLR	S-OTHER	01	NONE 0	TURN-R									27,08
CITY						TH		WB ENFR 10TH	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N -W								000	00
						7P			01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	42	F	OTH-Y	016,006	038	27,08
																							OR<25			
															01	NONE 0	TURN-R									
																PRVTE	N -W							000	00	
																PSNGR CAR		02	PSNG	INJC	65	F		000	000	00
															02	NONE 0	TURN-R									
																PRVTE	N -W							000	00	
																PSNGR CAR		01	DRVR	NONE	52	F	OR-Y	000	000	00
																							OR<25			
01073	N	N	N			03/30/2013	17	10TH ST	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT									07
CITY						SA		WB ENFR 10TH	S	(NONE)	TRF SIGNAL	N	DRY	REAR		PRVTE	S -N							000	00	
						3P			03			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	34	M	OTH-Y	026	000	07
										(03)													N-RES			
															02	NONE 0	STOP									
																PRVTE	S -N							011	00	
																PSNGR CAR		01	DRVR	NONE	19	F	OR-Y	000	000	00
																							OR>25			
04921	N	N	N			12/22/2010	17	10TH ST	BRIDGE		N	N	CLR	S-1STOP	01	NONE	STRGHT									07
NONE						WE		WB ENFR 10TH	S	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	S -N							000	00	
						6P			03			N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	40	M	OR-Y	026	000	07
										(04)													OR<25			
															02	NONE	STOP									
																PRVTE	S -N							011	00	
																PSNGR CAR		01	DRVR	NONE	00	M	OR-Y	000	000	00
																							OR<25			

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and WB EXTO 10TH, City of West Linn, Clackamas 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														
REAR-END	0	1	2	3	0	1	0	2	1	3	0	2	0	0
YEAR 2014 TOTAL	**0**	**1**	**2**	**3**	**0**	**1**	**0**	**2**	**1**	**3**	**0**	**2**	**0**	**0**
YEAR: 2013														
REAR-END	0	0	1	1	0	0	0	1	0	0	1	0	1	0
YEAR 2013 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**
YEAR: 2012														
FIXED / OTHER OBJECT	0	1	0	1	0	1	0	0	1	1	0	0	0	1
REAR-END	0	2	1	3	0	2	0	2	0	3	0	1	0	0
YEAR 2012 TOTAL	**0**	**3**	**1**	**4**	**0**	**3**	**0**	**2**	**1**	**4**	**0**	**1**	**0**	**1**
YEAR: 2011														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	0	0	0
YEAR 2011 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**
YEAR: 2010														
REAR-END	0	0	1	1	0	0	0	0	0	1	0	1	0	0
YEAR 2010 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**
FINAL TOTAL	**0**	**4**	**6**	**10**	**0**	**4**	**0**	**6**	**2**	**9**	**1**	**4**	**1**	**1**

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and WB EXTO 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 10

SER# / INVEST	S P E D	A L C	R U G S	S C H L	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 / OWNER	QTY / MOVE / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
02020	N	N	N			06/12/2010	17	10TH ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT										07
NONE						SA		WB EXTO 10TH	SE		TRF SIGNAL	N	UNK	REAR		PRVTE		SE-NW								000		00
						3P			06	0		N	DAY	PDO		PSNGR CAR			01	DRVR	NONE	00	M	UNK		026	000		07
																								OR<25					
															02	NONE	0	STOP										
																PRVTE		SE-NW								011		00
																PSNGR CAR			01	DRVR	NONE	58	F	OR-Y		000	000		00
																								OR<25					
03946	N	N	N			10/06/2014	11	10TH ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT										22
NONE						MO		WB EXTO 10TH	SE		TRF SIGNAL	N	DRY	REAR		PRVTE		SE-NW								000		22
						8A			06	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	28	M	OR-Y		017	000		00
																								OR<25					
															02	NONE	0	STOP										
																PRVTE		SE-NW								011	013	00
																PSNGR CAR			01	DRVR	INJC	33	F	OR-Y		000	000		00
																								OR<25					
															03	NONE	0	STOP										
																UNKN		SE-NW								022		00
																UNKNOWN			01	DRVR	NONE	00	Unk	UNK		000	000		00
																								UNK					
03096	N	N	N			08/21/2012	17	10TH ST	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT										07
NONE						TU		WB EXTO 10TH	S		TRF SIGNAL	N	DRY	REAR		PRVTE		S -N								000		00
						2P			06	0		N	DAY	PDO		PSNGR CAR			01	DRVR	NONE	20	M	OR-Y		026	000		07
																								OR<25					
															02	NONE	0	STOP										
																PRVTE		S -N								011	013	00
																PSNGR CAR			01	DRVR	NONE	40	F	OR-Y		000	000		00
																								OR<25					
															03	NONE	0	STOP										
																PRVTE		S -N								022		00
																PSNGR CAR			01	DRVR	NONE	67	M	OR-Y		000	000		00
																								OR<25					
04112	N	N	N			09/20/2014	17	10TH ST	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE	0	STRGHT										29
NONE						SA		WB EXTO 10TH	S		TRF SIGNAL	N	WET	REAR		PRVTE		S -N								000		00
						1P			06	0		N	DAY	PDO		PSNGR CAR			01	DRVR	NONE	24	F	OR-Y		026	000		29
																								OR>25					
															02	NONE	0	STOP										
																PRVTE		S -N								011		00
																UNKNOWN			01	DRVR	NONE	00	M	UNK		000	000		00
																								OR<25					
03281	N	N	Y			09/04/2013	17	10TH ST	STRGHT		Y	N	CLD	S-1STOP	01	NONE	0	STRGHT										07
CITY						WE		WB EXTO 10TH	N	(NONE)	TRF SIGNAL	N	DRY	REAR		PRVTE		S -N								000		00
						8P			03			N	DLIT	PDO		PSNGR CAR			01	DRVR	NONE	37	M	OTH-Y		026	000		07
										(03)														N-RES					
															02	NONE	1	STOP										
																PRVTE		S -N								011		00
																PSNGR CAR			01	DRVR	NONE	53	M	OR-Y		000	000		00
																								OR<25					
01563	N	N	N			04/29/2012	11	WB EXTO 10TH	STRGHT		N	N	CLR	S-1STOP	01	NONE	0	STRGHT										07
NONE						SU		10TH ST	E	(NONE)	UNKNOWN	N	UNK	REAR		PRVTE		E -W								000		00
						12P			03			N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	42	M	OR-Y		026	000		07

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and WB EXTO 10TH, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 10

SER# / INVEST	S P E D	A L C	R U G S	S C H L	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 / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES / LOC	PED ERROR	ACT	EVENT	CAUSE
										(01)					02	NONE 0	STOP						OR<25				
																PRVTE	E -W								011		00
																PSNGR CAR		01	DRVR	INJC	63	F	OR-Y	000	000		00
																							OR<25				
02210	N	N	N			06/21/2011	19	WB EXTO 10TH	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT										07
NONE						TU		10TH ST	SE	(NONE)	UNKNOWN	N	DRY	REAR		PRVTE	SE-NW								000		00
						12P			03			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y	026	000		07
										(01)													OR<25				
															02	NONE 0	STOP										
																PRVTE	SE-NW								011		00
																PSNGR CAR		01	DRVR	NONE	62	F	OR-Y	000	000		00
																							OR<25				
03922	N	N	N	N	N	10/20/2012	11	WB EXTO 10TH	STRGHT		N	Y	CLD	FIX OBJ	01	NONE 0	STRGHT									029,079,010	25
CITY						SA		10TH ST	SE	(NONE)	UNKNOWN	N	WET	FIX		PRVTE	E -W								000	029,079,010	25
						10A			01			N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	25	M	OR-Y	000	017		00
										(01)													OR<25				
02637	Y	N	N	N	N	07/10/2014	11	WB EXTO 10TH	STRGHT		N	N	CLR	S-1STOP	01	NONE 0	STRGHT										27,07,01
CITY						TH		10TH ST	SE	(NONE)	NONE	N	DRY	REAR		PRVTE	SE-NW								000		00
						6P			03			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	16	F	OR-Y	016,043,026	038		27,07,01
										(01)													OR<25				
															02	NONE 0	STOP										
																PRVTE	SE-NW								011		00
																PSNGR CAR		01	DRVR	NONE	66	M	OR-Y	000	000		00
																							OR<25				
02894	N	N	N	N	N	08/06/2012	17	10TH ST	STRGHT		N	N	CLR	S-1STOP	01	POLCE 0	STRGHT										27,07
CITY						MO		WB EXTO 10TH	S	(NONE)	TRF SIGNAL	N	DRY	REAR		PUBLC	S -N								000		00
						12P			03			N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	49	M	OR-Y	016,026	038		27,07
										(02)													OR<25				
															02	NONE 0	STOP										
																PRVTE	S -N								011		00
																PSNGR CAR		01	DRVR	INJC	53	M	OR-Y	000	000		00
																							OR<25				

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and BLANKENSHIP RD, City of West Linn, Clackamas 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														
FIXED / OTHER OBJECT	0	1	0	1	0	1	0	0	1	1	0	0	1	1
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2014 TOTAL	**0**	**2**	**0**	**2**	**0**	**2**	**0**	**1**	**1**	**2**	**0**	**1**	**1**	**1**
YEAR: 2013														
REAR-END	0	0	1	1	0	0	0	1	0	0	1	1	0	0
YEAR 2013 TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**0**
FINAL TOTAL	**0**	**2**	**1**	**3**	**0**	**2**	**0**	**2**	**1**	**2**	**1**	**2**	**1**	**1**

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and BLANKENSHIP RD, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 3

SER# / INVEST	S P E D	A L C	D R S G	S W U H	C 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 / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
05072	N	N	N			12/29/2013	17	BLANKENSHIP RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						SU	0	10TH ST	SW		TRF SIGNAL	N	DRY	REAR		PRVTE	NW-SE									000		00
						5P			09	2		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	NW-SE									011		00
																PSNGR CAR		01	DRVR	NONE	28	M	OR-Y OR>25		000	000		00
02537	N	N	N			07/02/2014	17	BLANKENSHIP RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE						WE	0	10TH ST	NW		TRF SIGNAL	N	DRY	REAR		PRVTE	NW-SE									000		00
						5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	40	M	OTH-Y N-RES		026	000		29
															02	NONE 0	STOP											
																PRVTE	NW-SE									011		00
																PSNGR CAR		01	DRVR	INJC	54	F	OR-Y OR<25		000	000		00
00880	Y	N	N	N	N	03/02/2014	17	BLANKENSHIP RD	STRGHT		Y	Y	CLD	FIX OBJ	01	NONE 0	STRGHT										079	08,01
CITY						SU	100	10TH ST	NW	(NONE)	TRF SIGNAL	N	WET	FIX		PRVTE	SE-NW									000	079	00
						1P			07			N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	65	M	OR-Y OR<25		001,047	000		08,01
										(02)																		

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

10TH ST and SALAMO RD, City of West Linn, Clackamas 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														
MISCELLANEOUS	0	1	0	1	0	1	0	1	0	1	0	0	0	0
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
SIDESWIPE - MEETING	0	1	0	1	0	2	0	1	0	1	0	0	0	0
YEAR 2014 TOTAL	**0**	**2**	**1**	**3**	**0**	**3**	**0**	**3**	**0**	**3**	**0**	**1**	**0**	**0**
YEAR: 2013														
REAR-END	0	0	1	1	0	0	0	0	1	1	0	0	0	0
SIDESWIPE - MEETING	0	0	1	1	0	0	1	1	0	1	0	0	0	0
YEAR 2013 TOTAL	**0**	**0**	**2**	**2**	**0**	**0**	**1**	**1**	**1**	**2**	**0**	**0**	**0**	**0**
YEAR: 2011														
PEDESTRIAN	0	1	0	1	0	1	0	0	1	0	1	0	0	0
YEAR 2011 TOTAL	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**
FINAL TOTAL	**0**	**3**	**3**	**6**	**0**	**4**	**1**	**4**	**2**	**5**	**1**	**1**	**0**	**0**

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and SALAMO RD, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 6

SER# / INVEST	S P E D	A L C	R U G S	S C H L	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	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01823	N	N	N			05/12/2014	17	SALAMO RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						MO	0	10TH ST	S		TRF SIGNAL	N	DRY	REAR		PRVTE	S -N									000		00
						3P			06	2		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	34	M	UNK OR<25		026	000		07
															02	NONE 0	STOP											
																PRVTE	S -N									011		00
																PSNGR CAR		01	DRVR	NONE	62	M	OR-Y OR<25		000	000		00
01413	N	Y	N	N	N	04/12/2014	17	SALAMO RD	STRGHT		N	N	CLR	O-STRGHT	01	NONE 0	STRGHT											10
CITY						SA	516	10TH ST	E	(NONE)	NONE	N	DRY	SS-M		PRVTE	W -E									000		00
						5P			08			N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	49	F	OR-Y OR<25		080	000		10
										(02)					02	NONE 0	STRGHT											
																PRVTE	E -W									000		00
																PSNGR CAR		01	DRVR	INJC	29	F	OTH-Y N-RES		000	000		00
															03	NONE 0	STRGHT											
																PRVTE	E -W									000		00
																PSNGR CAR		01	DRVR	NONE	42	M	OR-Y OR<25		000	000		00
04404	N	N	N			11/19/2011	17	SALAMO RD	STRGHT		N	N	CLD	PED	01	NONE 0	STRGHT											18
NONE						SA	919	10TH ST	E	(NONE)	UNKNOWN	N	WET	PED		PRVTE	E -W									000		00
						5P			08			N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	46	M	OR-Y OR<25		000	000		00
										(02)																		
																-												
																STRGHT W E		01	PED	INJC	17	F		SHLDR	062	042		18
02248	Y	N	N	N	N	06/25/2013	17	SALAMO RD	STRGHT		N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07,01
CITY						TU	500	10TH ST	SE	(NONE)	TRF SIGNAL	N	WET	REAR		PRVTE	SE-NW									000		00
						3P			08			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	24	F	NONE OR<25		026,047	000		07,01
										(02)					02	NONE 0	STOP											
																PRVTE	SE-NW									011		00
																PSNGR CAR		01	DRVR	NONE	33	F	OR-Y OR<25		000	000		00
01364	Y	N	N	N	N	04/22/2013	17	SALAMO RD	GRADE		N	N	CLR	O-STRGHT	01	NONE 0	STRGHT											32,01
CITY						MO	500	10TH ST	SE	(NONE)	NONE	N	DRY	SS-M		PRVTE	SE-NW									000		00
						2P			07			N	DAY	PDO		TRUCK		01	DRVR	NONE	16	M	OR-Y OR<25		052,047,085	000		32,01
										(02)					02	NONE 0	STRGHT											
																PRVTE	W -E									000		00
																PSNGR CAR		01	DRVR	NONE	50	M	OR-Y OR<25		000	000		00
															03	NONE 0	STRGHT											
																PRVTE	W -E									000		00
																PSNGR CAR		01	DRVR	NONE	37	F	OR-Y OR<25		000	000		00
															03	NONE 0	STRGHT											
																PRVTE	W -E									000		00
																PSNGR CAR		02	PSNG	NO<5	04	M			000	000		00

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF WEST LINN, CLACKAMAS COUNTY

10TH ST and SALAMO RD, City of West Linn, Clackamas County, 01/01/2010 to 12/31/2014

Total crash records: 6

SER# / INVEST	S P E D	A L C	R U G S	S C H L	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 / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
															03	NONE 0 PRVTE PSNGR CAR	STRGHT W -E	03	PSNG	NO<5	04	M			000	000 000		00 00
02903 CITY	Y	N	N	N	N	07/30/2014 WE 8P	17 678	SALAMO RD 10TH ST	GRADE SE 07	(NONE) (02)	N NONE	N N N	CLR DRY DAY	NON-COLL OTH INJ	01	NONE 0 PRVTE MTRCYCLE	STRGHT NW-SE	01	DRVR	INJC	28	M	OR-Y OR<25		047	000 017		01 00 01

Traffic Signal Warrant Analysis

Project: 1969 Willamette Falls Drive
Date: 2/5/2016
Scenario: 2015 Existing Conditions

Major Street:	Willamette Falls Dr	Minor Street:	10th Street
Number of Lanes:	2	Number of Lanes:	2
PM Peak Hour Volumes:	1119	PM Peak Hour Volumes:	360

Warrant Used:

X 100 percent of standard warrants used

_____ 70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
WARRANT 1, CONDITION A		100%	70%	100%	70%
Major St.	Minor St.	Warrants	Warrants	Warrants	Warrants
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1			
Condition A: Minimum Vehicular Volume			
Major Street	11,190	10,600	
Minor Street*	3,600	3,550	**Yes**
Condition B: Interruption of Continuous Traffic			
Major Street	11,190	15,900	
Minor Street*	3,600	1,750	**No**
Combination Warrant			
Major Street	11,190	12,720	
Minor Street*	3,600	2,840	**No**

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis

Project: 1969 Willamette Falls Drive
Date: 2/4/2016
Scenario: 2017 Background Plus Site Conditions

Major Street:	10th Street	Minor Street:	8th Street/8th Court
Number of Lanes:	2	Number of Lanes:	2
PM Peak Hour Volumes:	1176	PM Peak Hour Volumes:	131

Warrant Used:

X 100 percent of standard warrants used

_____ 70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
WARRANT 1, CONDITION A		100%	70%	100%	70%
Major St.	Minor St.	Warrants	Warrants	Warrants	Warrants
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1			
Condition A: Minimum Vehicular Volume			
Major Street	11,760	10,600	
Minor Street*	1,310	3,550	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	11,760	15,900	
Minor Street*	1,310	1,750	**No**
Combination Warrant			
Major Street	11,760	12,720	
Minor Street*	1,310	2,840	**No**

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis

Project: 1969 Willamette Falls Drive
Date: 2/5/2016
Scenario: 2017 Background Plus Site Conditions

Major Street:	Willamette Falls Drive	Minor Street:	12th Street
Number of Lanes:	2	Number of Lanes:	1
PM Peak Hour Volumes:	1169	PM Peak Hour Volumes:	162

Warrant Used:

X 100 percent of standard warrants used

70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
WARRANT 1, CONDITION A		100%	70%	100%	70%
Major St.	Minor St.	Warrants	Warrants	Warrants	Warrants
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1			
Condition A: Minimum Vehicular Volume			
Major Street	11,690	10,600	
Minor Street*	1,620	2,650	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	11,690	15,900	
Minor Street*	1,620	1,350	**No**
Combination Warrant			
Major Street	11,690	12,720	
Minor Street*	1,620	2,120	**No**

* Minor street right-turning traffic volumes reduced by 25%

Left-Turn Lane Warrant Analysis

Project: 1969 Willamette Falls Drive
Intersection: Willamette Falls Drive at 11th Street
Date: 2/4/2016
Scenario: 2015 Existing Conditions - PM Peak Hour

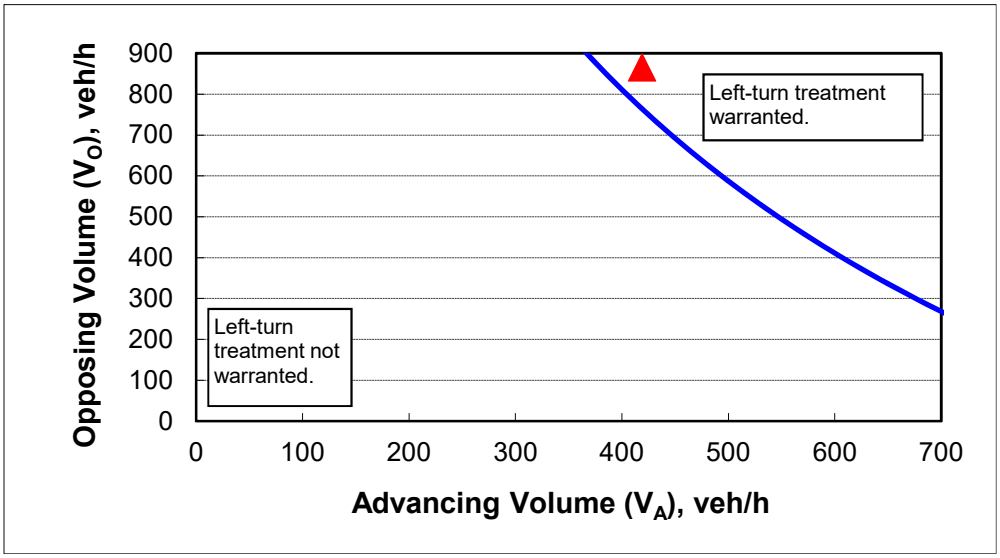
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	5%
Advancing volume (V_A), veh/h:	419
Opposing volume (V_O), veh/h:	865

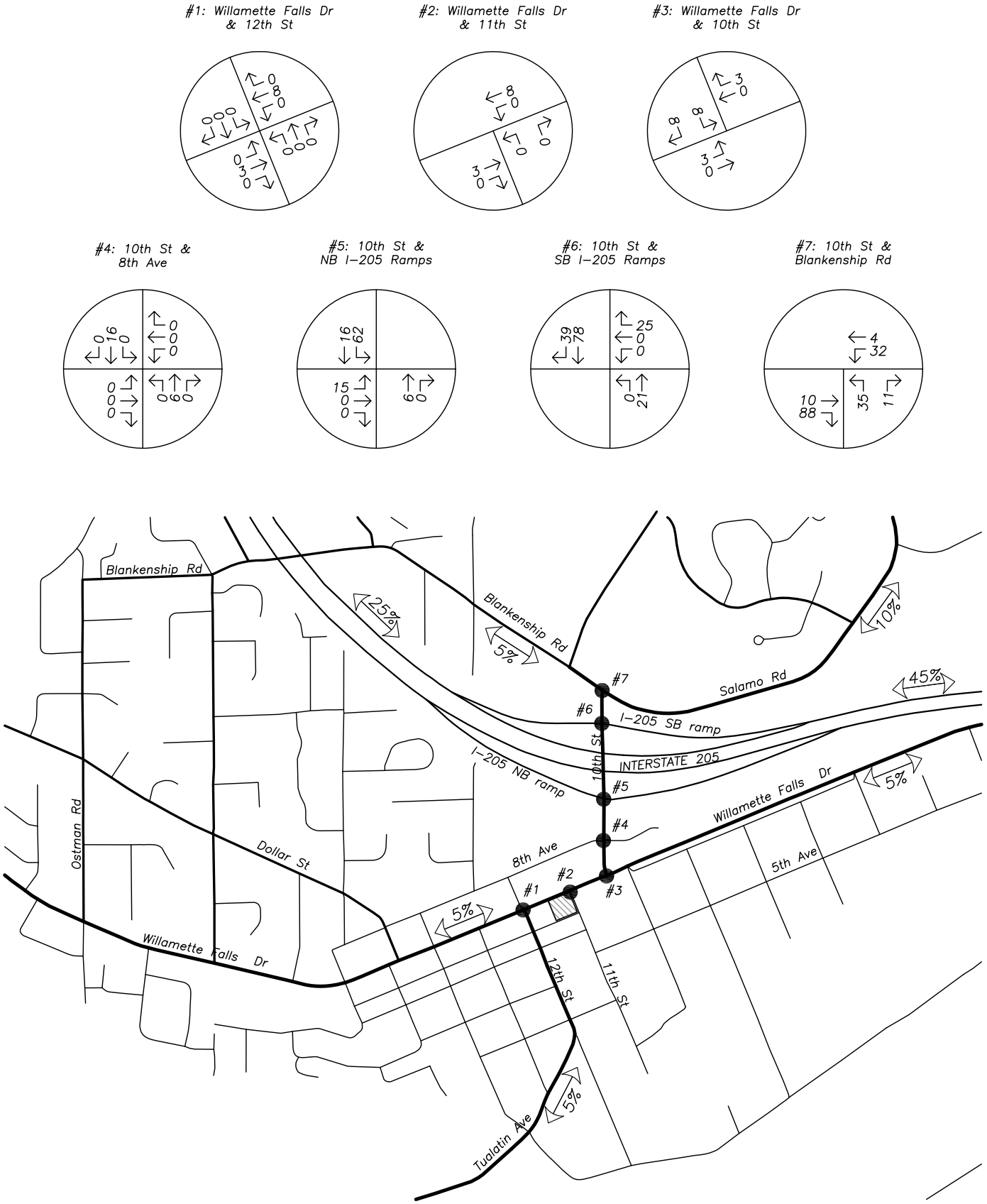
OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	379
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

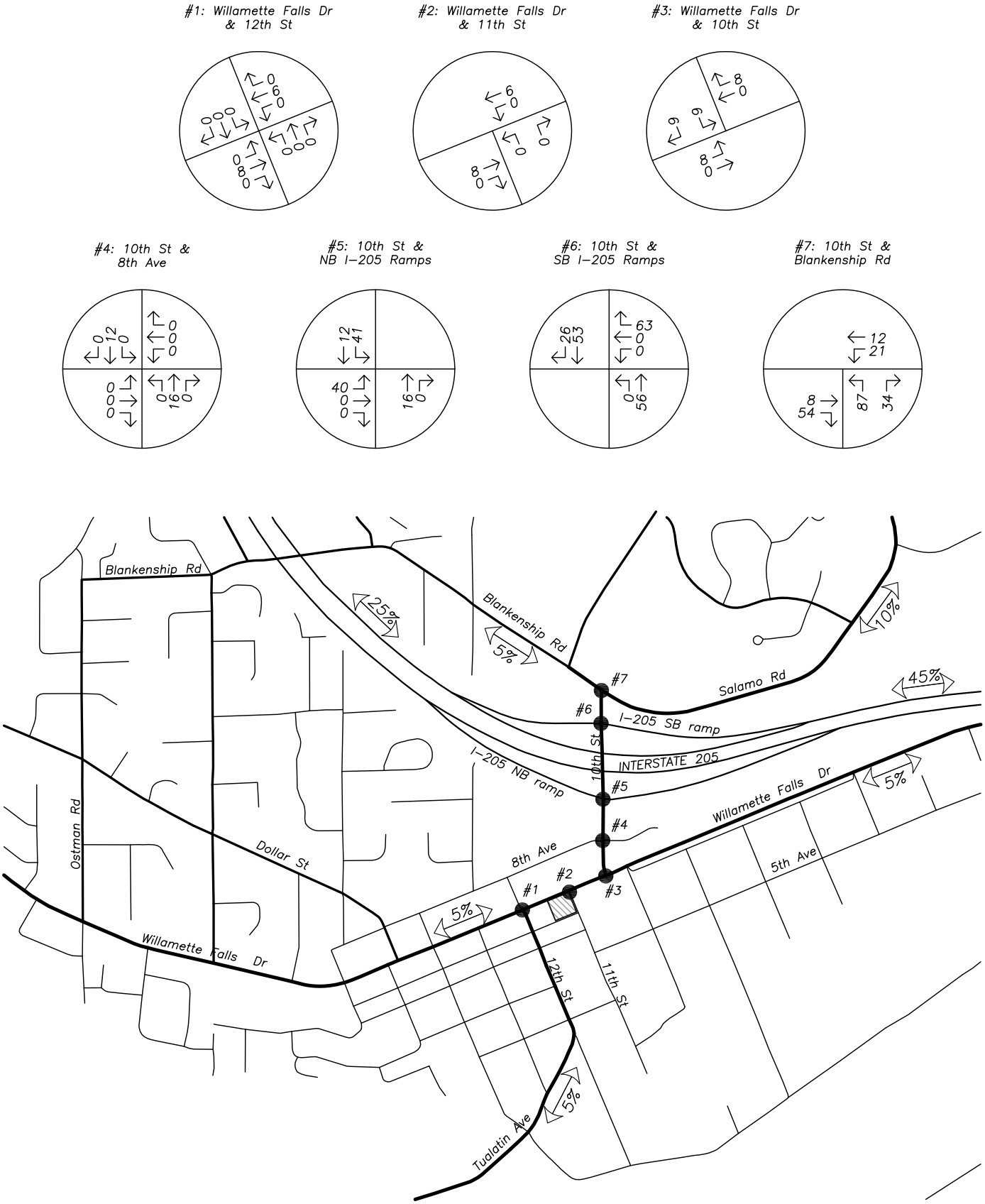


TRAFFIC VOLUMES
In–Process Development – Tannler Drive Mixed–Use
AM Peak Hour

no scale

FIGURE 12

PAGE APPENDIX



TRAFFIC VOLUMES
In–Process Development – Tannler Drive Mixed–Use
PM Peak Hour

no scale

FIGURE 13

PAGE APPENDIX

Intersection Name: I-205 SB @ 10th / Salamo / Blankenship
Controller 122319.2 Channel: - Drop: 0
System: TransCore TransSuite TCS
Controller Type: Voyage
Revision - Version -
TransCore Unified Controller Manager 10.3.1

Zero Tables

DetectorPlans
DetectorFailMonitor
PedOverlaps
ADVANCE WARNING
DYNAMIC FYLTA
ServicePlans1 4
ServicePlans5 8
MaxPlans
CoordinationPlans
CoordinationPlansCont
PlatoonProgression
ForceOffPercents
DayProgram 41 80
DayProgram 81 120
DayProgram 121 160
DayProgram 161 200
ExceptionDays
PreemptionSequence 5 8
PriorityReturnAndSpecialIntervals
LightRailTrain
IEEE1570
TransitPriorityAOFP
GroupTiming
TruckPriority
IO Options
CommandBox 1 96
CommandBox 97 192
CommandBox 193 256

Non-Zero Tables

ControllerFunctionTiming
Phase Timing
Dual Entry
OtherControllerFunctions
DetectorData
SystemDetector
Vehicle Overlaps
FYLTA
CoordinationModes
CircuitMapping
DynamicPhaseLength
DayProgram 1 40
WeekProgram
YearDays
TimeClockReferences
CircuitOverrides 1 100
CircuitOverrides 101 199
PreemptionSequence 1 4
SequenceTiming
TransitPriority
170 Inputs
170 Outputs
CONTROLLER ID

Controller Function and Timing

Security, Sequence and Timing (Next/2/1, Next/2/2/3/A, Next/2/2/5)					
Security Code	0	0 = disabled, or 1000-9999	First All Red	8.0	0.0 to 25.5 seconds
Sequence	7	0 = sequential, 1 = quad left turn, 2-6 = special A-E, 7 = lead lag			
Power up Flash	0.0	0.0 - 25.5 seconds			

Initialization (Next/2/2/5)			Lead Lag (Next/2/2/3/A)			
Ring 1	Ring 2	Interval	Phases 1 - 2	Phases 3 - 4	Phases 5 - 6	Phases 7 - 8
1	0	0	2	2	2	2
Phase 1 - 8	0 = Red, 1 = Yel, 2 = Grn		0 = no reversal, 1 = reversal, 2 = by coord plan or clock			

(Next/2/2/3) Phase Functions	
Phase Used	1 2 3 4 5 6 7 8
Restricted Phases	- - - - - - - -
Exclusive Phases	- - - - - - 7 -

(Next/2/2/1)	
Yellow Lock	- - - - - - - -
Min Recall	- 2 - - 5 - - -
Max Recall	- - - - - - - -
Ped Recall	- - - - - - - -
Red Lock	- - - - - - - -
Max Out Recall Inhibit	1 2 3 4 5 6 7 8
Soft Recall	- - - - - - - -
Free Walk Rest	- - - - - - - -
Conditional Ped	- - - - - - - -
Disable Inhibit Max Termination	- - - - - - - -
Call To Non-Act 1	- - - - - - - -
Call To Non-Act 2	- - - - - - - -

Phase Times (Next/2/2/2)									
Phase	1	2	3	4	5	6	7	8	
Movement									
Minimum Green	4	6	4	6	10	2	6	6	0 - 255 sec.
Passage	2.3	2.3	2.3	2.3	5.2	0.5	2.3	2.3	0.0 - 25.5 sec.
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	0.0 - 25.5 sec.
Red Clearance	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.0	0.0 - 25.5 sec. or 0 - 255 sec.
Max 1	21	37	30	16	40	6	25	32	0 - 255 sec.
Max 2	21	37	30	16	40	6	25	32	0 - 255 sec.
Walk	0	5	5	5	5	0	5	0	0 - 255 sec.
Ped Clear	0	11	10	23	12	0	13	0	0 - 255 sec.
Seconds Per Actuation	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0 - 25.5 sec.
Time Before Reduction	8	8	8	8	10	0	8	8	0 - 255 sec.
Time to Reduce	3	3	3	3	20	0	3	3	0 - 255 sec.
Minimum Gap	0.5	0.5	0.5	0.5	3.2	0.5	0.5	0.5	0.0 - 25.5 sec.
Max Variable Initial	4	6	4	6	13	2	6	6	0 - 255 sec.
Max Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
Auto Max	0	0	0	0	0	0	0	0	0 - 255 sec.
Advanced walk	0	0	0	0	0	0	0	0	0 - 255 sec.

Phase Times (Next/2/2/9/5)									
Inhibit Min Yellow									X = On
Red Decimal Off									X = On

Dual Entry (Next/2/2/9/3)

Mode	1	0 = off, 1 = on, 2 = Not Used, 3 = by coord plan, 4 = by time clock circuit 61

Dual Entry Ph -->	1	2	3	4	5	6	7	8	
Phase	0	0	0	8	0	0	0	4	0 = none, 1-8 = phase 1-8

Cond Service (Next/2/2/9/3/A)			5 Sec Head Logic (Next/2/2/9/4)							
	Mode	CS Max Time	X Omits Y		Anti-Trap			Yellow Blanking LT	
Phase 1	0	7	X:Y		Trap Protected Phase		Next Phase	Phase	
Phase 3	0	0	6:1	0	1	0	< (5)	1	0
Phase 5	0	0	8:3	0	3	0	< (7)	3	0
Phase 7	0	0	2:5	0	5	0	< (1)	5	0
0 = off, 1 = C.S.On. 2 = C.S. on by TOD circuit 57, 3 = N/A, 4 = C.S. and C.R. On, 5 = C.R. on by TOD circuit 57.			4:7	0	7	0	< (3)	7	0
			0 = off, 1 = side call, 2 = no side call		X = On				

Other Controller Functions (Next/2/2/9/1, Next/2/2/9/5)

Inhibit Simultaneous Gap Out	1 - 3 4 5 - 7 8	
Last Car Passage	2	0 = recall phase, 1 = last car passage, 2 = NOT recall - Not last car passage
Red Revert (+2seconds)	0.0	0 - 25.5 sec.
Auto Ped Clear	On	X = On
FDW thru Yellow	Off	X = On
Red Rest Delay	0.0	0 - 25.5 sec.
Change Sequence	Off	X = On (After a download without a power on - off cycle)
Advanced Flash Rate	60 FPM	0 = Disabled (60 FPM), 1 = 120 FPM
Ped Push Button Time	null	0 = Disable, 0 - 5 Seconds

Phase ->	1	2	3	4	5	6	7	8	
Red Clear Extension Detector	0	0	0	0	0	0	0	0	0 = none 1 - 32 = detector 1 - 32
Red Clear Extension Red Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec.

Local Detectors (Next/2/2/4/1)

Detector Data

Detector	Description	Yellow Lock	Detector Inhibit	Call Phase	Extend Phase	Switch Phase	Delay Time	Stretch / Disconnect Time	Delay or Disconnect Mode
1				1	1	0	0	2.0	0
2				1	1	0	0	0.0	0
3				3	3	0	0	2.0	0
4				3	3	0	0	0.0	0
5				5	5	0	0	0.0	0
6				5	5	0	0	0.0	0
7				7	7	0	0	2.0	0
8				7	7	0	0	0.0	0
9				2	2	0	0	0.0	0
10				2	2	3	0	2.0	0
11				2	2	3	0	0.0	0
12				2	2	3	0	0.0	0
13				2	2	0	0	0.0	0
14				4	4	0	0	2.0	0
15				4	4	0	0	0.0	0
16				4	4	0	0	0.0	0
17				4	4	0	0	0.0	0
18				4	4	0	0	0.0	0
19				7	7	0	0	2.0	0
20				7	7	0	0	2.0	0
21				5	5	0	0	2.0	0
22				5	5	0	0	0.0	0
23				5	5	0	0	0.0	0
24				8	8	0	0	2.0	0
25				8	8	0	0	0.0	0
26				8	8	0	0	0.0	0
27				8	8	0	0	0.0	0
28				8	8	0	0	0.0	0
29				5	5	4	3	0.0	0
30				7	7	0	0	0.0	0
31				0	0	0	0	0.0	0
32				0	0	0	0	0.0	0

yellow lock, detector inhibit, - X = On; call, extend, phase - 0 = none 1 - 8 = phase 1 - 8; delay time - 0 - 255 sec
stretch / disconnect time - 0.0 - 25.5 sec.; delay or disconnect Mode - 0 -12

Local Detectors 33 - 64 (Next/2/2/4/6)

Detector Data

Detector	Description	Yellow Lock	Detector Inhibit	Call Phase	Extend Phase	Switch Phase	Delay Time	Stretch / Disconnect Time	Delay or Disconnect Mode
33		N/A	N/A	0	0	N/A	N/A	N/A	N/A
34		N/A	N/A	0	0	N/A	N/A	N/A	N/A
35		N/A	N/A	0	0	N/A	N/A	N/A	N/A
36		N/A	N/A	0	0	N/A	N/A	N/A	N/A
37		N/A	N/A	0	0	N/A	N/A	N/A	N/A
38		N/A	N/A	0	0	N/A	N/A	N/A	N/A
39		N/A	N/A	0	0	N/A	N/A	N/A	N/A
40		N/A	N/A	0	0	N/A	N/A	N/A	N/A
41		N/A	N/A	0	0	N/A	N/A	N/A	N/A
42		N/A	N/A	0	0	N/A	N/A	N/A	N/A
43		N/A	N/A	0	0	N/A	N/A	N/A	N/A
44		N/A	N/A	0	0	N/A	N/A	N/A	N/A
45		N/A	N/A	0	0	N/A	N/A	N/A	N/A
46		N/A	N/A	0	0	N/A	N/A	N/A	N/A
47		N/A	N/A	0	0	N/A	N/A	N/A	N/A
48		N/A	N/A	0	0	N/A	N/A	N/A	N/A
49		N/A	N/A	0	0	N/A	N/A	N/A	N/A
50		N/A	N/A	0	0	N/A	N/A	N/A	N/A
51		N/A	N/A	0	0	N/A	N/A	N/A	N/A
52		N/A	N/A	0	0	N/A	N/A	N/A	N/A
53		N/A	N/A	0	0	N/A	N/A	N/A	N/A
54		N/A	N/A	0	0	N/A	N/A	N/A	N/A
55		N/A	N/A	0	0	N/A	N/A	N/A	N/A
56		N/A	N/A	0	0	N/A	N/A	N/A	N/A
57		N/A	N/A	0	0	N/A	N/A	N/A	N/A
58		N/A	N/A	0	0	N/A	N/A	N/A	N/A
59		N/A	N/A	0	0	N/A	N/A	N/A	N/A
60		N/A	N/A	0	0	N/A	N/A	N/A	N/A
61		N/A	N/A	0	0	N/A	N/A	N/A	N/A
62		N/A	N/A	0	0	N/A	N/A	N/A	N/A
63		N/A	N/A	0	0	N/A	N/A	N/A	N/A
64		N/A	N/A	0	0	N/A	N/A	N/A	N/A

yellow lock, detector inhibit, - X = On; call, extend, phase - 0 = none 1 - 8 = phase 1 - 8; delay time - 0 - 255 sec
stretch / disconnect time - 0.0 - 25.5 sec.; delay or disconnect Mode - 0 -12

Detector Plans (Next/2/2/4/5)

Loop Number										
Plan Detectors		0	0	0	0	0	0	0	0	0 - 32, 0 = none, 1 - 32 = detectors 1- 32
Detector Plan 1	Call Phase	0	0	0	0	0	0	0	0	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extended Phase	0	0	0	0	0	0	0	0	
	Switch Phase	0	0	0	0	0	0	0	0	
	Delay Time	0	0	0	0	0	0	0	0	0 - 255 seconds
	Stretch / Disconnect Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 seconds
	Delay / Disconnect Mode	0	0	0	0	0	0	0	0	0 - 14
Detector Plan 2	Call Phase	0	0	0	0	0	0	0	0	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extended Phase	0	0	0	0	0	0	0	0	
	Switch Phase	0	0	0	0	0	0	0	0	
	Delay Time	0	0	0	0	0	0	0	0	0 - 255 seconds
	Stretch / Disconnect Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 seconds
	Delay / Disconnect Mode	0	0	0	0	0	0	0	0	0 - 14
Detector Plan 3	Call Phase	0	0	0	0	0	0	0	0	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extended Phase	0	0	0	0	0	0	0	0	
	Switch Phase	0	0	0	0	0	0	0	0	
	Delay Time	0	0	0	0	0	0	0	0	0 - 255 seconds
	Stretch / Disconnect Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 seconds
	Delay / Disconnect Mode	0	0	0	0	0	0	0	0	0 - 14

Detector Fail (Next/2/2/4/3)

Detector Fail Sample Period (all detectors)	0	0 - 255 minutes
Dynamic Phase Length Fail Period	0	0 - 255 minutes

Video Fail Inputs	1	2	3	4	5	6	7	8	0 = none, 1 - 8 = phase 1 - 8
Phase Recalled	0	0	0	0	0	0	0	0	

System Detectors	1	2	3	4	5	6	7	8	0 = none, 1 - 32 = detector 1 - 32
Local Detector	1	5	9	10	19	20	29	30	

Flash (Next/2/2/5)

Flash Entry			Flash Exit		
Ring 1	Ring 2	Interval	Ring 1	Ring 2	Interval
0	0	red	1	0	0
0 = none, phase 1 - 8		0 = red, 1 = yel, 2 = grn	0 = none, phase 1 - 8		0 = red, 1 = yel, 2 = grn

Soft Flash (Next/2/2/5/A)

Phase	1	2	3	4	5	6	7	8
	3	4	3	4	3	4	3	4

Overlap	A	B	C	D	E	F	G	H	I	J	K	L
	3	4	3	4	3	4	3	4	3	4	3	4

0 = dark, 1=flash yel WIG, 2 = flash yel WAG, 3 = flash red WIG, 4 = flash red WAG

Internal Logic Output	1	2	3	4	5	6	7	8	9	10	11	12	0 = normal, 1 = dark, 2 = flash WIG
	0	0	0	0	0	0	0	0	0	0	0	0	

Overlaps (Next/2/2/8/1)

Vehicle Overlaps	Phase or Movement	Phase or Movement								Extension Green	Clearance		A - D 0 = no overlap 1 = overlap 2 = 60 FPM 3 = Not ped overlap 4 = Comp Phase 5 = Prevent Ext 6 = Not Vehicle E - L 0 = no Overlap 1 = Overlap Green, Yellow, Red 0.0 - 25.5 sec
		1	2	3	4	5	6	7	8		Yellow	Red	
A		0	0	0	0	1	1	1	0	0.0	0.0	0.0	
B		0	1	1	1	0	0	0	0	0.0	0.0	0.0	
C		0	0	1	0	1	1	1	0	0.0	0.0	0.0	
D		0	0	0	1	1	0	1	0	0.0	0.0	0.0	
E		0	0	0	0	0	0	1	0	0.0	0.0	0.0	
F		0	0	0	0	0	0	0	0	0.0	0.0	0.0	
G		0	0	0	0	0	0	0	0	0.0	0.0	0.0	
H		0	0	0	0	0	0	0	0	0.0	0.0	0.0	
I		0	0	0	0	0	0	0	0	0.0	0.0	0.0	
J		0	0	0	0	0	0	0	0	0.0	0.0	0.0	
K		0	0	0	0	0	0	0	0	0.0	0.0	0.0	
L		0	0	0	0	0	0	0	0	0.0	0.0	0.0	

(Next/2/2/8/6/8)

Overlap	Not Ped-Ped Overlaps A B C D E F G H
A	- - - - - - - -
B	- - - - - - - -
C	- - - - - - - -
D	- - - - - - - -

Ped Overlaps (Next/2/2/8/5)

Ped Overlap	Phase	Recall	Walk	Ped Clear	Walk, Ped Clear 0 - 255 seconds
A	- - - - - - - -		0	0	
B	- - - - - - - -		0	0	
C	- - - - - - - -		0	0	
D	- - - - - - - -		0	0	
E	- - - - - - - -		0	0	
F	- - - - - - - -		0	0	
G	- - - - - - - -		0	0	
H	- - - - - - - -		0	0	

Advance Warning (Next/2/2/8/3)

	E	F	G	H	I	J	K	L	
Enable	0	0	0	0	0	0	0	0	0 = Disable, 1 = Enable
1st Conditional Overlaps	0	0	0	0	0	0	0	0	0 = None, 1 = OL E, 2 = OL F, 3 = OL G, 4 = OL H, 5 = OL I, 6 = OL J, 7 = OL K, 8 = OL L
2nd Conditional Overlaps	0	0	0	0	0	0	0	0	
Advance Deactivation Delay	0	0	0	0	0	0	0	0	0 - 99 sec

Flashing Yellow Left Turn Arrow (FYLTA) (Next/2/2/8/6)

Phase Pairs ->	1 - 2	3 - 4	5 - 6	7 - 8	
Enable	0	0	0	0	0 = off, 3 = 3 outputs, 4 = 4 outputs, 5 = 5 outputs
Even Omits Odd	0	0	0	0	0 / 1 / 2
Detector Switch Odd / Even	1	1	1	1	X = on, odd phase must be omitted
Red Transition	2.0	2.0	2.0	2.0	0.0 or 2.0 - 25.5 sec.
Red Extension	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
Return to GLTA	0	0	0	0	0 = off, 1 = max out, 2= yellow lock

Gap Dependent FYLTA					
Detector Input	0	0	0	0	0 = Disabled, 1 - 64 = Local Detector 1 - 64
Minimum Delay	0	0	0	0	0 - 255 seconds
Detector Gap Time	0.0	0.0	0.0	0.0	0 - 25.5 seconds.
Maximum Delay	0	0	0	0	0 - 255 seconds
Not Ped	0	0	0	0	

Dynamic Flashing Yellow Left Turn Arrow

Phase Pairs	**1 - 2**	**3 - 4**	**5 - 6**	**7 - 8**	
[Plan A] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

[Plan B] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

[Plan C] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

[Plan D] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

CoordinationData		
Coordination Modes (Next/2/3/1)		
Flash Mode	33	0=off, 1=on, 33=time clock, 34=comm, 35=hardwire
Coordination Plan Mode	34	0=free, 1-32 = coord plan 1-32, 33=time clock, 34=comm, 35=hardwire
Offset Seeking Mode	2	0=add only, 1=dwell, 2=fastway
Late Ped	0	0 = off, 1 = on
Coord Walk Rest	0	0 = off, 1 = on, 2 = by tod circuit 160, 3 = end of walk, 4 = coord ped during perms
Zero Mode(TS2 only)	0	0=start of main street, 1=end of main street, 2=by TOD circuit 144, 3 = first green
(Next/2/3/4/1)		
Repeated Ped Service	2	0=off, 1=on (no coord ped), 2=on (beginning green coord ped), 3=on (coord ped always)
Omit Phase During Repeated Phase	- - - - - - - -	-- = service allowed ; # = service prevented

Coordination Plans (Next/2/3/2)

Coord Plan	Coordination Phases		Cycle Length	Offset Time	Min Cycle Len Dwell Time	Permissive	Service Plan	Max Plan
	Ring 1	Ring 2						
1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0
	0 - 8		0 - 255 sec				0 - 8	

Circuit Mapping (Next/2/3/3)

Circuit Map	Coord Plan	Time Clock Circuit 1	2	3	4	5	6	7	8
1	34	0	0	0	0	0	0	0	0
2	34	0	0	0	0	0	0	0	0
3	34	0	0	0	0	0	0	0	0
4	34	0	0	0	0	0	0	0	0
5	34	0	0	0	0	0	0	0	0
6	34	0	0	0	0	0	0	0	0
7	34	0	0	0	0	0	0	0	0
8	34	0	0	0	0	0	0	0	0
9	34	0	0	0	0	0	0	0	0
10	34	0	0	0	0	0	0	0	0
11	34	0	0	0	0	0	0	0	0
12	34	0	0	0	0	0	0	0	0
13	34	0	0	0	0	0	0	0	0
14	34	0	0	0	0	0	0	0	0
15	34	0	0	0	0	0	0	0	0
16	34	0	0	0	0	0	0	0	0
17	34	0	0	0	0	0	0	0	0
18	34	0	0	0	0	0	0	0	0
19	34	0	0	0	0	0	0	0	0
20	34	0	0	0	0	0	0	0	0

coord plan - 0 = free, 1 - 32 = coord plan 1 - 32, 33 = any, 34 none selected
time clock circuits - 0 = not used, or circuits 6 - 199

Dynamic Phase Lengths (Next/2/3/4/4)

		Phase -> 1	2	3	4	5	6	7	8	
Back Detector		1	31	0	29	5	32	0	30	0 = none, 1-32 = detector 1-32
Lane Factor		1.0	1.9	0.0	1.3	1.0	1.9	0.0	1.5	0 = none, 0.5 - 5.0
Check Out Detector		0	0	0	0	0	0	0	0	0 = none, 1-32 = detector 1-32
Coord Delta Force Off	Set A	5	5	0	5	5	5	0	5	0 - 255 sec
	Set B	0	0	0	5	5	0	0	5	
	Set C	0	0	0	0	0	0	0	0	
	Set D	0	0	0	0	0	0	0	0	
Free Delta Max	Set A	0	0	0	0	0	0	0	0	
	Set B	0	0	0	0	0	0	0	0	
	Set C	0	0	0	0	0	0	0	0	
	Set D	0	0	0	0	0	0	0	0	

Auto Permissive Min Green (Next/2/3/4/3)

Phase ->	1	2	3	4	5	6	7	8	
Auto Perm Min Green	0	0	0	0	0	0	0	0	0 - 255 sec.

Time of Day Data (Next/2/4/1)

Day Program						
	Day Prog	Time	Coord Plan or Circuit	Coord Plan # or Circuit #	Circuit Abbrev	State On/Off
1	1	16:00	Circuit	13	MX2	X
2	1	18:30	Circuit	13	MX2	
3	0	00:00	Circuit	0	None / Coord Plan	
4	0	00:00	Circuit	0	None / Coord Plan	
5	0	00:00	Circuit	0	None / Coord Plan	
6	0	00:00	Circuit	0	None / Coord Plan	
7	0	00:00	Circuit	0	None / Coord Plan	
8	0	00:00	Circuit	0	None / Coord Plan	
9	0	00:00	Circuit	0	None / Coord Plan	
10	0	00:00	Circuit	0	None / Coord Plan	
11	0	00:00	Circuit	0	None / Coord Plan	
12	0	00:00	Circuit	0	None / Coord Plan	
13	0	00:00	Circuit	0	None / Coord Plan	
14	0	00:00	Circuit	0	None / Coord Plan	
15	0	00:00	Circuit	0	None / Coord Plan	
16	0	00:00	Circuit	0	None / Coord Plan	
17	0	00:00	Circuit	0	None / Coord Plan	
18	0	00:00	Circuit	0	None / Coord Plan	
19	0	00:00	Circuit	0	None / Coord Plan	
20	0	00:00	Circuit	0	None / Coord Plan	
21	0	00:00	Circuit	0	None / Coord Plan	
22	0	00:00	Circuit	0	None / Coord Plan	
23	0	00:00	Circuit	0	None / Coord Plan	
24	0	00:00	Circuit	0	None / Coord Plan	
25	0	00:00	Circuit	0	None / Coord Plan	
26	0	00:00	Circuit	0	None / Coord Plan	
27	0	00:00	Circuit	0	None / Coord Plan	
28	0	00:00	Circuit	0	None / Coord Plan	
29	0	00:00	Circuit	0	None / Coord Plan	
30	0	00:00	Circuit	0	None / Coord Plan	
31	0	00:00	Circuit	0	None / Coord Plan	
32	0	00:00	Circuit	0	None / Coord Plan	
33	0	00:00	Circuit	0	None / Coord Plan	
34	0	00:00	Circuit	0	None / Coord Plan	
35	0	00:00	Circuit	0	None / Coord Plan	
36	0	00:00	Circuit	0	None / Coord Plan	
37	0	00:00	Circuit	0	None / Coord Plan	
38	0	00:00	Circuit	0	None / Coord Plan	
39	0	00:00	Circuit	0	None / Coord Plan	
40	0	00:00	Circuit	0	None / Coord Plan	
	1 - 15	hh:mm	X = On = Coord Plan	coord plan 0 - 32 or circuit 1-199		X = On

WEEK PROGRAM (Next/2/4/2)

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	1	1	1	1	1	2
2	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1

0 = none, 1 - 15 = day plan

EXCEPTION DAYS (Next/2/4/6)

	Week of Month	Month	Day of Month	Day of Week	Day Prog
1	0	0	0		0
2	0	0	0		0
3	0	0	0		0
4	0	0	0		0
5	0	0	0		0
6	0	0	0		0
7	0	0	0		0
8	0	0	0		0
9	0	0	0		0
10	0	0	0		0
11	0	0	0		0
12	0	0	0		0
13	0	0	0		0
14	0	0	0		0
15	0	0	0		0
16	0	0	0		0
17	0	0	0		0
18	0	0	0		0
19	0	0	0		0
20	0	0	0		0
21	0	0	0		0
22	0	0	0		0
23	0	0	0		0
24	0	0	0		0
25	0	0	0		0
26	0	0	0		0
27	0	0	0		0
28	0	0	0		0
29	0	0	0		0
30	0	0	0		0
31	0	0	0		0
32	0	0	0		0
33	0	0	0		0
34	0	0	0		0
35	0	0	0		0
	0 - 5	0 - 12	1 - 31	1 - 7	0 - 15

Time Clock References (Next/2/4/5)

Synch reference Mode	0	0 = timed, 1 = by event
Synch Reference Time	00:00	00:00 - 23:59
Daylight Saving Enable	On	X = On
Reset Time	00:00	00:00 - 23:59

Time Zone Offset (Next/2/4/8)

Time Zone	Not Loaded	0

-43200 - 43200: EST -18000; CST -21600; MST -25200; PST -28800

YEAR PROGRAM (Next/2/4/3)

From Date	To Date	Week Program
12/28/2014	01/02/2016	1
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0

New Years Day - Date - January 1st

Martin Luther King Day - DOW WOM - 3rd Monday of January

President's Day - DOW WOM - 3rd Monday February

Memorial Day - DOW WOM - Last Monday May

Four of July - Date - July 4th

Labor Day - DOW WOM - 1st Monday September

Columbus Day - DOW WOM - 2nd Monday October

Vetern's Day - Date - November 11th

Thankgiving - DOW WOM - 4th Thursday November

Christmas - Date - December 25th

CIRCUIT OVERRIDES 1 - 100 (Next/2/4/4)

1 - Coord Line 1	CL1	2 = TOD	51 - Ped Omit 3	PO3	2 = TOD
2 - Coord Line 2	CL2	2 = TOD	52 - Ped Omit 4	PO4	2 = TOD
3 - Coord Line 4	CL4	2 = TOD	53 - Ped Omit 5	PO5	2 = TOD
4 - Coord Line 8	CL8	2 = TOD	54 - Ped Omit 6	PO6	2 = TOD
5 - Coord Line 16	C16	2 = TOD	55 - Ped Omit 7	PO7	2 = TOD
6 - Coordinated Operation	CRD	2 = TOD	56 - Ped Omit 8	PO8	2 = TOD
7 - Soft Flash	SFL	2 = TOD	57 - Conditonal Service	CVS	2 = TOD
8 - Enable System Relays	ESR	2 = TOD	58 - Inhibit Simultaneous Gap Out	ISG	1 = On
9 - Call to Non Actuated Ring 1	CN1	2 = TOD	59 - Inhibit Hardwire	HWI	2 = TOD
10 -Call to Non Actuated Ring 2	CN2	2 = TOD	60 - Ped Override Mode	POM	1 = On
11 - Walk Rest Modifier	WRM	2 = TOD	61 - Dual Entry	DLE	1 = On
12 - Min Recall	MIN	2 = TOD	62 - Exclusive Ped	EPD	2 = TOD
13 - Max 2 Both Rings	MX2	2 = TOD	63 - Call to Time Clock Mode	CTC	2 = TOD
14 - Coord Inhibit Max Ring 1	IM1	2 = TOD	64 - Dual Enhanced Ped	DEP	2 = TOD
15 - Coord Inhibit Max Ring 2	IM2	1 = On	65 - Service Plan 1	SP1	2 = TOD
16 - Call to Free	CTF	2 = TOD	66 - Service Plan 2	SP2	2 = TOD
17 - TOD Output 1	TO1	2 = TOD	67 - Service Plan 3	SP3	2 = TOD
18 - TOD Output 2	TO2	2 = TOD	68 - Service Plan 4	SP4	2 = TOD
19 - TOD Output 3	TO3	2 = TOD	69 - Service Plan 5	SP5	2 = TOD
20 - TOD Output 4	TO4	2 = TOD	70 - Service Plan 6	SP6	2 = TOD
21 - TOD Output 5	TO5	2 = TOD	71 - Service Plan 7	SP7	2 = TOD
22 - TOD Output 6	TO6	2 = TOD	72 - Service Plan 8	SP8	2 = TOD
23 - TOD Output 7	TO7	2 = TOD	73 - Max Plan 1	MP1	2 = TOD
24 - TOD Output 8	TO8	2 = TOD	74 - Max Plan 2	MP2	2 = TOD
25 - Vehicle Call Phase 1	VC1	2 = TOD	75 - Max Plan 3	MP3	2 = TOD
26 - Vehicle Call Phase 2	VC2	2 = TOD	76 - Max Plan 4	MP4	2 = TOD
27 - Vehicle Call Phase 3	VC3	2 = TOD	77 - Max Plan 5	MP5	2 = TOD
28 - Vehicle Call Phase 4	VC4	2 = TOD	78 - Max Plan 6	MP6	2 = TOD
29 - Vehicle Call Phase 5	VC5	2 = TOD	79 - Max Plan 7	MP7	2 = TOD
30 - Vehicle Call Phase 6	VC6	2 = TOD	80 - Max Plan 8	MP8	2 = TOD
31 - Vehicle Call Phase 7	VC7	2 = TOD	81 - Transit Priority Max Group 1	TG1	2 = TOD
32 - Vehicle Call Phase 8	VC8	2 = TOD	82 - Transit Priority Max Group 2	TG2	2 = TOD
33 - Ped Call Phase 1	PC1	2 = TOD	83 - Transit Priority Max Group 3	TG3	2 = TOD
34 - Ped Call Phase 2	PC2	2 = TOD	84 - Transit Priority Max Group 4	TG4	2 = TOD
35 - Ped Call Phase 3	PC3	2 = TOD	85 - Transit Priority Max Group 5	TG5	2 = TOD
36 - Ped Call Phase 4	PC4	2 = TOD	86 - Transit Priority Max Group 6	TG6	2 = TOD
37 - Ped Call Phase 5	PC5	2 = TOD	87 - Transit Priority Max Group 7	TG7	2 = TOD
38 - Ped Call Phase 6	PC6	2 = TOD	88 - Transit Priority Max Group 8	TG8	2 = TOD
39 - Ped Call Phase 7	PC7	2 = TOD	89 - Inhibit Gap Reducing 1	GR1	2 = TOD
40 - Ped Call Phase 8	PC8	2 = TOD	90 - Inhibit Gap Reducing 2	GR2	2 = TOD
41 - Phase Omit 1	VO1	2 = TOD	91 - Inhibit Gap Reducing 3	GR3	2 = TOD
42 - Phase Omit 2	VO2	2 = TOD	92 - Inhibit Gap Reducing 4	GR4	2 = TOD
43 - Phase Omit 3	VO3	2 = TOD	93 - Inhibit Gap Reducing 5	GR5	2 = TOD
44 - Phase Omit 4	VO4	2 = TOD	94 - Inhibit Gap Reducing 6	GR6	2 = TOD
45 - Phase Omit 5	VO5	2 = TOD	95 - Inhibit Gap Reducing 7	GR7	2 = TOD
46 - Phase Omit 6	VO6	2 = TOD	96 - Inhibit Gap Reducing 8	GR8	2 = TOD
47 - Phase Omit 7	VO7	2 = TOD	97 - Lag 1	LG1	2 = TOD
48 - Phase Omit 8	VO8	2 = TOD	98 - Lag 3	LG3	2 = TOD
49 - Ped Omit 1	PO1	2 = TOD	99 - Lag 5	LG5	2 = TOD
50 - Ped Omit 2	PO2	2 = TOD	100 - Lag 7	LG8	2 = TOD

CIRCUIT OVERRIDES 101 - 199 (Next/2/4/4)

101 - Inhibit Overlap A	OLA	2 = TOD
102 - Inhibit Overlap B	OLB	2 = TOD
103 - Inhibit Overlap C	OLC	2 = TOD
104 - Inhibit Overlap D	OLD	2 = TOD
105 - Enable Schedule A Phone 1	AT1	2 = TOD
106 - Enable Schedule A Phone 2	AT2	2 = TOD
107 - Enable Schedule B Phone 1	BT1	2 = TOD
108 - Enable Schedule B Phone 2	BT2	2 = TOD
109 - Enable Schedule C Phone 1	CT1	2 = TOD
110 - Enable Schedule C Phone 2	CT2	2 = TOD
111 - Enable Volume to Call Phone 1	VT1	2 = TOD
112 - Enable Volume to Call Phone 1	VT2	2 = TOD
113 - Enable Volume Logging	EVL	1 = On
114 - Enable MOE Logging	EML	1 = On
115 - Detector Low Threshold Inhibit	DLI	2 = TOD
116 - Detector Continue Presence Inhibit	DPI	2 = TOD
117 - Inhibit Detector Based On Progrmming	IND	2 = TOD
118 - Inhibit Detector Delay	IDD	2 = TOD
119 - Inhibit Conditional Ped	ICP	2 = TOD
120 - Inhibit Transit Priority	ITP	2 = TOD
121 - Red Rest Ring 1	RR1	2 = TOD
122 - Red Rest Ring 2	RR2	2 = TOD
123 - Omit Red Clear Ring 1	OR1	2 = TOD
124 - Omit Red Clear Ring 2	OR2	2 = TOD
125 - Ped Recycle Ring 1	PR1	2 = TOD
126 - Ped Recycle Ring 2	PR2	2 = TOD
127 - Enable MOE Log to Call Phone 1	MT1	2 = TOD
128 - Enable MOE Log to Call Phone 2	MT2	2 = TOD
129 - Transit Inhibit Short Time 1	IS1	2 = TOD
130 - Transit Inhibit Short Time 2	IS2	2 = TOD
131 - Transit Inhibit Short Time 3	IS3	2 = TOD
132 - Transit Inhibit Short Time 4	IS4	2 = TOD
133 - Transit Inhibit Short Time 5	IS5	2 = TOD
134 - Transit Inhibit Short Time 6	IS6	2 = TOD
135 - Transit Inhibit Short Time 7	IS7	2 = TOD
136 - Transit Inhibit Short Time 8	IS8	2 = TOD
137 - Enable Transit Priority Logging	ETL	2 = TOD
138 - Disable Flashing Yellow Arrow 1	DF1	2 = TOD
139 - Disable Flashing Yellow Arrow 3	DF3	2 = TOD
140 - Disable Flashing Yellow Arrow 5	DF5	2 = TOD
141 - Disable Flashing Yellow Arrow 7	DF7	2 = TOD
142 - Disable Auto Max	DAM	2 = TOD
143 - Disable Repeated Phase Service	DRS	2 = TOD
144 - End of Main Street	EMS	2 = TOD
145 - Coord Hold 1	HD1	2 = TOD
146 - Coord Hold 2	HD2	2 = TOD
147 - Coord Hold 3	HD3	2 = TOD
148 - Coord Hold 4	HD4	2 = TOD
149 - Coord Hold 5	HD5	2 = TOD
150 - Coord Hold 6	HD6	2 = TOD
151 - Coord Hold 7	HD7	2 = TOD
152 - Coord Hold 8	HD8	2 = TOD
153 - PE Priority Return B	PRB	2 = TOD
154 - PE Priority Return C	PRC	2 = TOD
155 - PE Priority Return D	PRD	2 = TOD
156 - PE Priority Return E	PRE	2 = TOD
157 - Platoon Inbound	PPI	2 = TOD
158 - Platoon Outbound	PPO	2 = TOD
159 - Platoon Spl 2	PS2	2 = TOD
160 - Coord Walk Rest	CWR	2 = TOD
161 - Dynamic Phase Length Short Inhibit 1	SL1	2 = TOD
162 - Dynamic Phase Length Short Inhibit 2	SL2	2 = TOD
163 - Dynamic Phase Length Short Inhibit 3	SL3	2 = TOD
164 - Dynamic Phase Length Short Inhibit 4	SL4	2 = TOD
165 - Dynamic Phase Length Short Inhibit 5	SL5	2 = TOD
166 - Dynamic Phase Length Short Inhibit 6	SL6	2 = TOD
167 - Dynamic Phase Length Short Inhibit 7	SL7	2 = TOD
168 - Dynamic Phase Length Short Inhibit 8	SL8	2 = TOD
169 - Coord Late Left Turn 1	CT1	2 = TOD
170 - Coord Late Left Turn 3	CT3	2 = TOD
171 - Coord Late Left Turn 5	CT5	2 = TOD
172 - Coord Late Left Turn 7	CT7	2 = TOD
173 - Dynamic Phase Length Enable A	DPA	2 = TOD
174 - Dynamic Phase Length Enable B	DPB	2 = TOD
175 - Dynamic Phase Length Enable C	DPC	2 = TOD
176 - Dynamic Phase Length Enable D	DPD	2 = TOD
177 - Proactive Plan Select Average	PSA	2 = TOD
178 - Proactive Plan Select Inbound	PSI	2 = TOD
179 - Proactive Plan Select Outbound	PSO	2 = TOD
180 - Split Variant Inbound	SVI	2 = TOD
181 - Split Variant Outbound	SVO	2 = TOD
182 - Disable Coord Walk Rest Ring 1	WR1	2 = TOD
183 - Disable Coord Walk Rest Ring 2	WR2	2 = TOD
184 - Proactive Plan Select New Look	NLK	2 = TOD
185 - Disable Red Clearance Extension	DRX	2 = TOD
186 - Detector Plan Line 1	DL1	2 = TOD
187 - Detector Plan Line 2	DL2	2 = TOD
188 - Disable LRT 1 Vertical Flashing Bar	DV1	2 = TOD
189 - Disable LRT 2 Vertical Flashing Bar	DV2	2 = TOD
190 - Disable LRT 3 Vertical Flashing Bar	DV3	2 = TOD
191 - Disable LRT 4 Vertical Flashing Bar	DV4	2 = TOD
192 - Datakey Enable	DKE	1 = On
193 - Dynamic Phase Reversal Enable 1	DR1	2 = TOD
194 - Dynamic Phase Reversal Enable 3	DR3	2 = TOD
195 - Dynamic Phase Reversal Enable 5	DR5	2 = TOD
196 - Dynamic Phase Reversal Enable 7	DR7	2 = TOD
197 - Enable Coordination Log	ECL	1 = On
198 - Disable Gap For FYLTA	DGF	2 = TOD
199 - Coordination Auto Walk	CAW	2 = TOD

PREEMPTION SEQUENCE 1 - 4 (Next/2/5)

Seq	Interval	Instruction	Phases Serviced	Interval Time	Hold On Input	Output On	Output Mode
1	1	197	- - - 4 - - - -	0	On	- - - - - - - -	0
	2	98	- - - - - - - -	0	Off	- - - - - - - -	0
	3	0	- - - - - - - -	0	Off	- - - - - - - -	0
	4	0	- - - - - - - -	0	Off	- - - - - - - -	0
	5	0	- - - - - - - -	0	Off	- - - - - - - -	0
	6	0	- - - - - - - -	0	Off	- - - - - - - -	0
	7	0	- - - - - - - -	0	Off	- - - - - - - -	0
	8	0	- - - - - - - -	0	Off	- - - - - - - -	0
	9	0	- - - - - - - -	0	Off	- - - - - - - -	0
	10	0	- - - - - - - -	0	Off	- - - - - - - -	0
2	1	197	- - 3 - - - - 8	0	On	- - - - - - - -	0
	2	98	- - - - - - - -	0	Off	- - - - - - - -	0
	3	0	- - - - - - - -	0	Off	- - - - - - - -	0
	4	0	- - - - - - - -	0	Off	- - - - - - - -	0
	5	0	- - - - - - - -	0	Off	- - - - - - - -	0
	6	0	- - - - - - - -	0	Off	- - - - - - - -	0
	7	0	- - - - - - - -	0	Off	- - - - - - - -	0
	8	0	- - - - - - - -	0	Off	- - - - - - - -	0
	9	0	- - - - - - - -	0	Off	- - - - - - - -	0
	10	0	- - - - - - - -	0	Off	- - - - - - - -	0
3	1	197	- - - - - - 7 -	0	On	- - - - - - - -	0
	2	98	- - - - - - - -	0	Off	- - - - - - - -	0
	3	0	- - - - - - - -	0	Off	- - - - - - - -	0
	4	0	- - - - - - - -	0	Off	- - - - - - - -	0
	5	0	- - - - - - - -	0	Off	- - - - - - - -	0
	6	0	- - - - - - - -	0	Off	- - - - - - - -	0
	7	0	- - - - - - - -	0	Off	- - - - - - - -	0
	8	0	- - - - - - - -	0	Off	- - - - - - - -	0
	9	0	- - - - - - - -	0	Off	- - - - - - - -	0
	10	0	- - - - - - - -	0	Off	- - - - - - - -	0
4	1	197	- 2 - - 5 - - -	0	On	- - - - - - - -	0
	2	98	- - - - - - - -	0	Off	- - - - - - - -	0
	3	0	- - - - - - - -	0	Off	- - - - - - - -	0
	4	0	- - - - - - - -	0	Off	- - - - - - - -	0
	5	0	- - - - - - - -	0	Off	- - - - - - - -	0
	6	0	- - - - - - - -	0	Off	- - - - - - - -	0
	7	0	- - - - - - - -	0	Off	- - - - - - - -	0
	8	0	- - - - - - - -	0	Off	- - - - - - - -	0
	9	0	- - - - - - - -	0	Off	- - - - - - - -	0
	10	0	- - - - - - - -	0	Off	- - - - - - - -	0

Instructions -
0 = service phases defined in phases location
1-9 = use special intervals 1-9
10 = preempt sequence allows fylta
11 = preempt interval disables fylta
15 = alternate trap protection
90 = go to all red
91 = turn cvm off
92 = turn cvm on
93 = enable ped service and phases defined in phases location
94 = disable ped service
96 = enable coordination w/peds
97 = enable coordination w/o peds
98 = return with no calls
99 = return with ped calls and phases defined in phases location
100 = jump to step defined in time location and input has to be active for jump
101 = use time as resetable gap timer and service phases defined in phases location
196 = coordination sync w/peds
197 = coordination sync w/o peds
200 = lrt phase service w/o peds
201 = lrt phase service w/peds
202 = priority return-queue/delay
216 = lrt coordination sync w/peds
217 = lrt coordination sync w/o peds

Phases Serviced - phases 1 - 8

Interval Time - 0 - 255 sec or interval 1 - 10

Hold on Input - X = on

Outputs On - output 1 - 8

Output Modes -
0 = all steady on
1 = all flash together
2 = odd flashes WIG, even flashes WAG
3 = 1 - 4 steady on, 5 - 8 all flash together

SEQUENCE TIMING (Next/2/5/0)

	Sequence	1	2	3	4	5	6	7	8	
	Input Memory									X = on
	Input Priority	6	6	6	6	0	0	0	0	0 = lowest, - 8 = highest
Entry (Transition) Parameters	Min Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec 0.0 would time the normal function time
	Walk	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	
	Ped Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Overlap Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec
	Overlap Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Delay to Preempt	0	0	0	0	0	0	0	0	0 - 255 sec
	Delay Ped Omit	0	0	0	0	0	0	0	0	
	Delay Phase Omit	0	0	0	0	0	0	0	0	
	Min Reservice	0	0	0	0	0	0	0	0	0 - 255 min
Overlap Inhibits	A									X = on
	B									
	C									
	D									
Exit Parameters	Exit to Coord Plan Offset by X	0	0	0	0	0	0	0	0	0 - 20
	Exit Coord Plan Time	0	0	0	0	0	0	0	0	0 - 60 min
	Exit to Max Plan	0	0	0	0	0	0	0	0	0 - 8
	Exit Free Time	0	0	0	0	0	0	0	0	0 - 60 min
	Override Time	0	0	0	0	0	0	0	0	
	Fail Time	0	0	0	0	0	0	0	0	
	Exit Mode Time	0	0	0	0	0	0	0	0	

PRIORITY RETURN AND SPECIAL INTERVALS (Next/2/5/0/6, Next/2/5/9)

		Phase / Overlap	1	2	3	4	5	6	7	8	A	B	C	D	
Priority Return		Enable	Off	0 = disabled; 1 = enabled; 2 = enabled and skip preempt phase on exit											
		A (max)	0	0	0	0	0	0	0	0	0 - 100% of currently used max				
		B (max)	0	0	0	0	0	0	0	0					
		C (max)	0	0	0	0	0	0	0	0					
		D (max)	0	0	0	0	0	0	0	0					
		E (max)	0	0	0	0	0	0	0	0					
		Ped Clear	0	0	0	0	0	0	0	0	0 - 100% of currently used ped clearance				
Queue Delay Recovery			0	0	0	0	0	0	0	0	0 - 255 sec				
Special Intervals		1	0	0	0	0	0	0	0	0	0	0	0	0	0 = Dark 1 = green don't walk 2 = green walk 3 = green flashing don't walk 4 = yellow 5 = red 6 = flashing yellow WIG 7 = flashing yellow WAG 8 = flashing red WIG 9 = flashing red WAG 10 = walk only 11=flashing don't walk only
		2	0	0	0	0	0	0	0	0	0	0	0	0	
		3	0	0	0	0	0	0	0	0	0	0	0	0	
		4	0	0	0	0	0	0	0	0	0	0	0	0	
		5	0	0	0	0	0	0	0	0	0	0	0	0	
		6	0	0	0	0	0	0	0	0	0	0	0	0	
		7	0	0	0	0	0	0	0	0	0	0	0	0	
		8	0	0	0	0	0	0	0	0	0	0	0	0	
		9	0	0	0	0	0	0	0	0	0	0	0	0	

LIGHT RAIL TRAIN (Next/2/5/0/7)

Light Rail Train	1	2	3	4	
Associated Preempt	0	0	0	0	0 = none, preempt 1 - 8
Time to Green	0	0	0	0	0 - 255 sec
Horizontal Bar Flash Time	0.0	0.0	0.0	0.0	
Vertical Bar Flash Time	0.0	0.0	0.0	0.0	0.0 - 25.5 sec
Min Duration	0	0	0	0	0 - 255 sec

Miscellaneous Data

TRANSIT PRIORITY (Next/2/7)

	1	2	3	4	5	6	7	8	
Phases	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	Phases 1 - 8 (max of 2 compatible phases)
PE Enable (6.25Hz TP call on PE)	X	X	X	X	X	X	X	X	X = 6.25 Hz signal will activate TP
Priority	0	0	0	0	0	0	0	0	0 - 8, 8 = highest
Memory									X = on
Delay Time	0	0	0	0	0	0	0	0	0 - 255 sec
Minimum Reservice Time (per input)	0	0	0	0	0	0	0	0	0 - 255 min
Override Time	0	0	0	0	0	0	0	0	0 - 255 sec
Bus Extend	0	0	0	0	0	0	0	0	0 - 255 min
Minimum Reservice Time (all inputs)	0	0 - 255 min							
Free Operation Mode	0	0 = use shortest of max 1 or 2, 1 - 8 = use max time of group 1 - 8, 9 = use time of day circuit							

TRANSIT PRIORITY ALTERNATE FORCE OFF PLANS (Next/2/7/6)

Current Coord Plan	1	2	3	4	5	6	7	8	0 = none 17 - 32 = coord plan 17 - 32
Alternate TP Force Off Plan	0	0	0	0	0	0	0	0	
Current Coord Plan	9	10	11	12	13	14	15	16	
Alternate TP Force Off Plan	0	0	0	0	0	0	0	0	

GROUP TIMING (Next/2/7/5)

	Phase -->	1	2	3	4	5	6	7	8	
Group 1	Max Times	0	0	0	0	0	0	0	0	0 - 255 sec 0 would time the normal function time
	Walk Times	0	0	0	0	0	0	0	0	
Group 2	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 3	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 4	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 5	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 6	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 7	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 8	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	

TRUCK PRIORITY (Next/2/7/9)

Truck Priority -->	1	2	3	4	
Associated Transit Priority	0	0	0	0	0 = none 1 - 8 = transit priority 1 - 8
Leading Detector	0	0	0	0	0 = none, 1 - 32 = detector 1 - 32
Trailling Detector	0	0	0	0	
Stop Bar Distance	0	0	0	0	0 - 999 feet
Trap Distance	0.0	0.0	0.0	0.0	0.0 - 99.9 feet
Minimum Speed	0	0	0	0	0 - 100 mph
Minimum Length	0	0	0	0	0 - 255 feet
Downhill Grade (%)	0	0	0	0	0 - 20%
Uphill Grade (%)	0	0	0	0	
Undersized Vehicle					X = Enabled

170 INPUTS (Next/2/8/1)

C1-39	101 - Veh Detector 9	C1-67	22 - Ped Detector 2
C1-40	113 - Veh Detector 19	C1-68	25 - Ped Detector 5
C1-41	106 - Veh Detector 14	C1-69	24 - Ped Detector 4
C1-42	118 - Veh Detector 24	C1-70	23 - Ped Detector 3
C1-43	102 - Veh Detector 10	C1-71	151 - Preempt In 1
C1-44	114 - Veh Detector 20	C1-72	152 - Preempt In 2
C1-45	107 - Veh Detector 15	C1-73	153 - Preempt In 3
C1-46	161 - Veh Detector 25	C1-74	154 - Preempt In 4
C1-47	105 - Veh Detector 13	C1-75	165 - Veh Detector 29
C1-48	117 - Veh Detector 23	C1-76	104 - Veh Detector 12
C1-49	27 - Ped Detector 7	C1-77	116 - Veh Detector 22
C1-50	164 - Veh Detector 28	C1-78	111 - Veh Detector 17
C1-51	199 - LRT Ped Inhibit	C1-79	163 - Veh Detector 27
C1-52	155 - Preempt In 5	C1-80	82 - Interval Advance
C1-53	85 - Manual Control Enable	C1-81	137 - Conflict Monitor Status/Flash
C1-54	166 - Veh Detector 30	C1-82	62 - Stop Timing Ring 1
C1-55	15 - Veh Detector 5	C11-15	254 - Pin Not Used
C1-56	11 - Veh Detector 1	C11-16	254 - Pin Not Used
C1-57	17 - Veh Detector 7	C11-17	254 - Pin Not Used
C1-58	13 - Veh Detector 3	C11-18	254 - Pin Not Used
C1-59	16 - Veh Detector 6	C11-19	254 - Pin Not Used
C1-60	12 - Veh Detector 2	C11-20	254 - Pin Not Used
C1-61	18 - Veh Detector 8	C11-21	254 - Pin Not Used
C1-62	14 - Veh Detector 4	C11-22	254 - Pin Not Used
C11-10	254 - Pin Not Used	C11-23	254 - Pin Not Used
C11-11	254 - Pin Not Used	C11-24	254 - Pin Not Used
C11-12	254 - Pin Not Used	C11-25	254 - Pin Not Used
C11-13	254 - Pin Not Used	C11-26	254 - Pin Not Used
C1-63	103 - Veh Detector 11	C11-27	254 - Pin Not Used
C1-64	115 - Veh Detector 21	C11-28	254 - Pin Not Used
C1-65	108 - Veh Detector 16	C11-29	254 - Pin Not Used
C1-66	162 - Veh Detector 26	C11-30	254 - Pin Not Used

INPUTS AND OUTPUTS OPTIONS (Next/2/8/3)

Connector Type	C1/C11	Change I/O	0 = Disabled
0 = C1/C11; 1 = MS-A/B/C/D; 2 = TS2 Port 1; 3 = ITS Cabinet		X = On (After a download without a power on - off cycle)	

170 OUTPUTS (Next/2/8/2)

C1-2	44 - Don't Walk, Ph 4	C1-35	131 - TOD Output 1
C1-3	64 - Walk, Ph 4	C1-36	132 - TOD Output 2
C1-4	14 - Red, Ph 4	C1-37	133 - TOD Output 3
C1-5	24 - Yellow, Ph 4	C1-38	134 - TOD Output 4
C1-6	34 - Green, Ph 4	C1-100	53 - Ped Clear, Ph 3
C1-7	13 - Red, Ph 3	C1-101	51 - Ped Clear, Ph 1
C1-8	23 - Yellow, Ph 3	C1-102	187 - Soft Flash
C1-9	33 - Green, Ph 3	C1-103	147 - Watchdog
C1-10	42 - Don't Walk, Ph 2	C1-83	43 - Don't Walk, Ph 3
C1-11	62 - Walk, Ph 2	C1-84	63 - Walk, Ph 3
C1-12	12 - Red, Ph 2	C1-85	116 - Overlap D, Red
C1-13	22 - Yellow, Ph 2	C1-86	115 - Overlap D, Yellow
C1-15	32 - Green, Ph 2	C1-87	114 - Overlap D, Green
C1-16	11 - Red, Ph 1	C1-88	113 - Overlap C, Red
C1-17	21 - Yellow, Ph 1	C1-89	112 - Overlap C, Yellow
C1-18	31 - Green, Ph 1	C1-90	111 - Overlap C, Green
C1-19	43 - Don't Walk, Ph 3	C1-91	47 - Don't Walk, Ph 7
C1-20	63 - Walk, Ph 3	C1-93	61 - Walk, Ph 1
C1-21	18 - Red, Ph 8	C1-94	106 - Overlap B, Red
C1-22	28 - Yellow, Ph 8	C1-95	105 - Overlap B, Yellow
C1-23	38 - Green, Ph 8	C1-96	104 - Overlap B, Green
C1-24	17 - Red, Ph 7	C1-97	103 - Overlap A, Red
C1-25	27 - Yellow, Ph 7	C1-98	102 - Overlap A, Yellow
C1-26	37 - Green, Ph 7	C1-99	101 - Overlap A, Green
C1-27	45 - Don't Walk, Ph 5	C11-1	254 - Pin Not Used
C1-28	65 - Walk, Ph 5	C11-2	254 - Pin Not Used
C1-29	16 - Red, Ph 6	C11-3	254 - Pin Not Used
C1-30	26 - Yellow, Ph 6	C11-4	254 - Pin Not Used
C1-31	36 - Green, Ph 6	C11-5	254 - Pin Not Used
C1-32	15 - Red, Ph 5	C11-6	254 - Pin Not Used
C1-33	25 - Yellow, Ph 5	C11-7	254 - Pin Not Used
C1-34	35 - Green, Ph 5	C11-8	254 - Pin Not Used

CONTROLLER ID

Manufacturer ID	NORTHWEST SIGNAL
Model ID	Voyage-0 v05.03.01
Protocol Revision ID	AB3418E V1

11960

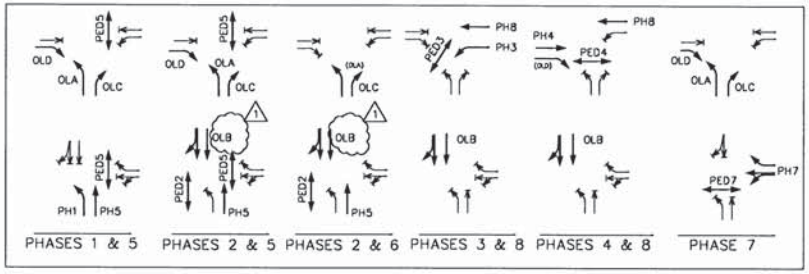
LEGEND

- (C 170) INSTALL MODEL 170 CONTROLLER WITH TELEPHONE DROP IN MODEL 332 CABINET WITH RISER FRAME ORIENT FRONT (LOUVERED) DOOR AS SHOWN.
- (MA L) INSTALL (L) METER TRAFFIC SIGNAL MAST ARM.
- (TC) INSTALL TERMINAL CABINET.
- (PP) INSTALL PEDESTRIAN SIGNAL PEDESTAL WITH FRANGIBLE BASE.
- (PB PH) INSTALL PHASE (PH) PEDESTRIAN SIGNAL, PUSHBUTTON AND INSTRUCTION DECAL.
- (JB 1A) INSTALL 430mm X 255mm X 305mm (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX WITH CONCRETE APRON.
- (JB 2) INSTALL 559mm X 305mm X 305mm (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX.
- (JB 2A) INSTALL 560mm X 305mm X 305mm (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX WITH CONCRETE APRON.
- (JB 3) INSTALL 760mm X 430mm X 305mm (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX.
- (JB 3A) INSTALL 760mm X 430mm X 305mm (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX WITH CONCRETE APRON.
- (FN CH) INSTALL CHANNEL (CH), (N) BARREL FIRE PRE-EMPTION DETECTOR UNIT.
- (FP CH) INSTALL CHANNEL (CH) FIRE PRE-EMPTION DETECTOR FEEDER CABLE.
- (VEH PH) INSTALL PHASE (PH) VEHICLE SIGNAL WITH LEDs.
- (LA L) INSTALL (L) METER LUMINAIRE ARM.
- (HPS T) INSTALL 250 WATT HIGH PRESSURE SODIUM COBRA HEAD HORIZONTAL CUTOFF TYPE 3, FLAT LENS LUMINAIRE, TYPE M-C-III, 240 VOLT MAG-REGULATOR BALLAST/FUSED IN POLE BASE AND CONNECTED TO 240 VOLTS.
- (HPS 2) INSTALL 400 WATT HIGH PRESSURE SODIUM COBRA HEAD HORIZONTAL CUTOFF TYPE 3, FLAT LENS LUMINAIRE, TYPE M-C-III, 240 VOLT MAG-REGULATOR BALLAST/FUSED IN POLE BASE AND CONNECTED TO 240 VOLTS.
- (MP X) INSTALL SPECIAL (NON-STANDARD) TRAFFIC SIGNAL MAST ARM POLE. (SEE SPECIAL PROVISIONS).
- (MPE X) INSTALL SPECIAL (NON-STANDARD) TRAFFIC SIGNAL MAST ARM POLE WITH LUMINAIRE POLE EXTENSION (10.7 METER MOUNTING HEIGHT).
- (PE T) INSTALL PHOTOELECTRIC CELL ON POLE (6m-11m ABOVE POLE BASE).
- (S) INSTALL (S) mm ELECTRICAL CONDUIT.
- (DC) DETECTOR CONDUIT (SEE DETECTOR PLAN).
- (W) INSTALL CONDUIT AND WIRE AS REQUIRED BY POWER COMPANY.
- (PH PH) INSTALL PHASE (PH) PROGRAMMED VEHICLE SIGNAL.

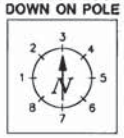
- N-C — INSTALL (N) NO. 8 TYPE THWN (SIGNAL SYSTEM COMMON).
- N / G — INSTALL (N) NO. (G) TYPE THWN WIRES.
- N | G — INSTALL (N) NO. (G) TYPE XHHW WIRES.
- PL — INSTALL POLY PULL LINE (1KN MIN. STRENGTH)
- TEL — INSTALL AS REQUIRED BY TELEPHONE COMPANY.

- (Ph) INCLUDES 3 SPARE WIRES FOR PHASE (Ph) AS PER TABLE.
- (EX LP) RETAIN AND PROTECT EXISTING LUMINAIRE POLE
- (SC 2) INSTALL SERVICE CABINET, 240 VOLT, FOR BOTH SIGNAL AND ILLUMINATION CIRCUITS.
- (MS 2) INSTALL 240 VOLT METER BASE.
- (CW) INSTALL CROSSWALK CLOSURE SIGNS (BOTH SIDES OF POST).
- (SNS A) INSTALL ALUMINUM STREET NAME SIGN "10TH ST" ON SIGNAL MAST ARM (SEE DETAIL "A")
- (SNS B) INSTALL ALUMINUM STREET NAME SIGN ON SIGNAL MAST ARM (SEE DETAIL "B")
- (RX LP) REMOVE EXISTING LUMINAIRE AND WOOD POLE. DISCONNECT WIRING FROM EXISTING OVERHEAD LINES ON SALAMO ROAD.
- (IC) INTERCONNECT CONDUIT (SEE DETECTOR PLAN).
- (AA RA) INSTALL ALUMINUM (762mm X 914mm, TYPE W7) RIGHT ARROW "ONLY" SIGN (DIAMOND GRADE SHEETING).
- (VP) INSTALL VEHICLE SIGNAL PEDESTAL WITH TRANSFORMER BASE.
- (MOD) INSTALL STAND ALONE PHONE MODEM IN CONTROLLER CABINET. (SEE SPECIAL PROVISIONS)
- (RPS) INSTALL REMOTE POWER SERVICE POST.
- (RM LP) REMOVE AND RELOCATE EXISTING LUMINAIRE POLE. REMOVE FOUNDATION.
- (RI LP) REINSTALL LUMINAIRE POLE OR NEW FOUNDATION AND RECOMMENDED WIRING.

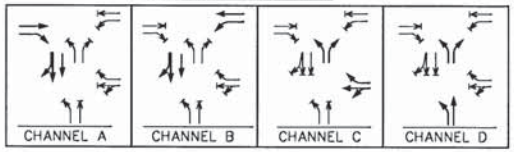
NORMAL PHASE ROTATION



ORIENTATION LOOKING DOWN ON POLE



FIRE PRE EMPTION

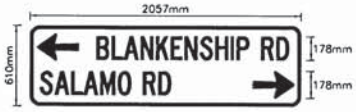


OLA = 5,6,7
OLB = 2,3,4
OLC = 3,5,6,7
OLD = 4,5,7
PH7 = EXCLUSIVE

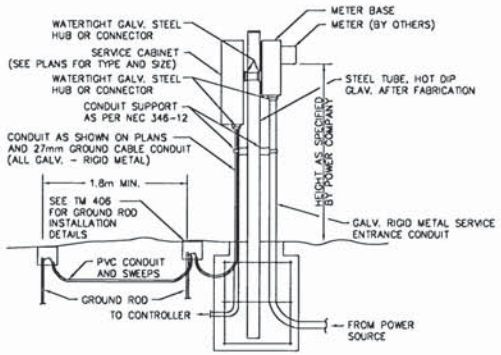
POLE ENTRANCE CHART

POLE NUMBER	1	2	3	4	5	6	7	8	9	10	11
LUMINAIRE ARM	5	7	1	–	–	–	–	8	2	–	4
MAST ARM	5	7	1	–	–	–	–	8	2	–	4
PEDESTRIAN SIGNAL CLAM SHELL	5	5	5	5,7	7	2	2,8	–	–	5	1,4
PEDESTRIAN PB	3	7	7	1,3	5	4	6,8	–	–	7	2,4
TERMINAL CABINET	1	3	5	–	–	–	–	4	6	–	8
VEHICLE SIGNAL	–	–	–	–	–	–	2	–	–	8	–

DETAIL "A"



DETAIL "B"



ABBREVIATIONS

- T = TYPE SHOWN
- PH= PHASE SHOWN
- X = NUMBER OF CABLES SHOWN
- E = ELEVATOR PLUMBIZER
- H = HEIGHT SHOWN
- L = LENGTH SHOWN
- N = NUMBER SHOWN
- G = AWG SIZE SHOWN
- S = SIZE SHOWN
- A = STANDARD PLUMBIZER
- CH= CHANNEL SHOWN
- P = POLE MOUNT

SIGNAL HEAD TYPES
2 = 305mm R, 305mm Y, 305mm G
3 = 305mm RLTA, 305mm YLTA, 305mm GLTA
5 = 305mm RRTA, 305mm YRTA, 305mm GRTA

REMOTE POWER SERVICE POST (UNDERGROUND)

(SEE TM404 FOR DETAILS)

1 ADDED NOTE: REMOVED VEHICLE PHASE 2 INPUT, ASSIGNED TO OVERLAP B

REGISTERED PROFESSIONAL ENGINEER 17,991 OREGON MARCH 14, 1980 JOHN F. RINGERT EXPIRES: 12/31/00

KITTELSON & ASSOCIATES, INC. 610 S.W. ALDER, SUITE 700 PORTLAND, OR 97205 (503) 228-5230, FAX: 273-8169

REUSE OF DOCUMENTS: THIS DRAWING AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE IS THE PROPERTY OF KITTELSON & ASSOCIATES AND IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY PROJECT OTHER THAN THE ONE FOR WHICH IT IS PREPARED BY KITTELSON & ASSOCIATES.

TRAFFIC SIGNAL LEGEND

WEST LINN, OR

DATE APRIL 2000
ACCOMPANIED BY DWGS.
DESIGNED BY PJK
CHECKED BY JFR
DRAWN BY JCH

SHEET NO. TS-3
TWS DWG. NO. 11980

H:\PROJFILE\3330\NEWA3330sig3.DWG 04/20/00 AS-BUILT

Intersection Name: I-205 NB @ 10th
Controller 122323.2 Channel: - Drop: 0
System: TransCore TransSuite TCS
Controller Type: Voyage
Revision - Version -
TransCore Unified Controller Manager 10.3.1

Zero Tables

Dual Entry
DetectorPlans
DetectorFailMonitor
Vehicle Overlaps
PedOverlaps
ADVANCE WARNING
DYNAMIC FYLTA
ServicePlans1 4
ServicePlans5 8
MaxPlans
CoordinationPlansCont
PlatoonProgression
ForceOffPercents
DayProgram 1 40
DayProgram 41 80
DayProgram 81 120
DayProgram 121 160
DayProgram 161 200
ExceptionDays
PreemptionSequence 5 8
PriorityReturnAndSpecialIntervals
LightRailTrain
IEEE1570
TransitPriorityAOFP
GroupTiming
TruckPriority
IO Options
CommandBox 97 192
CommandBox 193 256

Non-Zero Tables

ControllerFunctionTiming
Phase Timing
OtherControllerFunctions
DetectorData
SystemDetector
FYLTA
CoordinationModes
CoordinationPlans
CircuitMapping
DynamicPhaseLength
WeekProgram
YearDays
TimeClockReferences
CircuitOverrides 1 100
CircuitOverrides 101 199
PreemptionSequence 1 4
SequenceTiming
TransitPriority
170 Inputs
170 Outputs
CommandBox 1 96
CONTROLLER ID

Controller Function and Timing

Security, Sequence and Timing (Next/2/1, Next/2/2/3/A, Next/2/2/5)					
Security Code	0	0 = disabled, or 1000-9999	First All Red	8.0	0.0 to 25.5 seconds
Sequence	7	0 = sequential, 1 = quad left turn, 2-6 = special A-E, 7 = lead lag			
Power up Flash	0.0	0.0 - 25.5 seconds			

Initialization (Next/2/2/5)			Lead Lag (Next/2/2/3/A)			
Ring 1	Ring 2	Interval	Phases 1 - 2	Phases 3 - 4	Phases 5 - 6	Phases 7 - 8
0	5	0	2	2	2	2
Phase 1 - 8	0 = Red, 1 = Yel, 2 = Grn		0 = no reversal, 1 = reversal, 2 = by coord plan or clock			

(Next/2/2/3) Phase Functions	
Phase Used	- 2 - - 5 6 - 8
Restricted Phases	- - - - - - - -
Exclusive Phases	- - - - - - - -

(Next/2/2/1)	
Yellow Lock	- - - - - - - -
Min Recall	- 2 - - - 6 - -
Max Recall	- - - - - - - -
Ped Recall	- - - - - - - -
Red Lock	- - - - - - - -
Max Out Recall Inhibit	1 2 3 4 5 6 7 8
Soft Recall	- - - - - - - -
Free Walk Rest	- - - - - - - -
Conditional Ped	- - - - - - - -
Disable Inhibit Max Termination	- - - - - - - -
Call To Non-Act 1	- - - - - - - -
Call To Non-Act 2	- - - - - - - -

Phase Times (Next/2/2/2)									
Phase	1	2	3	4	5	6	7	8	
Movement									
Minimum Green	0	10	0	0	4	10	0	6	0 - 255 sec.
Passage	0.0	6.9	0.0	0.0	2.3	6.9	0.0	2.3	0.0 - 25.5 sec.
Yellow	0.0	4.0	0.0	0.0	4.0	4.0	0.0	4.0	0.0 - 25.5 sec.
Red Clearance	0.0	1.0	0.0	0.0	1.0	1.0	0.0	1.0	0.0 - 25.5 sec. or 0 - 255 sec.
Max 1	0	30	0	0	25	30	0	20	0 - 255 sec.
Max 2	0	30	0	0	25	30	0	20	0 - 255 sec.
Walk	0	7	0	0	0	7	0	0	0 - 255 sec.
Ped Clear	0	14	0	0	0	10	0	0	0 - 255 sec.
Seconds Per Actuation	0.0	1.2	0.0	0.0	0.0	1.2	0.0	0.0	0.0 - 25.5 sec.
Time Before Reduction	0	10	0	0	8	10	0	8	0 - 255 sec.
Time to Reduce	0	10	0	0	3	10	0	3	0 - 255 sec.
Minimum Gap	0.0	4.9	0.0	0.0	0.5	4.9	0.0	0.5	0.0 - 25.5 sec.
Max Variable Initial	0	15	0	0	4	15	0	6	0 - 255 sec.
Max Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec.
Auto Max	0	0	0	0	0	0	0	0	0 - 255 sec.
Advanced walk	0	0	0	0	0	0	0	0	0 - 255 sec.

Phase Times (Next/2/2/9/5)									
Inhibit Min Yellow									X = On
Red Decimal Off									X = On

Dual Entry (Next/2/2/9/3)

Mode	0	0 = off, 1 = on, 2 = Not Used, 3 = by coord plan, 4 = by time clock circuit 61

Dual Entry Ph -->	1	2	3	4	5	6	7	8	
Phase	0	0	0	0	0	0	0	0	0 = none, 1-8 = phase 1-8

Cond Service (Next/2/2/9/3/A)			5 Sec Head Logic (Next/2/2/9/4)							
	Mode	CS Max Time	X Omits Y		Anti-Trap			Yellow Blanking LT	
Phase 1	0	0	X:Y		Trap Protected Phase		Next Phase	Phase	
Phase 3	0	0	6:1	0	1	0	< (5)	1	0
Phase 5	0	0	8:3	0	3	0	< (7)	3	0
Phase 7	0	0	2:5	0	5	0	< (1)	5	0
0 = off, 1 = C.S.On. 2 = C.S. on by TOD circuit 57, 3 = N/A, 4 = C.S. and C.R. On, 5 = C.R. on by TOD circuit 57.			4:7	0	7	0	< (3)	7	0
			0 = off, 1 = side call, 2 = no side call		X = On				

Other Controller Functions (Next/2/2/9/1, Next/2/2/9/5)

Inhibit Simultaneous Gap Out	1 - 3 4 5 - 7 8	
Last Car Passage	2	0 = recall phase, 1 = last car passage, 2 = NOT recall - Not last car passage
Red Revert (+2seconds)	0.0	0 - 25.5 sec.
Auto Ped Clear	On	X = On
FDW thru Yellow	Off	X = On
Red Rest Delay	0.0	0 - 25.5 sec.
Change Sequence	Off	X = On (After a download without a power on - off cycle)
Advanced Flash Rate	60 FPM	0 = Disabled (60 FPM), 1 = 120 FPM
Ped Push Button Time	null	0 = Disable, 0 - 5 Seconds

Phase ->	1	2	3	4	5	6	7	8	
Red Clear Extension Detector	0	0	0	0	0	0	0	0	0 = none 1 - 32 = detector 1 - 32
Red Clear Extension Red Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 - 25.5 sec.

Local Detectors (Next/2/2/4/1)

Detector Data

Detector	Description	Yellow Lock	Detector Inhibit	Call Phase	Extend Phase	Switch Phase	Delay Time	Stretch / Disconnect Time	Delay or Disconnect Mode
1				1	1	0	0	0.0	0
2				1	1	0	0	0.0	0
3				3	3	0	0	0.0	0
4				3	3	0	0	0.0	0
5				5	5	0	0	0.0	0
6				5	5	0	0	0.0	0
7				7	7	0	0	0.0	0
8				7	7	0	0	0.0	0
9				2	2	0	0	0.0	0
10				2	2	0	0	0.0	0
11				2	2	0	0	0.0	0
12				2	2	0	0	5.0	0
13				2	2	0	0	0.0	0
14				8	8	0	0	2.0	0
15				8	8	0	0	2.0	0
16				4	4	0	0	0.0	0
17				4	4	0	0	0.0	0
18				4	4	0	0	0.0	0
19				6	6	0	0	0.0	0
20				6	6	0	0	0.0	0
21				6	6	0	0	0.0	0
22				6	6	0	0	0.0	0
23				6	6	0	0	0.0	0
24				8	8	0	0	0.0	0
25				8	8	0	0	2.0	0
26				8	8	0	0	0.0	0
27				8	8	0	0	0.0	0
28				8	8	0	0	0.0	0
29				0	0	0	0	0.0	0
30				0	0	0	0	0.0	0
31				0	0	0	0	0.0	0
32				0	0	0	0	0.0	0

yellow lock, detector inhibit, - X = On; call, extend, phase - 0 = none 1 - 8 = phase 1 - 8; delay time - 0 - 255 sec
stretch / disconnect time - 0.0 - 25.5 sec.; delay or disconnect Mode - 0 -12

Local Detectors 33 - 64 (Next/2/2/4/6)

Detector Data

Detector	Description	Yellow Lock	Detector Inhibit	Call Phase	Extend Phase	Switch Phase	Delay Time	Stretch / Disconnect Time	Delay or Disconnect Mode
33		N/A	N/A	0	0	N/A	N/A	N/A	N/A
34		N/A	N/A	0	0	N/A	N/A	N/A	N/A
35		N/A	N/A	0	0	N/A	N/A	N/A	N/A
36		N/A	N/A	0	0	N/A	N/A	N/A	N/A
37		N/A	N/A	0	0	N/A	N/A	N/A	N/A
38		N/A	N/A	0	0	N/A	N/A	N/A	N/A
39		N/A	N/A	0	0	N/A	N/A	N/A	N/A
40		N/A	N/A	0	0	N/A	N/A	N/A	N/A
41		N/A	N/A	0	0	N/A	N/A	N/A	N/A
42		N/A	N/A	0	0	N/A	N/A	N/A	N/A
43		N/A	N/A	0	0	N/A	N/A	N/A	N/A
44		N/A	N/A	0	0	N/A	N/A	N/A	N/A
45		N/A	N/A	0	0	N/A	N/A	N/A	N/A
46		N/A	N/A	0	0	N/A	N/A	N/A	N/A
47		N/A	N/A	0	0	N/A	N/A	N/A	N/A
48		N/A	N/A	0	0	N/A	N/A	N/A	N/A
49		N/A	N/A	0	0	N/A	N/A	N/A	N/A
50		N/A	N/A	0	0	N/A	N/A	N/A	N/A
51		N/A	N/A	0	0	N/A	N/A	N/A	N/A
52		N/A	N/A	0	0	N/A	N/A	N/A	N/A
53		N/A	N/A	0	0	N/A	N/A	N/A	N/A
54		N/A	N/A	0	0	N/A	N/A	N/A	N/A
55		N/A	N/A	0	0	N/A	N/A	N/A	N/A
56		N/A	N/A	0	0	N/A	N/A	N/A	N/A
57		N/A	N/A	0	0	N/A	N/A	N/A	N/A
58		N/A	N/A	0	0	N/A	N/A	N/A	N/A
59		N/A	N/A	0	0	N/A	N/A	N/A	N/A
60		N/A	N/A	0	0	N/A	N/A	N/A	N/A
61		N/A	N/A	0	0	N/A	N/A	N/A	N/A
62		N/A	N/A	0	0	N/A	N/A	N/A	N/A
63		N/A	N/A	0	0	N/A	N/A	N/A	N/A
64		N/A	N/A	0	0	N/A	N/A	N/A	N/A

yellow lock, detector inhibit, - X = On; call, extend, phase - 0 = none 1 - 8 = phase 1 - 8; delay time - 0 - 255 sec
stretch / disconnect time - 0.0 - 25.5 sec.; delay or disconnect Mode - 0 -12

Detector Plans (Next/2/2/4/5)

Loop Number										
Plan Detectors		0	0	0	0	0	0	0	0	0 - 32, 0 = none, 1 - 32 = detectors 1- 32
Detector Plan 1	Call Phase	0	0	0	0	0	0	0	0	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extended Phase	0	0	0	0	0	0	0	0	
	Switch Phase	0	0	0	0	0	0	0	0	
	Delay Time	0	0	0	0	0	0	0	0	0 - 255 seconds
	Stretch / Disconnect Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 seconds
	Delay / Disconnect Mode	0	0	0	0	0	0	0	0	0 - 14
Detector Plan 2	Call Phase	0	0	0	0	0	0	0	0	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extended Phase	0	0	0	0	0	0	0	0	
	Switch Phase	0	0	0	0	0	0	0	0	
	Delay Time	0	0	0	0	0	0	0	0	0 - 255 seconds
	Stretch / Disconnect Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 seconds
	Delay / Disconnect Mode	0	0	0	0	0	0	0	0	0 - 14
Detector Plan 3	Call Phase	0	0	0	0	0	0	0	0	0 - 8, 0 = none, 1 - 8 = phase 1 - 8
	Extended Phase	0	0	0	0	0	0	0	0	
	Switch Phase	0	0	0	0	0	0	0	0	
	Delay Time	0	0	0	0	0	0	0	0	0 - 255 seconds
	Stretch / Disconnect Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 seconds
	Delay / Disconnect Mode	0	0	0	0	0	0	0	0	0 - 14

Detector Fail (Next/2/2/4/3)

Detector Fail Sample Period (all detectors)	0	0 - 255 minutes
Dynamic Phase Length Fail Period	0	0 - 255 minutes

Video Fail Inputs	1	2	3	4	5	6	7	8	0 = none, 1 - 8 = phase 1 - 8
Phase Recalled	0	0	0	0	0	0	0	0	

System Detectors	1	2	3	4	5	6	7	8	0 = none, 1 - 32 = detector 1 - 32
Local Detector	5	9	14	15	19	20	0	0	

Flash (Next/2/2/5)

Flash Entry			Flash Exit		
Ring 1	Ring 2	Interval	Ring 1	Ring 2	Interval
0	0	red	0	5	0
0 = none, phase 1 - 8		0 = red, 1 = yel, 2 = grn	0 = none, phase 1 - 8		0 = red, 1 = yel, 2 = grn

Soft Flash (Next/2/2/5/A)

Phase	1	2	3	4	5	6	7	8
	3	4	3	4	3	4	3	4

Overlap	A	B	C	D	E	F	G	H	I	J	K	L
	3	4	3	4	3	4	3	4	3	4	3	4

0 = dark, 1=flash yel WIG, 2 = flash yel WAG, 3 = flash red WIG, 4 = flash red WAG

Internal Logic Output	1	2	3	4	5	6	7	8	9	10	11	12	0 = normal, 1 = dark, 2 = flash WIG
	0	0	0	0	0	0	0	0	0	0	0	0	

Flashing Yellow Left Turn Arrow (FYLTA) (Next/2/2/8/6)

Phase Pairs ->	1 - 2	3 - 4	5 - 6	7 - 8	
Enable	0	0	4	0	0 = off, 3 = 3 outputs, 4 = 4 outputs, 5 = 5 outputs
Even Omits Odd	0	0	0	0	0 / 1 / 2
Detector Switch Odd / Even	1	1	1	1	X = on, odd phase must be omitted
Red Transition	2.0	2.0	3.0	2.0	0.0 or 2.0 - 25.5 sec.
Red Extension	0.0	0.0	3.0	0.0	0.0 - 25.5 sec.
Return to GLTA	0	0	0	0	0 = off, 1 = max out, 2= yellow lock

Gap Dependent FYLTA					
Detector Input	0	0	0	0	0 = Disabled, 1 - 64 = Local Detector 1 - 64
Minimum Delay	0	0	0	0	0 - 255 seconds
Detector Gap Time	0.0	0.0	0.0	0.0	0 - 25.5 seconds.
Maximum Delay	0	0	0	0	0 - 255 seconds
Not Ped	0	0	4	0	

Dynamic Flashing Yellow Left Turn Arrow

Phase Pairs	**1 - 2**	**3 - 4**	**5 - 6**	**7 - 8**	
[Plan A] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

[Plan B] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

[Plan C] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

[Plan D] Detector Input	0	0	0	0	Detectors 1 - 64; 0 = disabled
Detector Gap Time	0.0	0.0	0.0	0.0	0.0 - 25.5
FYLTA Max Delay	0	0	0	0	0 - 255
FYLTA Min Delay	0	0	0	0	0 - 255
Not Ped Mode	0	0	0	0	0 - 4

CoordinationData		
Coordination Modes (Next/2/3/1)		
Flash Mode	33	0=off, 1=on, 33=time clock, 34=comm, 35=hardwire
Coordination Plan Mode	34	0=free, 1-32 = coord plan 1-32, 33=time clock, 34=comm, 35=hardwire
Offset Seeking Mode	2	0=add only, 1=dwell, 2=fastway
Late Ped	0	0 = off, 1 = on
Coord Walk Rest	0	0 = off, 1 = on, 2 = by tod circuit 160, 3 = end of walk, 4 = coord ped during perms
Zero Mode(TS2 only)	0	0=start of main street, 1=end of main street, 2=by TOD circuit 144, 3 = first green
(Next/2/3/4/1)		
Repeated Ped Service	0	0=off, 1=on (no coord ped), 2=on (beginning green coord ped), 3=on (coord ped always)
Omit Phase During Repeated Phase	- - - - - - - -	-- = service allowed ; # = service prevented

Coordination Plans (Next/2/3/2)

Coord Plan	Coordination Phases		Cycle Length	Offset Time	Min Cycle Len Dwell Time	Permissive	Service Plan	Max Plan
	Ring 1	Ring 2						
1	0	6	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0
	0 - 8		0 - 255 sec				0 - 8	

Circuit Mapping (Next/2/3/3)

Circuit Map	Coord Plan	Time Clock Circuit 1	2	3	4	5	6	7	8
1	34	0	0	0	0	0	0	0	0
2	34	0	0	0	0	0	0	0	0
3	34	0	0	0	0	0	0	0	0
4	34	0	0	0	0	0	0	0	0
5	34	0	0	0	0	0	0	0	0
6	34	0	0	0	0	0	0	0	0
7	34	0	0	0	0	0	0	0	0
8	34	0	0	0	0	0	0	0	0
9	34	0	0	0	0	0	0	0	0
10	34	0	0	0	0	0	0	0	0
11	34	0	0	0	0	0	0	0	0
12	34	0	0	0	0	0	0	0	0
13	34	0	0	0	0	0	0	0	0
14	34	0	0	0	0	0	0	0	0
15	34	0	0	0	0	0	0	0	0
16	34	0	0	0	0	0	0	0	0
17	34	0	0	0	0	0	0	0	0
18	34	0	0	0	0	0	0	0	0
19	34	0	0	0	0	0	0	0	0
20	34	0	0	0	0	0	0	0	0

coord plan - 0 = free, 1 - 32 = coord plan 1 - 32, 33 = any, 34 none selected
time clock circuits - 0 = not used, or circuits 6 - 199

Dynamic Phase Lengths (Next/2/3/4/4)

		Phase -> 1	2	3	4	5	6	7	8	
Back Detector		0	9	0	0	5	19	0	29	0 = none, 1-32 = detector 1-32
Lane Factor		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 = none, 0.5 - 5.0
Check Out Detector		0	0	0	0	0	20	0	0	0 = none, 1-32 = detector 1-32
Coord Delta Force Off	Set A	0	0	0	0	0	0	0	0	0 - 255 sec
	Set B	0	0	0	0	0	0	0	0	
	Set C	0	0	0	0	0	0	0	0	
	Set D	0	0	0	0	0	0	0	0	
Free Delta Max	Set A	0	0	0	0	0	0	0	0	
	Set B	0	0	0	0	0	0	0	0	
	Set C	0	0	0	0	0	0	0	0	
	Set D	0	0	0	0	0	0	0	0	

Auto Permissive Min Green (Next/2/3/4/3)

Phase ->	1	2	3	4	5	6	7	8	
Auto Perm Min Green	0	0	0	0	0	0	0	0	0 - 255 sec.

WEEK PROGRAM (Next/2/4/2)

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	1	1	1	1	1	2
2	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1

0 = none, 1 - 15 = day plan

EXCEPTION DAYS (Next/2/4/6)

	Week of Month	Month	Day of Month	Day of Week	Day Prog
1	0	0	0		0
2	0	0	0		0
3	0	0	0		0
4	0	0	0		0
5	0	0	0		0
6	0	0	0		0
7	0	0	0		0
8	0	0	0		0
9	0	0	0		0
10	0	0	0		0
11	0	0	0		0
12	0	0	0		0
13	0	0	0		0
14	0	0	0		0
15	0	0	0		0
16	0	0	0		0
17	0	0	0		0
18	0	0	0		0
19	0	0	0		0
20	0	0	0		0
21	0	0	0		0
22	0	0	0		0
23	0	0	0		0
24	0	0	0		0
25	0	0	0		0
26	0	0	0		0
27	0	0	0		0
28	0	0	0		0
29	0	0	0		0
30	0	0	0		0
31	0	0	0		0
32	0	0	0		0
33	0	0	0		0
34	0	0	0		0
35	0	0	0		0
	0 - 5	0 - 12	1 - 31	1 - 7	0 - 15

Time Clock References (Next/2/4/5)

Synch reference Mode	0	0 = timed, 1 = by event
Synch Reference Time	00:00	00:00 - 23:59
Daylight Saving Enable	On	X = On
Reset Time	00:00	00:00 - 23:59

Time Zone Offset (Next/2/4/8)

Time Zone	Not Loaded	0

-43200 - 43200: EST -18000; CST -21600; MST -25200; PST -28800

YEAR PROGRAM (Next/2/4/3)

From Date	To Date	Week Program
12/29/2013	01/03/2015	1
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0
00/00/0000	00/00/0000	0

New Years Day - Date - January 1st

Martin Luther King Day - DOW WOM - 3rd Monday of January

President's Day - DOW WOM - 3rd Monday February

Memorial Day - DOW WOM - Last Monday May

Four of July - Date - July 4th

Labor Day - DOW WOM - 1st Monday September

Columbus Day - DOW WOM - 2nd Monday October

Vetern's Day - Date - November 11th

Thankgiving - DOW WOM - 4th Thursday November

Christmas - Date - December 25th

CIRCUIT OVERRIDES 1 - 100 (Next/2/4/4)

1 - Coord Line 1	CL1	2 = TOD	51 - Ped Omit 3	PO3	2 = TOD
2 - Coord Line 2	CL2	2 = TOD	52 - Ped Omit 4	PO4	2 = TOD
3 - Coord Line 4	CL4	2 = TOD	53 - Ped Omit 5	PO5	2 = TOD
4 - Coord Line 8	CL8	2 = TOD	54 - Ped Omit 6	PO6	2 = TOD
5 - Coord Line 16	C16	2 = TOD	55 - Ped Omit 7	PO7	2 = TOD
6 - Coordinated Operation	CRD	2 = TOD	56 - Ped Omit 8	PO8	2 = TOD
7 - Soft Flash	SFL	2 = TOD	57 - Conditonal Service	CVS	2 = TOD
8 - Enable System Relays	ESR	2 = TOD	58 - Inhibit Simultaneous Gap Out	ISG	1 = On
9 - Call to Non Actuated Ring 1	CN1	2 = TOD	59 - Inhibit Hardwire	HWI	2 = TOD
10 -Call to Non Actuated Ring 2	CN2	2 = TOD	60 - Ped Override Mode	POM	1 = On
11 - Walk Rest Modifier	WRM	2 = TOD	61 - Dual Entry	DLE	1 = On
12 - Min Recall	MIN	2 = TOD	62 - Exclusive Ped	EPD	2 = TOD
13 - Max 2 Both Rings	MX2	2 = TOD	63 - Call to Time Clock Mode	CTC	2 = TOD
14 - Coord Inhibit Max Ring 1	IM1	2 = TOD	64 - Dual Enhanced Ped	DEP	2 = TOD
15 - Coord Inhibit Max Ring 2	IM2	1 = On	65 - Service Plan 1	SP1	2 = TOD
16 - Call to Free	CTF	2 = TOD	66 - Service Plan 2	SP2	2 = TOD
17 - TOD Output 1	TO1	2 = TOD	67 - Service Plan 3	SP3	2 = TOD
18 - TOD Output 2	TO2	2 = TOD	68 - Service Plan 4	SP4	2 = TOD
19 - TOD Output 3	TO3	2 = TOD	69 - Service Plan 5	SP5	2 = TOD
20 - TOD Output 4	TO4	2 = TOD	70 - Service Plan 6	SP6	2 = TOD
21 - TOD Output 5	TO5	2 = TOD	71 - Service Plan 7	SP7	2 = TOD
22 - TOD Output 6	TO6	2 = TOD	72 - Service Plan 8	SP8	2 = TOD
23 - TOD Output 7	TO7	2 = TOD	73 - Max Plan 1	MP1	2 = TOD
24 - TOD Output 8	TO8	2 = TOD	74 - Max Plan 2	MP2	2 = TOD
25 - Vehicle Call Phase 1	VC1	2 = TOD	75 - Max Plan 3	MP3	2 = TOD
26 - Vehicle Call Phase 2	VC2	2 = TOD	76 - Max Plan 4	MP4	2 = TOD
27 - Vehicle Call Phase 3	VC3	2 = TOD	77 - Max Plan 5	MP5	2 = TOD
28 - Vehicle Call Phase 4	VC4	2 = TOD	78 - Max Plan 6	MP6	2 = TOD
29 - Vehicle Call Phase 5	VC5	2 = TOD	79 - Max Plan 7	MP7	2 = TOD
30 - Vehicle Call Phase 6	VC6	2 = TOD	80 - Max Plan 8	MP8	2 = TOD
31 - Vehicle Call Phase 7	VC7	2 = TOD	81 - Transit Priority Max Group 1	TG1	2 = TOD
32 - Vehicle Call Phase 8	VC8	2 = TOD	82 - Transit Priority Max Group 2	TG2	2 = TOD
33 - Ped Call Phase 1	PC1	2 = TOD	83 - Transit Priority Max Group 3	TG3	2 = TOD
34 - Ped Call Phase 2	PC2	2 = TOD	84 - Transit Priority Max Group 4	TG4	2 = TOD
35 - Ped Call Phase 3	PC3	2 = TOD	85 - Transit Priority Max Group 5	TG5	2 = TOD
36 - Ped Call Phase 4	PC4	2 = TOD	86 - Transit Priority Max Group 6	TG6	2 = TOD
37 - Ped Call Phase 5	PC5	2 = TOD	87 - Transit Priority Max Group 7	TG7	2 = TOD
38 - Ped Call Phase 6	PC6	2 = TOD	88 - Transit Priority Max Group 8	TG8	2 = TOD
39 - Ped Call Phase 7	PC7	2 = TOD	89 - Inhibit Gap Reducing 1	GR1	2 = TOD
40 - Ped Call Phase 8	PC8	2 = TOD	90 - Inhibit Gap Reducing 2	GR2	2 = TOD
41 - Phase Omit 1	VO1	2 = TOD	91 - Inhibit Gap Reducing 3	GR3	2 = TOD
42 - Phase Omit 2	VO2	2 = TOD	92 - Inhibit Gap Reducing 4	GR4	2 = TOD
43 - Phase Omit 3	VO3	2 = TOD	93 - Inhibit Gap Reducing 5	GR5	2 = TOD
44 - Phase Omit 4	VO4	2 = TOD	94 - Inhibit Gap Reducing 6	GR6	2 = TOD
45 - Phase Omit 5	VO5	2 = TOD	95 - Inhibit Gap Reducing 7	GR7	2 = TOD
46 - Phase Omit 6	VO6	2 = TOD	96 - Inhibit Gap Reducing 8	GR8	2 = TOD
47 - Phase Omit 7	VO7	2 = TOD	97 - Lag 1	LG1	2 = TOD
48 - Phase Omit 8	VO8	2 = TOD	98 - Lag 3	LG3	2 = TOD
49 - Ped Omit 1	PO1	2 = TOD	99 - Lag 5	LG5	2 = TOD
50 - Ped Omit 2	PO2	2 = TOD	100 - Lag 7	LG8	2 = TOD

CIRCUIT OVERRIDES 101 - 199 (Next/2/4/4)

101 - Inhibit Overlap A	OLA	2 = TOD
102 - Inhibit Overlap B	OLB	2 = TOD
103 - Inhibit Overlap C	OLC	2 = TOD
104 - Inhibit Overlap D	OLD	2 = TOD
105 - Enable Schedule A Phone 1	AT1	2 = TOD
106 - Enable Schedule A Phone 2	AT2	2 = TOD
107 - Enable Schedule B Phone 1	BT1	2 = TOD
108 - Enable Schedule B Phone 2	BT2	2 = TOD
109 - Enable Schedule C Phone 1	CT1	2 = TOD
110 - Enable Schedule C Phone 2	CT2	2 = TOD
111 - Enable Volume to Call Phone 1	VT1	2 = TOD
112 - Enable Volume to Call Phone 1	VT2	2 = TOD
113 - Enable Volume Logging	EVL	1 = On
114 - Enable MOE Logging	EML	1 = On
115 - Detector Low Threshold Inhibit	DLI	2 = TOD
116 - Detector Continue Presence Inhibit	DPI	2 = TOD
117 - Inhibit Detector Based On Progrmming	IND	2 = TOD
118 - Inhibit Detector Delay	IDD	2 = TOD
119 - Inhibit Conditional Ped	ICP	2 = TOD
120 - Inhibit Transit Priority	ITP	2 = TOD
121 - Red Rest Ring 1	RR1	2 = TOD
122 - Red Rest Ring 2	RR2	2 = TOD
123 - Omit Red Clear Ring 1	OR1	2 = TOD
124 - Omit Red Clear Ring 2	OR2	2 = TOD
125 - Ped Recycle Ring 1	PR1	2 = TOD
126 - Ped Recycle Ring 2	PR2	2 = TOD
127 - Enable MOE Log to Call Phone 1	MT1	2 = TOD
128 - Enable MOE Log to Call Phone 2	MT2	2 = TOD
129 - Transit Inhibit Short Time 1	IS1	2 = TOD
130 - Transit Inhibit Short Time 2	IS2	2 = TOD
131 - Transit Inhibit Short Time 3	IS3	2 = TOD
132 - Transit Inhibit Short Time 4	IS4	2 = TOD
133 - Transit Inhibit Short Time 5	IS5	2 = TOD
134 - Transit Inhibit Short Time 6	IS6	2 = TOD
135 - Transit Inhibit Short Time 7	IS7	2 = TOD
136 - Transit Inhibit Short Time 8	IS8	2 = TOD
137 - Enable Transit Priority Logging	ETL	2 = TOD
138 - Disable Flashing Yellow Arrow 1	DF1	2 = TOD
139 - Disable Flashing Yellow Arrow 3	DF3	2 = TOD
140 - Disable Flashing Yellow Arrow 5	DF5	2 = TOD
141 - Disable Flashing Yellow Arrow 7	DF7	2 = TOD
142 - Disable Auto Max	DAM	2 = TOD
143 - Disable Repeated Phase Service	DRS	2 = TOD
144 - End of Main Street	EMS	2 = TOD
145 - Coord Hold 1	HD1	2 = TOD
146 - Coord Hold 2	HD2	2 = TOD
147 - Coord Hold 3	HD3	2 = TOD
148 - Coord Hold 4	HD4	2 = TOD
149 - Coord Hold 5	HD5	2 = TOD
150 - Coord Hold 6	HD6	2 = TOD
151 - Coord Hold 7	HD7	2 = TOD
152 - Coord Hold 8	HD8	2 = TOD
153 - PE Priority Return B	PRB	2 = TOD
154 - PE Priority Return C	PRC	2 = TOD
155 - PE Priority Return D	PRD	2 = TOD
156 - PE Priority Return E	PRE	2 = TOD
157 - Platoon Inbound	PPI	2 = TOD
158 - Platoon Outbound	PPO	2 = TOD
159 - Platoon Spl 2	PS2	2 = TOD
160 - Coord Walk Rest	CWR	2 = TOD
161 - Dynamic Phase Length Short Inhibit 1	SL1	2 = TOD
162 - Dynamic Phase Length Short Inhibit 2	SL2	2 = TOD
163 - Dynamic Phase Length Short Inhibit 3	SL3	2 = TOD
164 - Dynamic Phase Length Short Inhibit 4	SL4	2 = TOD
165 - Dynamic Phase Length Short Inhibit 5	SL5	2 = TOD
166 - Dynamic Phase Length Short Inhibit 6	SL6	2 = TOD
167 - Dynamic Phase Length Short Inhibit 7	SL7	2 = TOD
168 - Dynamic Phase Length Short Inhibit 8	SL8	2 = TOD
169 - Coord Late Left Turn 1	CT1	2 = TOD
170 - Coord Late Left Turn 3	CT3	2 = TOD
171 - Coord Late Left Turn 5	CT5	2 = TOD
172 - Coord Late Left Turn 7	CT7	2 = TOD
173 - Dynamic Phase Length Enable A	DPA	2 = TOD
174 - Dynamic Phase Length Enable B	DPB	2 = TOD
175 - Dynamic Phase Length Enable C	DPC	2 = TOD
176 - Dynamic Phase Length Enable D	DPD	2 = TOD
177 - Proactive Plan Select Average	PSA	2 = TOD
178 - Proactive Plan Select Inbound	PSI	2 = TOD
179 - Proactive Plan Select Outbound	PSO	2 = TOD
180 - Split Variant Inbound	SVI	2 = TOD
181 - Split Variant Outbound	SVO	2 = TOD
182 - Disable Coord Walk Rest Ring 1	WR1	2 = TOD
183 - Disable Coord Walk Rest Ring 2	WR2	2 = TOD
184 - Proactive Plan Select New Look	NLK	2 = TOD
185 - Disable Red Clearance Extension	DRX	2 = TOD
186 - Detector Plan Line 1	DL1	2 = TOD
187 - Detector Plan Line 2	DL2	2 = TOD
188 - Disable LRT 1 Vertical Flashing Bar	DV1	2 = TOD
189 - Disable LRT 2 Vertical Flashing Bar	DV2	2 = TOD
190 - Disable LRT 3 Vertical Flashing Bar	DV3	2 = TOD
191 - Disable LRT 4 Vertical Flashing Bar	DV4	2 = TOD
192 - Datakey Enable	DKE	1 = On
193 - Dynamic Phase Reversal Enable 1	DR1	2 = TOD
194 - Dynamic Phase Reversal Enable 3	DR3	2 = TOD
195 - Dynamic Phase Reversal Enable 5	DR5	2 = TOD
196 - Dynamic Phase Reversal Enable 7	DR7	2 = TOD
197 - Enable Coordination Log	ECL	1 = On
198 - Disable Gap For FYLTA	DGF	2 = TOD
199 - Coordination Auto Walk	CAW	2 = TOD

PREEMPTION SEQUENCE 1 - 4 (Next/2/5)

Seq	Interval	Instruction	Phases Serviced	Interval Time	Hold On Input	Output On	Output Mode
1	1	197	- 2 - - 5 - - -	0	On	- - - - - - - -	0
	2	98	- - - - - - - -	0	Off	- - - - - - - -	0
	3	0	- - - - - - - -	0	Off	- - - - - - - -	0
	4	0	- - - - - - - -	0	Off	- - - - - - - -	0
	5	0	- - - - - - - -	0	Off	- - - - - - - -	0
	6	0	- - - - - - - -	0	Off	- - - - - - - -	0
	7	0	- - - - - - - -	0	Off	- - - - - - - -	0
	8	0	- - - - - - - -	0	Off	- - - - - - - -	0
	9	0	- - - - - - - -	0	Off	- - - - - - - -	0
	10	0	- - - - - - - -	0	Off	- - - - - - - -	0
2	1	0	- - - - - - - -	0	Off	- - - - - - - -	0
	2	0	- - - - - - - -	0	Off	- - - - - - - -	0
	3	0	- - - - - - - -	0	Off	- - - - - - - -	0
	4	0	- - - - - - - -	0	Off	- - - - - - - -	0
	5	0	- - - - - - - -	0	Off	- - - - - - - -	0
	6	0	- - - - - - - -	0	Off	- - - - - - - -	0
	7	0	- - - - - - - -	0	Off	- - - - - - - -	0
	8	0	- - - - - - - -	0	Off	- - - - - - - -	0
	9	0	- - - - - - - -	0	Off	- - - - - - - -	0
	10	0	- - - - - - - -	0	Off	- - - - - - - -	0
3	1	197	- - - - - 6 - -	0	On	- - - - - - - -	0
	2	98	- - - - - - - -	0	Off	- - - - - - - -	0
	3	0	- - - - - - - -	0	Off	- - - - - - - -	0
	4	0	- - - - - - - -	0	Off	- - - - - - - -	0
	5	0	- - - - - - - -	0	Off	- - - - - - - -	0
	6	0	- - - - - - - -	0	Off	- - - - - - - -	0
	7	0	- - - - - - - -	0	Off	- - - - - - - -	0
	8	0	- - - - - - - -	0	Off	- - - - - - - -	0
	9	0	- - - - - - - -	0	Off	- - - - - - - -	0
	10	0	- - - - - - - -	0	Off	- - - - - - - -	0
4	1	197	- - - - - - - 8	0	On	- - - - - - - -	0
	2	98	- - - - - - - -	0	Off	- - - - - - - -	0
	3	0	- - - - - - - -	0	Off	- - - - - - - -	0
	4	0	- - - - - - - -	0	Off	- - - - - - - -	0
	5	0	- - - - - - - -	0	Off	- - - - - - - -	0
	6	0	- - - - - - - -	0	Off	- - - - - - - -	0
	7	0	- - - - - - - -	0	Off	- - - - - - - -	0
	8	0	- - - - - - - -	0	Off	- - - - - - - -	0
	9	0	- - - - - - - -	0	Off	- - - - - - - -	0
	10	0	- - - - - - - -	0	Off	- - - - - - - -	0

Instructions -
0 = service phases defined in phases location
1-9 = use special intervals 1-9
10 = preempt sequence allows fylta
11 = preempt interval disables fylta
15 = alternate trap protection
90 = go to all red
91 = turn cvm off
92 = turn cvm on
93 = enable ped service and phases defined in phases location
94 = disable ped service
96 = enable coordination w/peds
97 = enable coordination w/o peds
98 = return with no calls
99 = return with ped calls and phases defined in phases location
100 = jump to step defined in time location and input has to be active for jump
101 = use time as resetable gap timer and service phases defined in phases location
196 = coordination sync w/peds
197 = coordination sync w/o peds
200 = lrt phase service w/o peds
201 = lrt phase service w/peds
202 = priority return-queue/delay
216 = lrt coordination sync w/peds
217 = lrt coordination sync w/o peds

Phases Serviced - phases 1 - 8

Interval Time - 0 - 255 sec or interval 1 - 10

Hold on Input - X = on

Outputs On - output 1 - 8

Output Modes -
0 = all steady on
1 = all flash together
2 = odd flashes WIG, even flashes WAG
3 = 1 - 4 steady on, 5 - 8 all flash together

SEQUENCE TIMING (Next/2/5/0)

	Sequence	1	2	3	4	5	6	7	8	
	Input Memory									X = on
	Input Priority	6	0	6	6	0	0	0	0	0 = lowest, - 8 = highest
Entry (Transition) Parameters	Min Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec 0.0 would time the normal function time
	Walk	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	
	Ped Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Overlap Yellow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 - 25.5 sec
	Overlap Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Delay to Preempt	0	0	0	0	0	0	0	0	0 - 255 sec
	Delay Ped Omit	0	0	0	0	0	0	0	0	
	Delay Phase Omit	0	0	0	0	0	0	0	0	
	Min Reservice	0	0	0	0	0	0	0	0	0 - 255 min
Overlap Inhibits	A									X = on
	B									
	C									
	D									
Exit Parameters	Exit to Coord Plan Offset by X	0	0	0	0	0	0	0	0	0 - 20
	Exit Coord Plan Time	0	0	0	0	0	0	0	0	0 - 60 min
	Exit to Max Plan	0	0	0	0	0	0	0	0	0 - 8
	Exit Free Time	0	0	0	0	0	0	0	0	0 - 60 min
	Override Time	0	0	0	0	0	0	0	0	
	Fail Time	0	0	0	0	0	0	0	0	
	Exit Mode Time	0	0	0	0	0	0	0	0	

PRIORITY RETURN AND SPECIAL INTERVALS (Next/2/5/0/6, Next/2/5/9)

		Phase / Overlap	1	2	3	4	5	6	7	8	A	B	C	D	
Priority Return		Enable	Off	0 = disabled; 1 = enabled; 2 = enabled and skip preempt phase on exit											
		A (max)	0	0	0	0	0	0	0	0	0 - 100% of currently used max				
		B (max)	0	0	0	0	0	0	0	0					
		C (max)	0	0	0	0	0	0	0	0					
		D (max)	0	0	0	0	0	0	0	0					
		E (max)	0	0	0	0	0	0	0	0					
		Ped Clear	0	0	0	0	0	0	0	0	0 - 100% of currently used ped clearance				
Queue Delay Recovery			0	0	0	0	0	0	0	0	0 - 255 sec				
Special Intervals		1	0	0	0	0	0	0	0	0	0	0	0	0	0 = Dark 1 = green don't walk 2 = green walk 3 = green flashing don't walk 4 = yellow 5 = red 6 = flashing yellow WIG 7 = flashing yellow WAG 8 = flashing red WIG 9 = flashing red WAG 10 = walk only 11=flashing don't walk only
		2	0	0	0	0	0	0	0	0	0	0	0	0	
		3	0	0	0	0	0	0	0	0	0	0	0	0	
		4	0	0	0	0	0	0	0	0	0	0	0	0	
		5	0	0	0	0	0	0	0	0	0	0	0	0	
		6	0	0	0	0	0	0	0	0	0	0	0	0	
		7	0	0	0	0	0	0	0	0	0	0	0	0	
		8	0	0	0	0	0	0	0	0	0	0	0	0	
		9	0	0	0	0	0	0	0	0	0	0	0	0	

LIGHT RAIL TRAIN (Next/2/5/0/7)

Light Rail Train	1	2	3	4	
Associated Preempt	0	0	0	0	0 = none, preempt 1 - 8
Time to Green	0	0	0	0	0 - 255 sec
Horizontal Bar Flash Time	0.0	0.0	0.0	0.0	
Vertical Bar Flash Time	0.0	0.0	0.0	0.0	0.0 - 25.5 sec
Min Duration	0	0	0	0	0 - 255 sec

Miscellaneous Data

TRANSIT PRIORITY (Next/2/7)

	1	2	3	4	5	6	7	8	
Phases	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	Phases 1 - 8 (max of 2 compatible phases)
PE Enable (6.25Hz TP call on PE)	X	X	X	X					X = 6.25 Hz signal will activate TP
Priority	0	0	0	0	0	0	0	0	0 - 8, 8 = highest
Memory									X = on
Delay Time	0	0	0	0	0	0	0	0	0 - 255 sec
Minimum Reservice Time (per input)	0	0	0	0	0	0	0	0	0 - 255 min
Override Time	0	0	0	0	0	0	0	0	0 - 255 sec
Bus Extend	0	0	0	0	0	0	0	0	0 - 255 min
Minimum Reservice Time (all inputs)	0	0 - 255 min							
Free Operation Mode	0	0 = use shortest of max 1 or 2, 1 - 8 = use max time of group 1 - 8, 9 = use time of day circuit							

TRANSIT PRIORITY ALTERNATE FORCE OFF PLANS (Next/2/7/6)

Current Coord Plan	1	2	3	4	5	6	7	8	0 = none 17 - 32 = coord plan 17 - 32
Alternate TP Force Off Plan	0	0	0	0	0	0	0	0	
Current Coord Plan	9	10	11	12	13	14	15	16	
Alternate TP Force Off Plan	0	0	0	0	0	0	0	0	

GROUP TIMING (Next/2/7/5)

	Phase -->	1	2	3	4	5	6	7	8	
Group 1	Max Times	0	0	0	0	0	0	0	0	0 - 255 sec 0 would time the normal function time
	Walk Times	0	0	0	0	0	0	0	0	
Group 2	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 3	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 4	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 5	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 6	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 7	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	
Group 8	Max Times	0	0	0	0	0	0	0	0	
	Walk Times	0	0	0	0	0	0	0	0	

TRUCK PRIORITY (Next/2/7/9)

Truck Priority -->	1	2	3	4	
Associated Transit Priority	0	0	0	0	0 = none 1 - 8 = transit priority 1 - 8
Leading Detector	0	0	0	0	0 = none, 1 - 32 = detector 1 - 32
Trailling Detector	0	0	0	0	
Stop Bar Distance	0	0	0	0	0 - 999 feet
Trap Distance	0.0	0.0	0.0	0.0	0.0 - 99.9 feet
Minimum Speed	0	0	0	0	0 - 100 mph
Minimum Length	0	0	0	0	0 - 255 feet
Downhill Grade (%)	0	0	0	0	0 - 20%
Uphill Grade (%)	0	0	0	0	
Undersized Vehicle					X = Enabled

170 INPUTS (Next/2/8/1)

C1-39	101 - Veh Detector 9	C1-67	22 - Ped Detector 2
C1-40	113 - Veh Detector 19	C1-68	26 - Ped Detector 6
C1-41	106 - Veh Detector 14	C1-69	24 - Ped Detector 4
C1-42	118 - Veh Detector 24	C1-70	28 - Ped Detector 8
C1-43	102 - Veh Detector 10	C1-71	151 - Preempt In 1
C1-44	114 - Veh Detector 20	C1-72	152 - Preempt In 2
C1-45	107 - Veh Detector 15	C1-73	153 - Preempt In 3
C1-46	161 - Veh Detector 25	C1-74	154 - Preempt In 4
C1-47	105 - Veh Detector 13	C1-75	254 - Pin Not Used
C1-48	117 - Veh Detector 23	C1-76	104 - Veh Detector 12
C1-49	112 - Veh Detector 18	C1-77	116 - Veh Detector 22
C1-50	164 - Veh Detector 28	C1-78	111 - Veh Detector 17
C1-51	199 - LRT Ped Inhibit	C1-79	163 - Veh Detector 27
C1-52	155 - Preempt In 5	C1-80	82 - Interval Advance
C1-53	85 - Manual Control Enable	C1-81	137 - Conflict Monitor Status/Flash
C1-54	254 - Pin Not Used	C1-82	62 - Stop Timing Ring 1
C1-55	15 - Veh Detector 5	C11-15	254 - Pin Not Used
C1-56	11 - Veh Detector 1	C11-16	254 - Pin Not Used
C1-57	17 - Veh Detector 7	C11-17	254 - Pin Not Used
C1-58	13 - Veh Detector 3	C11-18	254 - Pin Not Used
C1-59	16 - Veh Detector 6	C11-19	254 - Pin Not Used
C1-60	12 - Veh Detector 2	C11-20	254 - Pin Not Used
C1-61	18 - Veh Detector 8	C11-21	254 - Pin Not Used
C1-62	14 - Veh Detector 4	C11-22	254 - Pin Not Used
C11-10	254 - Pin Not Used	C11-23	254 - Pin Not Used
C11-11	254 - Pin Not Used	C11-24	254 - Pin Not Used
C11-12	254 - Pin Not Used	C11-25	254 - Pin Not Used
C11-13	254 - Pin Not Used	C11-26	254 - Pin Not Used
C1-63	103 - Veh Detector 11	C11-27	254 - Pin Not Used
C1-64	115 - Veh Detector 21	C11-28	254 - Pin Not Used
C1-65	108 - Veh Detector 16	C11-29	254 - Pin Not Used
C1-66	162 - Veh Detector 26	C11-30	254 - Pin Not Used

INPUTS AND OUTPUTS OPTIONS (Next/2/8/3)

Connector Type	C1/C11	Change I/O	0 = Disabled
0 = C1/C11; 1 = MS-A/B/C/D; 2 = TS2 Port 1; 3 = ITS Cabinet		X = On (After a download without a power on - off cycle)	

170 OUTPUTS (Next/2/8/2)

C1-2	44 - Don't Walk, Ph 4	C1-35	131 - TOD Output 1
C1-3	64 - Walk, Ph 4	C1-36	132 - TOD Output 2
C1-4	14 - Red, Ph 4	C1-37	133 - TOD Output 3
C1-5	24 - Yellow, Ph 4	C1-38	134 - TOD Output 4
C1-6	34 - Green, Ph 4	C1-100	53 - Ped Clear, Ph 3
C1-7	13 - Red, Ph 3	C1-101	51 - Ped Clear, Ph 1
C1-8	23 - Yellow, Ph 3	C1-102	187 - Soft Flash
C1-9	33 - Green, Ph 3	C1-103	147 - Watchdog
C1-10	42 - Don't Walk, Ph 2	C1-83	43 - Don't Walk, Ph 3
C1-11	62 - Walk, Ph 2	C1-84	63 - Walk, Ph 3
C1-12	12 - Red, Ph 2	C1-85	116 - Overlap D, Red
C1-13	22 - Yellow, Ph 2	C1-86	115 - Overlap D, Yellow
C1-15	32 - Green, Ph 2	C1-87	114 - Overlap D, Green
C1-16	11 - Red, Ph 1	C1-88	113 - Overlap C, Red
C1-17	21 - Yellow, Ph 1	C1-89	112 - Overlap C, Yellow
C1-18	31 - Green, Ph 1	C1-90	111 - Overlap C, Green
C1-19	48 - Don't Walk, Ph 8	C1-91	41 - Don't Walk, Ph 1
C1-20	68 - Walk, Ph 8	C1-93	61 - Walk, Ph 1
C1-21	18 - Red, Ph 8	C1-94	106 - Overlap B, Red
C1-22	28 - Yellow, Ph 8	C1-95	105 - Overlap B, Yellow
C1-23	38 - Green, Ph 8	C1-96	104 - Overlap B, Green
C1-24	17 - Red, Ph 7	C1-97	103 - Overlap A, Red
C1-25	27 - Yellow, Ph 7	C1-98	102 - Overlap A, Yellow
C1-26	217 - FYLTA, 5	C1-99	101 - Overlap A, Green
C1-27	46 - Don't Walk, Ph 6	C11-1	254 - Pin Not Used
C1-28	66 - Walk, Ph 6	C11-2	254 - Pin Not Used
C1-29	16 - Red, Ph 6	C11-3	254 - Pin Not Used
C1-30	26 - Yellow, Ph 6	C11-4	254 - Pin Not Used
C1-31	36 - Green, Ph 6	C11-5	254 - Pin Not Used
C1-32	15 - Red, Ph 5	C11-6	254 - Pin Not Used
C1-33	223 - FYLTA CLR, 5	C11-7	254 - Pin Not Used
C1-34	35 - Green, Ph 5	C11-8	254 - Pin Not Used

INTERNAL LOGIC 1 - 96 (Next/2/9)

Step	Inst.	Comment	Step	Inst.	Comment
1	201		49	0	
2	106		50	0	
3	165		51	0	
4	201		52	0	
5	107		53	0	
6	165		54	0	
7	0		55	0	
8	0		56	0	
9	0		57	0	
10	0		58	0	
11	0		59	0	
12	0		60	0	
13	0		61	0	
14	0		62	0	
15	0		63	0	
16	0		64	0	
17	0		65	0	
18	0		66	0	
19	0		67	0	
20	0		68	0	
21	0		69	0	
22	0		70	0	
23	0		71	0	
24	0		72	0	
25	0		73	0	
26	0		74	0	
27	0		75	0	
28	0		76	0	
29	0		77	0	
30	0		78	0	
31	0		79	0	
32	0		80	0	
33	0		81	0	
34	0		82	0	
35	0		83	0	
36	0		84	0	
37	0		85	0	
38	0		86	0	
39	0		87	0	
40	0		88	0	
41	0		89	0	
42	0		90	0	
43	0		91	0	
44	0		92	0	
45	0		93	0	
46	0		94	0	
47	0		95	0	
48	0		96	0	

CONTROLLER ID

Manufacturer ID	NORTHWEST SIGNAL
Model ID	Voyage-0 v05.03.01
Protocol Revision ID	AB3418E V1

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

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.

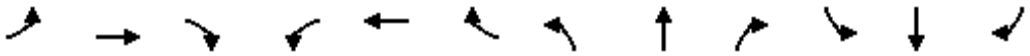
Level of service B: Operating speeds beginning to be affected by other traffic; short traffic delays at intersections. Higher average intersection delay than for level of service A resulting from more vehicles stopping.

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	5	235	35	126	326	7	15	2	187	3	5	1
Future Volume (vph)	5	235	35	126	326	7	15	2	187	3	5	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	5	250	37	134	347	7	16	2	199	3	5	1

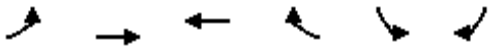
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	5	287	134	354	217	9
Volume Left (vph)	5	0	134	0	16	3
Volume Right (vph)	0	37	0	7	199	1
Hadj (s)	0.58	-0.01	0.55	0.04	-0.50	0.42
Departure Headway (s)	6.3	5.7	6.1	5.5	5.3	6.7
Degree Utilization, x	0.01	0.46	0.23	0.54	0.32	0.02
Capacity (veh/h)	536	604	574	634	620	460
Control Delay (s)	8.2	12.3	9.6	13.8	10.7	9.8
Approach Delay (s)	12.2		12.6		10.7	9.8
Approach LOS	B		B		B	A

Intersection Summary				
Delay	12.1			
Level of Service	B			
Intersection Capacity Utilization	44.6%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	369	53	37	426	30	72
Future Volume (Veh/h)	369	53	37	426	30	72
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	397	57	40	458	32	77
Pedestrians	1				2	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	0				0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			456		966	428
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			456		966	428
tC, single (s)			4.1		6.5	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.4
p0 queue free %			96		88	87
cM capacity (veh/h)			1087		264	613

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	454	498	109
Volume Left	0	40	32
Volume Right	57	0	77
cSH	1700	1087	442
Volume to Capacity	0.27	0.04	0.25
Queue Length 95th (ft)	0	3	24
Control Delay (s)	0.0	1.1	15.8
Lane LOS		A	C
Approach Delay (s)	0.0	1.1	15.8
Approach LOS			C

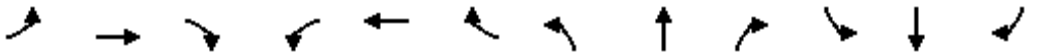
Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	280	156	284	163	92	192
Future Volume (vph)	280	156	284	163	92	192
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	329	184	334	192	108	226

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	329	184	526	108	226
Volume Left (vph)	329	0	0	108	0
Volume Right (vph)	0	0	192	0	226
Hadj (s)	0.60	0.10	-0.13	0.62	-0.58
Departure Headway (s)	7.0	6.5	6.0	7.9	6.7
Degree Utilization, x	0.64	0.33	0.88	0.24	0.42
Capacity (veh/h)	499	535	585	442	521
Control Delay (s)	20.7	11.6	38.2	12.1	13.2
Approach Delay (s)	17.4		38.2	12.9	
Approach LOS	C		E	B	

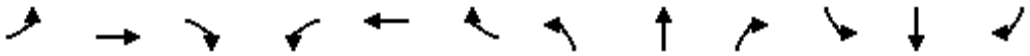
Intersection Summary			
Delay	24.3		
Level of Service	C		
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	6	6	54	8	160	19	337	89	144	221	73
Future Volume (Veh/h)	25	6	6	54	8	160	19	337	89	144	221	73
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	29	7	7	62	9	184	22	387	102	166	254	84
Pedestrians		4						3				
Lane Width (ft)		12.0						12.0				
Walking Speed (ft/s)		3.5						3.5				
Percent Blockage		0						0				
Right turn flare (veh)						5						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											309	
pX, platoon unblocked	0.98	0.98	0.98	0.98	0.98		0.98					
vC, conflicting volume	1210	1165	303	1082	1156	438	342			489		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1204	1157	274	1071	1148	438	314			489		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	68	96	99	61	94	70	98			84		
cM capacity (veh/h)	91	157	739	159	159	617	1196			1054		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2
Volume Total	29	14	255	511	166	338
Volume Left	29	0	62	22	166	0
Volume Right	0	7	184	102	0	84
cSH	91	259	572	1196	1054	1700
Volume to Capacity	0.32	0.05	0.45	0.02	0.16	0.20
Queue Length 95th (ft)	30	4	57	1	14	0
Control Delay (s)	62.4	19.7	22.0	0.5	9.1	0.0
Lane LOS	F	C	C	A	A	
Approach Delay (s)	48.5		22.0	0.5	3.0	
Approach LOS	E		C			

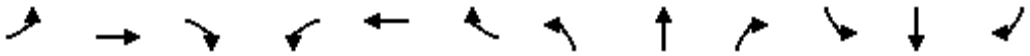
Intersection Summary				
Average Delay	7.2			
Intersection Capacity Utilization	60.5%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	168	0	123	0	0	0	0	328	189	273	308	0
Future Volume (vph)	168	0	123	0	0	0	0	328	189	273	308	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Lane Util. Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1731	1553					1845	1568	1752	1845	
Flt Permitted		0.95	1.00					1.00	1.00	0.31	1.00	
Satd. Flow (perm)		1731	1553					1845	1568	579	1845	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	198	0	145	0	0	0	0	386	222	321	362	0
RTOR Reduction (vph)	0	0	119	0	0	0	0	0	94	0	0	0
Lane Group Flow (vph)	0	198	26	0	0	0	0	386	128	321	362	0
Confl. Peds. (#/hr)	1					1						3
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8						6	2		
Actuated Green, G (s)		12.2	12.2					23.8	23.8	45.0	45.0	
Effective Green, g (s)		12.2	12.2					23.8	23.8	45.0	45.0	
Actuated g/C Ratio		0.18	0.18					0.35	0.35	0.67	0.67	
Clearance Time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Vehicle Extension (s)		2.3	2.3					6.9	6.9	2.3	6.9	
Lane Grp Cap (vph)		314	281					653	555	670	1235	
v/s Ratio Prot								c0.21		c0.12	0.20	
v/s Ratio Perm		0.11	0.02						0.08	0.21		
v/c Ratio		0.63	0.09					0.59	0.23	0.48	0.29	
Uniform Delay, d1		25.4	22.9					17.7	15.3	6.0	4.6	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		3.4	0.1					3.1	0.7	0.3	0.5	
Delay (s)		28.8	23.0					20.8	16.0	6.4	5.0	
Level of Service		C	C					C	B	A	A	
Approach Delay (s)		26.3			0.0			19.1			5.6	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	67.2	Sum of lost time (s)	15.0
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



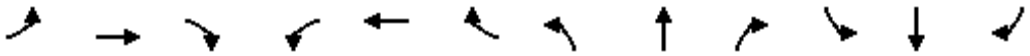
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	99	0	170	149	355	0	0	497	326
Future Volume (vph)	0	0	0	99	0	170	149	355	0	0	497	326
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5			5.5	
Lane Util. Factor					1.00	1.00	1.00	1.00			0.95	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.99	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.94	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1787	1599	1671	1759			3287	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1787	1599	1671	1759			3287	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	111	0	191	167	399	0	0	558	366
RTOR Reduction (vph)	0	0	0	0	0	170	0	0	0	0	86	0
Lane Group Flow (vph)	0	0	0	0	111	21	167	399	0	0	838	0
Confl. Peds. (#/hr)												3
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	8%	8%	8%	2%	2%	2%
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				7	7	7	1	5			2 3 4	
Permitted Phases												
Actuated Green, G (s)					14.0	14.0	13.2	31.9			83.8	
Effective Green, g (s)					14.0	14.0	13.2	31.9			83.8	
Actuated g/C Ratio					0.11	0.11	0.10	0.25			0.66	
Clearance Time (s)					5.5	5.5	5.5	5.5				
Vehicle Extension (s)					2.3	2.3	2.3	5.2				
Lane Grp Cap (vph)					196	175	172	440			2160	
v/s Ratio Prot					c0.06	0.01	0.10	c0.23			c0.25	
v/s Ratio Perm												
v/c Ratio					0.57	0.12	0.97	0.91			0.39	
Uniform Delay, d1					53.9	51.2	57.0	46.4			10.1	
Progression Factor					1.00	1.00	1.00	1.00			0.42	
Incremental Delay, d2					2.7	0.2	59.7	23.3			0.0	
Delay (s)					56.6	51.4	116.6	69.6			4.3	
Level of Service					E	D	F	E			A	
Approach Delay (s)		0.0			53.3			83.5			4.3	
Approach LOS		A			D			F			A	

Intersection Summary			
HCM 2000 Control Delay	37.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	127.5	Sum of lost time (s)	27.5
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	34	410	415	56	288	227
Future Volume (vph)	34	410	415	56	288	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	6.0	5.5	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1792	1524	1770	1863	1641	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1792	1524	1770	1863	1641	1468
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	39	466	472	64	327	258
RTOR Reduction (vph)	0	107	0	0	0	55
Lane Group Flow (vph)	39	359	472	64	327	203
Heavy Vehicles (%)	6%	6%	2%	2%	10%	10%
Turn Type	NA	custom	Prot	NA	Prot	custom
Protected Phases	4	4 5 7	3	8	5 6 7	3 5 6 7
Permitted Phases		4				5 6 7
Actuated Green, G (s)	16.0	72.9	33.7	54.7	61.3	100.5
Effective Green, g (s)	16.0	72.9	33.7	54.7	61.3	100.5
Actuated g/C Ratio	0.13	0.57	0.26	0.43	0.48	0.79
Clearance Time (s)	5.5		5.5	6.0		
Vehicle Extension (s)	2.3		2.3	2.3		
Lane Grp Cap (vph)	224	871	467	799	788	1157
v/s Ratio Prot	0.02	c0.24	c0.27	0.03	c0.20	0.14
v/s Ratio Perm						
v/c Ratio	0.17	0.41	1.01	0.08	0.41	0.18
Uniform Delay, d1	49.8	15.3	46.9	21.5	21.5	3.3
Progression Factor	1.00	1.00	1.00	1.00	0.26	0.00
Incremental Delay, d2	1.7	0.7	44.3	0.2	0.5	0.1
Delay (s)	51.5	16.0	91.2	21.7	6.0	0.1
Level of Service	D	B	F	C	A	A
Approach Delay (s)	18.7			82.9	3.4	
Approach LOS	B			F	A	

Intersection Summary			
HCM 2000 Control Delay	34.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	127.5	Sum of lost time (s)	27.5
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	656	33	167	228	15	15	2	185	17	7	12
Future Volume (vph)	6	656	33	167	228	15	15	2	185	17	7	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	713	36	182	248	16	16	2	201	18	8	13

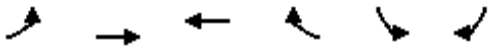
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	7	749	182	264	219	39
Volume Left (vph)	7	0	182	0	16	18
Volume Right (vph)	0	36	0	16	201	13
Hadj (s)	0.53	0.00	0.55	0.01	-0.45	-0.09
Departure Headway (s)	6.6	6.0	6.7	6.2	6.2	7.2
Degree Utilization, x	0.01	1.00	0.34	0.45	0.38	0.08
Capacity (veh/h)	537	749	523	572	562	460
Control Delay (s)	8.5	59.9	11.9	12.9	12.9	10.8
Approach Delay (s)	59.5		12.5		12.9	10.8
Approach LOS	F		B		B	B

Intersection Summary				
Delay	36.8			
Level of Service	E			
Intersection Capacity Utilization	68.9%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	815	50	20	399	10	39
Future Volume (Veh/h)	815	50	20	399	10	39
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	876	54	22	429	11	42
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			930		1385	903
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			930		1385	903
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		93	87
cM capacity (veh/h)			731		152	336

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	930	451	53
Volume Left	0	22	11
Volume Right	54	0	42
cSH	1700	731	268
Volume to Capacity	0.55	0.03	0.20
Queue Length 95th (ft)	0	2	18
Control Delay (s)	0.0	0.9	21.7
Lane LOS		A	C
Approach Delay (s)	0.0	0.9	21.7
Approach LOS			C

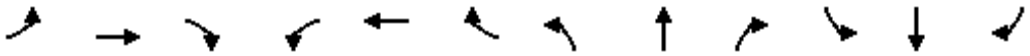
Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	373	452	161	133	162	265
Future Volume (vph)	373	452	161	133	162	265
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	397	481	171	141	172	282

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	397	481	312	172	282
Volume Left (vph)	397	0	0	172	0
Volume Right (vph)	0	0	141	0	282
Hadj (s)	0.55	0.05	-0.24	0.55	-0.65
Departure Headway (s)	7.1	6.6	6.5	8.0	6.7
Degree Utilization, x	0.78	0.88	0.57	0.38	0.53
Capacity (veh/h)	500	540	532	439	518
Control Delay (s)	30.1	39.5	17.6	14.6	15.8
Approach Delay (s)	35.2		17.6	15.3	
Approach LOS	E		C	C	

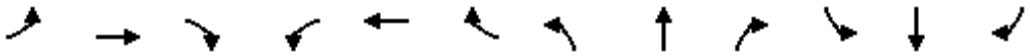
Intersection Summary			
Delay	26.4		
Level of Service	D		
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	8	38	38	7	131	30	404	68	108	349	95
Future Volume (Veh/h)	118	8	38	38	7	131	30	404	68	108	349	95
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	134	9	43	43	8	149	34	459	77	123	397	108
Pedestrians		9						6			1	
Lane Width (ft)		12.0						12.0			12.0	
Walking Speed (ft/s)		3.5						3.5			3.5	
Percent Blockage		1						1			0	
Right turn flare (veh)						5						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											309	
pX, platoon unblocked	0.90	0.90	0.90	0.90	0.90		0.90					
vC, conflicting volume	1351	1310	466	1262	1326	498	514			536		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1335	1290	355	1236	1307	498	408			536		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	93	93	60	93	74	97			88		
cM capacity (veh/h)	73	125	615	107	122	573	1025			1032		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2
Volume Total	134	52	200	570	123	505
Volume Left	134	0	43	34	123	0
Volume Right	0	43	149	77	0	108
cSH	73	367	429	1025	1032	1700
Volume to Capacity	1.84	0.14	0.47	0.03	0.12	0.30
Queue Length 95th (ft)	297	12	60	3	10	0
Control Delay (s)	520.4	16.4	26.3	0.9	9.0	0.0
Lane LOS	F	C	D	A	A	
Approach Delay (s)	379.5		26.3	0.9	1.8	
Approach LOS	F		D			

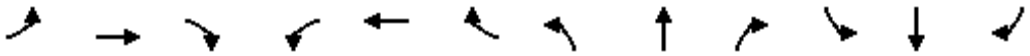
Intersection Summary				
Average Delay	48.9			
Intersection Capacity Utilization	70.3%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	1	68	0	0	0	0	332	318	244	491	0
Future Volume (vph)	95	1	68	0	0	0	0	332	318	244	491	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Lane Util. Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1758	1568					1845	1568	1752	1845	
Flt Permitted		0.95	1.00					1.00	1.00	0.37	1.00	
Satd. Flow (perm)		1758	1568					1845	1568	689	1845	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	108	1	77	0	0	0	0	377	361	277	558	0
RTOR Reduction (vph)	0	0	68	0	0	0	0	0	140	0	0	0
Lane Group Flow (vph)	0	109	9	0	0	0	0	377	221	277	558	0
Confl. Peds. (#/hr)						1						15
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8						6	2		
Actuated Green, G (s)		6.7	6.7					24.7	24.7	42.2	42.2	
Effective Green, g (s)		6.7	6.7					24.7	24.7	42.2	42.2	
Actuated g/C Ratio		0.11	0.11					0.42	0.42	0.72	0.72	
Clearance Time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Vehicle Extension (s)		2.3	2.3					6.9	6.9	2.3	6.9	
Lane Grp Cap (vph)		199	178					773	657	719	1321	
v/s Ratio Prot								c0.20		0.08	c0.30	
v/s Ratio Perm		0.06	0.01						0.14	0.19		
v/c Ratio		0.55	0.05					0.49	0.34	0.39	0.42	
Uniform Delay, d1		24.7	23.3					12.5	11.6	3.8	3.4	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		2.1	0.1					1.7	1.1	0.2	0.8	
Delay (s)		26.8	23.3					14.2	12.6	4.0	4.2	
Level of Service		C	C					B	B	A	A	
Approach Delay (s)		25.4			0.0			13.4			4.1	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	10.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	58.9	Sum of lost time (s)	15.0
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	194	4	300	96	333	0	0	538	186
Future Volume (vph)	0	0	0	194	4	300	96	333	0	0	538	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5			5.5	
Lane Util. Factor					1.00	1.00	1.00	1.00			0.95	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.98	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.96	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1776	1583	1752	1845			3271	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1776	1583	1752	1845			3271	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	216	4	333	107	370	0	0	598	207
RTOR Reduction (vph)	0	0	0	0	0	279	0	0	0	0	25	0
Lane Group Flow (vph)	0	0	0	0	220	54	107	370	0	0	780	0
Confl. Peds. (#/hr)												15
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	4%	4%	4%
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				7	7	7	1	5			2 3 4	
Permitted Phases												
Actuated Green, G (s)					20.1	20.1	11.8	29.7			75.4	
Effective Green, g (s)					20.1	20.1	11.8	29.7			75.4	
Actuated g/C Ratio					0.16	0.16	0.10	0.24			0.61	
Clearance Time (s)					5.5	5.5	5.5	5.5				
Vehicle Extension (s)					2.3	2.3	2.3	5.2				
Lane Grp Cap (vph)					288	257	166	442			1992	
v/s Ratio Prot					c0.12	0.03	0.06	c0.20			c0.24	
v/s Ratio Perm												
v/c Ratio					0.76	0.21	0.64	0.84			0.39	
Uniform Delay, d1					49.6	45.0	54.0	44.7			12.4	
Progression Factor					1.00	1.00	1.00	1.00			0.54	
Incremental Delay, d2					10.7	0.2	6.9	14.4			0.1	
Delay (s)					60.3	45.2	60.9	59.2			6.7	
Level of Service					E	D	E	E			A	
Approach Delay (s)		0.0			51.2			59.6			6.7	
Approach LOS		A			D			E			A	

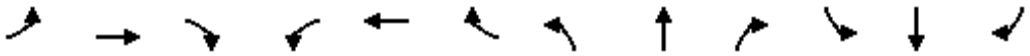
Intersection Summary			
HCM 2000 Control Delay	33.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	123.8	Sum of lost time (s)	27.5
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	106	430	298	83	372	266
Future Volume (vph)	106	430	298	83	372	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	6.0	5.5	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1881	1599	1787	1881	1787	1599
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1881	1599	1787	1881	1787	1599
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	120	489	339	94	423	302
RTOR Reduction (vph)	0	124	0	0	0	28
Lane Group Flow (vph)	120	365	339	94	423	274
Confl. Peds. (#/hr)		1				
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	NA	custom	Prot	NA	Prot	custom
Protected Phases	4	4 5 7	3	8	5 6 7	3 5 6 7
Permitted Phases		4				5 6 7
Actuated Green, G (s)	16.0	76.8	25.5	46.5	65.8	96.8
Effective Green, g (s)	16.0	76.8	25.5	46.5	65.8	96.8
Actuated g/C Ratio	0.13	0.62	0.21	0.38	0.53	0.78
Clearance Time (s)	5.5		5.5	6.0		
Vehicle Extension (s)	2.3		2.3	2.3		
Lane Grp Cap (vph)	243	991	368	706	949	1250
v/s Ratio Prot	c0.06	0.23	c0.19	0.05	c0.24	0.17
v/s Ratio Perm						
v/c Ratio	0.49	0.37	0.92	0.13	0.45	0.22
Uniform Delay, d1	50.1	11.6	48.2	25.4	17.8	3.6
Progression Factor	1.00	1.00	1.00	1.00	0.37	0.07
Incremental Delay, d2	7.0	0.5	30.7	0.4	0.5	0.1
Delay (s)	57.1	12.1	78.8	25.8	7.2	0.4
Level of Service	E	B	E	C	A	A
Approach Delay (s)	21.0			67.3	4.3	
Approach LOS	C			E	A	

Intersection Summary			
HCM 2000 Control Delay	25.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	123.8	Sum of lost time (s)	27.5
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	5	247	36	131	347	7	16	2	195	3	5	1
Future Volume (vph)	5	247	36	131	347	7	16	2	195	3	5	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	5	263	38	139	369	7	17	2	207	3	5	1

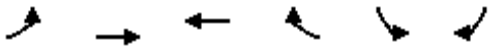
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	5	301	139	376	226	9
Volume Left (vph)	5	0	139	0	17	3
Volume Right (vph)	0	38	0	7	207	1
Hadj (s)	0.58	0.00	0.55	0.04	-0.50	0.42
Departure Headway (s)	6.4	5.8	6.1	5.6	5.4	6.8
Degree Utilization, x	0.01	0.49	0.24	0.59	0.34	0.02
Capacity (veh/h)	528	595	568	627	610	445
Control Delay (s)	8.3	13.0	9.8	15.0	11.1	9.9
Approach Delay (s)	13.0		13.6		11.1	9.9
Approach LOS	B		B		B	A

Intersection Summary				
Delay	12.9			
Level of Service	B			
Intersection Capacity Utilization	46.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	387	55	38	451	31	75
Future Volume (Veh/h)	387	55	38	451	31	75
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	416	59	41	485	33	81
Pedestrians	1				2	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	0				0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			477		1016	448
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			477		1016	448
tC, single (s)			4.1		6.5	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.4
p0 queue free %			96		87	86
cM capacity (veh/h)			1068		247	598

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	475	526	114
Volume Left	0	41	33
Volume Right	59	0	81
cSH	1700	1068	423
Volume to Capacity	0.28	0.04	0.27
Queue Length 95th (ft)	0	3	27
Control Delay (s)	0.0	1.1	16.6
Lane LOS		A	C
Approach Delay (s)	0.0	1.1	16.6
Approach LOS			C

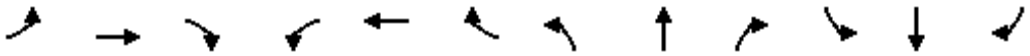
Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	294	162	295	173	104	208
Future Volume (vph)	294	162	295	173	104	208
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	346	191	347	204	122	245

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	346	191	551	122	245
Volume Left (vph)	346	0	0	122	0
Volume Right (vph)	0	0	204	0	245
Hadj (s)	0.60	0.10	-0.14	0.62	-0.58
Departure Headway (s)	7.3	6.7	6.2	8.1	6.8
Degree Utilization, x	0.70	0.36	0.95	0.27	0.46
Capacity (veh/h)	486	520	551	440	518
Control Delay (s)	24.1	12.3	50.5	12.8	14.4
Approach Delay (s)	19.9		50.5	13.9	
Approach LOS	C		F	B	

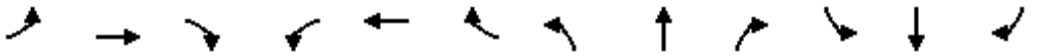
Intersection Summary			
Delay	30.0		
Level of Service	D		
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	6	6	56	8	166	20	357	93	150	246	76
Future Volume (Veh/h)	26	6	6	56	8	166	20	357	93	150	246	76
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	30	7	7	64	9	191	23	410	107	172	283	87
Pedestrians		4						3				
Lane Width (ft)		12.0						12.0				
Walking Speed (ft/s)		3.5						3.5				
Percent Blockage		0						0				
Right turn flare (veh)						5						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											309	
pX, platoon unblocked	0.96	0.96	0.96	0.96	0.96		0.96					
vC, conflicting volume	1284	1238	334	1150	1228	464	374			517		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1275	1227	285	1135	1216	464	327			517		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	60	95	99	54	94	68	98			83		
cM capacity (veh/h)	76	139	717	140	141	596	1163			1029		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2
Volume Total	30	14	264	540	172	370
Volume Left	30	0	64	23	172	0
Volume Right	0	7	191	107	0	87
cSH	76	232	505	1163	1029	1700
Volume to Capacity	0.40	0.06	0.52	0.02	0.17	0.22
Queue Length 95th (ft)	39	5	75	2	15	0
Control Delay (s)	80.5	21.5	25.5	0.6	9.2	0.0
Lane LOS	F	C	D	A	A	
Approach Delay (s)	61.8		25.5	0.6	2.9	
Approach LOS	F		D			

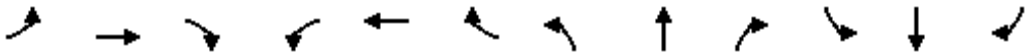
Intersection Summary				
Average Delay	8.2			
Intersection Capacity Utilization	63.4%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	0	128	0	0	0	0	347	197	346	336	0
Future Volume (vph)	190	0	128	0	0	0	0	347	197	346	336	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Lane Util. Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1731	1553					1845	1568	1752	1845	
Flt Permitted		0.95	1.00					1.00	1.00	0.27	1.00	
Satd. Flow (perm)		1731	1553					1845	1568	504	1845	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	224	0	151	0	0	0	0	408	232	407	395	0
RTOR Reduction (vph)	0	0	123	0	0	0	0	0	95	0	0	0
Lane Group Flow (vph)	0	224	28	0	0	0	0	408	137	407	395	0
Confl. Peds. (#/hr)	1					1						3
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8						6	2		
Actuated Green, G (s)		13.5	13.5					24.6	24.6	49.3	49.3	
Effective Green, g (s)		13.5	13.5					24.6	24.6	49.3	49.3	
Actuated g/C Ratio		0.19	0.19					0.34	0.34	0.68	0.68	
Clearance Time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Vehicle Extension (s)		2.3	2.3					6.9	6.9	2.3	6.9	
Lane Grp Cap (vph)		320	287					623	529	679	1249	
v/s Ratio Prot								0.22		c0.16	0.21	
v/s Ratio Perm		0.13	0.02						0.09	c0.24		
v/c Ratio		0.70	0.10					0.65	0.26	0.60	0.32	
Uniform Delay, d1		27.8	24.6					20.5	17.5	7.3	4.8	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		5.8	0.1					4.5	0.9	1.1	0.5	
Delay (s)		33.5	24.7					25.0	18.4	8.4	5.3	
Level of Service		C	C					C	B	A	A	
Approach Delay (s)		30.0			0.0			22.6			6.9	
Approach LOS		C			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	17.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	72.8	Sum of lost time (s)	15.0
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



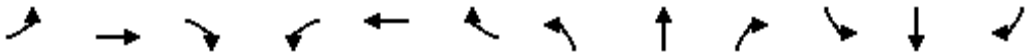
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	103	0	202	155	390	0	0	595	378
Future Volume (vph)	0	0	0	103	0	202	155	390	0	0	595	378
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5			5.5	
Lane Util. Factor					1.00	1.00	1.00	1.00			0.95	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.99	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.94	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1787	1599	1671	1759			3292	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1787	1599	1671	1759			3292	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	116	0	227	174	438	0	0	669	425
RTOR Reduction (vph)	0	0	0	0	0	202	0	0	0	0	79	0
Lane Group Flow (vph)	0	0	0	0	116	25	174	438	0	0	1015	0
Confl. Peds. (#/hr)												3
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	8%	8%	8%	2%	2%	2%
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				7	7	7	1	5			2 3 4	
Permitted Phases												
Actuated Green, G (s)					14.0	14.0	13.3	32.5			84.6	
Effective Green, g (s)					14.0	14.0	13.3	32.5			84.6	
Actuated g/C Ratio					0.11	0.11	0.10	0.25			0.66	
Clearance Time (s)					5.5	5.5	5.5	5.5				
Vehicle Extension (s)					2.3	2.3	2.3	5.2				
Lane Grp Cap (vph)					194	174	173	445			2169	
v/s Ratio Prot					c0.06	0.02	0.10	c0.25			c0.31	
v/s Ratio Perm												
v/c Ratio					0.60	0.14	1.01	0.98			0.47	
Uniform Delay, d1					54.5	51.8	57.6	47.7			10.8	
Progression Factor					1.00	1.00	1.00	1.00			0.69	
Incremental Delay, d2					3.8	0.2	69.9	38.5			0.0	
Delay (s)					58.3	52.0	127.5	86.2			7.5	
Level of Service					E	D	F	F			A	
Approach Delay (s)		0.0			54.1			98.0			7.5	
Approach LOS		A			D			F			A	

Intersection Summary			
HCM 2000 Control Delay	42.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	128.4	Sum of lost time (s)	27.5
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	45	515	464	62	335	247
Future Volume (vph)	45	515	464	62	335	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	6.0	5.5	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1792	1524	1770	1863	1641	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1792	1524	1770	1863	1641	1468
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	51	585	527	70	381	281
RTOR Reduction (vph)	0	97	0	0	0	59
Lane Group Flow (vph)	51	488	527	70	381	222
Heavy Vehicles (%)	6%	6%	2%	2%	10%	10%
Turn Type	NA	custom	Prot	NA	Prot	custom
Protected Phases	4	4 5 7	3	8	5 6 7	3 5 6 7
Permitted Phases		4				5 6 7
Actuated Green, G (s)	16.0	73.5	33.7	54.7	62.2	101.4
Effective Green, g (s)	16.0	73.5	33.7	54.7	62.2	101.4
Actuated g/C Ratio	0.12	0.57	0.26	0.43	0.48	0.79
Clearance Time (s)	5.5		5.5	6.0		
Vehicle Extension (s)	2.3		2.3	2.3		
Lane Grp Cap (vph)	223	872	464	793	794	1159
v/s Ratio Prot	0.03	c0.32	c0.30	0.04	c0.23	0.15
v/s Ratio Perm						
v/c Ratio	0.23	0.56	1.14	0.09	0.48	0.19
Uniform Delay, d1	50.6	17.3	47.4	22.0	22.2	3.3
Progression Factor	1.00	1.00	1.00	1.00	0.24	0.00
Incremental Delay, d2	2.4	1.4	84.5	0.2	0.5	0.1
Delay (s)	53.0	18.7	131.9	22.2	5.9	0.1
Level of Service	D	B	F	C	A	A
Approach Delay (s)	21.5			119.0	3.5	
Approach LOS	C			F	A	

Intersection Summary			
HCM 2000 Control Delay	45.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	128.4	Sum of lost time (s)	27.5
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	691	34	174	243	16	16	2	192	18	7	12
Future Volume (vph)	6	691	34	174	243	16	16	2	192	18	7	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	751	37	189	264	17	17	2	209	20	8	13

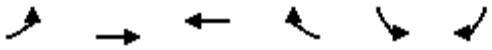
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	7	788	189	281	228	41
Volume Left (vph)	7	0	189	0	17	20
Volume Right (vph)	0	37	0	17	209	13
Hadj (s)	0.53	0.00	0.55	0.01	-0.45	-0.08
Departure Headway (s)	6.7	6.1	6.8	6.2	6.2	7.3
Degree Utilization, x	0.01	1.00	0.36	0.49	0.40	0.08
Capacity (veh/h)	529	788	519	567	557	453
Control Delay (s)	8.6	60.4	12.2	13.8	13.3	10.9
Approach Delay (s)	60.0		13.2		13.3	10.9
Approach LOS	F		B		B	B

Intersection Summary				
Delay	37.4			
Level of Service	E			
Intersection Capacity Utilization	71.6%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	856	52	21	421	10	41
Future Volume (Veh/h)	856	52	21	421	10	41
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	920	56	23	453	11	44
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			976		1456	948
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			976		1456	948
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		92	86
cM capacity (veh/h)			703		137	316

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	976	476	55
Volume Left	0	23	11
Volume Right	56	0	44
cSH	1700	703	251
Volume to Capacity	0.57	0.03	0.22
Queue Length 95th (ft)	0	3	20
Control Delay (s)	0.0	0.9	23.3
Lane LOS		A	C
Approach Delay (s)	0.0	0.9	23.3
Approach LOS			C

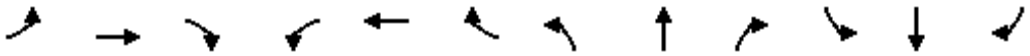
Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	396	470	168	146	175	282
Future Volume (vph)	396	470	168	146	175	282
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	421	500	179	155	186	300

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	421	500	334	186	300
Volume Left (vph)	421	0	0	186	0
Volume Right (vph)	0	0	155	0	300
Hadj (s)	0.55	0.05	-0.24	0.55	-0.65
Departure Headway (s)	7.3	6.8	6.6	8.1	6.9
Degree Utilization, x	0.85	0.94	0.62	0.42	0.57
Capacity (veh/h)	481	523	526	441	509
Control Delay (s)	38.1	50.3	19.7	15.5	17.4
Approach Delay (s)	44.8		19.7	16.7	
Approach LOS	E		C	C	

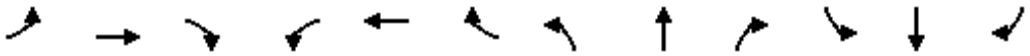
Intersection Summary			
Delay	32.1		
Level of Service	D		
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	8	40	40	7	136	31	436	71	112	375	99
Future Volume (Veh/h)	123	8	40	40	7	136	31	436	71	112	375	99
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	140	9	45	45	8	155	35	495	81	127	426	113
Pedestrians		9						6			1	
Lane Width (ft)		12.0						12.0			12.0	
Walking Speed (ft/s)		3.5						3.5			3.5	
Percent Blockage		1						1			0	
Right turn flare (veh)						5						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											309	
pX, platoon unblocked	0.87	0.87	0.87	0.87	0.87		0.87					
vC, conflicting volume	1434	1392	498	1341	1408	536	548			576		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1424	1376	350	1318	1394	536	408			576		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	92	92	49	92	72	96			87		
cM capacity (veh/h)	58	106	598	89	103	546	990			997		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2
Volume Total	140	54	208	611	127	539
Volume Left	140	0	45	35	127	0
Volume Right	0	45	155	81	0	113
cSH	58	337	356	990	997	1700
Volume to Capacity	2.41	0.16	0.58	0.04	0.13	0.32
Queue Length 95th (ft)	350	14	88	3	11	0
Control Delay (s)	795.7	17.7	33.4	0.9	9.1	0.0
Lane LOS	F	C	D	A	A	
Approach Delay (s)	579.1		33.4	0.9	1.7	
Approach LOS	F		D			

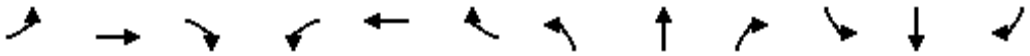
Intersection Summary				
Average Delay	72.1			
Intersection Capacity Utilization	73.3%	ICU Level of Service	D	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	1	71	0	0	0	0	361	331	295	523	0
Future Volume (vph)	139	1	71	0	0	0	0	361	331	295	523	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Lane Util. Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1757	1568					1845	1568	1752	1845	
Flt Permitted		0.95	1.00					1.00	1.00	0.32	1.00	
Satd. Flow (perm)		1757	1568					1845	1568	583	1845	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	158	1	81	0	0	0	0	410	376	335	594	0
RTOR Reduction (vph)	0	0	68	0	0	0	0	0	142	0	0	0
Lane Group Flow (vph)	0	159	13	0	0	0	0	410	234	335	594	0
Confl. Peds. (#/hr)						1						15
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8						6	2		
Actuated Green, G (s)		10.6	10.6					25.5	25.5	45.7	45.7	
Effective Green, g (s)		10.6	10.6					25.5	25.5	45.7	45.7	
Actuated g/C Ratio		0.16	0.16					0.38	0.38	0.69	0.69	
Clearance Time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Vehicle Extension (s)		2.3	2.3					6.9	6.9	2.3	6.9	
Lane Grp Cap (vph)		280	250					709	603	669	1271	
v/s Ratio Prot								c0.22		0.11	c0.32	
v/s Ratio Perm		0.09	0.01						0.15	0.23		
v/c Ratio		0.57	0.05					0.58	0.39	0.50	0.47	
Uniform Delay, d1		25.7	23.6					16.1	14.8	5.6	4.7	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.9	0.1					2.7	1.4	0.3	0.9	
Delay (s)		27.6	23.6					18.8	16.2	6.0	5.7	
Level of Service		C	C					B	B	A	A	
Approach Delay (s)		26.3			0.0			17.6			5.8	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	66.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	202	4	375	100	402	0	0	613	220
Future Volume (vph)	0	0	0	202	4	375	100	402	0	0	613	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5			5.5	
Lane Util. Factor					1.00	1.00	1.00	1.00			0.95	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.98	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.96	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1776	1583	1752	1845			3265	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1776	1583	1752	1845			3265	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	224	4	417	111	447	0	0	681	244
RTOR Reduction (vph)	0	0	0	0	0	347	0	0	0	0	27	0
Lane Group Flow (vph)	0	0	0	0	228	70	111	447	0	0	898	0
Confl. Peds. (#/hr)												15
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	4%	4%	4%
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				7	7	7	1	5			2 3 4	
Permitted Phases												
Actuated Green, G (s)					21.0	21.0	12.1	30.5			76.2	
Effective Green, g (s)					21.0	21.0	12.1	30.5			76.2	
Actuated g/C Ratio					0.17	0.17	0.10	0.24			0.61	
Clearance Time (s)					5.5	5.5	5.5	5.5				
Vehicle Extension (s)					2.3	2.3	2.3	5.2				
Lane Grp Cap (vph)					296	264	168	447			1977	
v/s Ratio Prot					c0.13	0.04	0.06	c0.24			c0.28	
v/s Ratio Perm												
v/c Ratio					0.77	0.26	0.66	1.00			0.45	
Uniform Delay, d1					50.1	45.7	54.9	47.6			13.5	
Progression Factor					1.00	1.00	1.00	1.00			0.61	
Incremental Delay, d2					11.0	0.3	8.0	42.6			0.1	
Delay (s)					61.1	46.0	62.9	90.2			8.4	
Level of Service					E	D	E	F			A	
Approach Delay (s)		0.0			51.3			84.8			8.4	
Approach LOS		A			D			F			A	

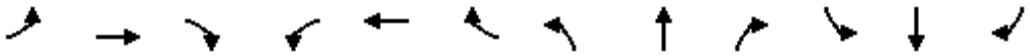
Intersection Summary			
HCM 2000 Control Delay	41.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	125.8	Sum of lost time (s)	27.5
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	114	484	319	95	459	300
Future Volume (vph)	114	484	319	95	459	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	6.0	5.5	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1881	1599	1787	1881	1787	1599
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1881	1599	1787	1881	1787	1599
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	130	550	362	108	522	341
RTOR Reduction (vph)	0	117	0	0	0	23
Lane Group Flow (vph)	130	433	363	108	522	318
Confl. Peds. (#/hr)		1				
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	NA	custom	Prot	NA	Prot	custom
Protected Phases	4	4 5 7	3	8	5 6 7	3 5 6 7
Permitted Phases		4				5 6 7
Actuated Green, G (s)	16.0	78.5	25.5	46.5	67.8	98.8
Effective Green, g (s)	16.0	78.5	25.5	46.5	67.8	98.8
Actuated g/C Ratio	0.13	0.62	0.20	0.37	0.54	0.79
Clearance Time (s)	5.5		5.5	6.0		
Vehicle Extension (s)	2.3		2.3	2.3		
Lane Grp Cap (vph)	239	997	362	695	963	1255
v/s Ratio Prot	c0.07	0.27	c0.20	0.06	c0.29	0.20
v/s Ratio Perm						
v/c Ratio	0.54	0.43	1.00	0.16	0.54	0.25
Uniform Delay, d1	51.5	12.2	50.1	26.5	18.9	3.6
Progression Factor	1.00	1.00	1.00	1.00	0.35	0.16
Incremental Delay, d2	8.6	0.7	48.0	0.5	0.6	0.1
Delay (s)	60.1	12.9	98.1	27.0	7.2	0.7
Level of Service	E	B	F	C	A	A
Approach Delay (s)	21.9			81.8	4.6	
Approach LOS	C			F	A	

Intersection Summary			
HCM 2000 Control Delay	28.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	125.8	Sum of lost time (s)	27.5
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	5	248	36	131	348	7	16	2	196	3	5	1
Future Volume (vph)	5	248	36	131	348	7	16	2	196	3	5	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	5	264	38	139	370	7	17	2	209	3	5	1

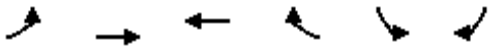
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	5	302	139	377	228	9
Volume Left (vph)	5	0	139	0	17	3
Volume Right (vph)	0	38	0	7	209	1
Hadj (s)	0.58	0.00	0.55	0.04	-0.50	0.42
Departure Headway (s)	6.4	5.8	6.1	5.6	5.4	6.8
Degree Utilization, x	0.01	0.49	0.24	0.59	0.34	0.02
Capacity (veh/h)	528	594	567	626	610	443
Control Delay (s)	8.3	13.1	9.8	15.1	11.1	10.0
Approach Delay (s)	13.0		13.7		11.1	10.0
Approach LOS	B		B		B	A

Intersection Summary				
Delay	12.9			
Level of Service	B			
Intersection Capacity Utilization	46.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	387	57	62	451	32	81
Future Volume (Veh/h)	387	57	62	451	32	81
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	416	61	67	485	34	87
Pedestrians	1				2	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	0				0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			479		1068	448
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			479		1068	448
tC, single (s)			4.1		6.5	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.4
p0 queue free %			94		85	85
cM capacity (veh/h)			1066		223	597

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	477	552	121
Volume Left	0	67	34
Volume Right	61	0	87
cSH	1700	1066	406
Volume to Capacity	0.28	0.06	0.30
Queue Length 95th (ft)	0	5	31
Control Delay (s)	0.0	1.7	17.6
Lane LOS		A	C
Approach Delay (s)	0.0	1.7	17.6
Approach LOS			C

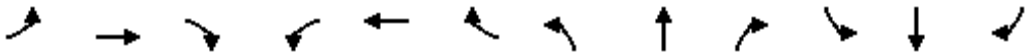
Intersection Summary			
Average Delay		2.7	
Intersection Capacity Utilization		67.8%	ICU Level of Service C
Analysis Period (min)		15	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	300	162	296	173	104	231
Future Volume (vph)	300	162	296	173	104	231
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	353	191	348	204	122	272

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	353	191	552	122	272
Volume Left (vph)	353	0	0	122	0
Volume Right (vph)	0	0	204	0	272
Hadj (s)	0.60	0.10	-0.14	0.62	-0.58
Departure Headway (s)	7.4	6.9	6.3	8.1	6.9
Degree Utilization, x	0.72	0.36	0.97	0.27	0.52
Capacity (veh/h)	485	511	552	439	518
Control Delay (s)	26.3	12.6	55.1	12.9	15.9
Approach Delay (s)	21.4		55.1	15.0	
Approach LOS	C		F	B	

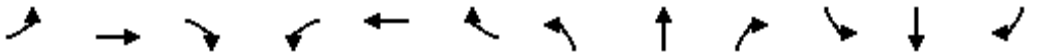
Intersection Summary			
Delay	32.2		
Level of Service	D		
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	6	6	56	8	166	20	363	93	150	269	76
Future Volume (Veh/h)	26	6	6	56	8	166	20	363	93	150	269	76
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	30	7	7	64	9	191	23	417	107	172	309	87
Pedestrians		4						3				
Lane Width (ft)		12.0						12.0				
Walking Speed (ft/s)		3.5						3.5				
Percent Blockage		0						0				
Right turn flare (veh)						5						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											309	
pX, platoon unblocked	0.95	0.95	0.95	0.95	0.95		0.95					
vC, conflicting volume	1317	1270	360	1183	1260	470	400			524		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1308	1259	300	1167	1248	470	343			524		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	58	95	99	51	93	68	98			83		
cM capacity (veh/h)	71	131	696	131	133	591	1136			1023		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2
Volume Total	30	14	264	547	172	396
Volume Left	30	0	64	23	172	0
Volume Right	0	7	191	107	0	87
cSH	71	221	475	1136	1023	1700
Volume to Capacity	0.42	0.06	0.56	0.02	0.17	0.23
Queue Length 95th (ft)	42	5	83	2	15	0
Control Delay (s)	89.0	22.4	27.3	0.6	9.2	0.0
Lane LOS	F	C	D	A	A	
Approach Delay (s)	67.8		27.3	0.6	2.8	
Approach LOS	F		D			

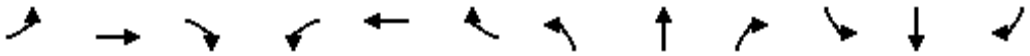
Intersection Summary				
Average Delay	8.5			
Intersection Capacity Utilization	64.9%	ICU Level of Service		C
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	0	135	0	0	0	0	350	200	346	352	0
Future Volume (vph)	190	0	135	0	0	0	0	350	200	346	352	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Lane Util. Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1731	1553					1845	1568	1752	1845	
Flt Permitted		0.95	1.00					1.00	1.00	0.27	1.00	
Satd. Flow (perm)		1731	1553					1845	1568	506	1845	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	224	0	159	0	0	0	0	412	235	407	414	0
RTOR Reduction (vph)	0	0	130	0	0	0	0	0	94	0	0	0
Lane Group Flow (vph)	0	224	29	0	0	0	0	412	141	407	414	0
Confl. Peds. (#/hr)	1					1						3
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8						6	2		
Actuated Green, G (s)		13.5	13.5					25.2	25.2	49.8	49.8	
Effective Green, g (s)		13.5	13.5					25.2	25.2	49.8	49.8	
Actuated g/C Ratio		0.18	0.18					0.34	0.34	0.68	0.68	
Clearance Time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Vehicle Extension (s)		2.3	2.3					6.9	6.9	2.3	6.9	
Lane Grp Cap (vph)		318	286					634	539	676	1253	
v/s Ratio Prot								0.22		c0.16	0.22	
v/s Ratio Perm		0.13	0.02						0.09	c0.25		
v/c Ratio		0.70	0.10					0.65	0.26	0.60	0.33	
Uniform Delay, d1		28.0	24.9					20.3	17.3	7.3	4.9	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		6.1	0.1					4.3	0.9	1.2	0.5	
Delay (s)		34.2	25.0					24.6	18.2	8.5	5.4	
Level of Service		C	C					C	B	A	A	
Approach Delay (s)		30.3			0.0			22.3			6.9	
Approach LOS		C			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	73.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



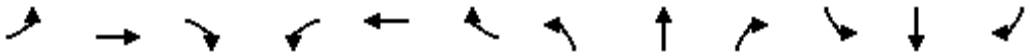
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	115	0	202	157	391	0	0	599	378
Future Volume (vph)	0	0	0	115	0	202	157	391	0	0	599	378
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5			5.5	
Lane Util. Factor					1.00	1.00	1.00	1.00			0.95	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.99	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.94	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1787	1599	1671	1759			3293	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1787	1599	1671	1759			3293	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	129	0	227	176	439	0	0	673	425
RTOR Reduction (vph)	0	0	0	0	0	202	0	0	0	0	78	0
Lane Group Flow (vph)	0	0	0	0	129	25	176	439	0	0	1020	0
Confl. Peds. (#/hr)												3
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	8%	8%	8%	2%	2%	2%
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				7	7	7	1	5			2 3 4	
Permitted Phases												
Actuated Green, G (s)					14.0	14.0	13.3	32.5			84.6	
Effective Green, g (s)					14.0	14.0	13.3	32.5			84.6	
Actuated g/C Ratio					0.11	0.11	0.10	0.25			0.66	
Clearance Time (s)					5.5	5.5	5.5	5.5				
Vehicle Extension (s)					2.3	2.3	2.3	5.2				
Lane Grp Cap (vph)					194	174	173	445			2169	
v/s Ratio Prot					c0.07	0.02	0.11	c0.25			c0.31	
v/s Ratio Perm												
v/c Ratio					0.66	0.14	1.02	0.99			0.47	
Uniform Delay, d1					54.9	51.8	57.6	47.7			10.8	
Progression Factor					1.00	1.00	1.00	1.00			0.69	
Incremental Delay, d2					7.1	0.2	73.0	39.1			0.0	
Delay (s)					62.1	52.0	130.6	86.8			7.5	
Level of Service					E	D	F	F			A	
Approach Delay (s)		0.0			55.6			99.3			7.5	
Approach LOS		A			E			F			A	

Intersection Summary			
HCM 2000 Control Delay	43.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	128.4	Sum of lost time (s)	27.5
Intersection Capacity Utilization	57.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	45	516	467	62	335	248
Future Volume (vph)	45	516	467	62	335	248
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	6.0	5.5	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1792	1524	1770	1863	1641	1468
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1792	1524	1770	1863	1641	1468
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	51	586	531	70	381	282
RTOR Reduction (vph)	0	96	0	0	0	59
Lane Group Flow (vph)	51	490	531	70	381	223
Heavy Vehicles (%)	6%	6%	2%	2%	10%	10%
Turn Type	NA	custom	Prot	NA	Prot	custom
Protected Phases	4	4 5 7	3	8	5 6 7	3 5 6 7
Permitted Phases		4				5 6 7
Actuated Green, G (s)	16.0	73.5	33.7	54.7	62.2	101.4
Effective Green, g (s)	16.0	73.5	33.7	54.7	62.2	101.4
Actuated g/C Ratio	0.12	0.57	0.26	0.43	0.48	0.79
Clearance Time (s)	5.5		5.5	6.0		
Vehicle Extension (s)	2.3		2.3	2.3		
Lane Grp Cap (vph)	223	872	464	793	794	1159
v/s Ratio Prot	0.03	c0.32	c0.30	0.04	c0.23	0.15
v/s Ratio Perm						
v/c Ratio	0.23	0.56	1.14	0.09	0.48	0.19
Uniform Delay, d1	50.6	17.3	47.4	22.0	22.2	3.3
Progression Factor	1.00	1.00	1.00	1.00	0.24	0.00
Incremental Delay, d2	2.4	1.4	87.7	0.2	0.5	0.1
Delay (s)	53.0	18.7	135.1	22.2	5.9	0.1
Level of Service	D	B	F	C	A	A
Approach Delay (s)	21.5			121.9	3.4	
Approach LOS	C			F	A	

Intersection Summary			
HCM 2000 Control Delay	47.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	128.4	Sum of lost time (s)	27.5
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	692	34	176	245	16	16	2	193	18	7	12
Future Volume (vph)	6	692	34	176	245	16	16	2	193	18	7	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	752	37	191	266	17	17	2	210	20	8	13

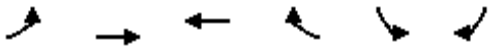
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	7	789	191	283	229	41
Volume Left (vph)	7	0	191	0	17	20
Volume Right (vph)	0	37	0	17	210	13
Hadj (s)	0.53	0.00	0.55	0.01	-0.45	-0.08
Departure Headway (s)	6.7	6.1	6.8	6.2	6.2	7.3
Degree Utilization, x	0.01	1.00	0.36	0.49	0.40	0.08
Capacity (veh/h)	528	789	518	566	557	452
Control Delay (s)	8.6	60.5	12.3	13.9	13.3	10.9
Approach Delay (s)	60.0		13.2		13.3	10.9
Approach LOS	F		B		B	B

Intersection Summary				
Delay	37.4			
Level of Service	E			
Intersection Capacity Utilization	71.8%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	856	54	42	421	14	75
Future Volume (Veh/h)	856	54	42	421	14	75
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	920	58	45	453	15	81
Pedestrians	9					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			978		1501	949
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			978		1501	949
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		88	74
cM capacity (veh/h)			702		125	316

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	978	498	96
Volume Left	0	45	15
Volume Right	58	0	81
cSH	1700	702	255
Volume to Capacity	0.58	0.06	0.38
Queue Length 95th (ft)	0	5	42
Control Delay (s)	0.0	1.8	27.4
Lane LOS		A	D
Approach Delay (s)	0.0	1.8	27.4
Approach LOS			D

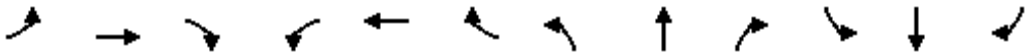
Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	428	472	169	146	175	302
Future Volume (vph)	428	472	169	146	175	302
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	455	502	180	155	186	321

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	455	502	335	186	321
Volume Left (vph)	455	0	0	186	0
Volume Right (vph)	0	0	155	0	321
Hadj (s)	0.55	0.05	-0.24	0.55	-0.65
Departure Headway (s)	7.4	6.9	6.7	8.1	6.9
Degree Utilization, x	0.93	0.96	0.62	0.42	0.62
Capacity (veh/h)	455	502	535	439	508
Control Delay (s)	51.3	53.9	20.2	15.7	19.2
Approach Delay (s)	52.6		20.2	17.9	
Approach LOS	F		C	C	

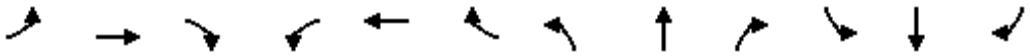
Intersection Summary			
Delay	36.8		
Level of Service	E		
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	8	40	40	7	136	31	468	71	112	395	99
Future Volume (Veh/h)	123	8	40	40	7	136	31	468	71	112	395	99
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	140	9	45	45	8	155	35	532	81	127	449	113
Pedestrians		9						6			1	
Lane Width (ft)		12.0						12.0			12.0	
Walking Speed (ft/s)		3.5						3.5			3.5	
Percent Blockage		1						1			0	
Right turn flare (veh)						5						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											309	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	1494	1452	520	1401	1468	574	571			613		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1492	1444	368	1386	1462	574	426			613		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	91	92	42	91	70	96			87		
cM capacity (veh/h)	50	95	580	78	93	520	967			966		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2
Volume Total	140	54	208	648	127	562
Volume Left	140	0	45	35	127	0
Volume Right	0	45	155	81	0	113
cSH	50	314	314	967	966	1700
Volume to Capacity	2.80	0.17	0.66	0.04	0.13	0.33
Queue Length 95th (ft)	370	15	110	3	11	0
Control Delay (s)	987.3	18.8	39.8	1.0	9.3	0.0
Lane LOS	F	C	E	A	A	
Approach Delay (s)	717.7		39.8	1.0	1.7	
Approach LOS	F		E			

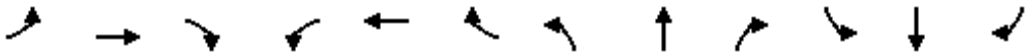
Intersection Summary				
Average Delay	85.9			
Intersection Capacity Utilization	74.9%	ICU Level of Service	D	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	1	77	0	0	0	0	376	348	295	537	0
Future Volume (vph)	139	1	77	0	0	0	0	376	348	295	537	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Lane Util. Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00	1.00	1.00	1.00	
Frt		1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected		0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1757	1568					1845	1568	1752	1845	
Flt Permitted		0.95	1.00					1.00	1.00	0.30	1.00	
Satd. Flow (perm)		1757	1568					1845	1568	556	1845	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	158	1	88	0	0	0	0	427	395	335	610	0
RTOR Reduction (vph)	0	0	74	0	0	0	0	0	143	0	0	0
Lane Group Flow (vph)	0	159	14	0	0	0	0	427	252	335	610	0
Confl. Peds. (#/hr)						1						15
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8						6		5	2	
Permitted Phases	8		8						6	2		
Actuated Green, G (s)		10.6	10.6					25.8	25.8	46.1	46.1	
Effective Green, g (s)		10.6	10.6					25.8	25.8	46.1	46.1	
Actuated g/C Ratio		0.16	0.16					0.39	0.39	0.69	0.69	
Clearance Time (s)		5.0	5.0					5.0	5.0	5.0	5.0	
Vehicle Extension (s)		2.3	2.3					6.9	6.9	2.3	6.9	
Lane Grp Cap (vph)		279	249					713	606	658	1275	
v/s Ratio Prot								c0.23		0.12	c0.33	
v/s Ratio Perm		0.09	0.01						0.16	0.23		
v/c Ratio		0.57	0.06					0.60	0.42	0.51	0.48	
Uniform Delay, d1		25.9	23.8					16.3	14.9	5.8	4.8	
Progression Factor		1.00	1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.9	0.1					2.9	1.6	0.4	1.0	
Delay (s)		27.9	23.9					19.2	16.6	6.2	5.7	
Level of Service		C	C					B	B	A	A	
Approach Delay (s)		26.4			0.0			17.9			5.9	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	66.7	Sum of lost time (s)	15.0
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	213	4	375	109	408	0	0	616	220
Future Volume (vph)	0	0	0	213	4	375	109	408	0	0	616	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5			5.5	
Lane Util. Factor					1.00	1.00	1.00	1.00			0.95	
Frpb, ped/bikes					1.00	1.00	1.00	1.00			0.98	
Flpb, ped/bikes					1.00	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.96	
Flt Protected					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1775	1583	1752	1845			3266	
Flt Permitted					0.95	1.00	0.95	1.00			1.00	
Satd. Flow (perm)					1775	1583	1752	1845			3266	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	237	4	417	121	453	0	0	684	244
RTOR Reduction (vph)	0	0	0	0	0	348	0	0	0	0	27	0
Lane Group Flow (vph)	0	0	0	0	241	70	121	453	0	0	901	0
Confl. Peds. (#/hr)												15
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	4%	4%	4%
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				7	7	7	1	5			2 3 4	
Permitted Phases												
Actuated Green, G (s)					21.0	21.0	12.6	30.5			75.9	
Effective Green, g (s)					21.0	21.0	12.6	30.5			75.9	
Actuated g/C Ratio					0.17	0.17	0.10	0.24			0.60	
Clearance Time (s)					5.5	5.5	5.5	5.5				
Vehicle Extension (s)					2.3	2.3	2.3	5.2				
Lane Grp Cap (vph)					295	263	175	446			1967	
v/s Ratio Prot					c0.14	0.04	0.07	c0.25			c0.28	
v/s Ratio Perm												
v/c Ratio					0.82	0.26	0.69	1.02			0.46	
Uniform Delay, d1					50.6	45.8	54.8	47.8			13.8	
Progression Factor					1.00	1.00	1.00	1.00			0.62	
Incremental Delay, d2					15.4	0.3	9.9	46.6			0.1	
Delay (s)					66.0	46.1	64.7	94.4			8.5	
Level of Service					E	D	E	F			A	
Approach Delay (s)		0.0			53.4			88.1			8.5	
Approach LOS		A			D			F			A	

Intersection Summary			
HCM 2000 Control Delay	43.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	126.0	Sum of lost time (s)	27.5
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	114	485	321	95	461	304
Future Volume (vph)	114	485	321	95	461	304
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	6.0	5.5	5.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1881	1599	1787	1881	1787	1599
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1881	1599	1787	1881	1787	1599
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	130	551	365	108	524	345
RTOR Reduction (vph)	0	117	0	0	0	23
Lane Group Flow (vph)	130	434	365	108	524	322
Confl. Peds. (#/hr)		1				
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	NA	custom	Prot	NA	Prot	custom
Protected Phases	4	4 5 7	3	8	5 6 7	3 5 6 7
Permitted Phases		4				5 6 7
Actuated Green, G (s)	16.0	78.5	25.5	46.5	68.0	99.0
Effective Green, g (s)	16.0	78.5	25.5	46.5	68.0	99.0
Actuated g/C Ratio	0.13	0.62	0.20	0.37	0.54	0.79
Clearance Time (s)	5.5		5.5	6.0		
Vehicle Extension (s)	2.3		2.3	2.3		
Lane Grp Cap (vph)	238	996	361	694	964	1256
v/s Ratio Prot	c0.07	0.27	c0.20	0.06	c0.29	0.20
v/s Ratio Perm						
v/c Ratio	0.55	0.44	1.01	0.16	0.54	0.26
Uniform Delay, d1	51.6	12.3	50.2	26.6	18.9	3.6
Progression Factor	1.00	1.00	1.00	1.00	0.35	0.16
Incremental Delay, d2	8.7	0.7	50.2	0.5	0.6	0.1
Delay (s)	60.3	13.0	100.4	27.1	7.1	0.7
Level of Service	E	B	F	C	A	A
Approach Delay (s)	22.0			83.7	4.6	
Approach LOS	C			F	A	

Intersection Summary			
HCM 2000 Control Delay	28.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	126.0	Sum of lost time (s)	27.5
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Willamette Falls Commercial

Willamette Falls Drive & 11th Street

West Linn, Oregon

DRAINAGE REPORT

January 2016

EXPIRES: 06/30/2017

SIGNATURE DATE: _____

Prepared By:

Bruce D. Goldson, PE

Theta, llc

PO Box 1345, Lake Oswego, Oregon 97035

2015-107B

INDEX

NARRATIVE ASSUMPTIONS

Existing Conditions:

The subject property three old tax lots (3S 1E 02BA TL 4100) with two existing buildings bordered on three sides with public roads and containing 0.34 Acres. The property slopes to the northwesterly direction at approximately 3%. There is sanitary, storm and water service to the property.

Developed Conditions:

A proposed multi-story commercial building is proposed to cover the entire property. With complete lot coverage with impervious area on-site infiltration is not possible. On-site detention and water quality facilities are propose. The storm discharge will be to the existing public storm system in the adjacent street

Summary of storm water flow

	2-YEAR	5-YEAR	10-YEAR	25-YEAR
PRE-DEVELOP	0.11 CFS	0.15 CFS	0.19 CFS	0.23 CFS
POST-DEVELOP	0.22 CFS	0.26 CFS	0.30 CFS	0.35 CFS

REGULATORY DESIGN CRITERIA

The storm water quantity management requirements of the City of West Linn.

References

1. King County Department of Public Works, Surface Water Management Division, Hydrographic

Programs, Version 4.21B

Water Quality Facility

Design Parameters

The design storm is a 24 hour standard SCS Type 1A

- 2-year.....2.5 inches
- 5-year.....3.0 inches
- 10-year.....3.4 inches
- 25-year..... 3.9 inches
- 100-year.....4.5 inches

SOIL TYPES

Willamette Silt Loam – type C soil

Time of Concentration

$T = (0.42)[(nL)^{.8}/(p_2)^{.5}(s_0)^{.4}$

Pre-development: $T = (0.42)[(0.01)(45)]^{.8}/(2.5)^{.5}(.04)^{.4} = 0.50$ min

$T = (0.42)[(0.15)(78)]^{.8}/(2.5)^{.5}(.03)^{.4} = 7.73$ min

$T_{total} = 8.23$ min (Pre)

Assume 5-minutes developedk

HYDROGRAPH RESULTS

KING COUNTY DEPARTMENT OF PUBLIC WORKS

Surface Water Management Division

HYDROGRAPH PROGRAMS

Version 4.21B

1 - INFO ON THIS PROGRAM

2 - SBUHYD

3 - MODIFIELD SBUHYD

4 - ROUTE

5 - ROUTE2

6 - ADDHYD

7 - BASEFLOW

8 - PLOTHYD

9 - DTATA

10 - REFAC

11 - RETURN TO DOS

ENTER OPTION:

2

SBUN/SCS METHOD FOR COMPUTING RUNOFF HYDROGRAPH

STORM OPTIONS:

1 - S.C.S. TYPE-1A

2 - 7-DAY DESIGN STORM

3 - STORM DATA FILE

SPECIFY STORM OPTION:

1

S.C.S. TYPE - 1A RAINFALL DISTRIBUTION

ENTER; FREQ(YEAR), DURATION(HOUR), PRECIP(INCHES)

2,24,2.6

Xxxxxxxxxxxxxxxxxxxxxx S.C.S.TYPE-1A DISTRIBUTION xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

XXXXXXXXXXXX 2-YEAR 24-HOUR STORM xxxx 2.50 "TOTAL PRECIP Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx/

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.30,86,0.04,98,8.23

DATA PRINT OUT:

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.3	86	.0	98	8.2

PEAK-Q(CFS)	T-PEAK(HRS)	VOL(CU-FT)
.11	7.83	1683

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF2pre

SPECIFY: C - CONTINUE, N - NEWSTORM, P -PRINT, S - STOP

C

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.0,86,034,98,5

DATA PRINT OUT:

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.0	86	.3	98	5.0

PEAK-Q(CFS)	T-PEAK(HRS)	VOL(CU-FT)
.22	7.67	2802

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF2post

SPECIFY: C - CONTINUE, N - NEWSTORM, P - PRINT, S – STOP

n

STORM OPTIONS:

1 - S.C.S. TYPE-1A

2 - 7-DAY DESIGN STORM

3 - STORM DATA FILE

SPECIFY STORM OPTION:

1

ENTER; FREQ(YEAR), DURATION(HOUR), PRECIP(INCHES)

5,24,3.0

Xxxxxxxxxxxxxxxxxxxxxx S.C.S.TYPE-1A DISTRIBUTION xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.30,86,0.04,98,8.23

DATA PRINT OUT:

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.3	86	.0	98	8.2

PEAK-Q(CFS)	T-PEAK(HRS)	VOL(CU-FT)
.15	7.83	2211

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF5pre

SPECIFY: C - CONTINUE, N - NEWSTORM, P - PRINT, S – STOP

c

0.0,86,0.34,98,5

DATA PRINT OUT:

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.0	86	.3	98	5.0

PEAK-Q(CFS)	T-PEAK(HRS)	VOL(CU-FT)
.26	7.67	3416

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF5post

SPECIFY: C - CONTINUE, N - NEWSTORM, P - PRINT, S – STOP

n

STORM OPTIONS:

1 - S.C.S. TYPE-1A

2 - 7-DAY DESIGN STORM

3 - STORM DATA FILE

SPECIFY STORM OPTION:

1

ENTER; FREQ(YEAR), DURATION(HOUR), PRECIP(INCHES)

10,24,3.4

Xxxxxxxxxxxxxxxxxxxxxx S.C.S.TYPE-1A DISTRIBUTION xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

XXXXXXXXXXXX 10-YEAR 24-HOUR STORM xxxx 3.40" TOTAL PRECIP Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

---

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.30,86,04,98,8.23

DATA PRINT OUT:

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.3	86	.0	98	8.2

PEAK-Q(CFS)	T-PEAK(HRS)	VOL(CU-FT)
.19	7.83	2648

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF10pre

SPECIFY: C - CONTINUE, N - NEWSTORM, P - DATA PRINT OUT:

C

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.0,86,0.34,98,5

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.0	86	.3	98	5.0

PEAK-Q(CFS)	T-PEAK(HRS)	VOL(CU-FT)
.30	7.67	3908

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF10post

SPECIFY: C - CONTINUE, N - NEWSTORM, P - PRINT, S – STOP

n

STORM OPTIONS:

1 - S.C.S. TYPE-1A

2 - 7-DAY DESIGN STORM

3 - STORM DATA FILE

SPECIFY STORM OPTION:

1

ENTER; FREQ(YEAR), DURATION(HOUR), PRECIP(INCHES)

25,24,3.9

Xxxxxxxxxxxxxxxxxxxxxx S.C.S.TYPE-1A DISTRIBUTION xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

XXXXXXXXXXXX 25-YEAR 24-HOUR STORM xxxx 3.90" TOTAL PRECIP Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

---

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.30,86,04,98,8.23

DATA PRINT OUT:

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.3	86	.0	98	8.2

PEAK-Q(CFS)	T-PEAK(HRS)	VOL(CU-FT)
.23	7.83	3205

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF25pre

SPECIFY: C - CONTINUE, N - NEWSTORM, P - DATA PRINT OUT:

C

ENTER: A(PERV),CN(PERV),A(IMPERV),CN(IMPERV),TC FOR BASIN NO. 1

0.0,86,0.34,98,5

AREA(ACRES)	PERVIOUS		IMPERVIOUS		TC(MINUTES)
	A	CN	A	CN	
.3	.0	86	.3	98	5.0

PEAK-Q(CFS)	T-PEAK(HRS)	VOL(CU-FT)
.35	7.67	4523

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:

C:WF25post

j

DETENTION SIZING

ENTER OPTION

10

R/D FACILITY DESIGN ROUTINE

SPEFICY TYPE OF R/D FACILTY

1 - POND 4 - INFILTRATION POND

2 - TANK 5 - INFILTRATION TANK

3 -VAULT 6 - GRAVEL TRENCH/BED

2

ENTER: POND SIDE SLOPE (HORIZ. COMPOENT)

3

ENTER: TANK DIAMETER (ft). EFFECTIVE STORAGE DEPTH (ft)

4,4

ENTER: [d:][[atj]filename[.ext] OF PRIMARY DESIGN INFLOW HYDROGRAPH:

C:WF25POST

PRELIMINARY DESIGN INFLOW PEAK = .35 CFS

ENTER PRIMARY DESIGN RELEASE RATE(cfs)

0.23

ENTER NUMBER OF INFLOW HYDROGRAPHS TO BE TESTED FOR PERFORMANCE (5 MAXIMUM)

3

ENTER [d:][path]filename[.ext] OF HYDROGRAPH 1:

C:WF10POST

ENTER TARGET RELEASE RATE (cfs)

0.19

ENTER [d:][path]filename[.ext] OF HYDROGRAPH 2:

C:WF5POST

ENTER TARGET RELEASE RATE (cfs)

0.15

0. ENTER [d:][path]filename[.ext] OF HYDROGRAPH 3:

C:WF2POST

ENTER TARGET RELEASE RATE (cfs)

0.11

ENTER: NUMBER OF ORIFICES, RISER-HEAD (ft), RISER-DIAMETER(in)

3.4.10

RISER OVERFLOW DEPTH FOR PRIMARY PEAK INFLOW= 0.12 FT

SPECIFY ITERATION DISPLAY: Y -YES, N - NO

N

SPECIFY: R - REVIEW/REVISE INPUT, C - CONTINUE

C

INITIAL STORAGE VALUE FOR ITERATION PURPOSES: 1170 CU-FT

BOTTOM ORIFICE: ENTER Q-MAX(cfs)

0.10

DIA. = 1.36 INCHES

MIDDLE ORIFICE: ENTER Q-MAX(cfs), HEIGHT(ft)

0.0.07

DIA. = 1.35 INCHES

TOP ORIFICE: ENTER HEIGHT(ft)

3.4

DIA. = 1.69 INCHES

PERFORMANCE:	INFLOW	TARGET-OUTFLOW	ACTUAL-OUTFLOW	PK-STAGE	STORAGE
DESIGN HYD:	.35	.23	.23	3.99	547
TEST HYD 1:	.30	.19	.15	3.42	490
TEST HYD 2:	.26	.15	.13	3.42	430
TEST HYD 3:	.22	.11	.11	2.40	340

SPECIFY: D - DOCUMENT, R -REVISE, A - ADJUST ORIF, E -ENLARGE, S –STOP

PRELIMINARY DESIGN:

A detention tank 48" in diameter and 44 feet long will provide the necessary volume, with three orifices will meet the outflow of the 2, 5 10, and 25 year predeveloped flow rates per the city code.

Appendix

Table 4.1 24-Hour Rainfall Depths

Recurrence Interval (year)	Annual Chance of Occurrence (%)	Rainfall Depth (inches)
2	50	2.5
5	20	3.0
10	10	3.4
25	4	3.9
50	2	4.3
100	1	4.5
500	0.2	5.3

Table 4-3 MODIFIED CURVE NUMBERS

SCS Western Washington Runoff Curve Numbers

Runoff curve numbers for selected agricultural, suburban, and urban land use for Type 1A rainfall distribution, 24-hour storm duration. (Published by SCS in 1982)

LAND USE DESCRIPTION		CURVE NUMBERS BY HYDROLOGIC SOIL GROUP			
		A	B	C	D
Cultivated land[1]	Winter Condition	86	91	94	95
Mountain Open Areas:	Low growing brush and grassland.	74	82	89	92
Meadow or pasture:		65	78	85	89
Wood or forest land:	Undisturbed	42	64	76	81
	Established second growth[2]	48	68	78	83
	Young second growth or brush	55	72	81	86
Orchard:	With over crop	81	88	92	94
Open spaces, lawns, parks, golf courses, cemeteries, landscaping					
Good Condition:	Grass cover on > =75% of area	68	80	86	90
Fair Condition:	Grass cover on 50-75% of area	77	85	90	92
Gravel Roads and Parking Lots:		76	85	89	91
Dirt Roads and Parking Lots:		72	82	87	89
Impervious surfaces, pavement, roofs, etc.		98	98	98	98
Open water bodies:	Lakes, wetlands, ponds, etc.	100	100	100	100
Single Family Residential [3]:					
Dwelling unit/gross acre	% Impervious[4]				
1.0 DU/GA	15				
1.5 DU/GA	20				
2.0 DU/GA	25				
2.5 DU/GA	30				
3.0 DU/GA	34				
3.5 DU/GA	38				
4.0 DU/GA	42				
4.5 DU/GA	46				
5.0 DU/GA	48				
5.5 DU/GA	50				
6.0 DU/GA	52				
6.5 DU/GA	54				
7.0 DU/GA	56				
Select a separate curve number for pervious and impervious portions of the site or basin.					
Planned Unit Developments, condominiums, apartments, commercial businesses & industrial areas[3]	% impervious[4] Must be computed	Select a separate curve number for pervious and impervious portions of the site or basin.			

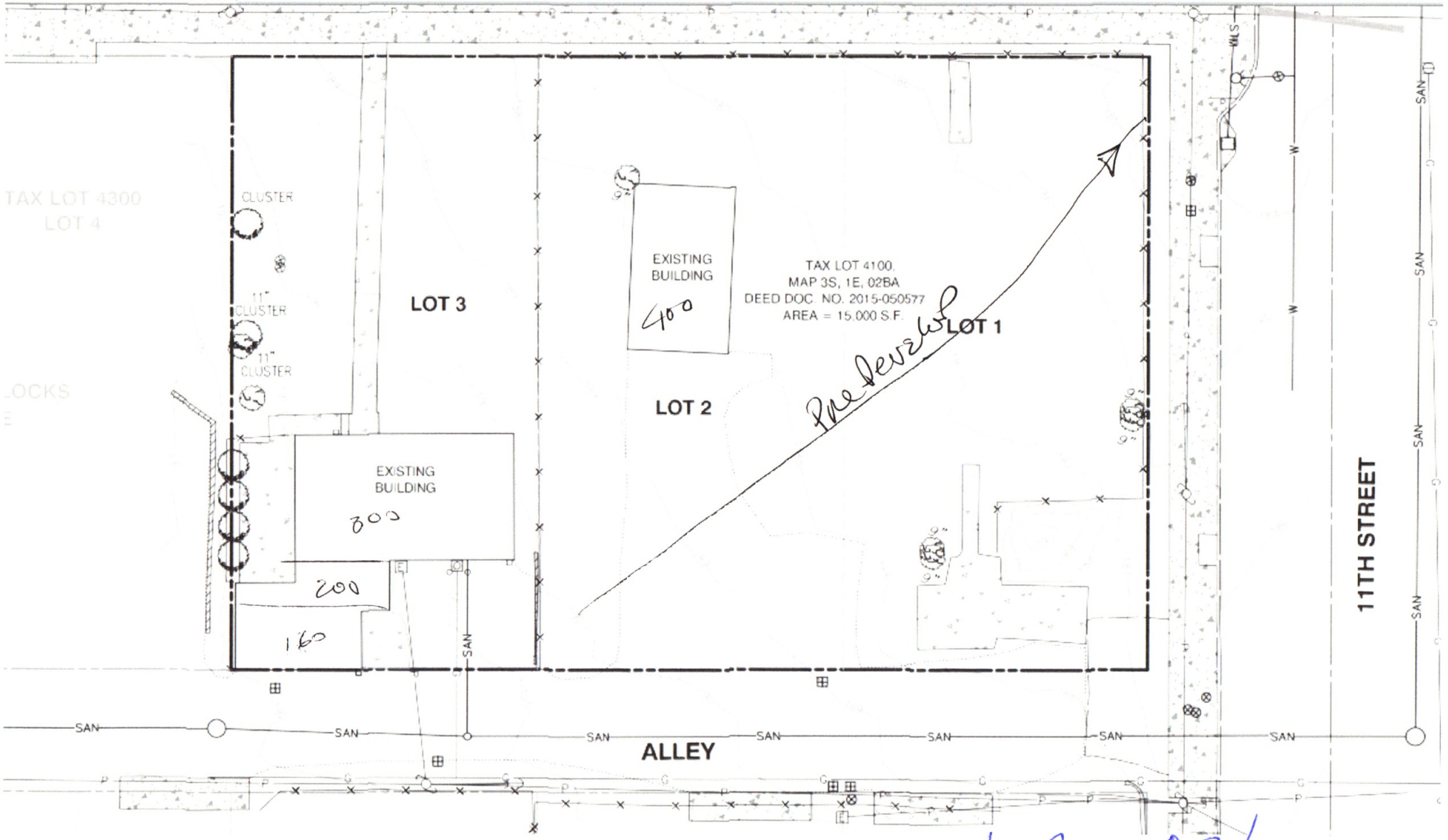
[1] For a more detailed description of agricultural land use curve numbers, refer to National Engineering Handbook, Sec. 4, Hydrology, Chapter 9, August 1972.

[2] Modified by KCFW, 1995.

[3] Assumes roof and driveway runoff is directed into street/storm system.

[4] The remaining pervious areas (lawn) are considered to be in good condition for these curve numbers.

Table 4-4 MANNING'S COEFFICIENTS/"K" FACTORS		
"n" AND "K" Value Used in Time Calculations for Hydrographs "n" Sheet Flow Equation (Manning's Values (for initial 300 ft. of travel)		n
Smooth surfaces (concrete, asphalt, gravel, or bare hand packed soil)		0.01
Fallow fields or loose soil surface (no residue)		0.05
Cultivated soil with residue cover (s # 0.20 ft/ft)		0.06
Cultivated soil with residue cover (s > 0.20 ft/ft)		0.17
Short prairie grass and lawns		0.15
Dense grasses		0.24
Bermuda grass		0.41
Range (natural)		0.13
Woods or forest with light underbrush		0.40
Woods or forest with dense underbrush		0.80
* Manning values for sheet flow only, from Overton and Meadows 1976 (See SCS's TR-55, 1986) "k" Values Used in Travel Time/Time of Concentration Calculations Shallow Concentrated Flow (After the initial 300 ft. of sheet flow, R = 0.1)		k_s
1.	Forest with heavy ground litter and meadows (n = 0.10)	3
2.	Brushy ground with some trees (n = 0.060)	5
3.	Fallow or minimum tillage cultivation (n=0.040)	8
4.	High grass (n=0.035)	9
5.	Short grass, pasture, and lawns (n=0.030)	11
6.	Nearly bare ground (n=0.025)	13
7.	Paved and gravel areas (n=0.012)	27
** Channel flow (intermittent) (At beginning of visible channels R=0.2)		k_c
1.	Forested swale with heavy ground litter (n=0.10)	5
2.	Forested drainage course/ravine with defined channel bed (n=0.050)	10
3.	Rock-lined waterway (n=0.035)	15
4.	Grassed waterway (n=0.030)	17
5.	Earth-lined waterway (n=0.025)	20
6.	CMP pipe (n=0.024)	21
7.	Concrete pipe (0.012)	42
8.	Other waterways and pipe 0.508/n	
Channel flow (Continuous stream, R=0.4)		k_c
9.	Meandering stream with some pools (n=0.040)	20
10.	Rock-lined stream (n=0.035)	23
11.	Grass-lined stream (n=0.030)	27
12.	Other streams, man-made channels and pipe 0.807/n **	
** See Table 6-3 for additional Mannings "n" values for open channels.		



total 0.34

Impervious 0.04

Pervious 0.30

EXISTING CONDITIONS MAP

TAX LOT 4100
LOCATED IN THE N.W. 1/4 SECTION 2, T.3S., R.1E., W.M.,
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON
OCTOBER 13, 2015 SCALE 1"=20'

SANITARY MANHOLE DIPS

SSMH 1
RIM 183.66'
8" PVC SE 176.06'
8" PVC NE 175.56'

SSMH 2
RIM 186.67
8" PVC NW 179.47'
8" PVC SW 179.27'

SSMH 3
RIM 192.33'
8" SW 186.73'
8" PVC NE 185.93'

STORM STRUCTURE DIPS

SDMH 1
RIM 182.88'
12" CONC NW 176.73'
18" CONC SW 175.86'
12" CONC S 175.78'
18" CONC NE 175.38'

SDMH 2
RIM 197.48'
18" CONC NE 189.88'

SDMH 3
RIM 188.71'
12" PVC SW 186.81'
12" STEEL SE 186.66'

SDCB 1
RIM 182.83'
12" CONC SE FULL OF SED
12" CONC SW 178.03'
12" CONC N 177.65'

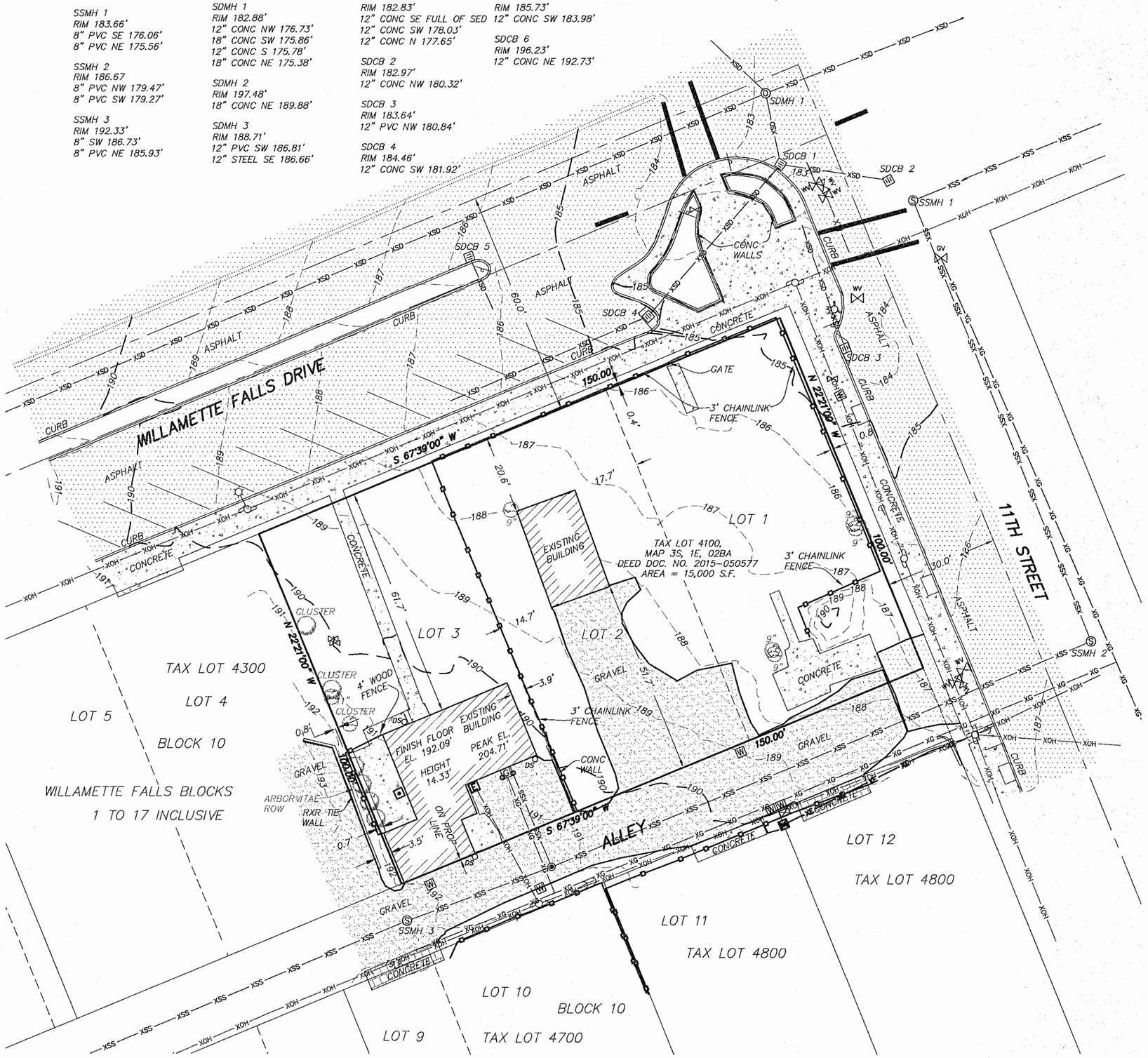
SDCB 2
RIM 182.97'
12" CONC NW 180.32'

SDCB 3
RIM 183.64'
12" PVC NW 180.84'

SDCB 4
RIM 184.46'
12" CONC SW 181.92'

SDCB 5
RIM 185.73'
12" CONC SW 183.98'

SDCB 6
RIM 196.23'
12" CONC NE 192.73'



SURVEY NOTES:

THE DATUM FOR THIS SURVEY IS BASED UPON NATIONAL GEODETIC SURVEY BENCHMARK NUMBER V 723, BEING A BRASS DISC AT THE JUNCTION INTERSTATE HIGHWAY 205 AND STATE HIGHWAY 99E , SET VERTICALLY IN THE EAST FACE OF THE MOST SOUTHERLY ONE OF FIVE COLUMNS OF THE FIRST PIER WEST OF THE EAST ABUTMENT OF THE INTERSTATE HIGHWAY OVERPASS. THE ELEVATION IS 62.48', NAVD 88.

A TRIMBLE S6-SERIES ROBOTIC INSTRUMENT WAS USED TO COMPLETE A CLOSED LOOP FIELD TRAVERSE.

THE BASIS OF BEARINGS FOR THIS SURVEY IS PER MONUMENTS FOUND AND HELD PER THE PLAT OF "WILLAMETTE FALLS BLOCKS 1 TO 17 INCLUSIVE", RECORDS OF CLACKAMAS COUNTY.

THE PURPOSE OF THIS SURVEY IS TO RESOLVE AND DETERMINE THE PERIMETER BOUNDARY OF THE SUBJECT PROPERTY, TO SHOW ALL PERTINENT BOUNDARY ISSUES AND ENCROACHMENTS. NO PROPERTY CORNERS WERE SET IN THIS SURVEY.

NO WARRANTIES ARE MADE AS TO MATTERS OF UNWRITTEN TITLE, SUCH AS ADVERSE POSSESSION, ESTOPPEL, ACQUIESCENCE, ETC.

NO TITLE REPORT WAS SUPPLIED OR USED IN THE PREPARATION OF THIS MAP.

THE UNDERGROUND UTILITIES AS SHOWN ON THIS MAP HAVE BEEN LOCATED FROM FIELD SURVEY OF ABOVE GROUND STRUCTURES AND AS MARKED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FUTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY SURVEYOR.

LEGEND:

Some Symbols shown may not be used on map

- DECIDUOUS TREE
- EVERGREEN TREE
- STORM SEWER MANHOLE
- CATCH BASIN
- SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- IRRIGATION CONTROL VALVE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- GAS VALVE
- GAS METER
- BOLLARD
- SIGN
- MAILBOX
- COMMUNICATIONS PEDESTAL
- COMMUNICATIONS MANHOLE
- COMMUNICATIONS BOX
- STORM OUTFALL
- PROPERTY CORNER
- DOWN SPOUT TO STORM SYSTEM
- UTILITY AND LIGHT POLE
- UTILITY POLE
- LIGHT POLE
- GUY WIRE
- ELECTRIC BOX
- ELECTRIC METER
- ELECTRICAL POWER PEDESTAL
- ELECTRIC RISER
- HEAT PUMP
- OVERHEAD LINE
- GAS LINE
- ELECTRICAL LINE
- COMMUNICATIONS LINE
- SANITARY SEWER LINE
- STORM DRAIN LINE
- WATER LINE
- FENCELINE
- UTILITY RISER
- DOWN SPOUT TO SPLASH GUARD/GROUND
- ARBORVITAE

SIGNED ON: 15OCT15

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JULY 13, 2004
TOBY G. BOLDEN
60377LS
RENEWS: DECEMBER 31, 2015

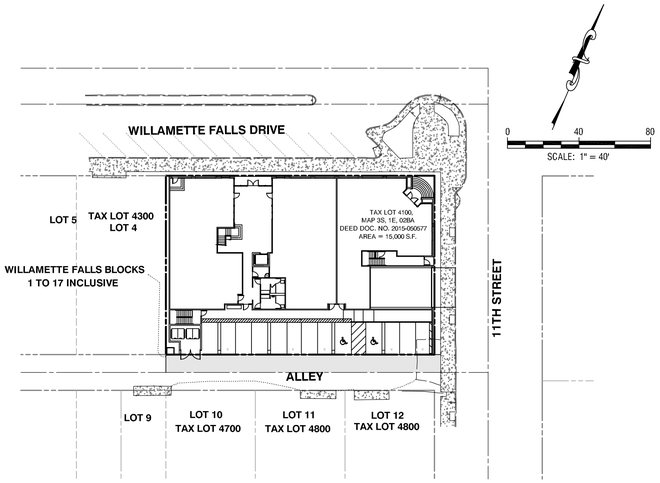
GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

N

CENTERLINE CONCEPTS
LAND SURVEYING, INC.
729 MOLALLA AVE., SUITE 1 & 2
OREGON CITY, OREGON 97045
PHONE 503.650.0188 FAX 503.650.0189

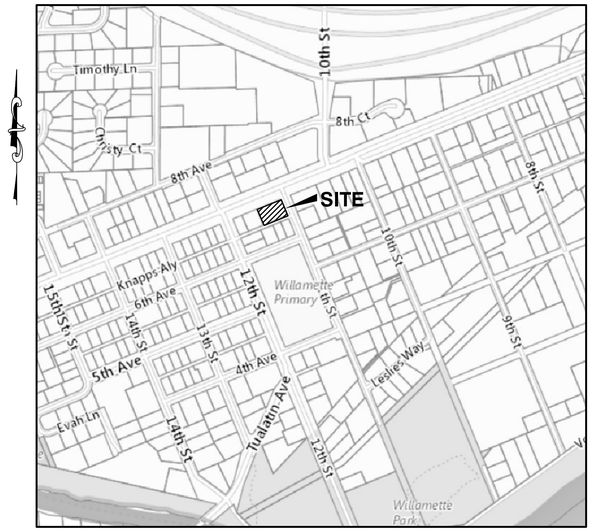
Plotted: M: \PROJECTS\ICON-WILLAMETTE FALLS DR-1969\dwg\ECM.dwg

EX



SITE MAP
SCALE: 1" = 40'

WILLAMETTE FALLS MIXED USE
West Linn, Oregon



VICINITY MAP
SCALE: NTS

OWNER/APPLICANT
Icon Construction & Development, LLC
1980 Willamette Falls Drive, Suite 200
West Linn, Oregon 97068
Phone 503-657-0406

ARCHITECT
SGA
10940 SW Barnes Road, No. 364
Portland, Oregon 97225
Phone 503-201-0725

ENGINEERING
Bruce D. Goldson, PE
Theta, LLC
PO Box 1345
Lake Oswego, Oregon 97035
Phone 503-481-8822

SURVEYING
Centerline Concepts, land surveying, Inc.
729 Molalla Ave, Suite 1 &2
Oregon City, Oregon 97045
Phone 503-650-0188

LEGAL
T3S R1E Section 2, TL 4100

ADDRESS:
1969 Willamette Falls Drive
West Linn, Oregon

SHEET INDEX

REGISTERED PROFESSIONAL ENGINEER 7120 OREGON JULY 16, 1971 BRUCE D. GOLDSON
PRELIMINARY
EXPIRES: 06/30/2017
SIGNATURE DATE: 02/03/2016

DESIGN REVIEW - COVER

2015-129I

DESIGNED:	BDG			
DRAWN:	BJS			
SCALE:	1" = 20'			
DATE:	January, 2016			
FILE:	Willamette Design Review1	DATE	NO.	REVISION

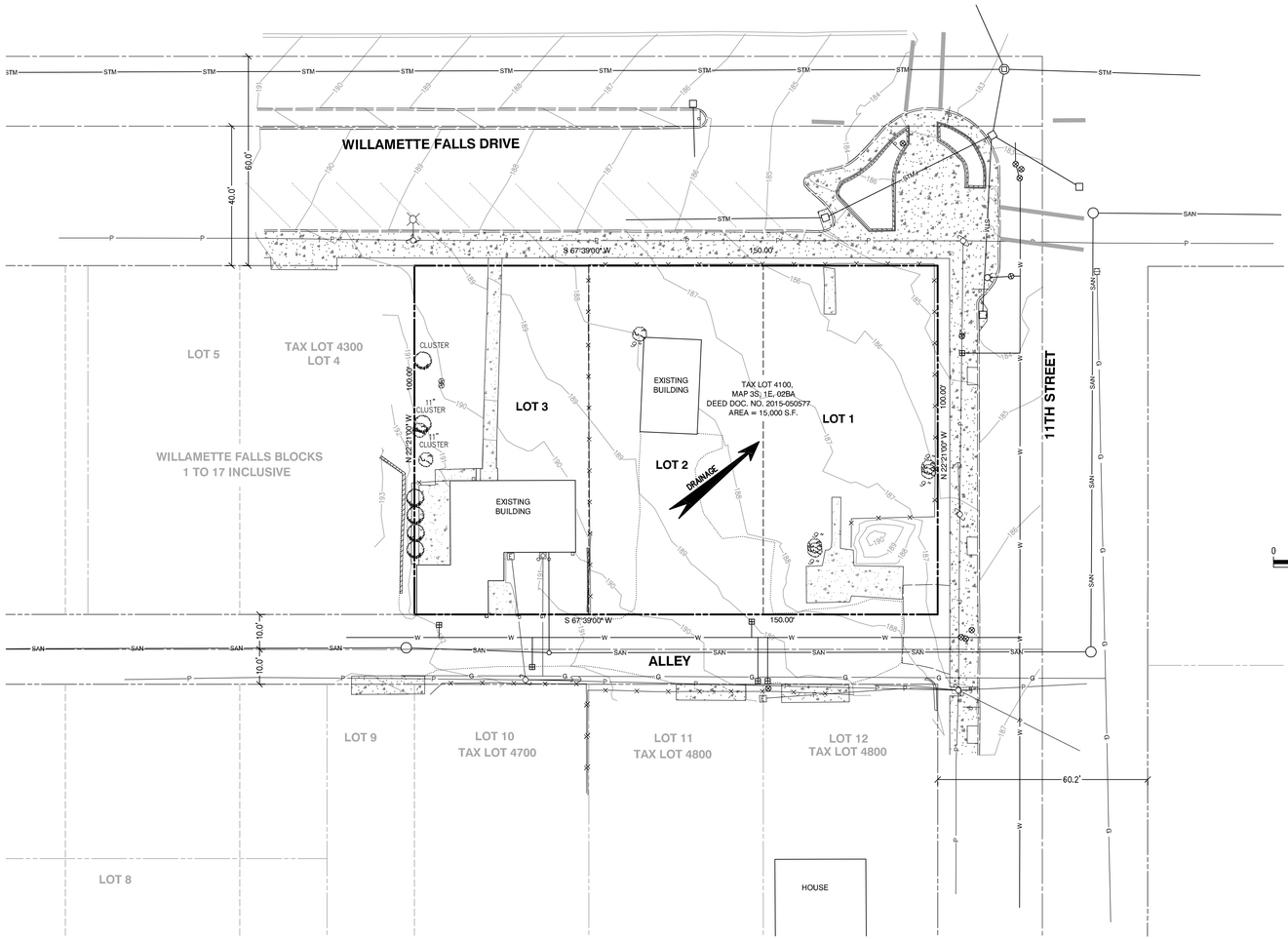
Theta,llc
ENGINEERING - SURVEYING - PLANNING
PO Box 1345
Lake Oswego, Oregon 97035
503/481-8822
email: thetaeng@comcast.net

Icon Construction & Development, LLC
1980 Willamette Falls Drive, Suite 200
West Linn, Oregon 97068
PH: (503) 657-0406

Tax Lot 4100
T.3S., R.1E., Section 2
West Linn, Oregon

SHEET: 1/4

C:\Acad\Willamette\Willamette Design Review1.dwg, 2/3/2016 3:13:05 PM



RESOURCE AREAS:

A NO WETLAND PRESENT
B NOT IN REPARIAN CORRIDOR
C NO STREAMS OR INTERMITTENT WATER WAYS
D NO HABITAT CONSERVATION AREA
E NO ROCK OUTCROPPINGS

NATURAL HAZARD AREAS:

A NOT IN FLOOD PLAIN
B NOT IN WATER RESOURCE AREAS
C NOT IN LANDSLIDE AREA
D NOT IN LANDSLIDE VULNERABLE ANALYSIS AREA

GROSS AREA = 15,000 SQ.FT.

SLOPE ANALYSIS

TYPE I:	(UNDER 15%)	= 15,000 SQ.FT.
TYPE II:	(15% TO 25%)	= 0.00 SQ.FT.
TYPE III:	(25% TO 35%)	= 0.00 SQ.FT.
TYPE IV:	(OVER 35%)	= 0.00 SQ.FT.

REGISTERED PROFESSIONAL ENGINEER
7129
OREGON
JULY 16, 1971
BRUCE D. GOLOSOV
PRELIMINARY

EXPIRES: 06/30/2017
SIGNATURE DATE: 02/03/2016

DESIGN REVIEW - SITE ANALYSIS

2015-129I

DESIGNED:	BDG			
DRAWN:	BJS			
SCALE:	1" = 20'			
DATE:	January, 2016			
FILE:	Willamette Design Review1	DATE	NO.	REVISION

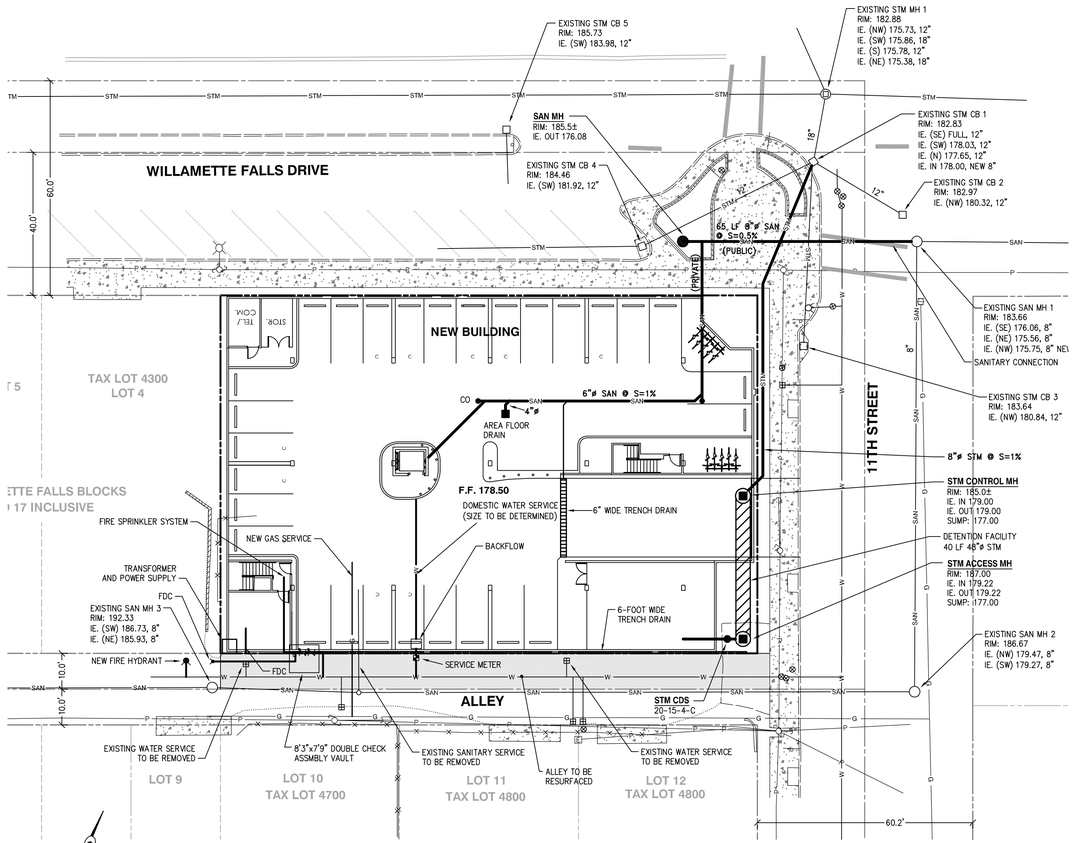
Theta,llc
ENGINEERING - SURVEYING - PLANNING
PO Box 1345
Lake Oswego, Oregon 97035
503/481-8822
email: thetaeng@comcast.net

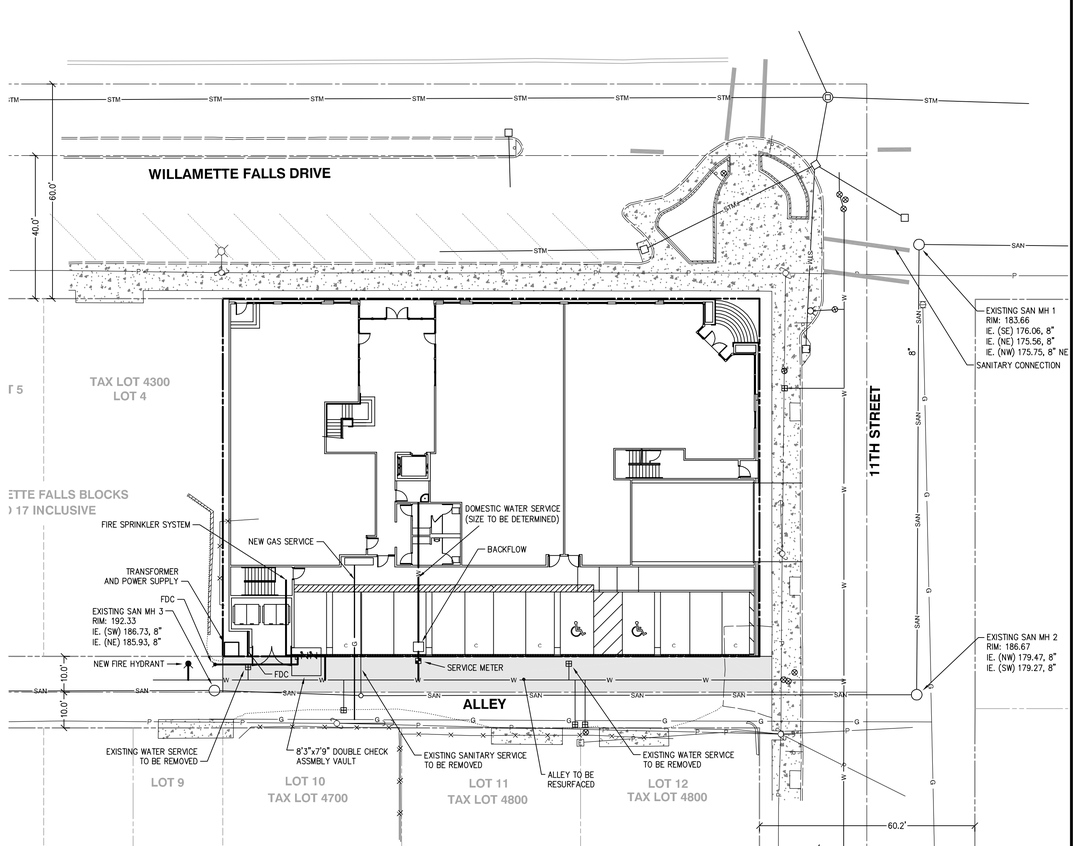
Icon Construction & Development, LLC
1980 Willamette Falls Drive, Suite 200
West Linn, Oregon 97068
PH: (503) 657-0406

Tax Lot 4100
T.3S., R.1E., Section 2
West Linn, Oregon

SHEET: 2/4

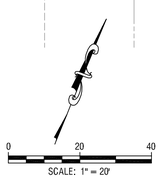
C:\Acad\Willamette\Willamette Design Review1.dwg, 2/3/2016 1:04:42 PM





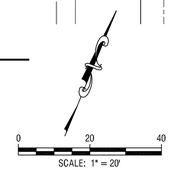
GARAGE LEVEL

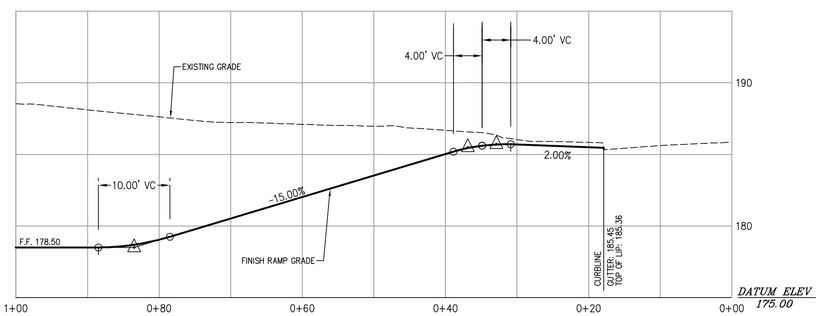
SCALE: 1" = 20'



LOBBY LEVEL

SCALE: 1" = 20'





GARAGE RAMP PROFILE
1" = 10' HORIZONTAL

SCALE: 1" = 5' VERTICAL

1
3

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 16, 1971
BRUCE D. GOLDSON
7120
PRELIMINARY
EXPIRES: 06/30/2017
SIGNATURE DATE: 02/03/2016

DESIGN REVIEW - SITE AND UTILITY PLAN

2015-129I

DESIGNED:	BDG			
DRAWN:	BJS			
SCALE:	1" = 20'			
DATE:	January, 2016			
FILE:	Willamette Design Review1	DATE	NO.	REVISION

Theta,llc
ENGINEERING - SURVEYING - PLANNING
PO Box 1345
Lake Oswego, Oregon 97035
503/481-8822
email: thetaeng@comcast.net

Icon Construction & Development, LLC
1980 Willamette Falls Drive, Suite 200
West Linn, Oregon 97068
PH: (503) 657-0406

Tax Lot 4100
T.3S., R.1E., Section 2
West Linn, Oregon

SHEET: 3/4

C:\Acad\Willamette\Willamette Design Review1.dwg, 2/3/2016 3:13:28 PM

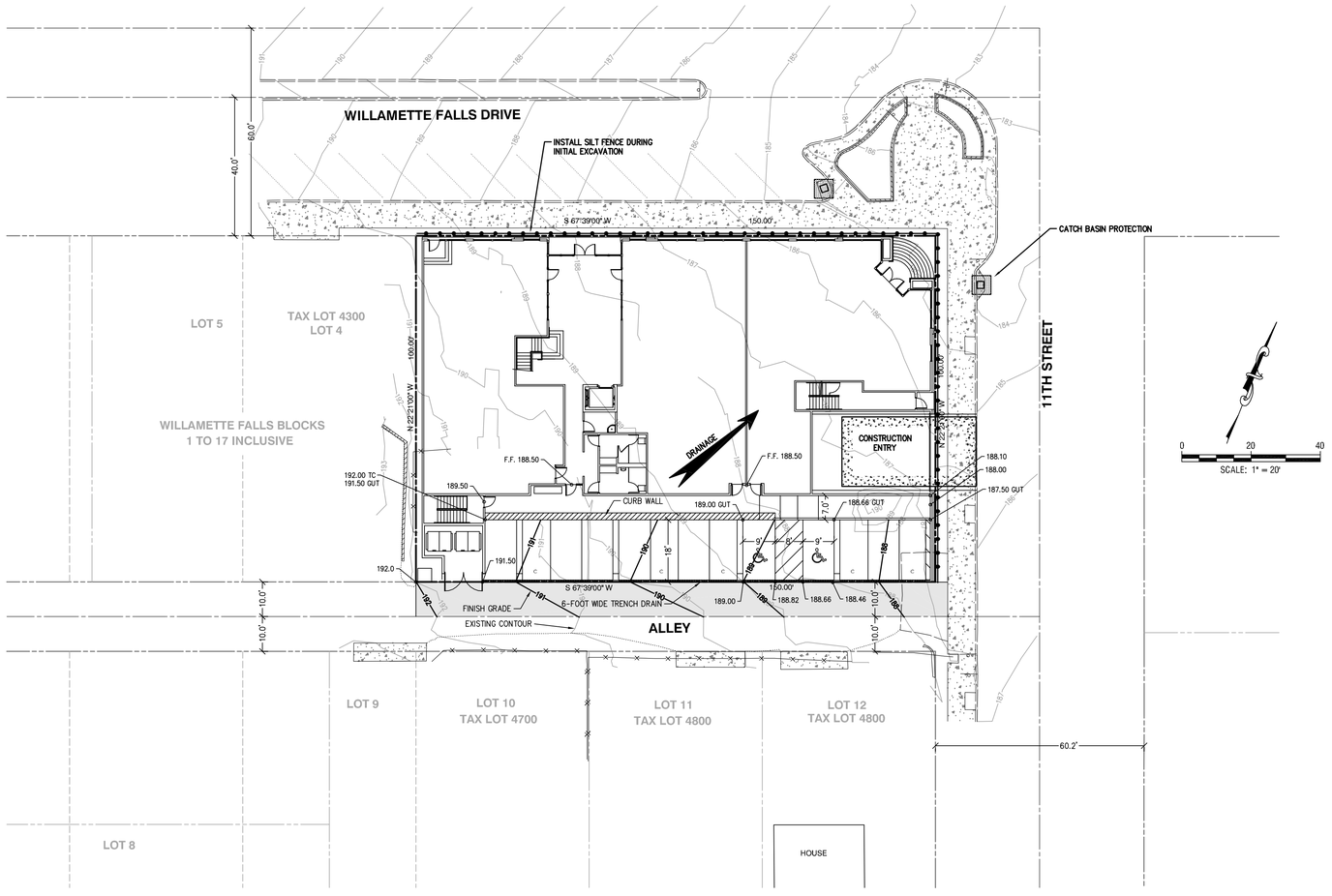
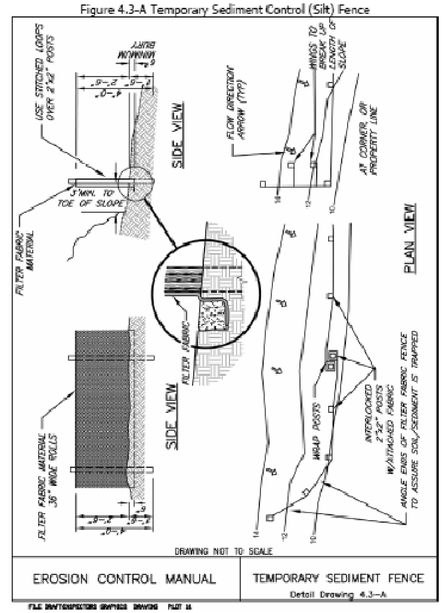


Figure 4.3-A Temporary Sediment Control (Silt) Fence



REGISTERED PROFESSIONAL ENGINEER
7120
OREGON
JULY 16, 1971
BRUCE D. GOLDSON
PRELIMINARY

EXPIRES: 06/30/2017
SIGNATURE DATE: 02/03/2016

DESIGN REVIEW - GRADING AND EROSION CONTROL PLAN

2015-129I

DESIGNED:	BDG			
DRAWN:	BJS			
SCALE:	1" = 20'			
DATE:	January, 2016			
FILE:	Willamette Design Review1	DATE	NO.	REVISION

Theta, llc
ENGINEERING - SURVEYING - PLANNING
PO Box 1345
Lake Oswego, Oregon 97035
503/481-8822
email: thetaeng@comcast.net

Icon Construction & Development, LLC
1980 Willamette Falls Drive, Suite 200
West Linn, Oregon 97068
PH: (503) 657-0406

Tax Lot 4100
T.3S., R.1E., Section 2
West Linn, Oregon

SHEET: 4/4

C:\Acad\Willamette\Willamette Design Review1.dwg, 2/2/2016 4:45:41 PM

WILLAMETTE FALLS PROFESSIONAL MIXED-USE BUILDING

1969 WILLAMETTE FALLS DRIVE, WEST LINN

SGA
SG ARCHITECTURE, LLC

10940 SW Barnes Road #364
Portland, Oregon 97225

WILLAMETTE FALLS
MIXED-USE BUILDING
WILLAMETTE FALLS DR. & 11th ST.
WEST LINN, OREGON

ICON CONSTRUCTION & DEVELOPMENT
1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068

SITE ANALYSIS

PROJECT DESCRIPTION
A TWO STORY MIXED USE BUILDING AT THE CORNER OF WILLAMETTE FALLS DRIVE AND 11TH STREET, WEST LINN, OR. POSSIBLE USES INCLUDE RETAIL, RESTAURANT, OFFICE, OR HOTEL.

CODES
2014 OREGON STRUCTURAL SPECIALTY CODE
2014 OREGON MECHANICAL SPECIALTY CODE
2014 OREGON PLUMBING SPECIALTY CODE
2014 OREGON ENERGY EFFICIENCY SPECIALTY CODE COVER

ZONING
JURISDICTION: CITY OF WEST LINN
CODE: COMMUNITY DEVELOPMENT CODE
ZONE: GC (GENERAL COMMERCIAL - CDC CHAPTER 19)
ZONE OVERLAYS: WILLAMETTE COMMERCIAL HISTORIC OVERLAY ZONE

UTILITIES
WATER/SEWER: WEST LINN PUBLIC WORKS - 503 656-6081 (OPERATIONS)
TRASH: WEST LINN REFUSE - 503-557-3900
ELECTRIC: PORTLAND GENERAL ELECTRIC - 800-542-8818
GAS: NW NATURAL - 800-422-4012

LEGAL DESCRIPTION
LOTS 1,2, & 3, BLOCK 10, CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON
TAX LOT: 31E02BA04100 / PARCEL: 00749168

RESTRICTIONS/EASEMENTS
NONE

ADJACENT ZONES
MU (NORTH & EAST), R-5 MEDIUM DENSITY RESIDENTIAL (SOUTH), GC (WEST)

PERMITTED USES (19.030, ANTICIPATED USES)
BUSINESS USES, RESTAURANT, RETAIL, HOTEL, PROFESSIONAL/MEDICAL SERVICES.

DIMENSIONAL REQUIREMENTS (19.070)
MINIMUM FRONT LOT LINE WIDTH: 35' REQ. / 150' PROPOSED
AVERAGE MINIMUM FRONT LOT LINE WIDTH: 50' REQ. / 150' PROPOSED
AVERAGE MINIMUM LOT DEPTH: 90' REQ. / 100' PROPOSED
BUILDING HEIGHT (CDC): 2 STORIES/35' MAX. / 2 STORIES/35' PROPOSED
GROUND LEVEL MINIMUM HEIGHT: 10' REQ. / 28' PROPOSED
SETBACKS: FRONT - 0' MIN. / 0' MAX., SIDE - 0' MIN. / 0' MAX., REAR 20' MIN. / 20' MAX.
LOT COVERAGE: 100% MAX.

SITE LANDSCAPING
NONE REQUIRED.

CODE REVIEW

POSSIBLE OCCUPANCY GROUPS
A-2: RESTAURANT
B: BUSINESS
M: RETAIL
R-1: HOTEL
S-2: PARKING GARAGE

CONSTRUCTION TYPE
PROPOSED CONSTRUCTION TYPE - GROUND & SECOND FLOORS:
V-B SPRINKLERED (WOOD FRAME CONSTRUCTION).
PROJECTED CONSTRUCTION TYPE - GARAGE:
TYPE 1 OR 2 (CONCRETE OR MASONRY CONSTRUCTION).

ALLOWABLE AREAS BY OCCUPANCY GROUP
(INCLUDES INCREASES FOR SPRINKLER AND SEPARATIONS)*:
A-2: RESTAURANT - 6000 + [6000 X 2 (SPRINKLER)] + [6000 X .17 (SEPARATION)] = 19,020 S.F.
B: BUSINESS - 9000 + [9000 X 2 (SPRINKLER)] + [9000 X .17 (SEPARATION)] = 28,530 S.F.
M: RETAIL - 9000 + [9000 X 2 (SPRINKLER)] + [9000 X .17 (SEPARATION)] = 28,530 S.F.
R-1: HOTEL - 7000 + [7000 X 2 (SPRINKLER)] + [7000 X .17 (SEPARATION)] = 22,190S.F.
S-2: GARAGE - 13,500 + [13,500 X 2 (SPRINKLER)] + [13,500 X .17 (SEPARATION)] = 42,795 S.F.
*SUBJECT TO THE 'SUM OF THE RATIOS' LIMITATION: THE COMBINED AREAS OF EACH OCCUPANCY DIVIDED BY THE OVERALL BUILDING AREA MUST RESULT IN A RATIO OF LESS THAN 1.0.

ALLOWABLE BUILDING HEIGHT ABOVE GRADE
BY CONSTRUCTION TYPE: 40'
BY ZONE: 35' (THE HEIGHT LIMITATION IN THE ZONE GOVERNS)

OCCUPANCY SEPARATIONS (VERTICAL AND HORIZONTAL)
A-2: RESTAURANT / B: BUSINESS, M: RETAIL, OR R-1: HOTEL = 1-HOUR
R-1: HOTEL / B: BUSINESS, M: RETAIL OR A-2: RESTAURANT = 1-HOUR
S-2: GARAGE / B: BUSINESS & M: RETAIL = 1-HOUR

FIRE RESISTIVE REQUIREMENTS
PRIMARY STRUCTURAL FRAME: NONE
BEARING & NON-BEARING WALLS (EXTERIOR, NORTH/EAST/SOUTH): NONE
BEARING & NON-BEARING WALLS (EXTERIOR, WEST):
2 HOUR AT GROUND FLOOR RETAIL / 1 HOUR AT 2ND FLOOR
BEARING & NON-BEARING WALLS (INTERIOR): NONE
FLOOR & ROOF CONSTRUCTION: NONE
SHAFT ENCLOSURES (STAIRS & ELEVATOR): 1-HOUR
PARAPETS: PER OSSC SECTION 705.11

OPENINGS IN RATED WALLS (BASED UPON SEPARATION FROM PROPERTY LINE)
0' TO LESS THAN 3': NOT PERMITTED
3' TO LESS THAN 5': 15% OF WALL AREA PER STORY
5' TO LESS THAN 10': 25% OF WALL AREA PER STORY
10' TO LESS THAN 15': 45% OF WALL AREA PER STORY
15' TO LESS THAN 20': 75% OF WALL AREA PER STORY
20'+: UNLIMITED

EXITING
ELEVATOR: REQUIRED
STAIRS: TWO STAIRS WILL BE REQUIRED. AT LEAST ONE STAIR MUST BE ENCLOSED ON THE UPPER FLOORS, BOTH MUST BE ENCLOSED AT THE GARAGE LEVEL.
ALL REQUIRED EXITS MUST MEET ACCESSIBILITY STANDARDS PER CHAPTERS 10 & 11.

DIRECTORY

OWNER
ICON CONSTRUCTION & DEVELOPMENT
1980 WILLAMETTE FALLS DRIVE, Suite 200
WEST LINN, OREGON 97068
CONTACT: MARK HANDRIS, 503-657-0406, mark@iconconstruction.net
DARREN GUSDORF, 503-657-0406, darren@iconconstruction.net

ARCHITECT
SG ARCHITECTURE, LLC.
10940 SW BARNES RD. #364
PORTLAND, OREGON 97225
CONTACT: SCOT SUTTON, 503-347-4685, ssutton@sg-arch.net
KEVIN GODWIN, 503-201-0725, kgodwin@sg-arch.net

CIVIL
THETA, LLC
PO BOX 1345
WEST LINN, OREGON 97035
CONTACT: BRUCE GOLDSON, 503-481-8822, thetaeng@comcast.net

SURVEYING
CENTERLINE CONCEPTS LAND SURVEYING, INC.
729 MOLLALLA AVE, SUITE 1&2
OREGON CITY, OREGON 97045
503-650-0188

BUILDING DATA:

1ST FLOOR LEVEL (STREET LEVEL)	9,950 SF
2ND LEVEL FLOOR	14,560 SF
TOTAL BUILDING AREA	**24,510 SF (LEASABLE)**
GARAGE LEVEL	14,415 SF
BUILDING TOTAL AREA	38,925 SF

TOTAL PARKING PROVIDE (ON-SITE)	
UNDERGROUND	29 SPACES
STREET LEVEL COVERED	13 SPACES
TOTAL PARKING PROVIDED	42 SPACES

SHEET INDEX

ARCHITECTURAL

VICINITY MAP

CLASS II & HISTORIC DESIGN REVIEW SUBMITTAL DRAWINGS

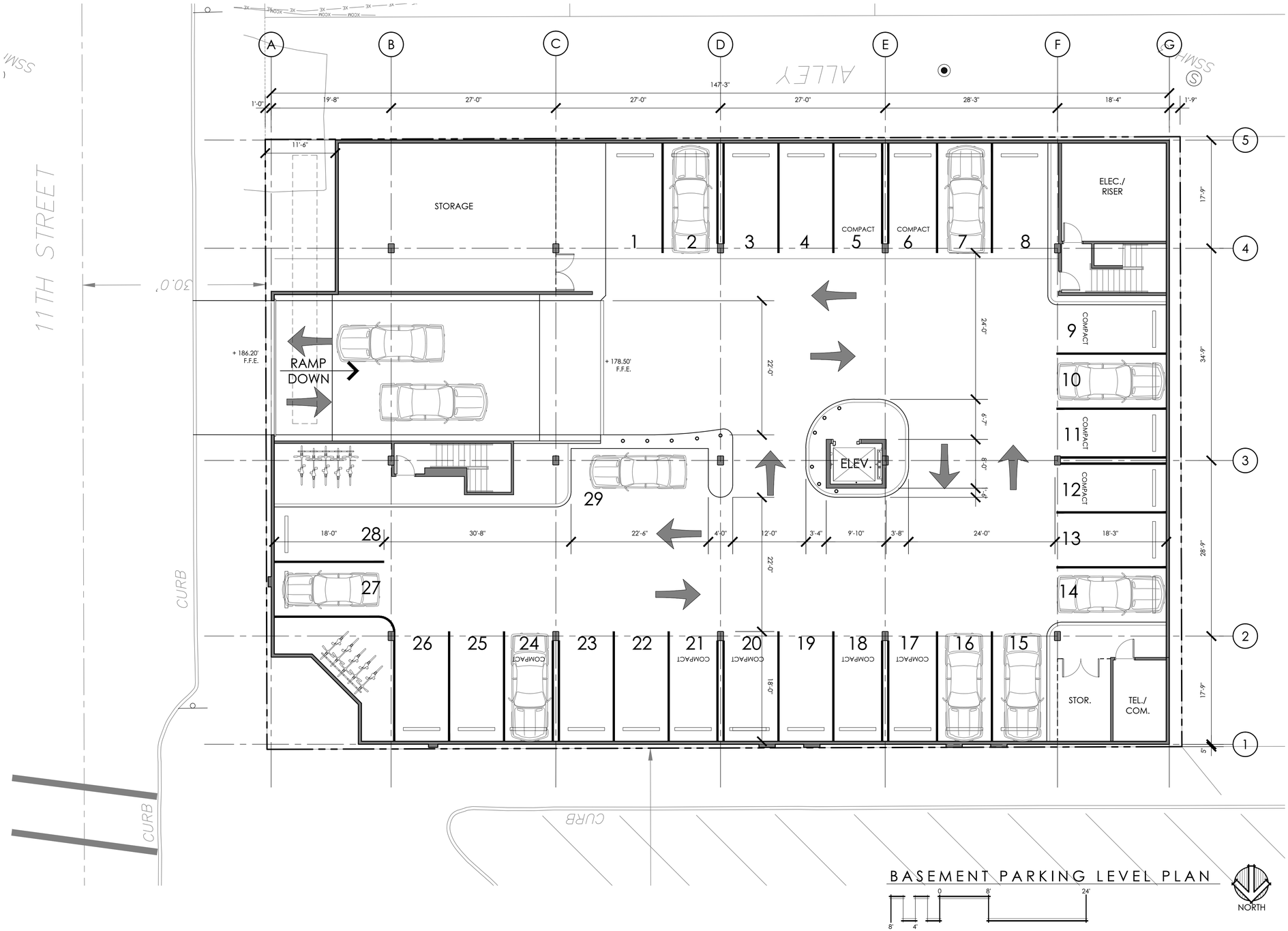
PROJECT NUMBER: 15-104
ISSUE DATE: FEBRUARY, 2016
DRAWN BY:

REVISIONS:

COVER SHEET AND GENERAL NOTES

SHEET NUMBER:

A0.0



BASEMENT PARKING LEVEL PLAN

0 8' 24'

8' 4'

NORTH

SGA
SG ARCHITECTURE, LLC

10940 SW Barnes Road #364
Portland, Oregon 97225

WILLAMETTE FALLS

MIXED-USE BUILDING

WILLAMETTE FALLS DR. & 11th ST.
WEST LINN, OREGON

ICON CONSTRUCTION & DEVELOPMENT

1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068

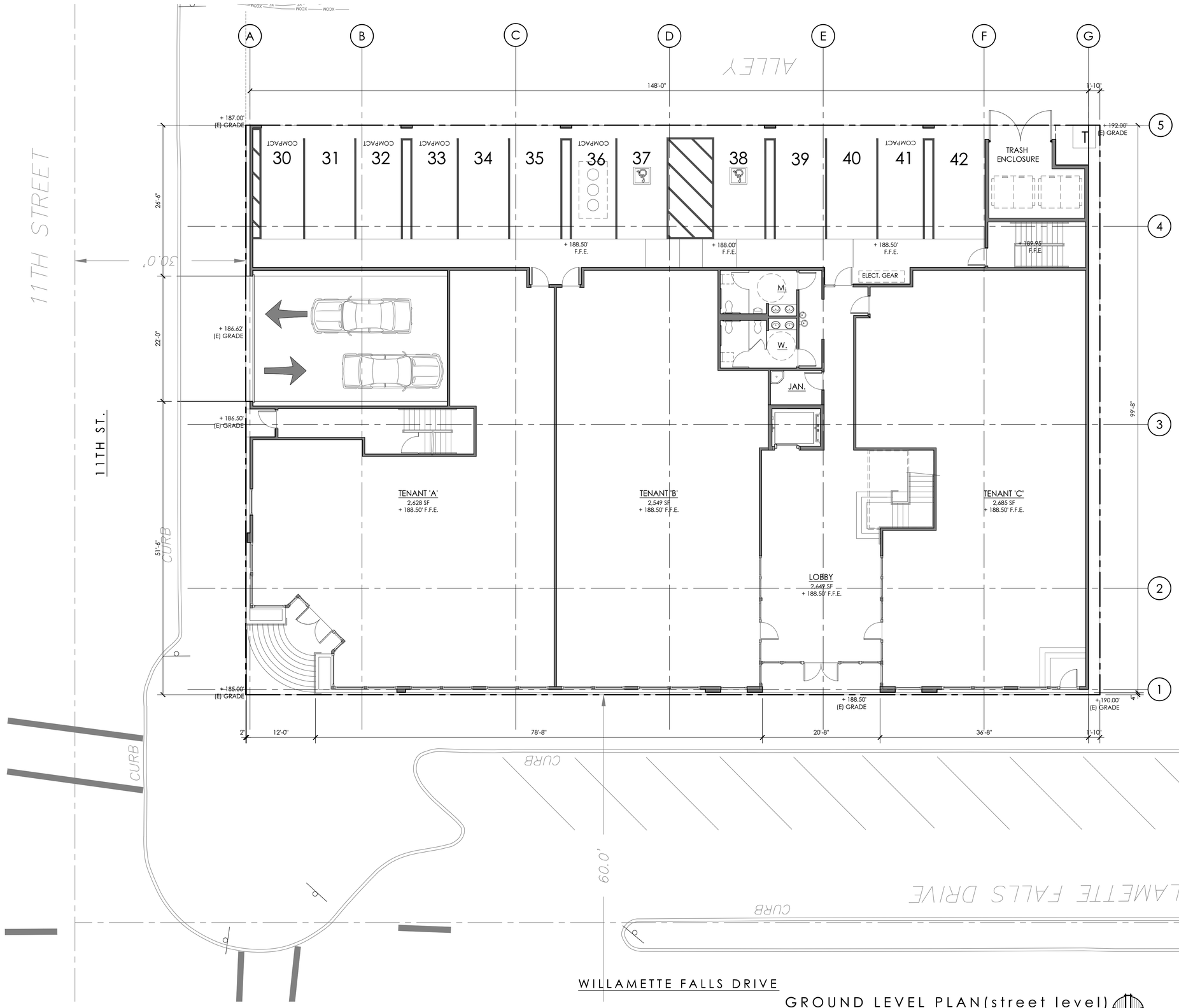
CLASS II & HISTORIC DESIGN REVIEW SUBMITTAL DRAWINGS

PROJECT NUMBER: 15-104
ISSUE DATE: FEBRUARY, 2016
DRAWN BY:

REVISIONS:

SHEET NUMBER:

A2.0



WILLAMETTE FALLS DRIVE

GROUND LEVEL PLAN(street level)

0 8' 24'

8' 4'

NORTH

SGA

SG ARCHITECTURE, LLC

10940 SW Barnes Road #364
Portland, Oregon 97225

WILLAMETTE FALLS

MIXED-USE BUILDING

WILLAMETTE FALLS DR. & 11th ST.
WEST LINN, OREGON

ICON CONSTRUCTION & DEVELOPMENT

1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068

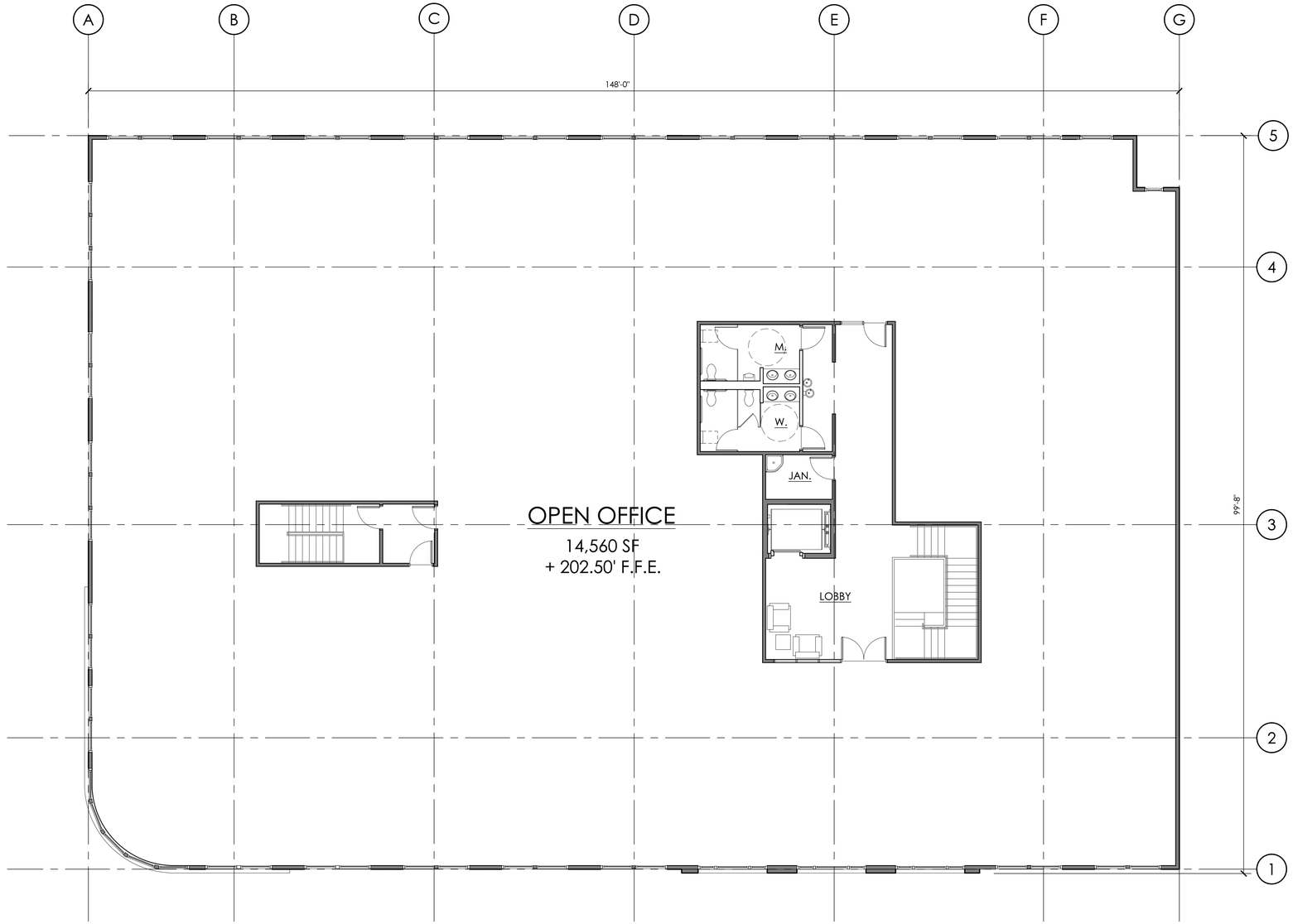
CLASS II & HISTORIC DESIGN REVIEW SUBMITTAL DRAWINGS

PROJECT NUMBER: 15-104
ISSUE DATE: FEBRUARY, 2016
DRAWN BY:

REVISIONS:

SHEET NUMBER:

A2.1



SECOND LEVEL PLAN - OFFICE

0 8' 24'

8' 4'

NORTH

SGA
SG ARCHITECTURE, LLC

10940 SW Barnes Road #364
Portland, Oregon 97225

WILLAMETTE FALLS

MIXED-USE BUILDING

WILLAMETTE FALLS DR. & 11th ST.
WEST LINN, OREGON

ICON CONSTRUCTION & DEVELOPMENT

1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068

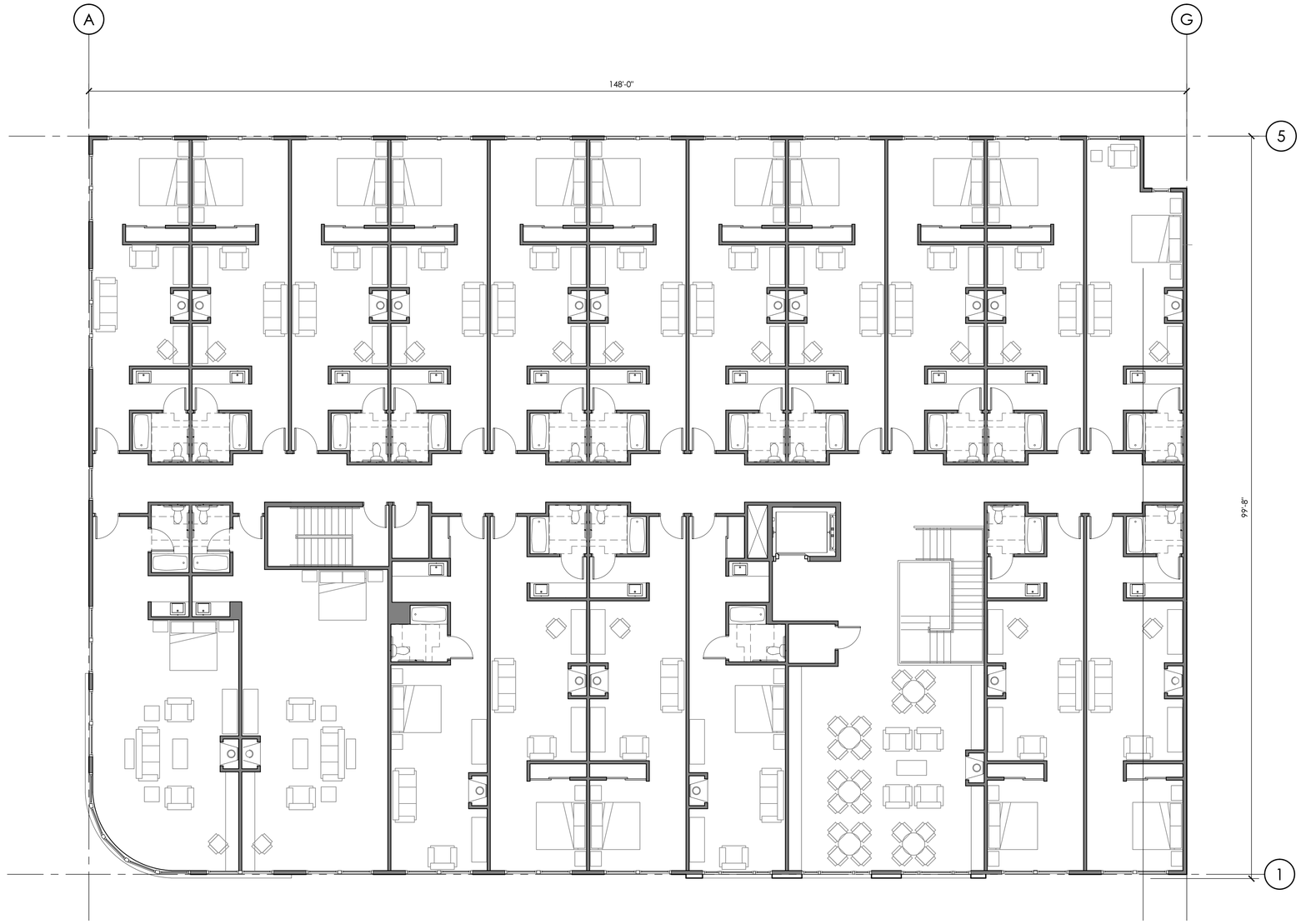
CLASS II & HISTORIC DESIGN REVIEW SUBMITTAL DRAWINGS

PROJECT NUMBER: 15-104
ISSUE DATE: FEBRUARY, 2016
DRAWN BY:

REVISIONS:

SHEET NUMBER:

A2.2a



SECOND LEVEL PLAN - HOTEL

0 8' 24'

8' 4'

NORTH

SGA
SG ARCHITECTURE, LLC

10940 SW Barnes Road #364
Portland, Oregon 97225

WILLAMETTE FALLS

MIXED-USE BUILDING

WILLAMETTE FALLS DR. & 11th ST.
WEST LINN, OREGON

ICON CONSTRUCTION & DEVELOPMENT

1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068

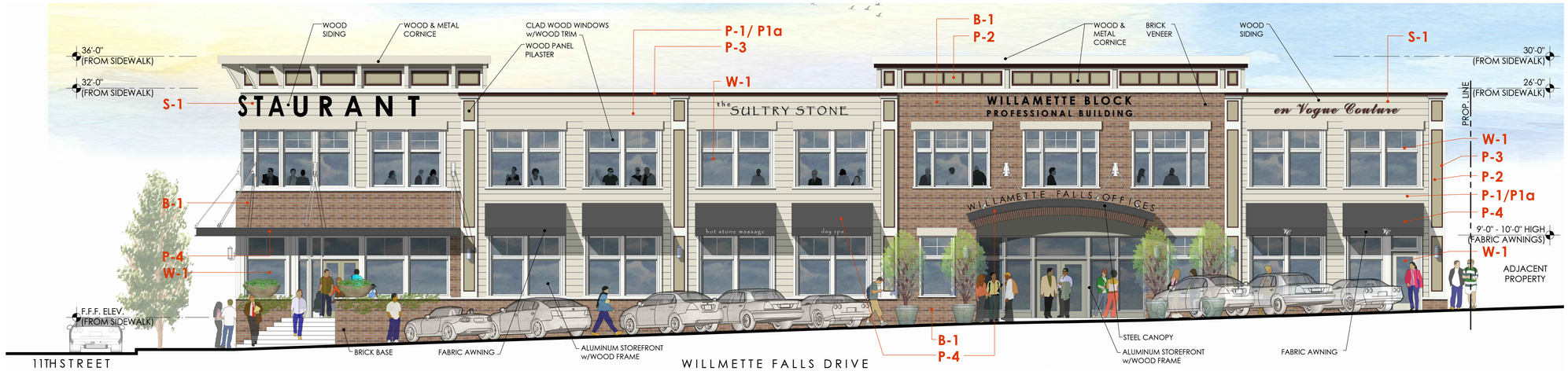
CLASS II & HISTORIC DESIGN REVIEW SUBMITTAL DRAWINGS

PROJECT NUMBER: 15-104
ISSUE DATE: FEBRUARY, 2016
DRAWN BY:

REVISIONS:

SHEET NUMBER:

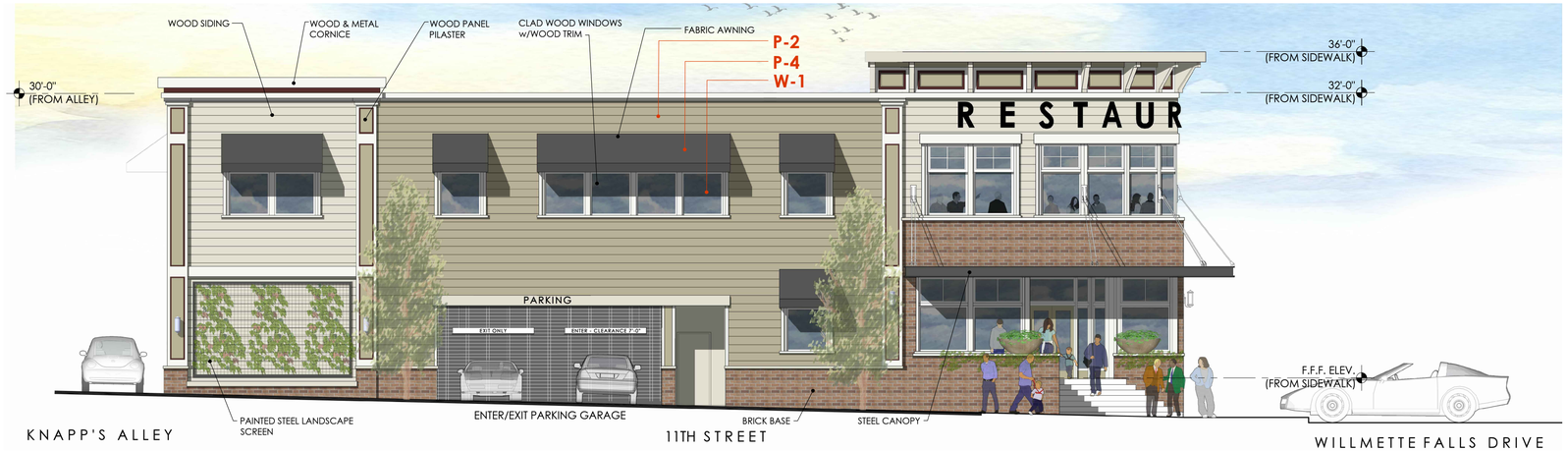
A2.2b



NORTH ELEVATION

0 8' 24'

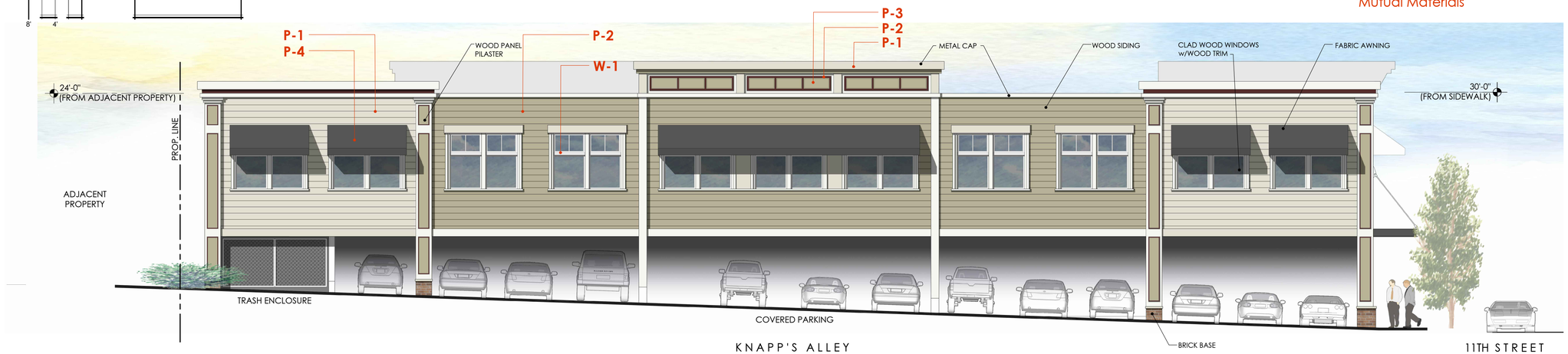
8' 4'



EAST ELEVATION

0 8' 24'

8' 4'



SOUTH ELEVATION

0 8' 24'

8' 4'

COLOR / MATERIAL SCHEDULE

P-1 GRAY MIST
Main Building / Window Trim / Cornices
'Benjamin Moore'

P-1a BRUSHED ALUMINUM (alternate color)
Main Building / Window Trim / Cornices
'Benjamin Moore'

P-2 SAGE MOUNTAIN
Main Building / Wood Pilaster Panels
'Benjamin Moore'

P-3 COTTAGE RED
Accent Trim - 'Benjamin Moore'

P-4 BLACK BEAUTY
Fabric & Metal Awnings - 'Pike Awnings'

W-1 STOREFRONT WINDOWS
Painted Wood or Vinyl Clad
'Anderson' / 'Pella' / 'Jeld-Wen'

S-1 SIDING (exterior all sides)
HardiePlank Cement Fiber Siding
'James Hardi' Products

B-1 BRICK Chestnut / Mission Texture
'Mutual Materials'

SGA
SG ARCHITECTURE, LLC
10940 SW Barnes Road #364
Portland, Oregon 97225

WILLAMETTE FALLS

MIXED-USE BUILDING

WILLAMETTE FALLS DR. & 11th ST.
WEST LINN, OREGON

ICON CONSTRUCTION & DEVELOPMENT
1980 WILLAMETTE FALLS DR., SUITE 200
WEST LINN, OREGON 97068

CLASS II & HISTORIC DESIGN REVIEW SUBMITTAL DRAWINGS

PROJECT NUMBER: 15-104
ISSUE DATE: FEBRUARY, 2016
DRAWN BY:

REVISIONS:

SHEET NUMBER:

A3.1