Public Hearing

January 5, 2023, at 5:30 pm
City Hall
210 East 4th Street, La Center, WA 98629

Public Hearing: Valley View Subdivision
Preliminary Plat, SEPA Mitigated Determination of Non-significance (MDNS), Critical Areas Permit, Legal Lot Determination, and Tree Cutting Permit: Type III Review

Hearings Examiner: Joe Turner

Applicant: Mason Wolfe
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Ridgefield, WA 98642
360.907.9588, mason@wolfepm.com

Hearing Materials:

Exhibit A – Application Materials

1. Submittal Checklist
2. Table of Contents
3. Master Land Use Application
4. Existing Conditions Survey
5. Proposed Preliminary Plat
6. Proof of Ownership & Authorization
7. Legal Description
8. Pre-Application Conference Notes
9. Project Narrative and Supplemental Narrative
10. Critical Areas Technical Memorandum
11. Geotechnical Study
12. Preliminary Grading Plan

13. Water Utility Review
14. Archaeological Report - Contact Jessica Nash 360-263-7665
15. Preliminary TIR Stormwater Report
16. Preliminary Stormwater Plan
17. Traffic Study
18. Arborist Report & Supplemental Letter
19. Tree Survey Map & Removal Plan
20. Mitigation Strategy for Homestead

Exhibit B – SEPA

1. Mitigated DNS Notice and Checklist
2. Combined SEPA Comments

Exhibit C – Staff Report

1. Technical Completeness Letter

DRAFT Staff Report & Recommendations

Valley View Subdivision: Type III

Preliminary Plat, SEPA, Critical Areas Permit, Legal Lot Determination, and Tree Cutting Permit.

(#2022-034-SUB/SEPA/CAR/LLD/TRE) December 29, 2022

PROPOSAL:	Preliminary plat of one parcel totaling 8.65 gross acres to create 34 single-family detached residential lots, public streets, and utilities. Reviews for a critical areas permit, legal lot determination, tree cutting permit, and SEPA MDNS apply.
LOCATION:	▪ 2219 Northeast 339th Street, La Center, WA 98629 ▪ A portion of lot 1, Short Plat 3-905; NE 1/4 of Section 2, T4N, R1E WM PIN: 209062000
HEARING:	The La Center Hearing Examiner will conduct a public hearing on January 5, 2023 beginning at 5:30 PM at La Center City Hall, 210 East 4th Street, La Center, WA.
APPLICABLE STANDARDS	La Center Municipal Code (LCMC): Impact Fees, 3.35; Sign Regulations, 8.60; Title 12, Streets, Sidewalks, and Public Ways; Title 13, Public Utilities; Title 18, Development Code; Type III Procedure, 18.30.100; Notices, 18.30.120; Low Density Residential (LDR-7.5), 18.130; General Provisions, 18.200; Subdivision Provisions, 18.210; Legal Lot Determinations, 18.225; Monumentation, Survey, and Drafting Standards, 18.230; Mitigation of Adverse Impacts, 18.240; Supplementary Development Standards, 18.260; Off-Street Parking and Loading Requirements, 18.280; Outdoor Lighting, 18.282; Critical Areas, 18.300; Environmental Policy, 18.310; Stormwater and Erosion Control, 18.320; Native Plant List, 18.340; Tree Protection, 18.350; Archeological Resource Protection, 18.360.
RECOMMENDATION:	**APPROVAL,** subject to conditions

I. CONTACT LIST

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II. OVERVIEW

The project site is located at the northeastern boundary of La Center, southwest of the intersection of Northeast 339th Street and Northeast 24th Avenue, comprised of one 8.64-acre parcel (Figures 1 and 2). There are approximately eleven existing buildings on the site and, according to the submitted archaeological predetermination report, these structures are eligible to be listed on the National Register of Historic Places (NRHP). Due to this eligibility, the predetermination report recommends that these buildings shall be further evaluated by an architectural historian with proper mitigation measures prior to demolition of these structures. The applicant is currently consulting with an architectural historian on this matter. This is further discussed in LCMC 18.360 of this staff report.

The applicant is proposing to subdivide the site to create 34 lots for detached single-family residences in Low Density Residential (LDR-7.5) zone (See Figure 3). All buildable lots would be between 7,500 and 11,000 square feet as required by LCMC 18.130.080. No parks are proposed as parks are only required for development exceeding 40 dwelling units. Two flag lots are proposed, which are discouraged but not prohibited, and are subject to the requirements of LCMC 18.210.040(3).

The request also includes a critical areas permit for geologically hazardous areas. The subject site is mapped by the National Earthquake Hazards Reduction Program (NEHRP) “Site Class D” for ground shaking amplification. This is a regulated geologically hazardous critical areas under LCMC 18.300.090(4) and requires a critical areas permit.

The applicant has provided a tree protection plan in accordance with LCMC 18.350.060 and proposes to remove all trees on site. Mitigation by the applicant is to plant street trees that exceed requirements of 18.350.060. However, Staff have identified one tree (a 40-inch diameter sequoia) that that may have suitable conditions for preservation with the proposed improvements of the site. Further study and information are to be provided, as conditioned, from the applicant for Staff to evaluate and make a final determination to remove or preserve these identified trees.

The applicant is proposing a system of public streets to serve the lots, including multiple street stubs from the Heritage Country Estates development from the west and south, including East 9th Street, East Upland Avenue, East Vine Maple Avenue, and East White Oak Avenue. East 8th Way and East Vine Maple Avenue will provide public street connections to Northeast 24th Avenue and Northeast 339th Street, respectively. In addition, the applicant is proposing half street improvements along Northeast 24th Avenue, Northeast 339th Street, East 8th Way, and East Upland Avenue.

Each lot will be served by public utilities including sanitary sewer (City of La Center) and potable water (Clark Public Utilities).

The application requests concurrent reviews under a Type III process for the preliminary subdivision, legal lot determination, SEPA, tree cutting permit, and critical areas review for geologically hazardous areas.

Figure 1 – Project Location

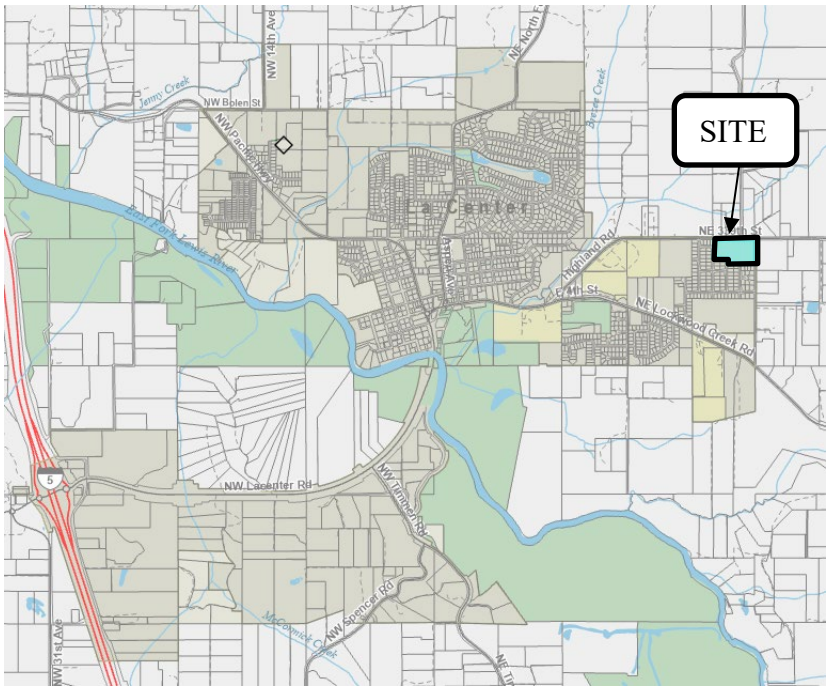
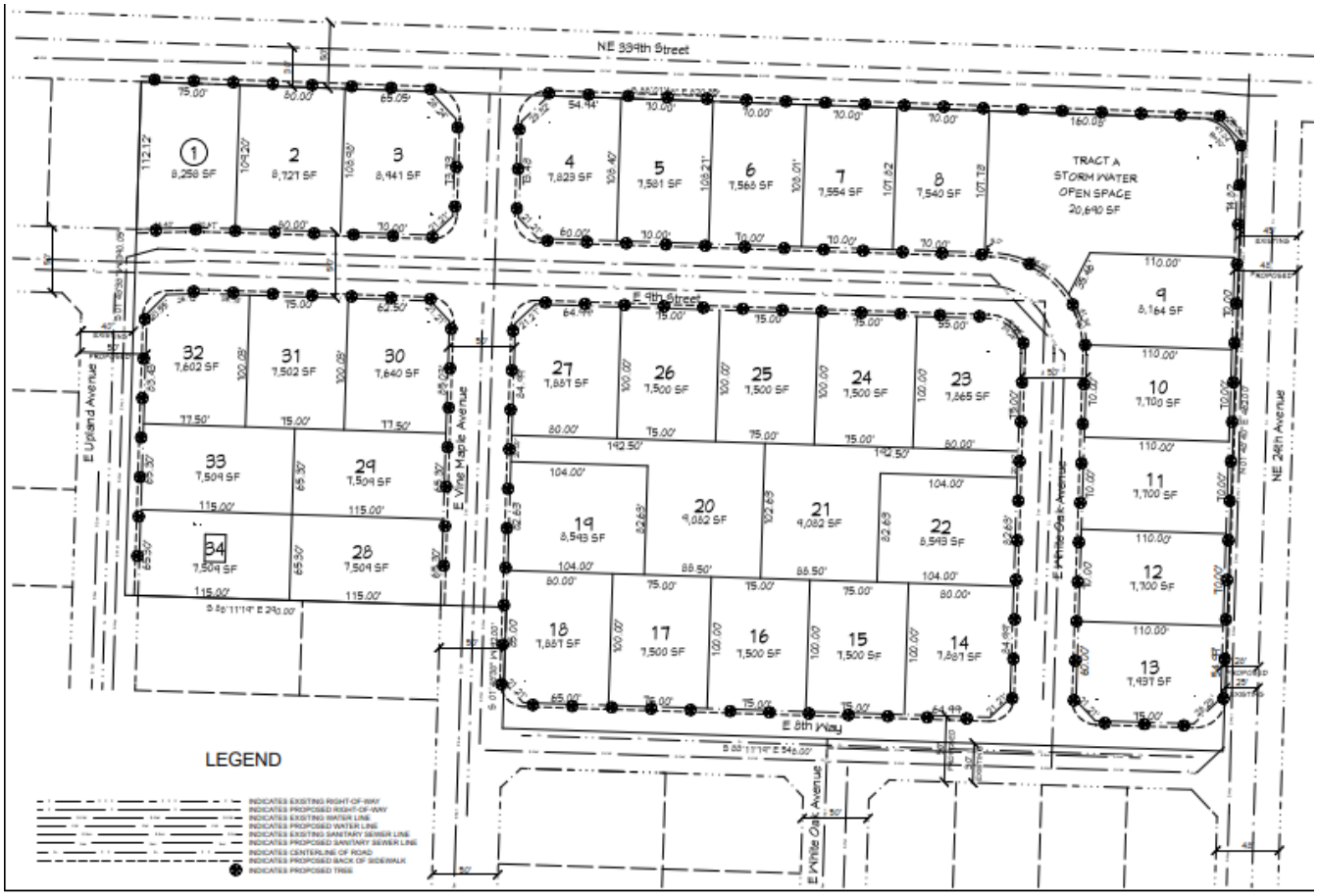


Figure 2: Project site

Figure 3 – Proposed Preliminary Plat



III. REVIEW

III. A Jurisdiction

The site is within La Center City limits and is zoned Low Density Residential (LDR-7.5). The City of La Center provides sanitary sewer service and public streets. Clark Public Utilities provides potable water service. The project is within the La Center School District and the Clark-Cowlitz Fire Rescue service area.

III.B Public Notice

On December 22, 2022, The Columbian published legal notice of the preliminary plat application, critical areas permit, legal lot determination, tree cutting permit, and SEPA MDNS and public hearing scheduled for January 5, 2022. The City entered the SEPA Checklist and Optional Mitigated Determination of Non-Significance (MDNS) in the Ecology SEPA Register on November 16, 2022. (Ecology SEPA # 202205752.) The notice of application and SEPA comment period closed on November 30, 2022, and the City received one comment (Exhibit B.B).

State of Washington Department of Ecology (Ecology)

Ecology provided comments on November 30, 2022. A summary of their comments is provided below:

- Solid Waste Management
  - Asbestos abatement procedures shall be performed for the demolition of the existing structures on site and other potentially hazardous materials shall be removed prior to demolition.
  - It is important that demolition debris is safely managed, especially if it contains painted wood or concrete, treated wood, or other possibly dangerous materials.
  - All removed debris must be disposed of at an approved site.
  - All grading and filling of land must utilize only clean fill
  - Other materials may be considered solid waste and requires permit approval with local health department prior to filling
  - Contact local health department or Ecology for proper management of these materials
- Water Quality/Watershed Resources Unit
  - Erosion control measures must be in place prior to any clearing, grading, or construction.
  - Control measures must effectively prevent stormwater runoff from carrying soil and other pollutants into surface water or storm drains leading to waters of the state.
  - Any discharge of sediment-laden runoff or other pollutants to waters of the state is in violation of Chapter 90.48 RCW and WAC 173-201A and is subject to enforcement.
  - Construction activities require coverage under the Construction Stormwater General Permit
- If there are known soil/ground water contaminants present on-site, additional information will be required to be submitted
- Sites that discharge to waterbodies segments listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, or phosphorous, or to waterbodies covered by a total maximum daily load (TMDL) may need to meet additional sampling and record keeping requirements.

Response: The applicant has provided a geotechnical report, a preliminary technical information report, and preliminary grading and erosion control plan for review. Section III.F addresses public works and engineering comments for the site and includes conditions of approval regarding solid waste management, toxics cleanup, and water quality prior to final engineering approval. The Applicant will be conditioned to follow on-site BMPs, including field sampling, in compliance with Ecology comments.

III.C Key Issues

The relevant issues to consider for a successful public hearing review include:

1. **Lot Dimensions:** The applicant is proposing two flag lots in the preliminary plat. Flag lots are discouraged, however, not outright prohibited if they meet the requirements of LCMC 18.210.040(3). The applicant is meeting these requirements as discussed in 18.210.040(3). The code provides no further requirements on applicants to demonstrate that they have minimized the number of flag lots. Staff believes the provision of two flag lots is reasonable.
2. **Critical Areas (Geological Hazards):** Clark County MapsOnline and the submitted geotechnical report indicate the site is classified as Site Class D for ground shaking amplification which is a regulated critical area under LCMC 18.300.030 and 18.300.090(4). Staff are recommending approval of a critical areas permit for development within the seismic hazard and the applicant is conditioned to implement the requirements of the geotechnical report by True North Geotechnical. (Exhibit A.K).

3. **Tree preservation:** The applicant provided an inventory of trees indicating health conditions and those for removal with an onsite tree planting plan that exceeds mitigation requirements. The applicant also provided a tree protection plan showing trees to be removed in relation to project improvements as required by LCMC 18.350. Staff have identified one tree that has an opportunity to be preserved as further discussed in this staff report and is conditioning the applicant to conduct additional analysis to identify whether the tree can be preserved.
4. **Historic preservation:** The submitted archeological predetermination survey (Exhibit A.N) indicates that the existing structures on the site are older than 45-years and meet registration requirements for listing on the National Register of Historic Places (NRHP). The applicant is conditioned to complete an additional assessment of these buildings by an architectural historian assessing impacts and potential mitigations for these buildings. The City of La Center does not have code which protects historic structures and the structures are not listed on any local, state, or national historic register currently, however, the applicant is conditioned with mitigations by the SEPA predetermination process, including the historic structures (see LCMC 18.310). The applicant is consulting with an architectural historian for these structures. The preliminary report by the architectural historian (Exhibit A.N) indicates that additional cultural resource work is not required and it's not expected that retention of any of these buildings will be required, however, mitigation measures are to be provided and conditioned for the demolition of these structures. Should the forthcoming assessment by an architectural historian or concurrent review of the assessment by a qualified professional determine that one or more of the buildings should be preserved, the City may, but is not obligated, to require that the applicant apply for and receive approval of a post decision review application of the preliminary plat approval that redesigns the site to accommodate the buildings to be preserved. If building preservation is determined to by appropriate by the City and a qualified professional, the City will amend this SEPA MDNS and reissue it for notice and determination.

III.D Land Use Analysis

LCMC 8.60 Sign Requirements

No entry monument signs are proposed with the preliminary development plans. Signs in residential zones, per LCMC 8.60.060, are limited to an illuminated sign at the entrance to the subdivision of 32 square feet.

As **a condition of approval**, the applicant shall apply for and receive approval of a sign permit and building permit (if applicable) for a subdivision entrance sign prior to sign construction in accordance with LCMC 8.60.

LCMC Title 18, Development Code.

LCMC 18.30 Procedures

A preliminary plat is subject to pre-application review (LCMC 18.210.010). A technically complete review of a plat application is subject to a Type I process. After a preliminary subdivision application is deemed to be technically complete, the review of the application for a preliminary plat approval is subject to a Type III review process (LCMC 18.210.020) with the City's hearing examiner making the final decision.

The City conducted a pre-application conference for the proposed project on April 27, 2022 (2022-014-PAC). The City received an application for preliminary plat on September 26, 2022. The City found the application "technically complete" on November 2, 2022. Type III applications are required to have a public hearing within 78 days after the application is deemed complete. The La Center Hearing Examiner will consider the preliminary plat application on January 5, 2022 at La Center City Hall beginning at 5:30 PM – 64 days after the application was deemed complete.

The City publicly noticed the application on November 16, 2022 for 14 days and received one comment (see section III.B of this staff report). The City published the staff report on December 29, 2022, seven days before the public hearing. Public hearings shall be conducted in accordance with the rules of procedure adopted by the hearings examiner. Public comments may be submitted either prior to or during the public hearing in writing or orally during the hearing. The City has not received any additional public comments on the proposal at the time of publication of this staff report.

LCMC 18.130 (Low Density Residential District)

The applicant is proposing 34 lots for detached single-family residences. Detached single-family dwellings are a permitted use in the LDR-7.5 zone (LCMC 18.130.030). Buildings are limited to 35 feet in height. The applicant isn't proposing buildings at this time. A condition of approval will require that building height be met at time of building permit issuance. The applicant is proposing a number of lots which falls within the density requirements of the LDR-7.5 zone which requires a minimum of four dwelling units per net acre. A net acre is defined to exclude public rights-of-way, private streets, public utility easements, public parks, and undeveloped critical areas and required buffers. The gross site area is 8.64 acres. Rights-of-way total 2.02 acres resulting in a net acreage of 6.62 acres. With 34 proposed lots, the applicant is providing 5.14 units per net acre meeting the minimum density requirements of the zone.

Lots within the LDR-7.5 zone must be a minimum of 7,500 square feet and a maximum of 11,000 square feet. All lots fall within the minimum and maximum lot size requirements of the code. Maximum building lot coverage and maximum impervious surface area are 35 percent and 50 percent, respectively, in the LDR-7.5 zone. Since no buildings are proposed at this time, a condition of approval will require that each lot to not exceed the maximum building lot coverage and maximum impervious surface area prior to issuance of building permits. The following table highlights the required lot dimensions and setback standards for the LDR-7.5 zone.

Table 18.130.080
– Lot Coverage and Dimensions (feet)

District	*Minimum Lot Width*	*Minimum Lot Depth*	*Minimum Front Yard Setback*	*Minimum Side Yard Setback*	*Minimum Street Side Yard Setback*	*Minimum Rear Yard*
LDR-7.5	60	90	20	7.5	10	20

All lots will meet the minimum dimensional requirements of the zone. However, two flag lots are proposed that must meet the minimum dimensional requirements of LCMC 18.130.080 and LCMC 18.210.040(3), discussed later in this staff report in response to Section 18.210.040(3) of the LCMCXX.
LCMC 18.130.100 states that developments in the LDR-7.5 zone must provide street trees spaced 30 feet on center in planter strips along each street frontage. Type, location, and planting method shall be

approved by the public works director. The applicant's preliminary plat (Exhibit A.E) shows street trees on all street frontages and meeting the spacing requirement. A condition of approval will require that, prior to engineering approval, the applicant provide a final landscape plan by a registered landscaped architect with street trees spaced no greater than 30 feet on center with planting methods specified for these trees.

As **a condition of approval**, the applicant shall demonstrate that building height requirements are met prior to issuance of a building permit for each lot.

As **a condition of approval**, the applicant shall demonstrate that the maximum building lot coverage and maximum impervious surface area requirements per lot are met prior to issuance of a building permits.

As **a condition of approval**, prior to engineering approval, the applicant shall provide a final landscape plan by a registered landscape architect with street trees spaced no greater than 30 feet on center.

LCMC 18.147 Parks and Open Spaces

According to LCMC 18.147.020(1)(a), any development in an LDR-7.5 zoning district that includes 40 or more dwelling units must dedicate or develop parkland, open space, and/or trails. As this project has a total of 34 lots, the project is not required to provide park land, open space, and/or trails.

LCMC 18.210 Subdivisions

LCMC 18.210.040 Approval criteria for a preliminary plat.

(1) The review authority shall approve a preliminary plat if he or she finds:

(a) The applicant has sustained the burden of proving that the application complies with the following regulations of the La Center Municipal Code to the extent relevant:

(i) Chapter 12.05 LCMC, Sidewalks, and Chapter 12.10 LCMC, Public and Private Road Standards;

(ii) Chapter 18.300 LCMC, Critical Areas;

(iii) Chapter 18.310 LCMC, Environmental Policy;

(iv) Chapter 18.320 LCMC, Stormwater and Erosion Control;

(v) Chapter 15.05 LCMC, Building Code and Specialty Codes;

(vi) Chapter 15.35 LCMC, School Impact Fees; and

(vii) LCMC Title 18, Development Code.

(b) That the application can comply with those regulations by complying with certain conditions of approval, and those conditions are adopted; or that necessary adjustments, exceptions, modifications or variations have been approved or are required to be approved before the final plat is approved;

(c) The subdivision makes appropriate provision for parks, trails, potable water supplies and disposal of sanitary wastes; and

(d) The subdivision complies with Chapter 58.17 RCW.

Refer to the appropriate sections in this staff report that address the aforementioned chapters of the LCMC. Conditions of approval are outlined throughout the document and listed in Section IV of this staff report. A condition of approval requires that the applicant shall submit engineering, construction, final plat, and building permit documents in compliance with the preliminary plat documents that include provisions for potable water supplies and disposal of sanitary wastes. Parks and trails are not provided with the proposal nor required. A condition of approval will require that, prior to construction, the

applicant obtain building permits in compliance with LCMC 15.05. A condition of approval will also require that the applicant pay all system development fees and park, traffic, and school impact fees in effect at the time of the building permit issuance.

As **a condition of approval**, the applicant shall submit engineering, construction, final plat, and building permit documents in compliance with the preliminary plat documents unless otherwise modified by conditions of approval in this staff report or as approved by the City through subsequent approvals.

As **a condition of approval**, the applicant shall obtain building permits in compliance with LCMC 15.05 prior to construction.

As **a condition of approval**, prior to the issuance of occupancy, the applicant shall pay all system development fees, park, school, and traffic impact fees in effect at the time.

LCMC 18.210.040(2)

If phases are proposed, the subdivision also complies with the following:

- *(a) The preliminary plat identifies the boundaries of each phase and sequence of phases;*
- *(b) Each phase includes open space and other required public and/or private infrastructure at least in proportion to the number of lots in each phase;*
- *(c) The sequence and timing of phases maintains compliance with applicable standards throughout the development of the subdivision; and*
- *(d) The applicant completes or assures completion of public improvements consistent with LCMC 18.210.090.*

The applicant is not proposing to develop this site in multiple phases as this is to be entirely developed at once.

LCMC 18.210.040(3)

Flag lots are discouraged. When allowed, flag lots shall comply with the following standards:

- *(a) The flag "pole" shall be at least 20 feet wide instead of the frontage regulations of the zone.*
- *(b) The flag "pole" shall be improved with an all-weather surface with an unobstructed vertical clearance of at least 13 feet, six inches. The improved surface shall be at least 20 feet wide and shall be marked and signed as a fire lane.*
- *(c) The pole portion of the flag lot shall not be counted toward the minimum lot size.*
- *(d) If the length of the pole is more than 150 feet, an approved turn-around in conformance with the current adopted edition of the International Fire Code shall be provided at the end of the driveway, and structures on the lot shall incorporate a fire-hazard warning, including a hard-wired, back-up smoke detector, and a sprinkler system.*

Lots 20 and 21 are proposed flag lots in the development. The flag "pole" of both lots is 20-feet-wide along the public right-of-way frontage, meeting this requirement. The applicant states in their narrative that they will comply with the improved surface standards but did not provide preliminary improvement plans. A condition of approval will require the applicant to provide improved surface plans for all flag lots in accordance with LCMC 18.210.040(3)(b) in the final approved engineering plans. When excluding the "pole" portion of the flag lots, both lots are 9,082 square feet, exceeding the minimum lot size

requirement of LCMC 18.130.080. The length of the "pole" for both lots is 104 feet and does not exceed the 150-foot International Fire Code threshold.

As **a condition of approval**, the applicant shall provide improved surface plans for all flag lots in accordance with LCMC 18.210.040(3)(b) in the final engineering plans.

LCMC 18.210.050 Expiration and extension of preliminary plat approval.
(1) Approval of a preliminary plat expires five years from the effective date of the decision approving it unless, within that time, an applicant files with the city clerk an application for a final plat for a subdivision or given phases of a subdivision or for an extension.

As a **condition of approval,** the preliminary plat shall expire five years from the date of approval by the hearing examiner, unless an application for final plat is submitted or an extension is approved per LCMC 18.210.050(2) and (3).

LCMC 18.225 Legal Lot Determinations

According to LCMC 18.225.010(2), the legal lot determination standards apply to all subdivision applications. Per 18.225.010(3)(a), the lot of record status may be formally determined as part of a development request for parcels that are not part of a platted land division and shall be reviewed by the City for compliance with the criteria standards of this section.

(4) Application and Submittal Requirements. The following shall be submitted with all applications for lot determination, or applications for other development review in which a lot determination is involved. Applicants are encouraged to submit material as necessary to demonstrate compliance with this section:

(a) Prior city/county short plat, subdivision, lot determination or other written approvals, if any, in which the parcel was formally created or determined to be a lot of record;
(b) Sales or transfer deed history dating back to 1969;
(c) Prior segregation request, if any;
(d) Prior recorded survey, if any;
(e) At the discretion of the applicant, any other information demonstrating compliance with criteria of this section.

(5) Approval Criteria.

(a) Basic Criteria. Parcels which meet both of the following basic criteria are lots of record.
(i) Zoning. The parcel meets minimum zoning requirements, including lot size, dimensions and frontage width, in effect current or at the time the parcel was created; and
(ii) Platting
(C) Prior Determination. Parcels which have been recognized through a previous lot determination review, or other city planning approval in which lot recognition is made, are lots of record. Such parcels shall remain lots of record until changed by action of the owner.

The subject site is comprised of one tax lot that is 8.64 acres in the LDR-7.5 zone and meets the minimum dimensional requirements of the zone. This lot was created by an approved Clark County short plat in 2009 (Perrott Short Plat; Book 3, Page 905). Later the City approved a boundary line adjustment application in 2016 (File No. 2016-022-BLA). Therefore, this lot is a legal lot of record.

LCMC 18.230 Monumentation, Survey, and Drafting Standards

- *18.230.010 Imprinted Monumentation*
- *18.230.020 Centerline Monumentation*
- *18.230.030 Property Line Monumentation*
- *18.230.040 Postmonumentation*
- *18.230.050 Postmonumentation Bonds*
- *18.230.060 Survey Standards*
- *18.230.070 Elevations or Vertical Information*
- *18.230.080 Preferred Scale Proportions*

All sections apply to the applicant's development.

As a **condition of approval**, the applicant shall comply with all provisions regarding monumentation outlined in Chapter 18.230 prior to final plat approval.

As a **condition of approval**, as outlined in LCMC 18.230.090, the final plat shall be drawn with ink upon three-millimeter Mylar film, or equivalent; said sheets are to be 30 inches by 21 inches, with a one-inch border on each side or as otherwise directed by the Clark County recording agency.

LCMC 18.240 Mitigation of Adverse Impacts

Chapter 18.240.010 Purpose

This chapter provides the City with the authority to require prospective developers to mitigate the direct impacts the City has specifically identified as a consequence of proposed development, and to make provisions for mitigation for impacts including, but not limited to, impacts upon the public health, safety and general welfare, for open spaces, drainage ways, streets, other public ways, parks, playgrounds, and sites for schools and school grounds.

LCMC 18.240.020 Determination of Direct Impacts

(1) Before any development is given the required approval or is permitted to proceed, the review authority shall determine all impacts, if any, that are a direct consequence of the proposed development and which require mitigation, considering but not limited to the following factors:

(a) Predevelopment versus post development demands upon city streets, drainage facilities, parks, playgrounds, recreation facilities, schools, police services, and other municipal facilities or services;

(b) Likelihood that a direct impact of a proposed development would require mitigation due to the cumulative effect of such impact when aggregated with the similar impacts of future development in the immediate vicinity of the proposed development;

(c) Size, number, condition and proximity of existing facilities to be affected by the proposed development;

(d) Nature and quantity of capital improvements reasonably necessary to mitigate specific direct impacts identified as a consequence of the proposed development;

(e) Likelihood that the users of the proposed development will benefit from any mitigating capital improvements;

(f) Any significant adverse environmental impacts of the proposed development;

(g) Consistency with the city's comprehensive plan;

(h) Likelihood of city growth by annexation into areas immediately adjacent to the proposed development;

(i) Appropriateness of financing necessary capital improvements by means of local improvement districts;

(j) Whether the designated capital improvement furthers the public health, safety or general welfare;

(k) Any other facts deemed by the review authority to be relevant.

(2) The cost of any investigations, analysis or reports necessary for a determination of direct impact shall be borne by the applicant. [Ord. 2006-17 § 1, 2006.]

LCMC 18.240.030 Mitigation of Direct Impacts

(1) The review authority shall review an applicant's proposal for mitigating any identified direct impacts and determine whether such proposal is an acceptable mitigation measure considering the cost and land requirements of the required improvement and the extent to which the necessity for the improvement is attributable to the direct impacts of the proposed development. Such developments will not be approved by the review authority until provisions have been made to mitigate identified direct impacts that are consequences of such development.

(2) The methods of mitigating identified direct impacts required as a condition to any development approval may include, but are not limited to, dedication of land to any public body and/or off-site improvements.

The proposed project has the potential to impact public services, traffic, critical areas, and other elements of the environment. Mitigations proposed by the applicant are reviewed in this staff report for conformance with applicable standards and any additional mitigations and conditions addressing said impacts are highlighted throughout this report. How the project impacts public facilities and mitigations to these impacts are addressed in the following sections of this staff report.

- **Critical Areas:** Section III.E, 18.300
- **Trees:** Section III.E, 18.350
- **Archaeological Resources and Historic Structures:** Section III.E, 18.360
- **Sewer:** Section III.F
- **Water:** Section III.F
- **Stormwater:** Section III.F
- **Streets, sidewalks, and traffic:** Section III.F
- **Police, fire, and schools:** Section III.F
- **Street lighting:** Section III.F
- **Impact fees:** Section III.F

LCMC *18.245 Supplementary Development Standards*

The standards in this chapter apply to development generally within the city of La Center. They can be used in any review process where applicable to evaluate or condition approval of an application.

According to the submitted narrative and preliminary plat, the development will conform to the fencing standards of 18.245.020, including Tract A, which contains the stormwater facility and will be fenced. As a **condition of approval**, if any fences or hedges are proposed prior to the final plat, the applicant must provide information demonstrating that the fences comply with LCMC 18.245.020.

The applicant is proposing street lighting with the project but has not submitted a preliminary lighting plan. LCMC 18.282 (Outdoor Lighting) also applies to the development as discussed and conditioned later in this staff report. **As a condition of approval**, the applicant shall provide a photometric plan prior to final engineering plan approval showing how the proposed lights will not cause more than a one foot-candle measure at any property line in conformance with 18.245.040 and LCMC 18.282.

The site is zoned LDR-7.5. Properties directly abutting the site to the south and west are zoned LRD-7.5. Properties to the north across Northeast 339th Street are zoned R-6 and AG-20 and properties to the east across Northeast 24th Ave are zoned AG-20 in Clark County. According to Table 18.245.060, LDR sites abutting Clark County lots and abutting other LDR sites do not require any landscape screening.

LCMC 18.245.060(8) requires that ground-level exterior equipment be screened from adjoining property used or zoned for residential purposes or from an adjoining public road right-of way to at least an F2 or L3 standard, if visible. A **condition of approval** will require this be met.

LCMC 18.245.060(10) requires all landscaping be installed prior to issuance of occupancy or final inspection within six months after issuance of occupancy or final inspection if it would increase the likely survival of plants. A **condition of approval** will require this be met.

LCMC 18.245.060(11-16) contain plant material size and quality requirements. The applicant's final landscape plan must comply with these requirements.

LCMC 18.245.060(18) contains irrigation requirements. All required landscape areas including within the planter strip along public roadways must meet the City's irrigation requirements.

As **a condition of approval**, the applicant shall provide a photometric plan prior to final engineering plan approval showing how the proposed lights will not cause more than a one foot-candle measure at any property line in conformance with 18.245.040 and LCMC 18.282.

As **a condition of approval**, ground-level exterior equipment such as air condition units, must be screened from view to an F2 or L3 standard prior to issuance of final inspection for each dwelling unit.

As **a condition of approval**, the applicant shall install all landscaping prior to issuance of final inspection for each dwelling unit or no more than six months after final inspection if it will increase plant survival. Installation after occupancy requires City notification and approval.

As **a condition of approval**, the applicant's final landscape plan shall comply with the requirements of LCMC 18.245.060(11-16) for plant size and spacing prior to issuance of final inspection for each dwelling unit.

As **a condition of approval**, all required landscape areas including within the planter strip along public roadways must meet the City's irrigation requirements in LCMC 18.245.060(18). The applicant shall provide irrigation plans prior to final engineering approval.

LCMC 18.280 Off-Street Parking and Loading Requirements

Each dwelling unit shall be provided with at least two (2) off-street parking spaces and one (1) guest parking space per LCMC Table 18.280.010 for developments of four or more units. The parking spaces shall be within the 20-foot required garage setback.

The narrative states that each dwelling unit will provide at least two driveway parking spaces and two garage parking spaces for a total of 4 parking spaces per dwelling unit, exceeding the minimum parking requirements. Additionally, as indicated by the narrative, most, if not all, the lots will provide three driveway and three garage parking spaces.

As a **condition of approval**, the applicant shall demonstrate that each dwelling unit has at least two (2) off-street parking spaces and one (1) guest parking space per LCMC Table 18.280.010 prior to building permit approval. Parking spaces shall be within the 20-foot required garage setback.

III.E Critical Areas Review / SEPA Analysis

LCMC 18.300 Critical Areas

Mapped critical areas on the site include category II critical aquifer recharge areas (CARAs), fish and wildlife habitat conservation areas (stream and riparian habitat), and a seismic hazards area. The mapped fish and wildlife habitat conservation areas on the site do not exist and are not subject to critical areas review.

- **Fish and wildlife habitat conservation areas (stream and riparian habitat):** The Washington Department of Natural Resources and Clark County map a non-fish bearing stream (Type N) at the far northwestern corner of the site and Clark County shows an area of potential riparian habitat around this stream. However, the applicant's critical areas technical memorandum (Exhibit A.J) indicates that the onsite portion of the stream and riparian habitat is incorrectly mapped and does not exist. No indicators of wetland hydrology, streams, or riparian habitat were observed on the site. Staff agree that this does not qualify as riparian habitat or as a critical area.
- **CARAs:** Although category II CARAs are mapped critical areas, LCMC 18.300.090(1) only protects category I CARAs.
- **Geological hazard areas (seismic hazard):** ClarkCounty Maps Online and the submitted geotechnical report indicate the site as having National Earthquake Hazards Reduction Program (NEHRP) site class "D" soils for ground shaking amplification.

Therefore, the only critical areas onsite are geologically hazardous areas.

LCMC 18.300.090(4) Geologically Hazardous Areas

(b) Exempt, Prohibited, and Permitted Activities in Geologically Hazardous Areas

(i) Alterations. In the limited instances when development in geologically hazardous area is permitted, it shall meet all applicable provisions of this section as determined by the review authority prior to issuance of a critical areas permit. Alterations of geologically hazardous areas or associated buffers may occur only for activities that:

(A) Will not increase the threat of the geologic hazard to adjacent properties beyond predevelopment conditions;

(B) Will not impact other critical areas adversely;

(C) Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than predevelopment conditions; and

(D) Are recommend by a qualified professional in a signed and stamped geotechnical report.

(f) Design Standards – Seismic Hazard Areas. Development proposed in seismic hazard areas shall conform to the applicable provisions of the International Building Code concerning structural standards and safeguards to reduce risks from seismic activity.

As indicated on Clark County MapsOnline and supported in the geotechnical report (Exhibit A.K) provided by the applicant, the site is classified as Site Class D for ground shaking amplification, a seismic hazard area (LCMC 18.300.030(70), which is a type of regulated critical area. The submitted geotechnical report states that the site is suitable for the proposed development provided the recommendations of the report are included in the project design and implemented in the construction. This will ensure that the development will not increase the threat of the geologic hazard to adjacent properties and other critical areas (if applicable, not in this case) and it is designed that the hazard to the project is mitigated to a level equal to or less than predevelopment conditions. Recommendations are by a qualified professional in a signed and stamped geotechnical report. A condition of approval will require that the applicant adhere to all recommendations in conformance with LCMC 18.300.090(b & f) contained with the geotechnical report by True North Geotechnical, dated August 8, 2022 (Exhibit A.K).

As **a condition of approval**, the applicant shall adhere to all recommendations contained in the geotechnical report by Soil and Water Technologies, Inc. dated August 8, 2022 (Exhibit A.K).

LCMC 18.310 LCMC Environmental Policy

The Applicant provided a SEPA Checklist. The City reviewed the checklist and relevant materials, including an archaeological pre-determination report, and the Responsible Official issued an optional Mitigated Determination of Non-Significance (MDNS) Threshold Determination in conformance with Washington Administrative Code 197-11-355 on November 16, 2022. The City published notice of the MDNS in Ecology SEPA Register and issued a final SEPA determination on December 21, 2022, at least 15-days prior the public hearing as required by WAC 197-11-310. Proposed mitigation measures under SEPA are as follows:

1. General: The applicant shall abide by the requirements in the comment letter from the Washington Department of Ecology dated November 30, 2022.
2. Earth: The applicant must comply with the design recommendations of the geotechnical site investigation by True Geotechnical Services dated August 8, 2022.
3. Air: The applicant is required to apply best management practices to reduce dust during construction
4. Air: Construction equipment shall not be permitted to idle and is required to be shut off while not in use.
5. Water: The applicant shall decommission the existing private well prior to ground disturbance in accordance with Clark County and State of Washington requirements and must provide evidence of the approval and decommissioning in accordance with agency requirements.
6. Water: The applicant must use approved erosion control best management practices during construction in compliance with LCMC 18.320 and the final approved stormwater technical information report.
7. Plants: The applicant shall provide mitigation required by LCMC 18.350 for all trees on-site of 10 inches diameter at breast height (dbh) or greater as inventoried by Arborscape Ltd, Inc dated

October 27, 2022. All proposed street trees are to be planted thirty feet apart at center or as approved by the Public Works Director to accommodate driveways, utilities, and other required improvements.

8. Environmental Health: The applicant shall complete a phase 1 environmental site assessment prior to ground disturbance to document any potential contamination and implement any recommendations of this report.
9. Environmental Health: The applicant shall comply with approved construction hours as required by the City of La Center.
10. Environmental Health. The applicant shall decommission the existing septic system prior to construction in accordance with Clark County requirements.
11. Light and Glare: The applicant shall comply with the requirements of LCMC 18.282 (Outdoor Lighting).
12. Recreation: The applicant is required to pay park impact fees prior to issuance of building permits.
13. Historic and cultural preservation: Existing buildings on the site are 45 years of age or older and meet registration requirements for listing on the National Register of Historic Places (NRHP). The applicant shall complete an additional assessment of these buildings by an architectural historian assessing impacts and potential mitigations for these buildings as recommended by the Clark County Archaeological Predetermination Survey for the Valley View Subdivision (June 20, 2022). A preliminary assessment and mitigation strategy is provided by Applied Archaeological Research, Inc. and dated December 16, 2022. This assessment and mitigation strategy shall be completed prior to final engineering approval. Should the forthcoming assessment by an architectural historian or concurrent review of the assessment by a qualified professional determine that one or more of the buildings should be preserved, the City may, but is not obligated, to require that the applicant apply for and receive approval of a post decision review application of the preliminary plat approval that redesigns the site to accommodate the buildings to be preserved. If building preservation is determined to by appropriate by the City and a qualified professional, the City will amend this SEPA MDNS and reissue it for notice and determination.
14. Historic and cultural preservation: In the event any archaeological or historic materials are encountered during project activity, work in the immediate area (initially allowing for a 100' buffer; this number may vary by circumstance) must stop and the following actions taken:
    (a) Implement reasonable measures to protect the discovery site, including any appropriate stabilization or covering;
    (b) Take reasonable steps to ensure confidentiality of the discovery site; and,
    (c) Take reasonable steps to restrict access to the site of discovery.

    The applicant shall notify the concerned Tribes and all appropriate county, city, state, and federal agencies, including the Washington Department of Archaeology and Historic Preservation and the City of La Center. The agencies and Tribe(s) will discuss possible measures to remove or avoid cultural material and will reach an agreement with the applicant regarding actions to be taken and disposition of material. If human remains are uncovered, appropriate law enforcement agencies shall be notified first, and the above steps followed. If the remains are determined to be Native, consultation with the affected Tribes will take place in order to mitigate the final disposition of said remains.

See the Revised Code of Washington, Chapter 27.53, "Archaeological Sites and Resources," for applicable state laws and statutes. See also Washington State Executive Order 05-05, "Archaeological and Cultural Resources." Additional state and federal law(s) may also apply.

Copies of the above inadvertent discovery language shall be retained on-site while project activity is underway.

Contact	Information
Cowlitz Indian Tribe, Nathan Reynolds, Interim Cultural Resources Manager	Phone: 360-575-6226; email: nreynolds@cowlitz.org
City of La Center, Bryan Kast, Public Works Director	Phone: 360-263-2889; email: bkast@ci.lacenter.wa.us
Office of the Clark County Medical Examiner (for human remains)	Phone: 564-397-8405; email: medical.examiner@clark.wa.gov
Washington DAHP, Dr. Allison Brooks, Ph.D, Director	Phone: 360-586-3066; email: Allyson.Brooks@dahp.wa.gov

15. Transportation: The applicant shall comply with the recommendations of the Traffic Analysis Report (Lancaster Mobley, September 20, 2022).
16. Transportation: The applicant is required to pay transportation impact fees prior to issuance of building permits.
17. Utilities: The applicant is required to pay sewer system development charges prior to issuance of building permits.

LCMC 18.340 Native Plant List

Findings: All property owners throughout the city are required to avoid the use of plants from the nuisance plan list and shall not landscape with any plants on the prohibited plant list. The applicant's preliminary landscape plan (Exhibit T) does not include any nuisance or prohibited species.

As a **condition of approval**, the final Landscape Plan, once submitted, shall avoid the use of plants from the nuisance plant list and the prohibited plants list per Table 18.340.040(3) and Table 18.340.040(4).

LCMC 18.350 Tree Protection

Findings: The applicant provided an existing tree inventory for the site. There are seventy existing trees on the site. The applicant states in the narrative with a supporting tree inventory and survey map that all identified trees are to be removed due to the following reasons: to accommodate the development's site improvements such as grading, roads and buildings; to remove trees on the nuisance species list (English holly and Norway maple) per LCMC Table 18.340.040(3); and/or to remove trees with deteriorating health. There are 51 existing trees with a dbh of ten inches or greater. LCMC 18.350.050 requires each removed tree of ten inches dbh or greater to be mitigated through onsite or offsite planting or payment of a fee in-lieu. The applicant is proposing to plant 147 street trees at the minimum standard size as prescribed in LCMC 18.350.050(1), exceeding the minimum mitigation requirement.

The purpose of tree preservation per LCMC 18.350.010 is to preserve the wooded character of the city and protect trees as a natural resource. Staff have identified one tree (a 40-inch diameter sequoia

identified by the applicant as T-43 located on proposed Lot 4) that may have the opportunity to be preserved. This tree is in an area where there is to be minimal impacts from grading, right-of-way improvements, buildings, and other development-related improvements. Large growth trees have significant ecological functions and cultural importance that cannot be replaced in the short-term.

The following is the Staff's findings to tree cutting approval criteria as outlined in LCMC 18.350.080.

(1) Removal of the tree will not have a significant negative impact on erosion, soil stability, flow of surface waters, protection of adjacent trees, or existing wetlands.

Findings: Staff agrees these trees, except the 40-inch sequoia identified for potential preservation per above, are in areas to be improved for roads, utilities, and future homes. These areas will have approved erosion control plans, stormwater facilities, and improvement plans to reduce negative impacts to erosion, soil stability, and flow of surface waters. Any trees proposed for removal shall be identified on the tree protection plan and shall be flagged in the field consistent with LCMC 18.350.060 so that the City can verify trees to be removed and preserved consistent with 18.350.070(3). In addition, the applicant shall install construction fencing at the dripline of the tree that is determined to be preserved, so it is not inadvertently removed, and grading does not occur within its root zones.

(2) Removal of the tree is not for the sole purpose of providing or enhancing views.

Findings: Staff agrees the applicant's intent is to not remove trees for the sole purpose of providing or enhancing views as the applicant's intent is discussed in the previous criterion.

(3) The tree is proposed for removal for landscaping purposes or in order to construct development approved or allowed pursuant to La Center Municipal Code or other applicable development regulations. The city planner may require the building footprint of the development to be staked to allow for accurate verification of the permit application.

Findings: Staff finds that the tree removal is to construct the proposed development, pending its approval, with the exception of the 40-inch sequoia which does not appear to conflict with proposed development or grading.

(4) Removal of the tree will not have a significant negative impact on the character, aesthetics, or property values of the neighborhood. The City may grant an exception to this criterion when alternatives to the tree removal have been considered and no reasonable alternative exist to allow the property to be used as permitted in the zone. In making this determination, the city may consider alternative site plans or placement of structures or alternate landscaping designs that would lessen the impact on trees, so long as the alternatives continue to comply with other provisions of the La Center Municipal Code.

Findings: It is supported by Staff that tree removal for nearly all the trees will not have a significant negative impact on the character, aesthetic, or property values of the neighborhood as well as the

additional roadway safety measures discussed by the Applicant. The project will provide 147 street trees and potentially preserve other trees that will aesthetically contribute to the neighborhood.

The 40-inch sequoia tree (T-43) has the potential to be preserved and does not appear to conflict with proposed development or grading. The applicant provided a letter from an arborist dated December 15, 2022 (Exhibit A.R) that states that the tree needs to be removed due to development activities with no analysis of whether the improvements could be altered or if there are other design alternatives to preserve the tree. The criterion above allows the City to require an alternatives analysis showing that no reasonable alternative exists to preserve the tree and comply with the City's other code standards. A condition of approval will require the applicant provide a site design alternatives analysis to explore how the tree could be preserved or document reasons why it cannot be preserved.

(5) The city shall require the applicant to mitigate for the removal of each tree pursuant to LCMC 18.350.050. Such mitigation requirements shall be a condition of approval of the permit.

Findings: Staff finds that the Applicant's proposal is exceeding the tree mitigation requirements of LCMC 18.350.050 and shall condition the approval of the permit to provide this mitigation.

Staff has determined, per the above responses to the approval criteria and the provided submittal materials, a recommendation for approval for the tree cutting permit with conditions as listed below.

As **a condition of approval**, any trees proposed for removal shall be identified on the plan and shall be flagged in the field consistent with LCMC 18.350.060 so that the City can verify trees to be removed and preserved consistent with 18.350.070(3). In addition, if the identified sequoia tree for preservation is found to be eligible, the applicant shall install construction fencing around the driplines of the tree, so it is not inadvertently removed, and grading does not occur within its root zone.

As **a condition of approval**, prior to engineering document approval, the applicant shall provide a site design alternatives analysis to explore ways to preserve the 40-inch sequoia tree on the site or document reasons why there is no alternative site design that could preserve the tree. Alternative site designs shall comply with the preliminary plat approval and conditions of approval.

As a **condition of approval,** trees regulated by chapter 18.350 that are proposed to be removed shall be mitigated consistent with LCMC 18.350.

LCMC 18.360 Archeological Resource Protection

Response: According to the Clark County Maps Online archaeological predictive model, the subject site is located in areas containing a moderate-high risk of encountering archaeological resources. Per 18.360.030(12), an archeological predetermination is required for projects which will have a high impact defined to include excavation of 12 inches below the ground surface and more than 10,000 square feet in moderate-high risk areas. The applicant's proposal will include excavation of more than 12 inches below grade for construction of roads and utilities which exceed 10,000 square feet in area and for grading on some areas of the site. Therefore, an archeological predetermination is required for the proposed project.

An archeological predetermination report was completed by Applied Archaeological Research, Inc and included in the submittal package. Applied Archaeological Research, Inc. has found that the existing building on the site are 45 years of age or older and meet the registration requirements for listing on the NHRP. The report recommends that the proposed impacts to the existing buildings must be assessed and mitigated. Also, there is always a possibility that an archaeological resource may be discovered during development activity on site, therefore, an inadvertent discovery plan must be in place during construction.

A SEPA mitigation measure requires the applicant to complete an additional assessment of these buildings by an architectural historian assessing impacts and potential mitigations for these buildings as recommended by Applied Archaeological Research, Inc.

A SEPA mitigation measure requires the applicant implement an inadvertent discovery plan.

Based off the information included in the submitted archeological predetermination, staff concludes that an archeological resource survey, as detailed in LCMC 18.360.090, is not required for the proposed project. However, the applicant shall provide a report by an architectural historian that assesses the impacts and potential mitigations for the existing buildings on the site. A preliminary assessment and mitigation strategy is provided by Applied Archaeological Research, Inc. and dated December 16, 2022 (Exhibit X). This assessment and mitigation strategy shall be completed prior to final engineering approval. Should the forthcoming assessment by an architectural historian or concurrent review of the assessment by a qualified professional determine that one or more of the buildings should be preserved, the City may, but is not obligated, to require that the applicant apply for and receive approval of a post decision review application of the preliminary plat approval that redesigns the site to accommodate the buildings to be preserved. If building preservation is determined to by appropriate by the City and a qualified professional, the City will amend this SEPA MDNS and reissue it for notice and determination.

See Section IV for a condition of approval regarding inadvertent discovery of archeological or historical materials during project construction.

III.F Public Works and Engineering Analysis

Chapter 12.05 LCMC, Sidewalks' Chapter 12.10 LCMC, Public and Private Road Standards; Chapter 18.320 LCMC, Stormwater and Erosion Control; and Chapter 15.05 LCMC, Building Code and Specialty Codes, Chapter 15.35 LCMC, School Impact Fees;

LCMC: 3.35 Impact Fees;

Per LCMC 3.35, impact fees will be collected for traffic, sewer, park and school impacts.
These fees will be imposed at the time when building permits are issued.

Chapter 12.10 -- Public and Private Road Standards

Findings: *City of La Center Engineering Standards for Construction* shall apply to all public road improvements unless modified by the director.

NE 339th Street is classified as a Major Collector per the Capital Facilities Plan. The Rural Major Collector per the Engineering Standards consists of a 40-feet wide paved road. General roadway and right-of-way standards shall apply providing half street improvements per LCMC 12.10.090.

East 24th Avenue is classified as a Minor Collector per the updated Capital Facilities Plan. The city has designated E. 24th Avenue as a Rural Minor Collector per the Engineering Standards. General roadway and right-of-way standards shall apply and provide half street improvements per LCMC 12.10.090. The entire road section of E. 24th Avenue is subsiding and is experiencing subgrade failure. Due to added traffic from this subdivision, and construction vehicles that may access the site for this subdivision, the applicant may need to reconstruct the existing portion of pavement that is failing on E. 24th Avenue following construction. The city will assess the pavement and subgrade prior to construction, and determine if road repair is warranted based on the impact by construction vehicles. Interior Streets need to be designed per the Local Access standard street, which consists of a 32-feet road width from curb to curb with ADA accessible sidewalks.

The maximum street grade is 15%.

The streets within the development shall be either a Neighborhood or Local Street Standard per the Engineering Standards depending and the ADT

All pedestrian path of travel in public right of way including; sidewalks, curb ramps and street pedestrian crossings shall comply with the American Disabilities Act.

Streets and Circulation **Transportation Impact Analysis.**

Findings: The applicant conducted a transportation impact study for the Valley View Subdivision, prepared by Lancaster Mobly, dated September 20th, 2022. The proposed development will construct a 33-lot subdivision south of NE 339th Street west of NE 24th Avenue. This will result in 23 morning peak hour trips and 31 evening peak hour trips. The City of La Center has adopted mobility standards for transportation facilities during the highest one-hour period on an average weekday. The City's Transportation Capital Facilities Plan requires all unsignalized or roundabout controlled intersections must operate with a Level of Service (LOS) "E" or better.

The main access to the site will be provided via the E Vine Maple Avenue extension to NE 339th Street and E 8th Way onto NE 24th Avenue; however, alternate routes to access the transportation system through the Sunrise Terrace Subdivision will be available.

The report conducts safety and capacity/level of service analysis at the following intersections:

- NE Paradise Road at NW La Center Road
- 24th Avenue at Northeast Lockwood Creek Road
- 4th Street & Highland Avenue (Mitigated in the future)
- Aspen Avenue & 4th Street
- NW Pacific Highway & E. 4th Street
- NW La Center Road & NW Timmen Road
- NE 24th Avenue at E.8th Way (Site access)
- E. Vine Maple Avenue at NE 339th Street

The Valley View Subdivision is anticipated to generate 23 trips in the AM peak hour and 31 trips during the PM peak hour.

Due to this future project, an acceptable level of service will result, so the applicant does not need to mitigate with any off-site improvements due to their added trips.

Following the site distance analysis:

Any obstructing on-site foliage near the access is removed/properly maintained and the existing onsite fence along the north edge of the site is removed following redevelopment of the site, sight distances to the east and west were measured to be in excess of 400 feet in both directions. Therefore, adequate intersection sight distances to the east and west of the proposed site access can be made available to ensure safe and efficient operation along NE 339th Street. No other mitigation is necessary or recommended with regard to sight distance at the proposed access intersection.

No new warrants are met, and left-turn lanes are not necessary or recommended at any of the study intersections as part of the proposed Valley View Subdivision project.

Based on the results of the operational analysis, the following intersections are currently or projected to exceed City of La Center mobility standards:

1. NW Paradise Park Road at NW La Center Road
2. NW Timmen Road at NW La Center Road

Both intersections are under consideration to be reconstructed as roundabouts, provided signal warrants and/or sufficient Once these mitigative measures are implemented both intersections are projected to operate acceptably per City of La Center standards.

All other study intersections are currently operating acceptably per La Center standards and are projected to continue operating acceptably through the 2024 buildout year of the site, provided planned mitigation of a traffic signal at the intersection E 4th Street and NE Highland Avenue at E 4th Street is implemented.

Grading

Findings: The applicant shall submit final grading and erosion control permit as part of the subdivision plans showing the proposed contours on the plans.

The City Erosion Control Standards require that any activity disturbance over 500 SF must comply with the city standards. As part of these standards, a construction stormwater permit is required from the Department of Ecology, and an SWPPP will be necessary as part of the plan submittal to the city. All erosion control measures shall be designed, approved, installed and maintained consistent with Chapter 18.320 LCMC and the applicant's Construction Stormwater Permit. Per the City Erosion Control Manual, from October 1 through April 30th, no soils shall remain exposed for more than two (2) days. From May 1st through September 30th, no soils shall remain exposed more than seven (7) days.

A Geotechnical Report was completed by True North Geotechnic dated August 2022.

The report by the Geotechnical Engineer recommends a structural section for automobile parking areas, with a pavement section consisting of 3 inches of asphaltic concrete (AC) over 8 inches of crushed rock base (CRB) or 5 inches of Portland Cement concrete (PCC) over 5 inches of crushed rock base (CRB). However, the minimum pavement thickness allowed for public streets is 4-inches. The AASHTO soil classification, from the NRSC soils map varies from A-4 to A-6, for this site. The soil is predominately Gee Silt Loam, which is AASHTO soil type A-4. For a local street, the minimum base thickness is 0.6' depth or 7.2 inches. **The street section for a Local Steet should be rounded to 8" depth of base, with 4" HMAC. For truck areas the report recommends 4" depth of HMAC over 12-inches of base.** Since 339th Street is classified as a major collector per the City's Capital Facility Plan, the pavement section for a Rural Major

Collector Street shall be used. Since the soil varies between A-4 to A-6, the most conservative pavement section shall be used. **The section for an AASHTO A-6 soil type is 4" HMAC over 1.2 feet depth of base for NE 339th Street.** The applicant will need to verify the minimum HMAC over base sections in the city. **A 3-inch depth of HMAC will not be allowed, because it does not meet the minimum city detail structural sections, and overlay of the HMAC for maintenance is not possible with this substandard depth.**

Chapter 13.10 -- Sewer System Rules and Regulations

Findings: Connection to public sewer is required. LCMC 13.10. All work is to be performed by a duly licensed contractor in the City of La Center. LCMC 13.10.230. Work will be performed using an open trench method unless otherwise approved. LCMC 13.10.200. All costs associated with installing the side sewer shall be borne by the applicant. LCMC 13.10.110.

Per the City Engineering Standards, sanitary sewers should be with adequate capacity for future flows that may reasonably be expected from full development upstream, consistent with the La Center Comprehensive Plan, Capital Facilities Plan, LCMC Title 13, and the Sewer Master Plan (General Sewer Plan).

Heritage Country Estates provided pipe stubs to the existing public sewer mains at E. Vine Maple Avenue and East Vine Oak Avenue. These pipe stubs can be extended to serve the lots in Valley View.
The applicant proposes to connect to these pipe stubs. The applicant will need to verify the condition of the existing sewer stubs provided to the site, and install new connections to the manholes depending on the condition.

Chapter 18.320 (Stormwater and Erosion Control)

Findings: Section 18.320.120 (1) LCMC states that ground-disturbing activities of more than 500 square feet are subject to the requirements of *City of La Center Erosion Control Guidelines*. Section 18.320.120 (2)(a) LCMC states that the creation of more than 2,000 square feet of impervious surface is subject to stormwater regulation.

The applicant proposes to create new impervious public interior streets, that will be public Per LCMC 18.320.210. Treatment BMPs shall be sized to the treat the water quality design storm, defined as the six-month, 24-hour storm runoff volume.

The applicant proposes to connect to the existing storm system in Heritage Country Estates for 45% of the Valley View area runoff, and 55% of the site runoff to a new detention pond at the northeast of the site. The applicant's storm report indicates that the storm pond in Heritage Estates has enough capacity to treat and detain an additional 45% of the Valley View site. The report also shows that 55% of the new Valley View site will be detained and treated in this new pond. Outfall of pond will drain to the existing culvert underneath 339th Street, and then drains by ditch in Clark County jurisdiction and eventually to Brezee Creek.

Verification of the capacity of this culvert shall be done. This analysis shall be shown in the final stormwater report. Any cleaning or clearing of obstructions shall be done to verify the capacity of the culvert.

A Final Technical Information Report (TIR) will need to be submitted by the applicant and must comply with LCMC 18.320.

The LCMC section 18.320.220 states that if surface water leaves the site, stormwater must be detained per LCMC. Runoff calculations need to consider undisturbed forest as the pre-developed condition in determining runoff curve numbers or a downstream analysis of the existing conveyance system is required. The design must meet the LCMC 18.320 and the 1992 Puget Sound Manual for the design of the system.

The collection system shall be designed by the rational method using HEC-12 1984 edition standards for gutter and storm pipe capacity. As an alternate, WSDOT Hydraulics Manual can be used for inlet capacity design. The 100-year rainfall intensity must be used for pipe capacity design using the rational method.

Where feasible, downspouts connections from the houses must connect directly into the site stormwater system. If connection to the site storm system is not feasible, downspouts may be connected directly to the gutter by curb drain connections. Laterals from the storm main in the street must be shown to serve each lot.

The applicant shall be responsible for maintenance of the stormwater facility. An operations manual must be submitted for City review approval for the maintenance of the facility in all cases. Adequate bonding is required to guarantee maintenance of the facility for a period of two years following final plat.

Street Lighting

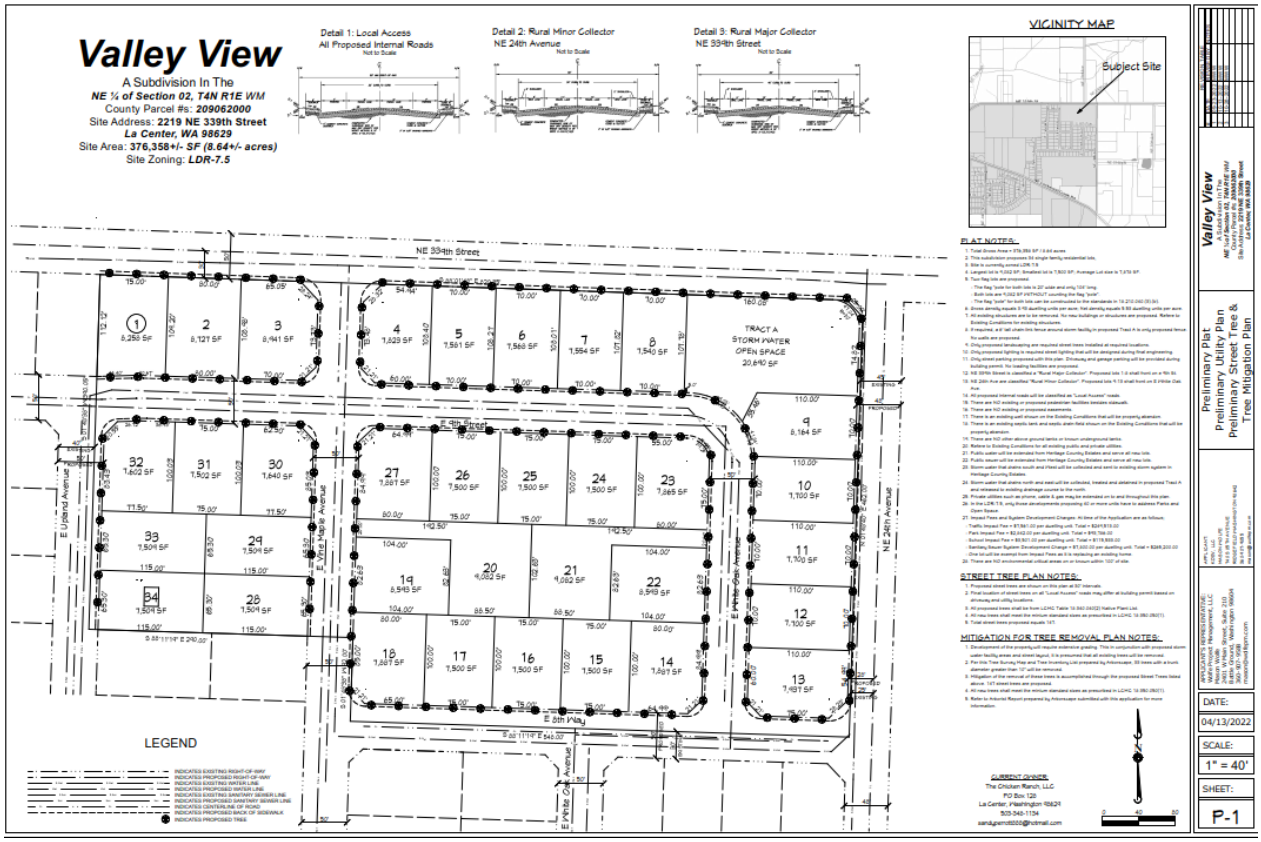
Findings: Street light design and installation is reviewed and approved by the City of La Center. Street lighting on local streets shall be Acorn full cutoff single fixture on a black decorative fiberglass pole and the frontage improvements will need to have Cobra Head LED light per the Engineering Standards. The applicant shall submit a Photometric analysis along with the street-light design to verify compliance with the Engineering Standards.

Potable Water

Findings: Water system connections are regulated by Clark Public Utility (CPU) and a permit and plan approval will be required for City plan approval.

Clark Public Utilities must approve the water pipe system and service to all lots. CPU needs to be contacted about the existing water system pressure and the applicant must meet CPU approval for the new water system.

The applicant shall coordinate with Clark Cowlitz Fire & Rescue regarding hydrant spacing and related fire flow and fire protections issues.



Chapter 15.35 LCMC, School Impact Fees;

As a **Condition of Approval,** for each dwelling the City shall assess and charge the builder School, Park and Traffic impact fees in effect at the time of building permit application.

IV. CONCLUSIONS & RECOMMENDATION

The review authority finds the applicant has sustained the burden of proving the application complies with the applicable provisions of the La Center Municipal Code. The subject application should be **APPROVED, SUBJECT TO THE FOLLOWING CONDITIONS.**

IV.A Planning Conditions

1. The applicant shall apply for and receive approval of a sign permit and building permit (if applicable) for a subdivision entrance sign prior to sign construction in accordance with LCMC 8.60.

2. The applicant shall demonstrate that building height requirements are met prior to issuance of a building permit for each lot.

3. The applicant shall demonstrate that the maximum building lot coverage and maximum impervious surface area requirements per lot are met prior to issuance of a building permits.

4. Prior to engineering approval, the applicant shall provide a final landscape plan by a registered landscape architect with street trees spaced no greater than 30 feet on center

5. The applicant shall submit engineering, construction, final plat, and building permit documents in compliance with the preliminary plat documents unless otherwise modified by conditions of approval in this staff report or as approved by the City through subsequent approvals.

6. The applicant shall obtain building permits in compliance with LCMC 15.05 prior to construction.

7. Prior to the issuance of occupancy, the applicant shall pay all system development fees, park, school, and traffic impact fees in effect at the time.

8. The applicant shall provide improved surface plans for all flag lots in accordance with LCMC 18.210.040(3)(b) in the final engineering plans.

9. The preliminary plat shall expire five years from the date of approval by the hearing examiner, unless an application for final plat is submitted or an extension is approved per LCMC 18.210.050(2) and (3).

10. The applicant shall comply with all provisions regarding monumentation outlined in Chapter 18.230 prior to final plat approval.

11. As outlined in LCMC 18.230.090, the final plat shall be drawn with ink upon three-millimeter Mylar film, or equivalent; said sheets are to be 30 inches by 21 inches, with a one-inch border on each side or as otherwise directed by the Clark County recording agency.

12. The applicant shall provide a photometric plan prior to final engineering plan approval showing how the proposed lights will not cause more than a one foot-candle measure at any property line in conformance with 18.245.040 and LCMC 18.282.

13. Ground-level exterior equipment such as air condition units, must be screened from view to an F2 or L3 standard prior to issuance of final inspection for each dwelling unit.

14. The applicant shall install all landscaping prior to issuance of final inspection for each dwelling unit or no more than six months after final inspection if it will increase plant survival. Installation after occupancy requires City notification and approval.

15. The applicant's final landscape plan shall comply with the requirements of LCMC 18.245.060(11-16) for plant size and spacing prior to issuance of final inspection for each dwelling unit.
16. All required landscape areas including within the planter strip along public roadways must meet the City's irrigation requirements in LCMC 18.245.060(18). The applicant shall provide irrigation plans prior to final engineering approval.

17. The applicant shall demonstrate that each dwelling unit has at least two (2) off-street parking spaces and one (1) guest parking space per LCMC Table 18.280.010 prior to building permit approval. Parking spaces shall be within the 20-foot required garage setback

18. The final Landscape Plan, once submitted, shall avoid the use of plants from the nuisance plant list and the prohibited plants list per Table 18.340.040(3) and Table 18.340.040(4).

19. The final Landscape Plan, once submitted, shall avoid the use of plants from the nuisance plant list and the prohibited plants list per Table 18.340.040(3) and Table 18.340.040(4).

20. Any trees proposed for removal shall be identified on the plan and shall be flagged in the field consistent with LCMC 18.350.060 so that the City can verify trees to be removed and preserved consistent with 18.350.070(3). In addition, if the identified tree for preservation is found to be eligible, the applicant shall install construction fencing around the driplines of the tree, so it is not inadvertently removed, and grading does not occur within its root zone.

21. Prior to engineering document approval, the applicant shall provide a site design alternatives analysis to explore ways to preserve the 40-inch sequoia tree on the site or document reasons why there is no alternative site design that could preserve the tree. Alternative site designs shall comply with the preliminary plat approval and conditions of approval.

22. Trees regulated by chapter 18.350 that are proposed to be removed shall be mitigated consistent with LCMC 18.350.

IV.B Public Works and Engineering Conditions

23. Public and Private Road Standards City of La Center Engineering Standards for Construction shall apply to all public road improvements unless modified by the director. LCMC 12.10.040.

24. East 24th Avenue is classified as a Minor Collector per the updated Capital Facilities Plan. The city has designated E. 24th Avenue as a Rural Minor Collector per the Engineering Standards. NE 339th Street is classified as a Major Collector per the Capital Facilities Plan. General roadway and right-of-way standards shall apply and provide half street improvements per LCMC 12.10.090.

25. The applicant shall adhere to all recommendations contained in the geotechnical report True North Geotechnical except for street structural sections. The City of La Center Engineering Standards for structural sections shall be followed for NE 339th Street, NE 24th Avenue and the local streets within the subdivision.

26. The entire road section of E. 24th Avenue is subsiding and is experiencing subgrade failure. Due to added traffic from this subdivision, and construction vehicles that may access the site for this subdivision, the applicant may need to reconstruct the existing portion of pavement that is failing on E. 24th Avenue following construction. The city will assess the pavement and subgrade prior to construction, and determine if road repair is warranted based on the impact by construction vehicles. The applicant shall provide full street improvements on interior streets according to the City of La Center Local Access standard ST-15. In addition to the interior street improvements, street lights, street trees and per LCMC 12.10.190. All pedestrian path of travel in public right of way including; sidewalks, curb ramps and street pedestrian crossings shall comply with the American Disabilities Act.

27. The applicant will implement all recommendations from the Traffic Report from Lancaster Mobly, dated September 20th, 2022. The applicant shall submit final grading and erosion control permit as part of the subdivision plans showing the proposed contours on the plans.

28. The City Erosion Control Standards require that any activity disturbance over 500 SF must comply with the city standards. As part of these standards a construction stormwater permit is required from the Department of Ecology and an SWPPP will be necessary as part of the plan submittal to the city. All erosion control measures shall be designed, approved, installed and maintained consistent with Chapter 18.320 LCMC and the applicant's Construction Stormwater Permit. Per the City Erosion Control Manual, from October 1 through April 30th, no soils shall remain exposed for more than two (2) days. From May 1st through September 30th, no soils shall remain exposed more than seven (7) days.

29. Sewer System Rules and Regulations Connection to public sewer is required. All work is to be performed by a duly licensed contractor in the City of La Center. Work will be performed using an open trench method unless otherwise approved. All costs associated with installing the side sewer shall be borne by the applicant. Per the City Engineering Standards, sanitary sewers should be designed to care for future loads that may reasonably be expected from full development upstream, consistent with the La Center Comprehensive Plan, Capital Facilities Plan, LCMC Title 13, and the Sewer Master Plan (General Sewer Plan).

30. The applicant is proposing to connect the sanitary sewer piping from the development to the existing gravity sewer in Heritage Country Estates. Heritage Country Estates provided pipe stubs from the existing public sewer mains at E. Vine Maple Avenue and East Vine Oak Avenue. These pipe stubs can be extended to serve the lots in Valley View. The applicant will need to verify the condition of the existing sewer stubs provided to the site, and install new connections to the manholes depending on the condition.

31. The applicant proposes to create new impervious interior streets in the subdivision. Per LCMC 18.320.210, treatment BMPs shall be sized to the treat the water quality design storm, defined as the six-month, 24-hour storm runoff volume. A Technical Information Report (TIR) will need to be submitted by the applicant and must comply with LCMC 18.320. The LCMC section 18.320.220 states that if surface water leaves the site, stormwater must be detained per LCMC. The design must meet the LCMC 18.320 and the 1992 Puget Sound Manual for the design of the system.

32. The collection system shall be designed by the rational method using HEC-12 1984 edition standards for gutter and storm pipe capacity. As an alternate, WSDOT Hydraulics Manual can be used for inlet capacity design. The 100-year rainfall intensity must be used for pipe capacity design using the rational method.

33. If feasible, downspouts connections from the houses must connect directly into the site stormwater system. If connection of downspouts to the storm system is not feasible, then downspouts may be connected to the gutter by curb drains. Maintenance of Stormwater Facility The applicant shall be responsible for maintenance of the stormwater facility until an HOA is established to maintain the facility. When the HOA assumes responsibility of the facility, they will establish monetary funding of a reserve fund, for maintenance of the stormwater facility, when at least 50% of development of the housing units has occurred or at minimum 2-years after completion and acceptance of the subdivision by the City, whichever is more. The applicant and future owners will be responsible for maintaining the stormwater facility. An operations manual must be submitted for City review approval for the maintenance of the facility in all cases. Adequate bonding is required to guarantee maintenance of the facility for a period of two years following final plat. Stormwater facilities must be located in a separate tract. Prior to initiation of any construction or final plat approval, the developer shall demonstrate to the City's satisfaction that: 1. The developer shall establish a homeowner's association (HOA) and Articles of Incorporation, By-laws and CC&Rs of the HOA shall reflect that the HOA's operation and maintenance costs for stormwater facilities shall be borne by the HOA. The applicant will provide a "Stormwater Covenant" that shall describe the scope of maintenance of the stormwater facility and it shall be recorded and incorporated in the CC&Rs. 2. The HOA shall be empowered to access its members' fees to be reserved and used to reimburse the City for the operation and maintenance of the facilities, if enforcement becomes necessary. 3. The City shall have the right of a third-party enforcement to ensure that the HOA remains intact and

collects the fees and the City shall have the right to recapture any fees and costs associated with enforcement actions. Further, the following language is to be placed on the face of the plat: The City shall be granted the right, but not the duty, to access and maintain the stormwater facility consistent with 18.320.230 LCMC.

34. Street Lighting Street light design and installation is reviewed and approved by the City of La Center. Street lighting on local streets shall be Acorn full cutoff single fixture on a black decorative fiberglass po0le and the frontage improvements will need to have Cobra Head LED light per the Engineering Standards. The applicant shall submit a Photometric analysis along with the street light design to verify compliance with the Engineering Standards.

IV.C SEPA (MDNS) Documentation and Mitigation Conditions

1. General: The applicant shall abide by the requirements in the comment letter from the Washington Department of Ecology dated November 30, 2022.
2. Earth: The applicant must comply with the design recommendations of the geotechnical site investigation by True Geotechnical Services dated August 8, 2022.
3. Air: The applicant is required to apply best management practices to reduce dust during construction
4. Air: Construction equipment shall not be permitted to idle and is required to be shut off while not in use.
5. Water: The applicant shall decommission the existing private well prior to ground disturbance in accordance with Clark County and State of Washington requirements and must provide evidence of the approval and decommissioning in accordance with agency requirements.
6. Water: The applicant must use approved erosion control best management practices during construction in compliance with LCMC 18.320 and the final approved stormwater technical information report.
7. Plants: The applicant shall provide mitigation required by LCMC 18.350 for all trees on-site of 10 inches diameter at breast height (dbh) or greater as inventoried by Arborscape Ltd, Inc dated October 27, 2022. All proposed street trees are to be planted thirty feet apart at center or as approved by the Public Works Director to accommodate driveways, utilities, and other required improvements.
8. Environmental Health: The applicant shall complete a phase 1 environmental site assessment prior to ground disturbance to document any potential contamination and implement any recommendations of this report.
9. Environmental Health: The applicant shall comply with approved construction hours as required by the City of La Center.
10. Environmental Health. The applicant shall decommission the existing septic system prior to construction in accordance with Clark County requirements.
11. Light and Glare: The applicant shall comply with the requirements of LCMC 18.282 (Outdoor Lighting).
12. Recreation: The applicant is required to pay park impact fees prior to issuance of building permits.
13. Historic and cultural preservation: Existing buildings on the site are 45 years of age or older and meet registration requirements for listing on the National Register of Historic Places (NRHP). The applicant shall complete an additional assessment of these buildings by an architectural

historian assessing impacts and potential mitigations for these buildings as recommended by the Clark County Archaeological Predetermination Survey for the Valley View Subdivision (June 20, 2022). A preliminary assessment and mitigation strategy is provided by Applied Archaeological Research, Inc. and dated December 16, 2022. This assessment and mitigation strategy shall be completed prior to final engineering approval. Should the forthcoming assessment by an architectural historian or concurrent review of the assessment by a qualified professional determine that one or more of the buildings should be preserved, the City may, but is not obligated, to require that the applicant apply for and receive approval of a post decision review application of the preliminary plat approval that redesigns the site to accommodate the buildings to be preserved. If building preservation is determined to by appropriate by the City and a qualified professional, the City will amend this SEPA MDNS and reissue it for notice and determination.

14. Historic and cultural preservation: In the event any archaeological or historic materials are encountered during project activity, work in the immediate area (initially allowing for a 100' buffer; this number may vary by circumstance) must stop and the following actions taken:
    (a) Implement reasonable measures to protect the discovery site, including any appropriate stabilization or covering;
    (b) Take reasonable steps to ensure confidentiality of the discovery site; and,
    (c) Take reasonable steps to restrict access to the site of discovery.

    The applicant shall notify the concerned Tribes and all appropriate county, city, state, and federal agencies, including the Washington Department of Archaeology and Historic Preservation and the City of La Center. The agencies and Tribe(s) will discuss possible measures to remove or avoid cultural material and will reach an agreement with the applicant regarding actions to be taken and disposition of material. If human remains are uncovered, appropriate law enforcement agencies shall be notified first, and the above steps followed. If the remains are determined to be Native, consultation with the affected Tribes will take place in order to mitigate the final disposition of said remains.

    See the Revised Code of Washington, Chapter 27.53, "Archaeological Sites and Resources," for applicable state laws and statutes. See also Washington State Executive Order 05-05, "Archaeological and Cultural Resources." Additional state and federal law(s) may also apply.

    Copies of the above inadvertent discovery language shall be retained on-site while project activity is underway.

Contact	**Information**
Cowlitz Indian Tribe, Nathan Reynolds, Interim Cultural Resources Manager	Phone: 360-575-6226; email: nreynolds@cowlitz.org
City of La Center, Bryan Kast, Public Works Director	Phone: 360-263-2889; email: bkast@ci.lacenter.wa.us
Office of the Clark County Medical Examiner (for human remains)	Phone: 564-397-8405; email: medical.examiner@clark.wa.gov
Washington DAHP, Dr. Allison Brooks, Ph.D, Director	Phone: 360-586-3066; email: Allyson.Brooks@dahp.wa.gov

15. Transportation: The applicant shall comply with the recommendations of the Traffic Analysis Report (Lancaster Mobley, September 20, 2022).
16. Transportation: The applicant is required to pay transportation impact fees prior to issuance of building permits.
17. Utilities: The applicant is required to pay sewer system development charges prior to issuance of building permits.

IV.D CCFR Fire Conditions

1. Applicant must comply with all applicable requirements and receive approval through Clark Cowlitz Fire & Rescue.

IV.E CPU Conditions

1. Applicant must comply with all applicable requirements and receive approval through Clark Public Utilities.

V. APPEALS

The applicant, applicant's representative, or any person, agency or firm with an interest in the matter may appeal the Critical area decision. The appellant shall file the appeal together with the requisite fee and information within 14 calendar days of the date of the decision being appealed. (18.030.130 LCMC.)

Bryan Kast, P.E.,
Public Works Director
City of La Center

Anthony Cooper, P.E.
City Engineer
City of La Center

Exhibits

Exhibit A – Application Materials

1. Submittal Checklist
2. Table of Contents
3. City Master Land Use Application
4. Existing Conditions Survey
5. Proposed Preliminary Plat
6. Proof of Ownership & Authorization
7. Legal Description
8. Pre-Application Conference Notes
9. Project Narrative and Supplemental Narrative
10. Critical Areas Technical Memorandum
11. Geotechnical Study
12. Preliminary Grading Plan

13. Water Utility Review
14. Archaeological Report - Contact Jessica Nash 360-263-7665
15. Preliminary TIR Stormwater Report
16. Preliminary Stormwater Plan
17. Traffic Study
18. Arborist Report & Supplemental Letter
19. Tree Survey Map & Removal Plan
20. Mitigation Strategy for Homestead

Exhibit B – SEPA

1. Mitigated DNS Notice and Checklist
2. Combined SEPA Comments

Exhibit C – Staff Report

1. Technical Completeness Letter

Exhibit A.1

Submittal Checklist

Applicant comments are in red

18.210.010 (2) An applicant for pre-application review of a preliminary plat shall submit the requisite fee, a completed pre-application review form provided for that purpose by the city, and four copies of the following:

(a) Subdivision name;

Refer to submitted Application and Preliminary Plat

(b) Name, mailing address, and telephone number of the owner, engineer, surveyor, planner, attorney and developer/applicant and the person with whom official contact should be made regarding the application;

Refer to submitted Application and Preliminary Plat

(c) The date that the application was prepared;

Refer to submitted Application

(d) The approximate acreage of the site and of each proposed lot and tract;

Refer to submitted Application and Preliminary Plat

(e) Comprehensive plan and zoning designations for the site;

Refer to submitted Application

(f) Existing and proposed land uses and structures on the site, and the proposed disposition of existing uses and structures;

Refer to submitted Application

(g) A description of land title to or easements over which the applicant proposes to dedicate to the city and the purpose for such, if applicable;

Refer submitted Preliminary Plat

(h) A legal description for the site, including township, range and section and applicable assessor's map number(s);

Submitted with application, refer to table of contents

(i) A topographic map of the site if the preliminary plat submitted for pre-application review does not show elevation contours;

Refer to submitted Existing Conditions/Preliminary Survey Plan

(j) A draft environmental (SEPA) checklist may be submitted but is not required for pre-application review;

Submitted with application, refer to table of contents

(k) A proposed preliminary subdivision plat at a scale of no more than one inch equals 200 feet, with north arrow, date, graphic scale, existing and proposed lots, tracts, easements, rights-of-way and structures on the site, and existing lots, tracts, easements, rights-of-way and structures abutting the site; provided, information about off-site structures and other features may be approximate if such information is not in the public record. The applicant shall provide one copy of the plat reduced to fit on an eight-and-one-half-inch by 11-inch page. The plat shall show the dimensions and areas of all proposed lots, tracts and dedications. The plat shall show the distance from proposed property lines to the nearest existing structures on the site unless those structures will be removed;

Submitted with application, refer to table of contents

(l) Any other items or details the applicant believes would assist the staff in its review, such as proposed stormwater plans, proposed utilities and their availability, geotechnical, wetland or other critical areas on or abutting the site, and a traffic impact study. [Ord. 2006-17 § 1, 2006.]

Refer to table of contents for additional information submitted

18.210.030 Preliminary plat application contents.

An applicant for a preliminary short plat shall submit the requisite fee, a completed application review form provided for that purpose by the city, and 10 copies of the following information:

(1) The information listed in LCMC 18.210.010(2), provided an environmental checklist or EIS is required for a technically complete application unless categorically exempt.

Submitted with application, refer to table of contents

(2) Written authorization to file the application signed by the owner of the property that is the subject of the application, if the applicant is not the same as the owner as listed by the Clark County assessor.

Submitted with application, refer to table of contents

(3) Proof of ownership document, such as copies of deeds and/or a policy or satisfactory commitment for title insurance.

Submitted with application, refer to table of contents

(4) A legal description of the property proposed to be divided.

Submitted with application, refer to table of contents

(5) If a subdivision contains large lots or tracts which at some future time are likely to be resubdivided, the application shall include a master plan of all land under common ownership in order to provide for extension and opening of streets at intervals which will permit a subsequent division of each divisible parcel into lots of smaller size.

N/A No large lots or tracts are proposed.

(6) A copy of the pre-application conference summary, if the application was subject to pre-application review, and all information required to address issues, comments and concerns in the summary.

Submitted with application, refer to table of contents

(7) A written description of how the proposed preliminary plat does or can comply with each applicable approval criterion for the preliminary plat, and basic facts and other substantial evidence that support the description.

Narrative submitted with application, refer to table of contents

(8) The names and addresses of owners of land within a radius of 300 feet of the site. Owner names and addresses shall be printed on mailing labels.

(a) The applicant shall submit a statement by the assessor's office or a title company certifying that the list is complete and accurate, based on the records of the Clark County assessor within 30 days of when the list is submitted.

(b) If the applicant owns property adjoining or across a right-of-way or easement from the property that is the subject of the application, then notice shall be mailed to owners of property within a 300-foot radius, as provided above, of the edge of the property owned by the applicant adjoining or across a right-of-way or easement from the property that is the subject of the application.

Submitted with application, refer to table of contents

(9) Applications necessarily associated with the preliminary plat, such as applications for exceptions, adjustments or variances to dimensional requirements of the base or overlay zones or for modifications to the road standards in Chapter 12.10 LCMC that are required to approve the preliminary plat application as proposed. NONE N/A

(10) A wetlands delineation and assessment if required by Chapter 18.300 LCMC, and an application for a wetland permit and associated preliminary plan if required by Chapter 18.300 LCMC to approve the preliminary plat application as proposed.

Submitted with application, refer to table of contents

(11) An appropriate geotechnical study if:

(a) The site contains substantial fill, or the applicant proposes to place substantial fill on the site; or

(b) The site contains land identified by the U.S. Soil Conservation Service, Clark County or the state of Washington as having slopes in excess of 25 percent or as being subject to instability, unless the applicant will not develop or otherwise significantly affect such lands or shows that the site does not contain unstable soils or steep slopes.

Submitted with application, refer to table of contents

(12) Preliminary grading, erosion control and drainage plans, which may be a single plan, consistent with applicable provisions of Chapter 18.320 LCMC.

Submitted with application, refer to table of contents

(13) Evidence that potable water will be provided to each lot from a public water system, and that each lot will be connected to public sewer.

Submitted with application, refer to table of contents

(14) A plan showing proposed phasing if the applicant proposes to develop the subdivision in phases.

N/A No proposed phasing

(15) An archaeological predetermination if the area proposed for development contains lands classified as having moderate or higher probability of containing archaeological resources as determined by the city. [Ord. 2007-09 § 5, 2007; Ord. 2006-17 § 1, 2006.]

Submitted with application, refer to table of contents

Exhibit A.2

1-Coversheet / Table of Contents

"Valley View" Subdivision

City of La Center Case #s: 2022-014-PAC /

APPLICANT:
KDEV, LLC
Mason Wolfe
740 S 85th Avenue
Ridgefield, Washington 98642
mason@wolfepm.com
360-907-9588

CONTACT:
Wolfe Project Management, LLC
Mason Wolfe
2401 W Main Street, Suite 210
Battle Ground, Washington 98604
mason@wolfepm.com
360-907-9588

OWNER:
The Chicken Ranch, LLC
Sandra Perrott
PO Box 128
La Center, Washington 98629
sandyperrott888@hotmail.com
503-348-1134

Exhibit A.3

Master Land Use Application

City of La Center, Planning Services
305 NW Pacific Highway
La Center, WA 98629
www.ci.lacenter.wa.us
Ph. 360.263.7665 Fax: 360.263.7666
www.ci.lacenter.wa.us

Property Information

Site Address 2219 NE 339th Street, La Center WA 98629

Legal Description Adjusted Lot 1, Short Plat 3-905

Assessor's Serial Number 209062000

Lot Size (square feet) +/- 376,358 SF / +/- 8.64 acres

Zoning/Comprehensive Plan Designation LDR-7.5 / Urban Low Density Residential

Existing Use of Site Single family residential

Contact Information

APPLICANT:

Contact Name Mason Wolfe

Company KDev, LLC

Phone 360-907-9588 **Email** mason@wolfepm.com

Complete Address 740 S 85th Avenue, Ridgefield, Washington 98642

Signature *(Original Signature Required)*

APPLICANT'S REPRESENTATIVE:

Contact Name Mason Wolfe

Company Wolfe Project Management, LLC

Phone 360-907-9588 **Email** mason@wolfepm.com

Complete Address 2401 W Main Street, Suite 210, Battle Ground WA 98604

Signature *(Original Signature Required)*

PROPERTY OWNER:

Contact Name Sandra Perrott

Company The Chicken Ranch, LLC

Phone 503-348-1134 **Email** sandyperrott888@hotmail.com

Complete Address PO Box 128, La Center WA 98629

Signature By Mason Wolfe for Owner. Refer to Owner/Seller Authorization
(Original Signature Required)

Development Proposal

Project Name

Type(s) of Application Valley View
Type III Preliminary Plat for Residential Subdivision;
SEPA review; Critical Areas review; Tree Cutting permit; Legal Lot Determinaton

Previous Project Name and File Number(s), if known N/A

Pre-Application Conference Date and File Number 2022-014-PAC

Description of Proposal Subdivide +/- 8.64 acres into 34 single family residential lots in the LDR-7.5 zone.
Application prepared 9-19-2022

Office Use Only

File # _____ **Planner** _____

Received By _____ **Fees: $**_____

Date Received: _____ **Date Paid:** _____

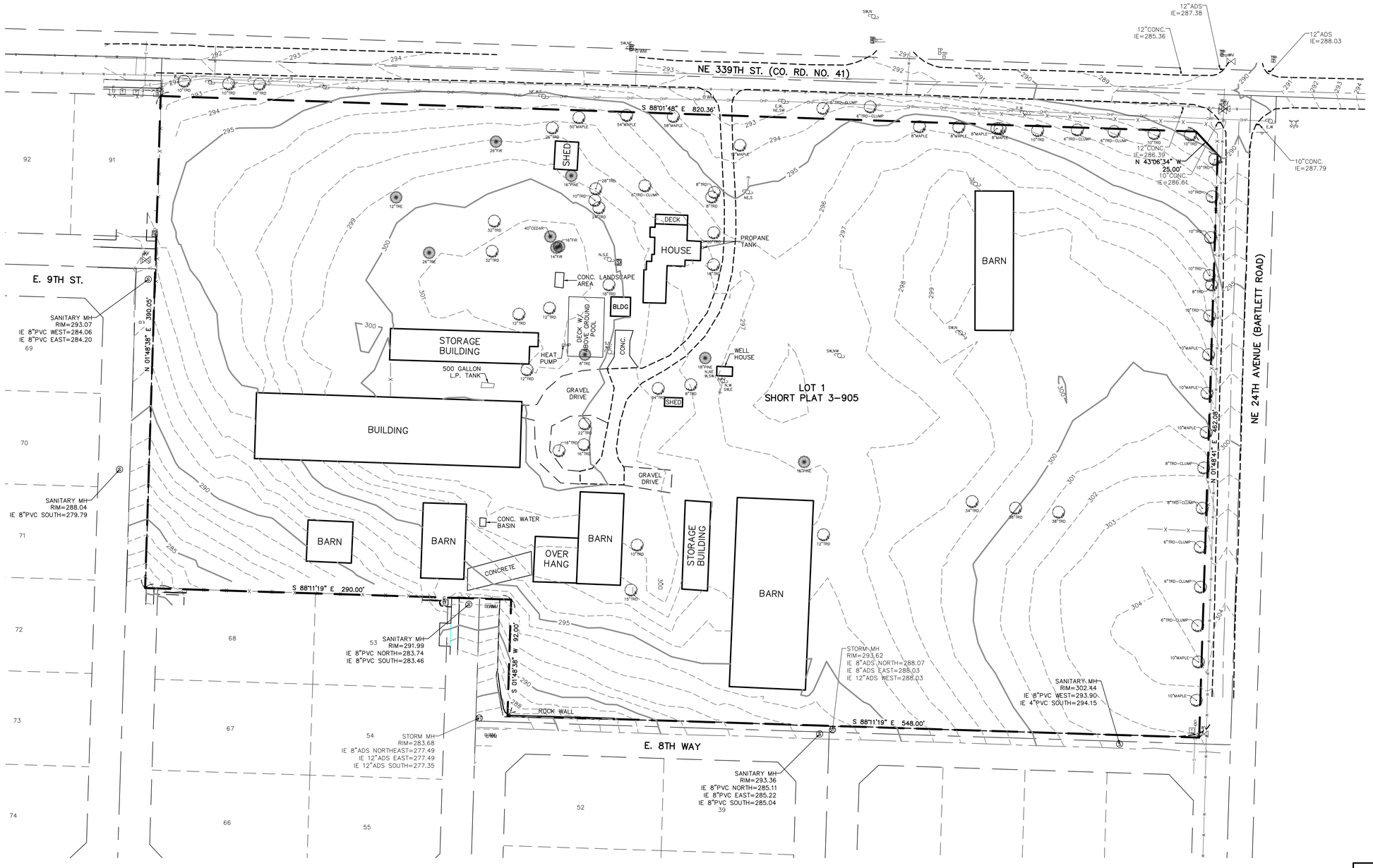
Procedure: ☐ **Type I** **Receipt #** _____
☐ **Type II**
☐ **Type III**
☐ **Type IV**

Notes _____

Exhibit A.4

EXISTING CONDITIONS SURVEY

IN A PORTION OF GOVERNMENT LOT 2, IN THE NW 1/4 OF THE NE 1/4 OF SECTION 2 T. 4 N., R. 1 E., W.M. CITY OF LACENTER, CLARK COUNTY, WASHINGTON



LEGEND:

- INDICATES WATER VALVE
- INDICATES FIRE HYDRANT
- INDICATES WATER METER
- INDICATES POWER POLE WITH DIRECTION OF OVERHEAD LINES
- INDICATES GUY ANCHOR
- INDICATES LIGHT POLE
- INDICATES SIGN
- INDICATES TELEPHONE PEDESTAL
- INDICATES GAS MARKER
- INDICATES TRANSFORMER
- INDICATES SEPTIC SYSTEM LID
- INDICATES FIBER OPTIC PEDESTAL
- INDICATES HEAT PUMP
- INDICATES STORM SEWER MANHOLE
- INDICATES SANITARY SEWER MANHOLE
- INDICATES EVERGREEN TREE WITH TRUNK DIAMETER AND TYPE
- INDICATES DECIDUOUS TREE WITH TRUNK DIAMETER AND TYPE
- INDICATES BOUNDARY
- INDICATES EDGE OF ASPHALT
- INDICATES EDGE OF CONCRETE
- INDICATES EDGE OF GRAVEL
- INDICATES 5 FOOT INTERVAL CONTOUR
- INDICATES 1 FOOT INTERVAL CONTOUR
- INDICATES FENCE LINE
- INDICATES WATER LOCATE
- INDICATES OVERHEAD POWER
- INDICATES GAS LOCATE
- INDICATES ELECTRIC LOCATE

08/09/22

CHRISTOPHER S. AVERY
STATE OF WASHINGTON
50979
REGISTERED PROFESSIONAL LAND SURVEYOR

40 20 0 40 60 80

SCALE 1 INCH = 40 FEET

BASIS OF BEARING:
PERROTT SHORT PLAT
BOOK 3, PAGE 905

BENCHMARK:
BRASS DISK IN TOP OF CONCRETE POST IN THE CENTER OF ROADSIDE DITCH OF N.W. 339TH STREET.
POINT NAME: 900_NW339ST
ELEVATION: 146.968 NGVD 29/47
CALCULATED BY CLARK COUNTY GEOID MODEL

MINISTER-GLAESER SURVEYING INC.
2200 E. EVERGREEN BLVD.
VANCOUVER, WA 98661
(360) 694-3313

SCALE:	1"=40'
JOB NO.	22-318
DATE:	08-09-22
CALC BY:	CSA
DRAWN BY:	NG
CHECKED BY:	CSA
SHEET	1 OF 1

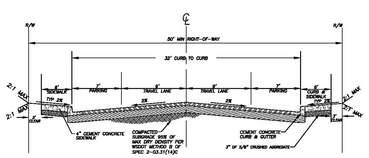
DRAWING FILE: 22318T1.DWG

Exhibit A.5

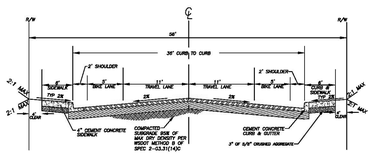
Valley View

A Subdivision In The
NE ¼ of Section 02, T4N R1E *WM*
County Parcel #s: ***209062000***
Site Address: **2219 NE 339th Street**
La Center, WA 98629
Site Area: **376,358+/- *SF (8.64+/- acres)***
Site Zoning: ***LDR-7.5***

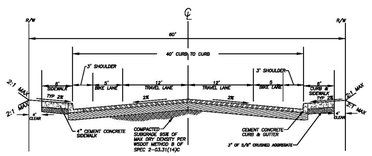
Detail 1: Local Access
All Proposed Internal Roads
Not to Scale



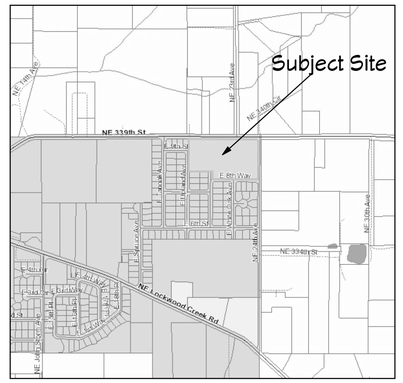
Detail 2: Rural Minor Collector
NE 24th Avenue
Not to Scale



Detail 3: Rural Major Collector
NE 339th Street
Not to Scale



VICINITY MAP



LEGEND

- INDICATES EXISTING RIGHT-OF-WAY
- INDICATES PROPOSED RIGHT-OF-WAY
- INDICATES EXISTING WATER LINE
- INDICATES PROPOSED WATER LINE
- INDICATES EXISTING SANITARY SEWER LINE
- INDICATES PROPOSED SANITARY SEWER LINE
- INDICATES CENTERLINE OF ROAD
- INDICATES PROPOSED BACK OF SIDEWALK
- INDICATES PROPOSED TREE

PLAT NOTES:

1. Total Gross Area = 376,358 SF / 8.64 acres
2. This subdivision proposes 34 single family residential lots,
3. Site is currently zoned LDR-7.5
4. Largest lot is 9,082 SF; Smallest lot is 7,500 SF; Average Lot size is 7,878 SF.
5. Two flag lots are proposed.
   - The flag "pole for both lots is 20' wide and only 104' long.
   - Both lots are 9,082 SF WITHOUT counting the flag "pole".
   - The flag "pole" for both lots can be constructed to the standards in 18.210.040.(3).(b).
6. Gross density equals 3.93 dwelling units per acre; Net density equals 5.53 dwelling units per acre.
7. All existing structures are to be removed. No new buildings or structures are proposed. Refere to Existing Conditions for existing structures.
8. If required, a 6' tall chain-link fence around storm facility in proposed Tract A is only proposed fence. No walls are proposed.
9. Only proposed landscaping are required street trees installed at required locations.
10. Only proposed lighting is required street lighting that will be designed during final engineering.
11. Only street parking proposed with this plan. Driveway and garage parking will be provided during building permit. No loading facilities are proposed.
12. NE 339th Street is classified a "Rural Major Collector". Proposed lots 1-8 shall front on e 9th St.
13. NE 24th Ave are classified "Rural Minor Collector". Proposed lots 9-13 shall front on E White Oak Ave.
14. All proposed internal roads will be classified as "Local Access" roads.
15. There are NO existing or proposed pedestrian facilities besides sidewalk.
16. There are NO existing or proposed easements.
17. There is an existing well shown on the Existing Conditions that will be properly abandon.
18. There is an existing septic tank and septic drain-field shown on the Existing Conditions that will be properly abandon.
19. There are NO other above ground tanks or known underground tanks.
20. Refere to Existing Conditions for all existing public and private utilities.
21. Public water will be extended from Heritage Country Estates and serve all new lots.
22. Public sewer will be extended from Heritage Country Estates and serve all new lots.
23. Storm water that drains south and West will be collected and sent to existing storm system in Heritage Country Estates.
24. Storm water that drains north and east will be collected, treated and detained in proposed Tract A and released to existing drainage course to the north.
25. Private utilities such as phone, cable & gas may be extended on to and throughout this plan.
26. In the LDR-7.5, only those developments proposing 40 or more units have to address Parks and Open Space.
27. Impact Fees and System Development Charges: At time of the Application are as follows;
   - Traffic Impact Fee = $7,561.00 per dwelling unit. Total = $244,513.00
   - Park Impact Fee = $2,842.00 per dwelling unit. Total = $98,186.00
   - School Impact Fee = $3,501.00 per dwelling unit. Total = $115,533.00
   - Sanitary Sewer System Development Charge = $7,800.00 per dwelling unit. Total = $265,200.00
   - One lot will be exempt from Impact Fees as it is replacing an existing home.
28. There are NO environmental critical areas on or known within 100' of site.

STREET TREE PLAN NOTES:

1. Proposed street trees are shown on this plan at 30' intervals.
2. Final location of street trees on all "Local Access" roads may differ at building permit based on driveway and utility locations.
3. All proposed trees shall be from LCMC Table 18.340.040(2) Native Plant List.
4. All new trees shall meet the minium standard sizes as prescribed in LCMC 18.350.050(1).
5. Total street trees proposed equals 147.

MITIGATION FOR TREE REMOVAL PLAN NOTES:

1. Development of the property will require extensive grading. This in conjunction with proposed storm water facility areas and street layout, it is presumed that all existing trees will be removed.
2. Per this Tree Survey Map and Tree Inventory List prepared by Arborscape, 93 trees with a trunk diameter greater than 10" will be removed.
3. Mitigation of the removal of these trees is accomplished through the proposed Street Trees listed above. 147 street trees are proposed.
4. All new trees shall meet the minium standard sizes as prescribed in LCMC 18.350.050(1).
5. Refer to Arborist Report prepared by Arborscape submitted with this application for more information.

CURRENT OWNER:
The Chicken Ranch, LLC
PO Box 128
La Center, Washington 98629
503-348-1134
sandyperrott888@hotmail.com

N

0 40 80

REVISION TABLE			
#	DATE	REVISED BY	NOTES
1	09-23-2022	MWW	
2	10-13-2022	MWW	
3	10-28-2022	MWW	

Valley View
A Subdivision In The
NE ¼ of Section 02, T4N R1E WM
County Parcel #s: 209062000
Site Address: **2219 NE 339th Street**
La Center, WA 98629

Preliminary Plat
Preliminary Utility Plan
Preliminary Street Tree & Tree Mitigation Plan

APPLICANT:
KDEV, LLC
MASON WOLFE
7465 185TH AVENUE
RIDGEFIELD WASHINGTON 98642
360-907-9588
mason@wolfepm.com

APPLICANT'S REPRESENTATIVE:
Wolfe Project Management, LLC
Mason Wolfe
2401 W Main Street, Suite 210
Battle Ground, Washington 98604
360-907-9588
mason@wolfepm.com

DATE:
04/13/2022

SCALE:
1" = 40'

SHEET:
P-1

Exhibit A.6

EXHIBIT "A"
Legal Description and Seller Authorization

The property is situated in the State of Washington with the following Tax I.D. number 209062000 and legally described as follows;

A portion of Lot 1, of the Perrott Short Plat as recorded in Book 3 of Plats, Page 905, records of Cark, County, being in a portion of Government lot 2, in the Northwest quarter of the Northeast quarter of Section 2, Township 4 North, Range 1 East, Willamette Meridian, City of La Center, Clark County, Washington described as follows:

Beginning at the Northwest comer of the Northwest quarter of the Northeast quarter of Section 2, Township 4 North Range 1 East; thence South 01°49'22" West, 20.00 feet; thence South 01°12'58" West, 10.00 feet to the South Right of way line of NE 339th street; thence 'South 88°31'46" East, along said South Right of way line, parallel with the North line of said Northwest quarter of the Northeast quarter, 427.20 feet; thence continuing along said Right of way South 88°01'48" East, 20.31 feet to the TRUE POINT OF BEGINNING of the following described tract: thence continuing along said Right of way line, South 88°01'48"' East, 820.36 feet; thence South 43°06'33" East, 25.00 feet to the West Right of way of NE 24th avenue; thence South 01°48'41"' West along said Right of way and parallel with the East line of said Northwest quarter of the Northeast quarter 462.08 feet; thence North 88°11'19" West. 548.00 feet; thence North 1°48'38" East, 92.00 feet; thence North 88°11'19" West, 290.00 feet; thence North 1°48'38" East, 390.05 feet to the True point of beginning.

Containing 9.51 acres Gross, 8.64 acres net
Together with and subject to easements and restrictions of record.

Bearings shown hereon are based on the Perrott-short Plat as recorded in Book 3 of Short plats at page 905, records of Clark County, Washington

The undersigned property owner hereby authorizes KDev, LLC, its agents and/or consultants, to sign and submit applications associated with development of a short plat or subdivision for residential development to The City of La Center and associated governmental agencies, for the above-mentioned property. This may include but is NOT limited to; Pre-Application Conference; Preliminary Plat; Engineering Review; Final Plat; Etc.

Property Owner: The Chicken Ranch, LLC

By: Signed: Sandra Decker Perrott
Printed: Sandra Decker Perrott, 3.31.22 Date

4/7/2022

Buyer Initial: CK DS 3/31/2022
Date

MEMORANDUM OF ACTION BY
THE GOVERNORS/MEMBERS OF
KDEV, LLC

The undersigned, having full authority of **KDEV, LLC** (the Company) adopt the following statement and resolutions as of March 11, 2020:

I. ORGANIZATION

RESOLVED: That Wolfe Project Management, LLC as a consultant to the company, is appointed to act as agent and have authority to sign for the company. Additionally, Mason Wolfe, as an employee the company and as Governor of Wolfe Project Management is also appointed to act as agent and have authority to sign for the company. This appointment and authority is limited to activities related to applications to government agencies for land use and engineering and entering into contracts with venders and consultants for same.

3-11-2020

Chad Krippner, Governor Date

5688790 D
Total Pages: 3 Rec Fee: $105.50
Recorded in Clark County, WA 01/03/2020 02:20 PM
SANDY D PERROTT
Excise #: 815276 Excise Amount: 10

Recording Requested By And
When Recorded Mail To:

Mark F. Stoker
Heurlin, Potter, Jahn, et al
PO Box 611
Vancouver, WA 98666-0611

QUIT CLAIM DEED

Grantor: John S. Perrott and Sandy D. Perrott, husband and wife
Grantee: The Chicken Ranch, LLC, a Washington limited liability company
Legal Description (abbreviated): ADJ LOT 1 SP 3-905 8.64A
Assessor's Tax Parcel ID #: 209062000
Reference Nos. of Documents Released or Assigned: N/A

THE GRANTOR, John S. Perrott and Sandy D. Perrott, husband and wife, for and in consideration of the mere change in identity (WAC 458-61A-211), convey and quit claim to The Chicken Ranch, LLC, a Washington limited liability company, all interest in the following described real estate, situated in the County of Clark, State of Washington, together with all after-acquired title of the Grantor herein:

See Attached Exhibit "A"

DATED this 8 day of October, 2019.

JOHN S. PERROTT

SANDY D. PERROTT

STATE OF WASHINGTON)
: ss.
County of Clark)

On this day personally appeared before me John S. Perrott and Sandy D. Perrott, to me known to be the individuals described in and who executed the within and foregoing instrument, and acknowledged that they executed the same as their free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my official seal this 8th day of October, 2019.

KAREN D. WINCHELL
Commission Expires
04-02-2023
NOTARY
PUBLIC
License Number 91860
STATE OF WASHINGTON

Karen D Winchell

NOTARY PUBLIC in and for the State
Of Washington, residing at Vancouver
My Commission Expires: 4/2/19

EXHIBIT "A"

LEGAL DESCRIPTION
ADJUSTED LOT 1
(PERROTT REMAINDER)

A portion of Lot 1, of the Perrott Short Plat as recorded in Book 3 of Plats, Page 905, records of Cark, County, being in a portion of Government lot 2, in the Northwest quarter of the Northeast quarter of Section 2, Township 4 North, Range 1 East, Willamette Meridian, City of La Center, Clark County, Washington described as follows:

Beginning at the Northwest comer of the Northwest quarter of the Northeast quarter of Section 2, Township 4 North Range 1 East; thence South 01°49'22" West, 20.00 feet; thence South 01°12'58" West, 10.00 feet to the South Right of way line of NE 339th street; thence 'South 88°31'46" East, along said South Right of way line, parallel with the North line of said Northwest quarter of the Northeast quarter, 427.20 feet; thence continuing along said Right of way South 88°01'48" East, 20.31 feet to the TRUE POINT OF BEGINNING of the following described tract: thence continuing along said Right of way line, South 88°01'48"' East, 820.36 feet; thence South 43°06'33" East, 25.00 feet to the West Right of way of NE 24th avenue; thence South 01°48'41"' West along said Right of way and parallel with the East line of said Northwest quarter of the Northeast quarter 462.08 feet; thence North 88°11'19" West. 548.00 feet; thence North 1°48'38" East, 92.00 feet; thence North 88°11'19" West, 290.00 feet; thence North 1°48'38" East, 390.05 feet to the True point of beginning.

Containing 9.51 acres Gross, 8.64 acres net
Together with and subject to easements and restrictions of record.

Bearings shown hereon are based on the Perrott-short Plat as recorded in Book 3 of Short plats at page 905, records of Clark County, Washington

758617 - $10.00 - Clark County Title Company - Sue McMerrick - 12/27/2016

5361207 BLA
Total Pages: 6 Rec Fee: $78.00
eRecorded in Clark County, WA 12/27/2016 09:50 AM
CLARK COUNTY TITLE COMPANY
SIMPLIFILE LC E-RECORDING

AFTER RECORDING MAIL TO:

JOHN S. PERROTT & SANDY D. PERROTT
PO BOX 128
LACENTER, WA 98629

Grantor(s): JOHN S. PERROTT & SANDY D. PERROTT
Grantee(s): JOHN S. PERROTT & SANDY D. PERROTT
Assessor's property tax parcel acct number(s) 209062-000, 986027-189, 986027188
Abbreviated legal: PERROTT SHORT PLAT LOTS 1, 2, 3 (3-905)

Boundary Line Adjustment

WHEREAS, JOHN S. PERROTT & SANDY D. PERROTT, husband and wife, is the owner of the following described parcel of real property:

LOTS 1, 2 AND 3 OF THE PERROTT SHORT PLAT AS RECORDED IN BOOK 3 OF SHORT PLATS, PAGE 905, RECORDS OF CLARK COUNTY WASHINGTON; and

WHEREAS it is the intention of the undersigned owners that the boundary lines of the parcels described above be adjusted as set forth hereinbelow without creating any additional parcels;

NOW, THEREFORE, JOHN S. PERROTT & SANDY D. PERROTT, husband and wife, for BOUNDARY LINE ADJUSTMENT PURPOSES (WAC 458-61A-109(2)(a)(iv) AND FOR NO MONETARY CONSIDERATION, hereby convey and quitclaim to JOHN S. PERROTT & SANDY D. PERROTT, husband and wife, those portions of the above-described parcels of real property such that the above-described parcels shall hereafter be described as follows:

SEE ATTACHED EXHIBITS "A," "B," and "C."

A map of the lot configuration both before and after this Boundary Line Adjustment is attached hereto as Exhibit "D."

12-22-16 12-22-16

JOHN S. PERROTT Date SANDY D. PERROTT Date

STATE OF WASHINGTON }
ss
COUNTY OF CLARK

I certify that I know or have satisfactory evidence that JOHN S. PERROTT & SANDY D. PERROTT are the persons who appeared before me, and said persons acknowledged that they

signed this instrument and acknowledged it to be their free and voluntary act for the uses and purposes mentioned in this instrument.

Dated: 12-22-16, 2016.

Notary Public in and for the State of Washington
Residing at Kelso
My appointment expires: 8-19-19

KIM J. REXFORD
NOTARY PUBLIC
STATE OF WASHINGTON
COMMISSION EXPIRES
AUGUST 19, 2019

LEGAL DESCRIPTION
ADJUSTED LOT 1
(PERROTT REMAINDER)

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Together with and subject to easements and restrictions of record.

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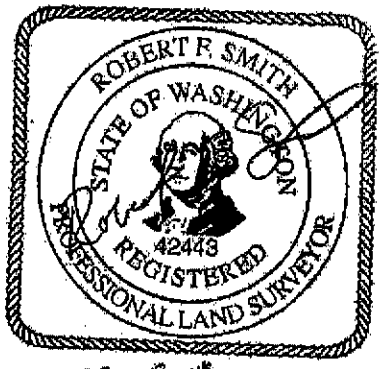


12-19-16

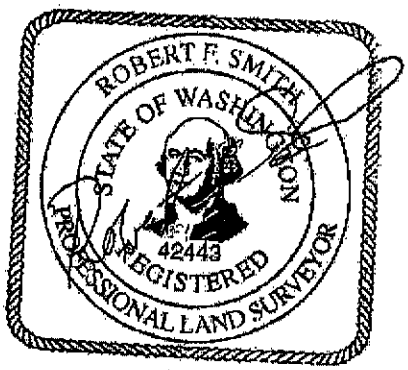
LEGAL DESCRIPTION
ADJUSTED LOT 2
PERROTT SHORT PLAT

A portion Lot 1 and 2 of the Perrott Short Plat as recorded in Book 3 of Plats, Page 905, records of Clark County, being in a portion of Government Lot 2, in the Northwest quarter of the Northeast quarter of Section 2, Township 4 North, Range 1 East, Willamette Meridian, City of La Center, Clark County, Washington described as follows:

Beginning at the Northwest corner of the Northwest quarter of the Northeast quarter of Section 2, Township 4 North, Range 1 East; thence South 01°49'22" West, 20.00 feet; thence South 01°12'58" West, 10.00 feet to the TRUE POINT OF BEGINNING of the following described tract; thence South 88°31'46" East, along the South Right of way line of NE 339th street, parallel with the North line of said Northwest quarter of the Northeast quarter, 427.20 feet; thence continuing along said Right of way South 88°01'48" East, 20.31 feet; thence South 1°48'38" West, 390.05 feet; thence South 88°11'19" East, 132.34 feet; thence South 1°48'38" West, 812.01 feet to the South line of said Perrott Short Plat; thence North 88°11'22" West, along said South line, 566.51 feet to an iron rod as shown in said Perrott Short Plat and the Southwest corner thereof; thence the following courses along the West line of said Perrott Short Plat: North 0°58'08" East, 363.84 feet; North 0°28'57" East, 147.65 feet; North 01°35'10" East, 125.89 feet; North 1°35'10" East, 273.09 feet; North 01°12'58" East, 289.21 feet to the True point of beginning.

Together with and subject to easements and restrictions of record.

Bearings shown hereon are based on the Perrott Short Plat as recorded in Book 3 of Short plats at page 905, records of Clark County, Washington.



12-19-16

LEGAL DESCRIPTION
ADJUSTED LOT 3
PERROTT SHORT PLAT

A portion of Lot 1 and 3 of the Perrott Short Plat as recorded in Book 3 of Plats, Page 905, records of Clark County, being in a portion of Government Lot 2, in the Northwest quarter of the Northeast quarter of Section 2, Township 4 North, Range 1 East, Willamette Meridian, City of La Center, Clark County, Washington described as follows:

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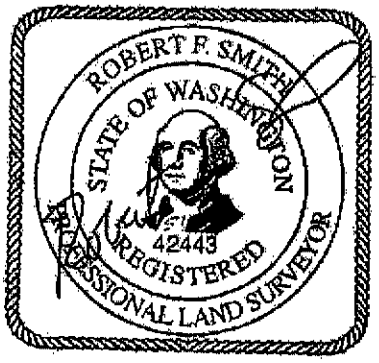
Together with and subject to easements and restrictions of record.

Bearings shown hereon are based on the Perrott Short Plat as recorded in Book 3 of Short plats at page 905, records of Clark County, Washington.



12-19-16

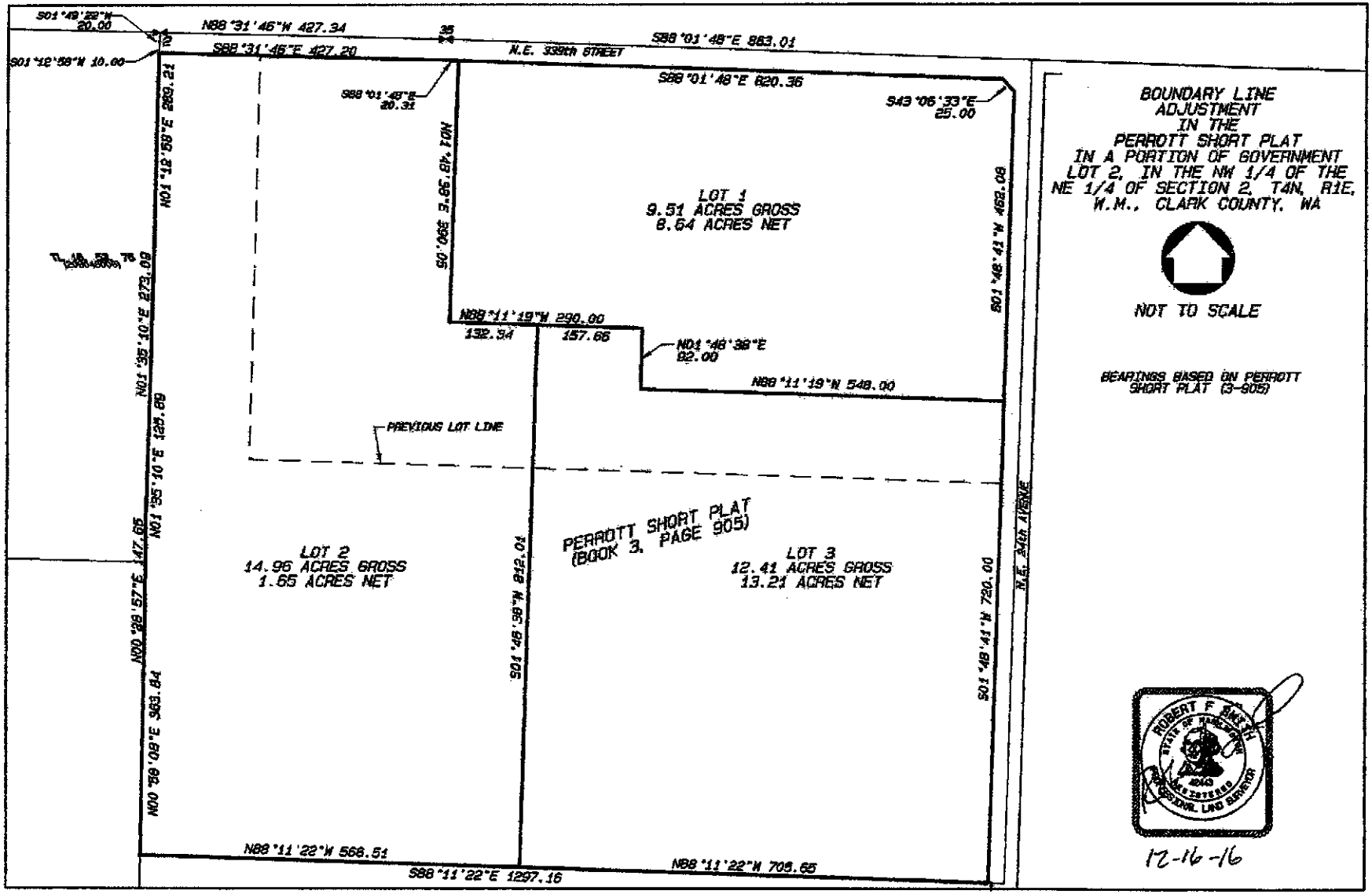


Exhibit A.7

815276

EXHIBIT "A"

LEGAL DESCRIPTION
ADJUSTED LOT 1
(PERROTT REMAINDER)

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Containing 9.51 acres Gross, 8.64 acres net
Together with and subject to easements and restrictions of record.

Bearings shown hereon are based on the Perrott-short Plat as recorded in Book 3 of Short plats at page 905, records of Clark County, Washington

Exhibit A.8

305 NW Pacific Highway,
La Center, Washington 98629
T/360.263.7661 **F**/360.263.7666

PRE-APPLICATION CONFERENCE
Valley View Subdivision (2022-014-PAC.)
Meeting conducted on April 27, 2022 at 1:30 p.m.

PROJECT INFORMATION

Site Address	2219 NE 339th Street, La Center, WA 98629 (Parcel no. 209062000)
Legal Description	A portion of 1 of Perrott Short plat, recorded at Bk3 pg 905, records of Clark County Washington
Applicant	Mason Wolfe KDev, LLC (360) 907-9588 mason@wolfepm.com 740 S. 85th Avenue, Ridgefield, WA 98642
Applicant's Representative	Same as applicant
Property Owner	Sandy Perrott The Chicken Ranch, LLC (503) 348-1134 sandyperrott888@gmail.com PO Box 128, La Center, WA 98629
Proposal	Subdivide 8.46 acres into 33 single-family residential lots in the LDR-7.5 zone. Includes at minimum; mass grading; public street improvements; public utility improvements.
Date of Issue	May 6, 2022

SUMMARY

The applicant is proposing a 33-lot subdivision on the 8.46-acre site. The site currently contains a home, a barn, several outbuildings, a well as a septic system. The applicant proposes to remove or abandon all improvements prior to final plat approval. The remaining land is undeveloped. The site is zoned LDR-7.5 and the comprehensive plan designation for the site is Urban Low Density Residential (UL).

The property is located along NE 339th St. at the eastern edge of the City of La Center, and is surrounded by other parcels zoned LDR-7.5 (low density residential) to the west and south, AG-20 (Agriculture-20) to the east, and R-5 (Rural Residential 5) to the north, across NE 339th Street. The parcels to the south and west are developed with single-family residences. The parcel abutting the site's eastern boundary is primarily used for agriculture. The parcels to the north, across NE 339th Street, are mostly undeveloped. La Center Highschool is approximately 0.4 miles to the west on NE 339th, and Mount Zion Cemetery, Holley Park, La Center Community Library and La Center Elementary and Middle schools are located within one mile of the proposed development.

Lot sizes within the proposed development would range from 7,500 sf to 10,189 sf. One tract, labeled Tract A, is designated as a stormwater facility (23,451 sf) . Access to the property from the north would be via NE 339th St. The applicant proposes an internal system of public streets serving the lots within the development. The site would be served by multiple existing street stubs in the Heritage Country Estates development including East Upland Avenue, East Vine Maple Avenue, and East White Oak Avenue. East 8th Way would connect to NE 24th Ave on the east side of the site. NE 339th Street and NE 24th Avenue are designated "Neighborhood Access" streets. This plan proposes half street improvements on NE 24th Avenue and NE 339th Street. Existing ROW is sufficient on NE 339th Street and no additional ROW dedication is proposed.

An unnamed creek is mapped approximately 0.10 miles to the northwest of the proposed development. The Washington Department of Natural Resources also maps a non-fish-bearing stream (Type N) at the far northeastern corner of the site and Clark County shows an area of potential riparian habitat around this stream. Riparian areas are fish and wildlife habitat conservation areas under the critical areas ordinance and development in these areas requires a critical areas permit. Type N streams have a riparian area that extend between 75-150 feet from the stream depending on if they are seasonal or perennial (see LCMC 18.300.090[2]).

The site is also mapped as within a geologic hazard (Site Class D seismic hazard for ground shaking amplification). Development in geologically hazardous areas also requires a critical areas permit. No other critical areas are mapped on the site.

Applicable Criteria: The application will be reviewed for compliance with the La Center Municipal Code (LCMC): 3.35 Impact Fees; Chapter 8.60 Sign Regulations; Title 12, Streets, Sidewalks & Public Ways; Title 13, Public Utilities; Title 18, Development Code Chapters: 18.30 Procedures; 18.130 Low Density Residential District; 18.147 Parks and Open Spaces; 18.210 Subdivisions; 18.225 Legal Lot Determinations; 18.245 Supplementary Development Standards; 18.280 Off-Street Parking Requirements; 18.282 Outdoor Lighting; 18.300 Critical Areas; 18.310 Environmental Policy; 18.320 Stormwater and Erosion Control; 18.340 Native Plant List; 18.350 Tree Protection; 18.360 Archaeological Resource Protection.

PRELIMINARY REVIEW

Development Standards

Subsequent application(s) shall address the following development standards. Failure of the City to cite specific requirements of the La Center Municipal Code (LCMC) in this report does not relieve the applicant of the responsibility to meet all applicable criteria. If the proposal changes from what was presented in the pre-application conference, it may trigger other review standards and processes than what is identified in this report.

Public Works and Engineering Analysis

LCMC: 3.35 Impact Fees;

Per LCMC 3.35, impact fees will be collected for traffic, sewer, park and school impacts.
These fees will be imposed at the time when building permits are issued.

Chapter 12.10 -- Public and Private Road Standards

City of La Center Engineering Standards for Construction shall apply to all public road improvements unless modified by the director.

NE 339th Street is classified as a Major Collector per the Capital Facilities Plan. The Rural Major Collector per the Engineering Standards consists of a 40-feet wide paved road. General roadway and right-of-way standards shall apply providing half street improvements per LCMC 12.10.090.

East 24th Avenue is classified as a Minor Collector per the updated Capital Facilities Plan. The city has designated E. 24th Avenue as a Rural Minor Collector per the Engineering Standards. General roadway and right-of-way standards shall apply and provide half street improvements per LCMC 12.10.090. The entire road section of E. 24th Avenue is subsiding and is experiencing subgrade failure. Due to added traffic from this subdivision, and construction vehicles that will access the site for this subdivision, the applicant may need to reconstruct the entire width of E. 24th Avenue to support these future vehicle loads. The city will assess the pavement and subgrade prior to construction, and determine if road repair is warranted based on the impact by construction vehicles. Interior Streets need to be designed per the Local Access standard street, which consists of a 32-feet road width from curb to curb with ADA accessible sidewalks.

The maximum street grade is 15%.

The streets within the development shall be either a Neighborhood or Local Street Standard per the Engineering Standards depending and the ADT

All pedestrian path of travel in public right of way including; sidewalks, curb ramps and street pedestrian crossings shall comply with the American Disabilities Act.

Comments

Streets and Circulation

The access to NE 339th Street shall be justified by a traffic report. The CFP and Engineering Standards require a maximum spacing of 500-Feet between streets for connections to a Major Collector. The distance between the new connection of E. Vine Maple and E. Tanoak Avenue appears to be approximately 820-feet. The spacing of these two streets appears to be well over the maximum block size per the CFP. The applicant will need to adjust the street spacing along NE 339th so that it meets the maximum spacing standard, and that the traffic report can verify that the line of site is adequate for this access. Any deviation from these standards will have to be justified by the traffic report, and a road modification.

The interior street connection from E. White Oak Avenue to E. 8th Way only allows approximately 160-feet of spacing between E. White Oak Avenue and NE. 24th Avenue. For traffic turning onto E. 8th Way from NE. 24th Avenue, there is not enough site distance at 25 mph. The intersection spacing is required to be at least 250 lineal feet to provide enough line of site. The traffic report will have to justify an adequate line of site, to provide access from E. 8th Way and NE 24th Avenue.

Perhaps the spacing of the streets would work better if E. Vine Maple Avenue is extended to connect to NE 339th Street and the connection of E. White Oak to E. 8th Way should be eliminated.

A Traffic Engineer, licensed in Washington State, will need to assess the impacts to NE 339th Street resulting trips from the development.

Grading

The applicant shall submit final grading and erosion control permit as part of the subdivision plans showing the proposed contours on the plans.

The City Erosion Control Standards require that any activity disturbance over 500 SF must comply with the city standards. As part of these standards, a construction stormwater permit is required from the Department of Ecology, and an SWPPP will be necessary as part of the plan submittal to the city. All erosion control measures shall be designed, approved, installed and maintained consistent with Chapter 18.320 LCMC and the applicant's Construction Stormwater Permit. Per the City Erosion Control Manual, from October 1 through April 30th, no soils shall remain exposed for more than two (2) days. From May 1st through September 30th, no soils shall remain exposed more than seven (7) days.

Geotechnical Study. A complete application will include a geotechnical study and report, prepared by a geotechnical engineer or geologist, licensed in the state of Washington. The report shall include at a minimum, testing to support the structural section of the roadway, if the structural sections are not used per the standard cross sections, site building construction, grading, retaining wall design, as applicable, and subsurface drainage. LCMC 18.212.050.

Chapter 13.10 -- Sewer System Rules and Regulations

Connection to public sewer is required. LCMC 13.10. All work is to be performed by a duly licensed contractor in the City of La Center. LCMC 13.10.230. Work will be performed using an open trench method unless otherwise approved. LCMC 13.10.200. All costs associated with installing the side sewer shall be borne by the applicant. LCMC 13.10.110.

Per the City Engineering Standards, sanitary sewers should be with adequate capacity for future flows that may reasonably be expected from full development upstream, consistent with the La Center Comprehensive Plan, Capital Facilities Plan, LCMC Title 13, and the Sewer Master Plan (General Sewer Plan).

Heritage Country Estates provided pipe stubs to from the existing public sewer mains at E. Vine Maple Avenue and East Vine Oak Avenue. These pipe stubs can be extended to serve the lots in Valley View. The applicant proposes to connect to these pipe stubs. The applicant will need to verify the condition of the existing sewer stubs provided to the site, and install new connections to the manholes depending on the condition.

Chapter 18.320 (Stormwater and Erosion Control)

Section 18.320.120 (1) LCMC states that ground-disturbing activities of more than 500 square feet are subject to the requirements of *City of La Center Erosion Control Guidelines*. Section 18.320.120 (2)(a) LCMC states that the creation of more than 2,000 square feet of impervious surface is subject to stormwater regulation.

The applicant proposes to create new impervious public interior streets, that will be public Per LCMC 18.320.210. Treatment BMPs shall be sized to the treat the water quality design storm, defined as the six-month, 24-hour storm runoff volume.

The applicant proposes to connect to the existing storm system in Heritage Country Estates. The applicant will need verify that the existing wet pond in Heritage Country Estates will have adequate

capacity to treat and detain the new impervious area from Valley View Estates and the existing impervious area already draining to the existing pond.

A portion of the existing site appears to drain north. The applicant proposes to detain this stormwater in a pond at the northeast corner of the site. The applicant proposes to drain this storm pone north under a culvert under NE 339th Street. The applicant will need to verify the existing condition of culverts under NE. 339th Street, and under NE 24th Avenue. The capacity will need to be verified for outfall from the proposed storm pond. The applicant will be required to connect to an approved drainage system within city limits. Approval may be needed from Clark County to outfall the proposed storm pond to another jurisdiction.

A Technical Information Report (TIR) will need to be submitted by the applicant and must comply with LCMC 18.320.

The LCMC section 18.320.220 states that if surface water leaves the site, stormwater must be detained per LCMC. Runoff calculations need to consider undisturbed forest as the pre-developed condition in determining runoff curve numbers or a downstream analysis of the existing conveyance system is required. The design must meet the LCMC 18.320 and the 1992 Puget Sound Manual for the design of the system.

The collection system shall be designed by the rational method using HEC-12 1984 edition standards for gutter and storm pipe capacity. As an alternate, WSDOT Hydraulics Manual can be used for inlet capacity design. The 100-year rainfall intensity must be used for pipe capacity design using the rational method.

Downspouts connections from the houses must connect directly into the site stormwater system. Laterals from the storm main in the street must be shown to serve each lot.

Maintenance of Stormwater Facility

The applicant shall be responsible for maintenance of the stormwater facility. An operations manual must be submitted for City review approval for the maintenance of the facility in all cases. Adequate bonding is required to guarantee maintenance of the facility for a period of two years following final plat.

Street Lighting

Street light design and installation is reviewed and approved by the City of La Center. Street lighting on local streets shall be Acorn full cutoff single fixture on a black decorative fiberglass pole and the frontage improvements will need to have Cobra Head LED light per the Engineering Standards. The applicant shall submit a Photometric analysis along with the street-light design to verify compliance with the Engineering Standards.

Potable Water

Water system connections are regulated by Clark Public Utility (CPU) and a permit and plan approval will be required for City plan approval.

Clark Public Utilities must approve the water pipe system and service to all lots. CPU needs to be contacted about the existing water system pressure and the applicant must meet CPU approval for the new water system.

Coordinate with Clark Cowlitz Fire & Rescue regarding hydrant spacing and related fire flow and fire protections issues.

Land Use Analysis

Chapter 8.60 Sign Requirements

If proposed, signs must comply with this chapter including the general requirements (8.60) and requirements for signs in residential zones (8.60.060). Signs in residential zones are limited to one illuminated sign at the entrance to the subdivision of 32 square feet.

Chapter 18.30.100 Type III procedure

Preliminary plats are subject to a Type III review process. Details regarding the process are below.

(1) Hearing. An application subject to a Type III process will be considered at one or more public hearings before the City's hearings examiner. Hearing's are scheduled within 78 calendar days after the date the City found the application was technically complete.

(2) Notice of Hearing. At least 14 calendar days before the date of the hearing, the city clerk shall mail public notice of the hearing as provided in LCMC 18.30.120. At least 10 days before the date of the hearing, the city clerk shall cause notice of the hearing to be published and posted as provided in LCMC 18.30.120.

(3) Staff Report. At least seven calendar days before the date of the hearing, the director shall issue a written staff report regarding the application(s). The city clerk shall mail a copy of the staff report to the hearings examiner, the applicant, and the applicant's representative(s) and other parties who request it. Copies of the staff report also shall be available at City Hall seven days prior to the hearing and at the public hearing.

(5) Decision. Within 14 calendar days after the date the record closes regarding a given application(s), the hearings examiner shall submit to the city clerk a written decision regarding that application(s). The decision shall set out the relevant facts and applicable standards for the application(s) and a summary of how the application(s) complies with those standards based on the facts and evidence, including any conditions of approval.

(6) Notice of Decision. Within seven calendar days of the date of the decision, the city clerk shall mail a notice of decision as provided in LCMC 18.30.120.

(7) Appeal and Post-Decision Review. A final decision regarding an application subject to Type III process can be appealed pursuant to LCMC 18.30.130 and can be amended by post-decision changes pursuant to LCMC 18.30.150. [Ord. 2006-17 § 1, 2006.]

Chapter 18.130 Low Density Residential

The site is zoned LDR-7.5, low density residential, with a minimum lot size of 7,500 feet. Single-family detached residential dwelling units are a permitted use within the zoning district. The development

must meet a minimum of four units per net acre. Net acre is defined as gross area minus area for public rights-of-way, private streets, utility easements, public parks, and undeveloped critical areas and buffers. Density can be transferred from undeveloped critical areas and buffers under the provisions 18.300.130 and reduce lot sizes for up to 10 percent of the lots on the site to 6,000 square feet. Individual parcels may not be smaller than 6,000 S.F. or larger than 11,000 S.F. LCMC 18.130.180.

The proposed conceptual plan shows lots ranging in size from 7,502 square feet to 10,189 square feet within the lot minimums and maximums for the LDR-7.5 zone. However, lot 20 exceeds the lot size maximum and will require a variance (see discussion under LCMC 18.260 of these notes). Lot 20 is also a flag lot and flag lots are discouraged (although not prohibited) under LCMC 18.210.040. The applicant should explore other lot arrangements and demonstrate why a flag lot is necessary and why a different lotting pattern is not possible.

Planned lot dimensions are generally 70-80 feet wide and 100-145 feet deep. Minimum density for the subject site is 34 based on the gross area of the site. Density will exceed four units per net acre, once area for roads and undeveloped critical areas are deducted. The applicant's preliminary plan states that net density is 5.34 dwelling units per acre – meeting the City's minimum density requirement. The applicant is not proposing to use the density transfer provisions in the critical areas ordinance to reduce lots below 7,500 square feet. See further discussion regarding density transfer in response to LCMC 18.300 of this report.

Minimum Lot Width (feet)	**Minimum Lot Depth (feet)**	**Minimum Front Yard Setback (feet)[1, 2]**	**Minimum Side Yard Setback (feet)[2]**	**Minimum Street Side Yard Setback (feet)[2]**	**Minimum Rear Yard (feet)[2, 3]**
60	90	20	7.5	10	20

[1]If there are dwellings on both adjoining lots with front yard setbacks less than the required depth for the district, the minimum front setback for the lot is the average of the front setbacks of the adjoining dwellings. If there is a dwelling on only one adjoining lot with a front yard setback less than the required depth for the district, the minimum front setback for the lot in question is the average of the adjoining front yard setback and 15 feet.

[2]Cornices, eaves, belt courses, sills, canopies, or other similar architectural features (not including bay windows or vertical projections) may extend or project into a required yard not more than 30 inches. Chimneys may not project into a required yard more than 24 inches. A deck not more than 30 inches in height (measured from the lowest grade in the setback to the deck surface) and not covered by a roof or canopy may extend up to 10 feet into a front yard setback, seven and one-half feet into a street side yard setback and is permitted in a side or rear yard regardless of the setback requirements.

[3]A detached accessory structure, other than a garage or carport, may be situated in a rear and/or side yard provided it is at least six feet from the primary structure on a lot or parcel and it is set back from interior side and rear lot lines by at least five feet and from street side lot lines by at least 10 feet. A garage or carport may be situated in a rear and/or side yard provided it is at least 20 feet from the front and street side lot lines

Maximum building lot coverage shall not exceed 35 percent. Maximum impervious surface area shall not exceed 50 percent. The proposed plat should calculate building lot coverage per lot and total amount of impervious surface area to be created.

Chapter 18.147 Parks and Open Spaces

LCMC 18.147 requires single-family residential development of 40 or more dwelling units to provide publicly accessible park space at a ratio of 0.25 acres per 40 dwelling units in excess of the first 40 units. Based on the 33 units proposed, the applicant is not required to provide any park space within the development.

Chapter 18.210 Subdivisions

Review Process for Subdivisions (LCMC 18.210.020)

Subdivision applications are processed as a Type III land use review requiring a public hearing before the La Center Hearing Examiner. Within 14 days after the City finds the application technically complete, the Clerk shall mail a Notice of Application to the applicant and adjacent property owners. The comment period is 14 days. The City will schedule a hearing within 78 days after the City finds the application to be technically complete. A staff report is issued a minimum of seven calendar days prior to the hearing date. An appeal of the Hearing Examiner's decision must be made to the City Council within 14 days after the date of issuance of the decision.

Submittal Requirements (LCMC 18.210.030): A completed application form and the following materials will be required, prior to a determination of technical completeness:

1. The information listed in LCMC 18.210.010(2), provided an environmental checklist is required for a technically complete application unless categorically exempt.
2. Written authorization to file the application signed by the owner of the property that is the subject of the application, if the applicant is not the same as the owner as listed by the Clark County assessor.
3. Proof of ownership document, such as copies of deeds and/or a policy or satisfactory commitment for title insurance.
4. A legal description of the property proposed to be divided.
5. If a subdivision contains large lots or tracts which at some future time are likely to be re-subdivided, the application shall include a master plan of all land under common ownership in order to provide for extension and opening of streets at intervals which will permit a subsequent division of each divisible parcel into lots of smaller size.
6. A copy of the pre-application conference summary and all information required to address issues, comments, and concerns in the summary.
7. A written description of how the proposed preliminary plat does or can comply with each applicable approval criterion for the preliminary plat, and basic facts and other substantial evidence that support the description. See applicable subdivision review criteria below.
8. The names and addresses of owners of land within a radius of 300 feet of the site. Owner names and addresses shall be printed on mailing labels.
    a. The applicant shall submit a statement by the assessor's office or a title company certifying that the list is complete and accurate, based on the records of the Clark County assessor within 30 days of when the list is submitted.
    b. If the applicant owns property adjoining or across a right-of-way or easement from the property that is the subject of the application, then notice shall be mailed to owners of property within a 300-foot radius, as provided above, of the edge of the property owned by the applicant adjoining or across a right-of-way or easement from the property that is the subject of the application.

9. Applications associated with the preliminary plat, such as exceptions, adjustments or variances to dimensional requirements of the base or overlay zones or for modifications to the road standards in Chapter 12.10 LCMC that are required to approve the preliminary plat application as proposed.
10. A wetland delineation and assessment is required by Chapter 18.300 LCMC and an application for a critical area permit, ***if*** wetlands are present and will be impacted. Any wetlands on site must be classified using the 2014 Ecology wetland rating system. A wetland mitigation report is required, if wetlands will be impacted.
11. A geotechnical study is required since the site will contain substantial fill and because there are seismic hazards on the site.
12. Preliminary grading, erosion control and drainage plans, which may be a single plan, consistent with applicable provisions of Chapter 18.320 LCMC.
13. Evidence that potable water will be provided to each lot from a public water system, and that each lot will be connected to public sewer.
14. A phasing plan, if proposed.
15. An archaeological predetermination report in accordance with LCMC 18.360.
16. Additional information:
    a. A traffic study (please consult with the City Engineer regarding intersections to be studied.)
    b. A signed *Agreement to Pay Outside Professional Review Expenses Related to Land Use Application*. (Provided during the meeting.)

Vesting: Applications are vested on the date the City deems the application to be technically complete.

Subdivision Approval criteria (LCMC 18.210.040): The applicant carries the burden of proof to demonstrate that the proposal complies with the following City regulations and standards:

- Chapter 12.05 LCMC, Sidewalks;
- Chapter 12.10 LCMC, Public and Private Road Standards;
- Chapter 15.05 LCMC, Building Code and Specialty Codes;
- Chapter 15.35 LCMC, Impact Fees;
- Chapter 18.245 LCMC, Supplemental Development Standards;
- Chapter 18.300 LCMC, Critical Areas;
- Chapter 18.310 LCMC, Environmental Policy;
- Chapter 18.320 LCMC, Stormwater and Erosion Control;
- The subdivision must make appropriate provision for parks, trails, potable water supplies and disposal of sanitary wastes; and
- The subdivision complies with Chapter 58.17 RCW.

Subdivision General Issues:

1. To approve the preliminary plat, the Hearing Examiner must make an affirmative finding that "appropriate provision for potable water supplies and for the disposal of sanitary wastes".
2. All existing wells and septic systems must be properly decommissioned prior to final plat.
3. The City may refuse bonds in lieu of improvements at the time of final platting if such bonding has not been previously discussed and documented.
4. Flag lots are discouraged.
5. The preliminary plat shall expire five years from the date of the Final Order. RCW 17.58.140(3)(a).
6. Phasing is permitted. All phases must be identified on the preliminary plat and be consistent with the lot number sequencing.

18.225 Legal Lot Determinations
Staff will complete a legal lot determination concurrent with the review of the subdivision application. application. Please provide information required by this Chapter (see LCMC 18.225.010[4]) including a sales history dating to 1969. If the parent parcel is not legal, the subdivision will establish legal lots on the site.

18.240 Mitigation of Adverse Impacts
The applicant will need to respond to this code section in their narrative as part of the subdivision application documenting impact and mitigations for public facilities.

18.245 Supplementary Development Standards
No additional landscaping is required, as the development is surrounded by LDR-7.5 and other compatible land uses. LCMC 18.245.020 outlines fencing and hedge standards if the applicant plans to utilize these features within the development. All proposed landscaping must comply with landscaping size, spacing, and quality requirements in LCMC 18.245.060(11-16).

18.260 Variances
LCMC 18.130.080 limits lot sizes to 11,000 square feet which do not abut the urban growth area boundary. Lot 20 is proposed to be 16,031 square feet and therefore, exceeds the lot size maximum requirement in the LDR-7.5 zone. A Type II variance application is required to exceed the lot size maximum. Variance applications are reviewed administratively and can be consolidated with the subdivision application and must comply with the review criteria in LCMC 18.260.040 below:

(1) Unusual circumstances or conditions, such as size, shape or topography of a site, or the location of an existing legal development apply to the property and/or the intended use that do not generally apply to other properties in the vicinity or zone. An unusual circumstance could also include another obligation under a different municipal code section or a state or federal requirement;

(2) The unusual circumstance cannot be a result of actions taken by the applicant;

(3) The variance request is necessary for the preservation of a substantial property right of the applicant which is possessed by the owners of other properties in the vicinity or zone;

(4) The variance request is the least necessary to relieve the unusual circumstances or conditions identified in subsection (1) of this section;

(5) Any impacts resulting from the variance are mitigated to the extent practical; and

(6) The granting of the variance will not be materially detrimental to the public welfare, or injurious to the property or improvements in the vicinity and zone in which the property is situated.

Variances may not be used to change the required residential density or to allow uses that would not otherwise be permitted in a zone.

Chapter 18.280 Off-Street Parking and Loading Requirements
Each dwelling unit shall be provided with two off-street parking spaces per Table 18.280.010 plus one space for guests. This may be accommodated with a note on the plat requiring each lot to provide three off-street parking spaces. Parking spaces within garages, carports and driveways serve to meet this requirement. The front plane of the garage must be setback a minimum of 18 feet from the interior edge of the sidewalk.

18.282 Outdoor Lighting
Residential outdoor lighting must comply with the general requirements as spelled out in LCMC 18.282.030. The riparian area in the northeastern corner of the proposed development is subject to the requirements in LCMC 18.282.040 Critical Area Lighting.

18.300 Critical Areas
18.300.090(2) Fish and Wildlife Habitat Conservation Areas
Washington DNR and Clark County Maps Online identifies two critical areas onsite: approximately 0.32 acres (approximately 4% of total acreage) in the northeastern corner is mapped as riparian habitat and the site is contained within an area mapped as Site Class D for ground shaking amplification – a seismic hazard regulated under the geologically hazardous areas section of the critical areas ordinance.

Mapping of riparian areas by Clark County is often incorrect. The applicant should provide a letter from a habitat biologist assessing whether there is a stream and riparian area on the site. If there is no stream on the site, a critical areas permit is not required. However, if a stream exists the applicant must file a Type II critical areas permit along with the subdivision application for development in this area.
Fish and wildlife habitat conservation areas are subject to the standards of 18.300.090(2). Riparian areas specifically are discussed under 18.300.090(2)(a)(i)l. Type N streams require a riparian area width of 75-150 feet depending on whether they are seasonal or perennial. The applicant must complete a critical areas report that documents the existing conditions for the stream and riparian habitat, if they exist (see LCMC 18.300.090[2][d]). Development within the riparian should be avoided, but if it is unavoidable a mitigation plan is required to compensate for the loss of riparian a habitat in compliance with LCMC 18.300.090(2)(i). Mitigation plans must demonstrate how no net loss of riparian habitat will be achieved.

The City's critical areas ordinance permits buffer reductions of Type N streams of up to 50 percent if the riparian area is currently impacted, or has non-native vegetation such as grass or pasture. The applicant must demonstrate that the proposed buffer reduction will not significantly reduce water quality or habitat functions and must provide a buffer enhancement plan.

LCMC 18.300.090(4) Geologic Hazards
The site is mapped as Site Class D seismic hazard for ground shaking amplification which is a type of seismic hazard regulated as a geologically hazardous critical area. The applicant must provide a geotechnical engineering report documenting whether the seismic hazard exists and proposing mitigations to ensure that the development meet the requirements of LCMC 18.300.090(4)(b)(i) including that:

- It will not increase the threat of geologic hazard to adjacent properties;
- Will not impact other critical areas adversely;
- Is designed so that the hazard is eliminated or mitigated to a level equal to or less than predevelopment conditions, and;
- Are recommended by a qualified professional in a stamped geotechnical engineering report.

No wetlands, floodplain zones, category I aquifer recharge areas, protected wellheads or geologically hazardous areas are mapped for the site.

18.310 Environmental Policy
The project exceeds the exemption thresholds in LCMC 18.310.090 and WAC 197-11-800. The project application must include a completed SEPA checklist and appropriate processing fees.

The City will run the SEPA comment and land use comment period concurrently and will not make a decision on the land use application until after the close of the SEPA comment period. Mitigations stemming from the SEPA review will be included in the Type III Subdivision staff report.

18.340 Native Plant List
Any mitigation for critical areas impacts must use native plants in accordance with LCMC 18.340 and all landscaped areas shall not use nuisance or prohibited plants. Lists of native plants, nuisance plants, and prohibited plants are contained in Tables 18.340.040(2), 18.340.040(3), and 18.340.040(4).

18.350 Tree Protection
An initial Google Earth survey shows trees onsite. If any tree greater than 5" DHA is proposed to be removed, a tree cutting permit is required and trees larger than 10 inches in diameter must be mitigated. A tree protection plan will also be required in accordance with LCMC 18.350.060 including an inventory of all trees onsite. Mitigation may consist of replanting on or off-site or payment in lieu of planting per LCMC 18.350.050. The applicant must respond to the review criteria in LCMC 18.350.080 in their compliance narrative. Under the review criteria, the City can require the applicant to alter their site design to eliminate or reduce tree removal.

18.360 Archeological Resource Protection
Clark County Maps Online identifies the site as having a moderate-high risk of encountering archaeological resources. Any high impact development (greater than 12-inches below the ground and more than 10,000 square feet) proposed in moderate-high risk areas requires filing an archaeological predetermination report as per Table 18.360.020-1. Predetermination reports must contain the information in 18.360.080(4). Based on the findings of the predetermination report, further archaeological work or a full archaeological survey may be required.

Application Fees
An estimated fee schedule was provided during the meeting. Based upon the information provided to date, we estimate that the land use application fees will include:

- Preliminary subdivision plat ($3,000 +$125/lot);
- SEPA ($510);
- Critical Area review ($340 per critical area);
- Legal Lot Determination ($425)
- Variances (Type II - $180)

The City requires an applicant pay actual costs of outside professional services including engineering, legal, and planning. Impact fees shall be assessed against each lot at time of building permit. (La Center Resolution No. 13-372). A copy of the agreement was provided at pre-application conference. Please include a signed agreement with the application.

April 27, 2022 Pre-application Conference Attendees

Name	Organization Name	Email Address	Phone Number

Ethan Spoo	City of La Center	ethan.spoo@wsp.com	360-263-7665
Tony Cooper	City of La Center	acooper@ci.lacenter.wa.us	360-263-7665
Jessica Nash	City of La Center	jnash@ci.lacenter.wa.us	360-263-7664
Bryan Kast	City of La Center	bkast@ci.lacenter.wa.us	360-263-5189
Jeff Swanson	Exigy	jeff@exigyconsulting.com	360-975-9466
Josh Taylor	Clark County Fire Rescue	josh.taylor@clarkfr.org	503-409-9453
Mason Wolfe	KDev, LLC	mason@wolfepm.com	360-907-9588
Jeff Whitener			

1-2 Family Residential Pre-Application Notes:

Clark-Cowlitz FIRE RESCUE

Fire Department Access:

- **Roadways to Structures:** The perimeter of all structures must be within 150' an approved access road with a minimum clear width of 20' (26' where a hydrant is located). IFC 503.1.1 / D102 / D103
- **Dead end Streets:** Any dead-end road longer than 150' must be provided with an approved cul-de-sac or hammer-head turn-around in accordance the International Fire Code design criteria. (96' Diameter Cul-de-sac; 120' Hammerhead with 20' clear width and 28'R corners) IFC D103.4
- **Parking Restrictions:** Roadways must have signage for parking restrictions as follows: Signs for no-parking must be provided on both sides of all streets that are less than 26' wide in accordance with local standards for future enforcement. Signs for no-parking must be provided on one side of all streets that are between 26' and 32' wide in accordance with local standards for future enforcement. IFC D103.6
- **Remote Access Points:** One- and Two-Family Residential Developments with more than 30 dwelling units must be provided with two separate and remote fire apparatus access roads. (remote = min. ½ the overall diagonal of the land area being served) IFC D106/107
- **Flag Lots:** Buildings constructed on flag lots must be provided with automatic fire sprinkler systems in accordance with NFPA 13D requirements.
- **Access During Construction:** Access roadways must be completed and unobstructed prior to combustible construction.
- **Gates:** Where required access is restricted with a gate, a Knox padlock with multi-access locking device (e.g., gatekeeper locking device) or Knox key switch shall be provided to allow Emergency Non-destructive Fire Department Access. (IFC 506)

Fire Department Water Supply and Suppression Systems:

*Hydrant spacing is assessed based on structures that are non-sprinklered, type V-B Construction and no larger than 4,800 combined square feet. Additional hydrants may be required for streets providing access to structures greater than 4,800 SF. (IFC Table B105.1(2) / C102.1)

- **Fire Hydrants:** Hydrants must be provided on fire access roadways so that average spacing does not exceed 500' and the maximum distance from any point on the street frontage to a hydrant is no more than 250'. (400' and 200' for Dead end roads) IFC C102
- **FIRE SPRINKLERS May be Considered as an alternate method to increase hydrant spacing or to address access issues.**
- **Fire Sprinklers:** Any structures larger than 5,000 square feet; occupancies with substandard Fire Flow or Access such as flag-lots, substandard road widths, private bridges, private roads, and roads of 10% grades or greater shall be required to be equipped with fire sprinklers system in accordance with NFPA 13D.
- **Water Supply During Construction:** Required hydrants must be serviceable and unobstructed prior to combustible construction.

For plans submittal, permitting and inspections; all projects shall be submitted and requested through our online portal at: https://clarkfr.idtplans.com

Please feel free to contact CCFR with any questions or concerns:

Michael J. Jackson
Fire Marshal
Mike.jackson@clarkfr.org
360.887.4609

Exhibit A.9

Narrative for Valley View

Introduction
This proposal is to subdivide approximately 8.64 acres into 34 single-family detached residential lots.

Site Location and Characteristics
The site is located in the Northeast quarter of Section 02, Township 4 North, Range 1 East, of the Willamette Meridian, Clark County, Washington. This site is bordered by; NE 24th Avenue to the east; NE 339th Street to the north, NE 8th Street to the South; E Upland Avenue to the west; and E Vine Maple Avenue to the southwest. The subject property tax account number is 206062000. The property is zoned LDR-7.5 with a Comprehensive Plan designation of Urban Low.

Subject parcel has the following existing improvements; a home; a barn; several outbuildings; a well; and a septic system. All improvements to be removed and or abandoned prior to final plat approval.

The site is sloping with grassy areas and some scattered trees. There are NO environmental indicators present on GIS.

Refer to preliminary plat prepared by "Wolfe Project Management, LLC" & existing conditions survey prepared by "Minister-Glaeser, Surveying Inc.", submitted with this application for more information.

TITLE 3.35 IMPACT FEES including TITLE 15.35 SCHOOL IMPACT FEES
This development is subject to impact fees under title 3.35 and 15.35 of the La Center Municipal Code (LCMC).

One lot will be exempt from impact fees as there is an existing home that is being replaced. At time of building permit, of the 34 new dwelling units (homes), Impact Fees will be collected for the 33 additional dwelling units.

- Traffic Impact fees in the amount of $7,561.00 per dwelling unit, for a total of $249,513.00.
- Park Impact fees in the amount of $2,842.00 per dwelling unit, for a total of $93,786.00.
- School Impact fees in the amount of $3,501.00 per dwelling unit, for a total of $115,533.00.

TITLE 8.60 SIGN REGULATIONS
This development is subject to the sign regulations under title 8.60 of the LCMC.

TITLE 12. STREETS, SIDEWALKS, AND PUBLIC WAYS
This development is subject to those street, sidewalk and public ways under title 12.0 of the LCMC.

NE 339th Street is designated "Rural Major Collector" with a 60' total Right-of-Way (ROW) and a 30' half ROW. Existing ROW is 60' so no additional ROW dedication is required or proposed. Half street improvements shall be made to the south half consisting of a 6' sidewalk (including curb) and 20 feet of driving surface minus any existing driving surface.

NE 24th Avenue is designated "Rural Minor Collector" with a 56' total Right-of-Way (ROW) and a 28' half ROW. Existing ROW is 45' total and 25' half ROW, so this proposal will dedicate and additional 3' along the west side of NE 24th Avenue. Half street improvements shall be made to the west half consisting of a 6' sidewalk (including curb) and 18 feet of driving surface minus any existing driving surface.

All internal roadways or designated "Local Access". This has a total ROW of 50' and will be constructed with 32' of driving surface and 6' sidewalks (including curb) on either side.

Street trees are required per LCMC 12.10.350. A tree plan is included on the Preliminary Plat submitted with this application.

Refer to preliminary plat prepared by "Wolfe Project Management, LLC" & existing conditions survey prepared by "Minister-Glaeser, Surveying Inc.", submitted with this application for more information.

TITLE 13. PUBLIC UTILITIES
This development is subject to title 13.0 of the LCMC.

Public water provided by Clark PUD and public sanitary sewer provided by City of La Center will be installed and serve all future houses.

Refer to preliminary plat prepared by "Wolfe Project Management, LLC", submitted with this application for more information.

TITLE 15.05 BUILDING CODE AND SPECIALTY CODES

No buildings or structures are proposed with this land division. However, the purpose of the land division proposal is to provide lots for residential structures. All future structures within this residential development will comply with City of La Center Building Codes and will be properly reviewed through the Building Permit process

TITLE 18.130 ZONING LOW DENSITY RESIDENTIAL DISTRICT (LDR-7.5)
This residential subdivision is a permitted use and complies with these development standards under LCMC.18.130.030. The site is currently zoned LDR-7.5. All lots comply with Section LCMC.18.131.080 for lot requirements.

No duplexes or manufactured homes are proposed.

Refer to preliminary plat prepared by "Wolfe Project Management, LLC", submitted with this application for more information.

Lot Criteria
For this proposal, the applicant is seeking approval for 34 dwelling units.

- **LCMC.18.130.030** requires all lots be at least 60' wide and 90' deep. All proposed lots more than 60' in width and more than 90' in depth meeting the minimum required lot widths and depths.
- **LCMC.18.130.030** requires all lots be at least 7,500 sf in size and no larger than 11,000 sf. The smallest proposed lot is 7,509 sf. The largest proposed is 9,082 sf, meeting the minimum and maximum lot size requirements.
- The average lot size for all 34 lots is 7,878 sf.

Refer to preliminary plat prepared by "Wolfe Project Management, LLC", submitted with this application for more information.

TITLE 18.147 PARKS AND OPEN SPACES
This proposal does not create any adverse impacts to parks or the opportunity for recreation, nor does it convert land previously used for recreation purposes. Park impact fees totaling $93,786.00 will be imposed as a condition of approval which provides mitigation for the impacts created by the development of this property. Requirements of title 18.147 do NOT apply to this development. Per 18.147.020.(1).(a), only developments proposing 40 or more dwelling units in the LDR-7.5 zoning are subject to this title.

TITLE 18.210 SUBDIVISIONS
This development is subject to the procedures and timelines under title 18.210 of the LCMC.

- **18.210.010 Pre-application review.**
  The applicant filed for a Pre-application review and a Pre-application conference was held on April 27, 2022. The City issued a final report on May 6, 2022. A copy of the report was submitted with this application.
- 1**8.210.030 Preliminary plat application contents.**
  Refer to Coversheet/Table of contents for list of required and submitted items.
- **18.210.040 Approval criteria for a preliminary plat.**
  - **18.210.040.(1)(i-vii)** This development complies or can comply with all applicable codes and standards in this title section of the LCMC and have been addressed elsewhere herein.
  - **18.210.040.(2)** N/A. No phasing is proposed with this development.
  - **18.210.040.(3)** Two flag lots are proposed, and both comply with code.
    - **18.210.040.(3).(a)** The flag "pole" for both proposed lots are 20' in width.
    - **18.210.040.(3).(b)** The flag "pole" can be constructed to this standard.
    - **18.210.040.(3).(c)** The flag lots are both over the minimum lot size NOT including the flag "pole". They are both 9,082 SF WITHOUT counting the flag "pole".
    - **18.210.040.(3).(d)** The flag "pole" for both lots are less than 150' in length. They are both 104' in length.
    - **18.210.040.(3).(e)** N/A

TITLE 18.225 LEGAL LOTS
The parcel being developed is adjusted lot 1 of Short Plat 3-905 records of Clark County Washington that was the result of being the remainder left after developing that subdivision known as Heritage Country Estates recorded in book 311 of plats at page 951, records of Clark County Washington. The legal lot status of the subject parcel by default was established as legal when Heritage Country Estates was approved. Refer to current Warranty Deed submitted with this application for more information.

TITLE 18.245 SUPPLEMNTARY DEVELOPMENT STANDARDS
This development is subject to the development standards under title 18.245 of the LCMC. This development can and shall conform to the standards in this title;

- **18.245.020 Height of fences and hedges.**
- **18.245.030 Solid Waste.**
- **18.245.040 Lighting.**
- **18.245.050 Noise.**
- **18.245.060 Landscaping.** N/A Per **Table 18.245.060 – Landscaping**, there is NO required landscaping for this development as all property to the south and west is zone LDR-7.5 and all property to the north and east is separated by streets.

TITLE 18.280 OFF-STREET PARKING AND LOADING REQUIREMENTS
This development is subject to the development standards under title 18.280 of the LCMC. This development can and shall conform to the standards in this title;

- **Table 18.280.010 – Off-Street Parking Requirements.** This table establishes that four or more dwelling units requires 2 off-street parking spaces per dwelling plus 1 space per dwelling for guest parking. Each lot will provide at least 2 outside of garage spaces and two in garage parking spaces for a total of 4 parking spaces per lot (dwelling unit) which exceeds the minimum requirement. Most if not all of the lots will actually provide 3 outside and 3 inside parking spaces.

TITEL 18.282 OUTDOOR LIGHTING
This development is subject to the development standards under title 18.282 of the LCMC. Only required street lighting is proposed. Street lighting will be decided during final engineering with an electrical/lighting plan using photometrics and approved by City of La Center. No lighting is shown on preliminary plat.

TITLE 18.300 CRITICAL AREAS
This site has no critical areas and therefore this title does NOT apply to this development. Critical areas that may be offsite would all be across the existing streets, NE 339th Street and NE 24th Avenue and would not be regulated by this development.

Refer to Technical Memorandum prepared by "Cascadia Ecological Services, Inc.", submitted with this application for mor information.

TITLE 18.310 ENVIRONMENTAL POLICY
This development is subject to the development standards under title 18.310 of the LCMC. Applicant has submitted a **SEPA Checklist** with this application.

TITLE 18.320 STORMWATER AND EROSION CONTROL
This development is subject to the development standards under title 18.320 of the LCMC.
This project complies with the requirements this title and will pay the associated fees. Once the site is fully developed, stormwater quality treatment and quantity control will be provided by drainage facilities as indicated on the plans. The facilities are proposed to be publicly owned but maintained by an HOA. Facilities have been designed to accommodate the stormwater runoff from the site when fully developed.

For calculations and information regarding the drainage facilities refer to the Stormwater Report and Plan prepared by "The Wolfe Group, LLC" that was submitted with this application.

TITLE 18.340 NATIVE PLANT LIST
This development is subject to the development standards under title 18.340 of the LCMC. All street trees and/or trees for replacement/mitigation for tree removal will comply with this title.

TITLE 18.350 TREE PROTECTION
This development is subject to the development standards under title 18.350 of the LCMC. A tree survey of existing trees was completed and submitted with this application. It is anticipated that most if not all trees will be removed for this development for grading, streets, utilities and future buildings. A full tree mitigation plan is included on the Preliminary Plat submitted with this application.

For additional details and information, refer to; Arborist Report prepared by "Arborscape Ltd. Inc."; preliminary plat/Tree Mitigation Plan prepared by "Wolfe Project Management, LLC" ; and Tree Survey Map & Inventory prepared by "Wolfe Project Management, LLC".

TITLE 18.360 ARCHAEOLOGICAL RESOURCE PROTECTION
This development is subject to the development standards under title 18.360 of the LCMC. An archaeological predetermination was performed by "Applied Archaeological Research, Inc.". It indicates historic structures that will need to be mitigated when removed. All existing structures are going to be removed. A mitigation plan will be submitted with engineering. No other items were discovered during their investigation. A copy of the report was submitted to the "Washington State Department of Archaeological and Historical Preservation".

Refer to Archaeological Predetermination and email from DAHP for more information.

FIRE PREVENTION
This development is subject to review and approval by "**CLARK COWLITZ FIRE RESCUE**".
- There are NO private roads or shared driveways.
- There are NO dead end streets or stub streets.
- Two flag lots are proposed.
- All streets shall be constructed to "Fire Apparatus" standards.
- Fire hydrants shall be shown on final engineering for review and approval.
- Proper fire flow shall be provided.

LAND USE ELEMENT OF THE COMPREHENSIVE PLAN
The development site is within the City's Urban Growth Boundary. The purposes of the proposed LDR-7.5 zoning district, per LCMC 18.130, is to provide for lower single and duplex densities where a full range of community services and facilities are present or will be present at the time of development. This proposal is consistent with the goals and policies of the Comprehensive Plan

TRANSPORTATION ELEMENT OF THE COMPREHENSIVE PLAN
This project is consistent with the transportation element because improvements constructed in conjunction with this application will improve road, pedestrian and bicycle networks. The applicant will dedicate right-of-way and improve the street network as shown on the proposed development plan. Future circulation of the surrounding parcels is enhanced with this proposal of half streets that will serve parcels to the east and north as shown on the proposed development plan. All of the proposed internal street sections meet the required transportation standards as directed by City Engineering staff per the preapplication conference. Moreover, the internal road network will provide safe and efficient circulation for traffic and sidewalks for pedestrians.

HOUSING ELEMENT OF THE COMPREHENSIVE PLAN
This proposal is for the division of urban residential land and the development of this project will create 34 new homes in the middle and high-middle price ranges of housing in the area.

CAPITAL FACILITIES & UTILITIES ELEMENT OF THE COMPREHENSIVE PLAN
The development of this project will include the construction of transportation, stormwater, water, sanitary sewer and other utilities complying with the City's development regulations. The applicant proposes to extend public water and sewer throughout the site. Completed utility review from the Clark PUD ais included with this application and indicate that these services are available to this project. Transportation, Park and School impact fees will be imposed as a condition of approval which also provides mitigation for the impacts created by the development of this property.

ECONOMIC DEVELOPMENT ELEMENT OF THE COMPREHENSIVE PLAN
The development of the site will create jobs in the construction industry. Future development of the site will provide housing to the area and will provide employment opportunities and additional contributions to the tax base.

HISTORIC, ARCHAEOLOGICAL AND CULTURAL PRESERVATION ELEMENT OF THE COMPREHENSIVE PLAN
An archaeological predetermination study was completed and submitted to the Washington State Department of Archaeology and Historic Preservation. No further archaeological studies were recommended. Please refer to the letter response from the State submitted with this application.

RCW 58.17.110 (Platting)
Under the provisions of RCW 58.17.110, the legislative body must find that the proposed subdivision is in the public interest and that adequate public services can be provided. The following address this requirement.

- This project implements existing Comprehensive Plan designations and zoning.
- This project can be adequately served by emergency services. Fire flow will be adequate to serve the site. Fire hydrants will be installed as required by the Fire Marshal.
- The applicant proposes to extend public water to the site. Clark PUD has completed a utility review and indicates that water service is available to the site.
- The applicant proposes to extend public sewer to the site. City of La Center has commented in the Pre-application Report and indicates that sewer service is available to the site
- This project manages stormwater runoff from the site. A preliminary stormwater design has been prepared by The Wolfe Group, LLC.
- Improvements will be constructed in compliance with City of La Center's development regulations.
- This project will generate park, school and traffic impact fees to offset impacts.
- This project will contribute to an increased tax base.
- This proposed land division will promote the general welfare of the City of La Center by complying with all applicable statues, regulations and ordinances.

Public Health, Safety and General Welfare
The proposed land division is compatible with the surrounding uses and is not detrimental to the public health, safety or general welfare of adjacent uses or properties. Roads and access ways will be constructed, connected to the existing roadways and will be stubbed to adjacent parcels, thus improving the overall road infrastructure. Public water and sewer will be extended to the lots and stubbed to adjacent parcels, thus improving the overall utility infrastructure. Water runoff will be collected and treated, thereby protecting ground water supply and integrity. Safe walking paths (sidewalks) will be constructed throughout the site.

Proposal Summary
The development of this 8.64 acres site into 34 single-family residential lots will aid in meeting both the LDR7.5 zoning and Urban Low Density Residential comprehensive plan goals for the area. The development of this site will extend public utilities to the individual lots and provide improved emergency vehicle access to the area with the extension of all existing streets stubbed to the property, half street improvements of NE 339th Street and NE 24th Avenue and construction of the proposed internal streets. The full build-out of this development will aid in the creation of jobs, provide housing consistent with the housing planned for the area, add to the tax base and discourage urban sprawl by building on land designated for residential development.

Supplemental to Narrative for Valley View

“Density”

12-15-22

This supplement to the Narrative is to address minimum density requirements.

GROSS DENSITY

- Site contains 376,358 (8.64acres) square feet.
- Project proposes 34 dwelling units
- Gross density equals 3.93 du/acre

NET DENSITY

- Lots 1-34 contain 267,849 (6.1489acres) square feet.
- Lots 1-34 & Tract A contain 288,539 (6.6239acres) square feet.
- Net density for just lots 1-34 equals 5.52 du/acre
- Net density for lots 1-34 and Tract A equals 5.13 du/acre.

ROW equals 87,819 square feet.

There are no other public spaces, easements or critical areas.

Per LMC 18.130.080(1), the minimum density required is 4 dwelling units per net acre. Based on the above information, this project meets the minimum required density for the LDR-7.5 zone.

Exhibit A.10

CASCADIA
ECOLOGICAL SERVICES, INC.

TECHNICAL MEMORANDUM

TO: Mason Wolfe	FROM: Jim Barnes
COMPANY: KDev, LLC	DATE: 6/30/22
RE: Valley View Subdivision	CC: City of La Center Community Development Department

☐ URGENT ☑ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

This technical memorandum addresses site conditions observed at the proposed Valley View Subdivision in La Center, Washington during a site visit completed on June 29, 2022.

The project site consists of Tax Parcel 206062000 which is located in the Northeast quarter of Section 02, Township 4 North, Range 1 East, of the Willamette Meridian, Clark County, Washington. The site is bordered by NE 24th Avenue to the east; NE 339th Street to the north, NE 8th Street to the South; E Upland Avenue to the west; and E Vine Maple Avenue to the southwest.

The 8.64 acre property is a remainder lot of a large farm called the Chicken Ranch that has been recently developed with residential subdivisions. It is located on a hilltop at an elevation of approximately 304 feet above mean sea level. The lot contains a house with several outbuildings and barns. Most of the site is dominated by upland grassland pasture apart from several walnut trees near the center and other trees with ornamental shrubs and maintained lawn adjacent to the developed areas.

Observation of vegetation, hydrology, and soils in conjunction with data from National Wetland Inventory maps of the U.S. Fish and Wildlife Service, the USDA NRCS Web Soil Survey, and aerial photos were used to determine the presence of critical areas. The presence or non-presence of wetlands were determined by using the Routine Determination Methodology of the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region. Observed dominant vegetation on the site is listed in Table 1.

The majority of the property is mapped with the non-hydric Gee silt loam soil series. These soils are at elevations of 150 to 300 feet on rolling and hilly terraces. They formed in mixed alluvium with some volcanic ash in the upper part. Gee soils are moderately well drained and have moderate permeability.

The far northeast corner of the property is mapped with the hydric Odne silt loam, 0 to 5 percent slopes. Soil samples taken in this area were more consistent with the Gee silt loam series. No primary or secondary indicators of wetland hydrology were observed on the property. Topography on the site is undulating but generally drains off in all directions because the site is a hilltop.

A road ditch is located along NE 339th Street. At the northeast corner of the site a road culvert was located which conveys flow into a north-south oriented ravine on Tax Parcel 259125000. The northeast corner of the project area slopes up significantly from the road ditch and no indicators of wetlands were observed.

Based on observations taken during the field visit and review of the supporting documentation listed in this memorandum, the project area contains does not contain any areas of habitat or wetlands that would be regulated under Chapter 18.300 of the LCCAO.

Table 1. Dominant upland plant species occurring on the study area.

Herb Stratum		
Scientific Name	**Common Name**	**WIS***
Festuca arundinacea	Tall Fescue	FAC
Anthoxanthum odoratum	Sweet vernalgrass	FACU
Poa pratensis	Kentucky bluegrass	FAC
Cirsium arvense	Canada thistle	FAC
Prunella vulgaris	Self heal	FACU
Leucanthemum vulgare	Oxeye daisy	FACU
Taraxacum officinale	Common dandelion	FACU
Geranium molle	Dovesfoot geranium	FACU
Plantago lanceolata	Lanceleaf plantain	FACU

* Wetland Indicator Status (WIS):

OBL	=	almost always occur in wetlands
FACW	=	usually occur in wetlands, but may occur in non-wetlands
FAC	=	occur in wetlands and non-wetlands
FACU	=	usually occur in non-wetlands, but may occur in wetlands
UPL	=	almost always occur in non-wetlands

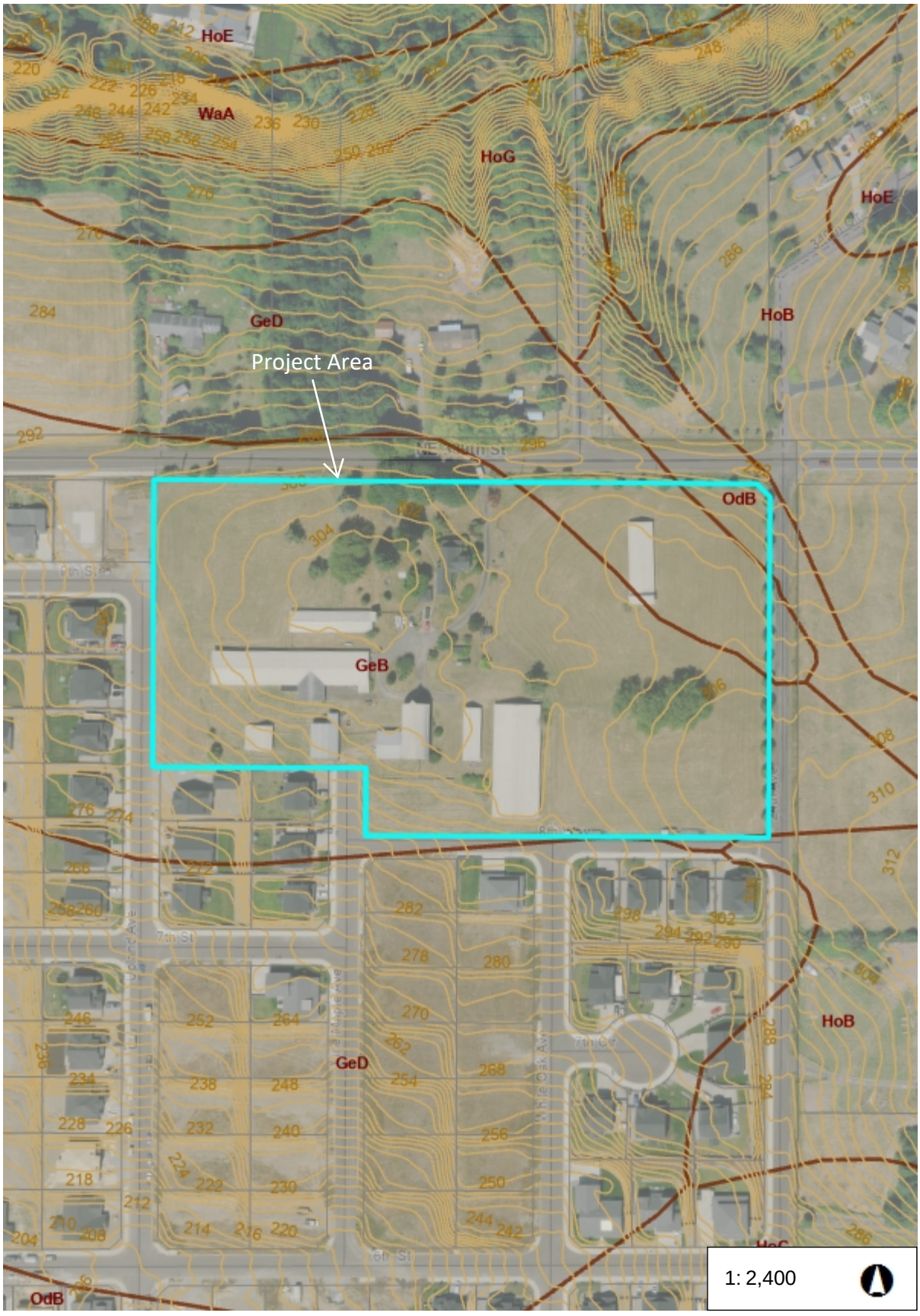
Please feel free to contact me at (360) 601-8631 if you have any questions or need additional information.

Attachments

Appendix A: Project Location
Appendix B: Preliminary Plat
Appendix C: Site Photos

Appendix A. Project Location
Technical Memorandum
The Chicken Ranch LLC Property

Date: 6/30/22



Legend

- Taxlots
- Contours Lines - 2 ft
- Soil Type

Location:
2219 NE 339th St.
La Center, WA 98629

Property Owner:
The Chicken Ranch, LLC
P.O. Box 128
La Center, WA 98629

Tax Parcel: 209062000

Latitude = 45.8659
Longitude = -122.6479

STR NE 1/4, S02, T4N, R1E
of the Willamette Meridian

Notes:

400.0 0 200.00 400.0 Feet

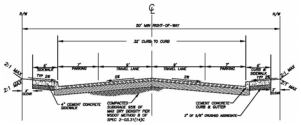
WGS_1984_Web_Mercator_Auxiliary_Sphere
Clark County, WA. GIS - http://gis.clark.wa.gov

Appendix B

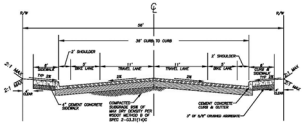
Valley View

A Subdivision In The
NE ¼ of Section 02, T4N R1E *WM*
County Parcel #s: ***209062000***
Site Address: **2219 NE 339th Street**
La Center, WA 98629
Site Area: **376,358+/- SF (8.64+/- acres)**
Site Zoning: ***LDR-7.5***

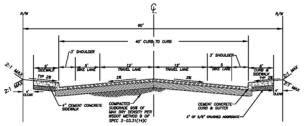
Detail 1: Local Access
All Proposed Internal Roads
Not to Scale



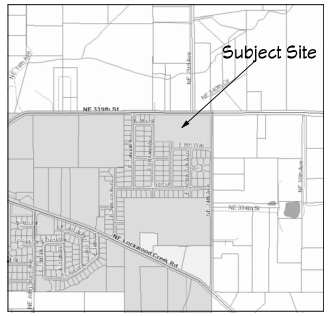
Detail 2: Rural Minor Collector
NE 24th Avenue
Not to Scale



Detail 3: Rural Major Collector
NE 339th Street
Not to Scale



VICINITY MAP



LEGEND

- INDICATES EXISTING RIGHT-OF-WAY
- INDICATES EXISTING STORM PIPE
- INDICATES PROPOSED STORM PIPE
- INDICATES EXISTING WATER LINE
- INDICATES PROPOSED WATER LINE
- INDICATES EXISTING SANITARY SEWER LINE
- INDICATES PROPOSED SANITARY SEWER LINE

CURRENT OWNER:
The Chicken Ranch, LLC
PO Box 128
La Center, Washington 98629
503-348-1134
sandyperrott888@hotmail.com

PLAT NOTES:

1. Total Gross Area = 376,358 SF / 8.64 acres
2. This subdivision proposes 34 single family residential lots,
3. Site is currently zoned LDR-7.5
4. Largest lot is 9,342 SF; Smallest lot is 7,500 SF; Average Lot size is 7,851 SF.
5. Gross density equals 3.93 dwelling units per acre; Net density equals 5.54 dwelling units per acre.
6. All existing structures are to be removed. No new buildings or structures are proposed. Refere to Existing Conditions for existing structures.
7. If required, a 6' tall chain-link fence around storm facility in proposed Tract A is only proposed fence. No walls are proposed.
8. Only proposed landscaping are required street trees installed at required locations.
9. Only proposed lighting is required street lighting that will be designed during final engineering.
10. Only street parking proposed with this plan. Driveway and garage parking will be provided during building permit. No loading facilities are proposed.
11. It is presumed that NE 339th St and NE 24th Ave are classified as "Neighborhood Access" roads.
12. All proposed internal roads are presumed to be classified as "Local Access" roads.
13. There are NO existing or proposed pedestrian facilities besides sidewalk.
14. There are NO existing or proposed easements.
15. There is an existing well shown on the Existing Conditions that will be properly abandon.
16. There is an existing septic tank and septic drain-field shown on the Existing Conditions that will be properly abandon.
17. There are NO other above ground tanks or known underground tanks.
18. Refere to Existing Conditions for all existing public and private utilities.
19. Public water will be extended from Heritage Country Estates and serve all new lots.
20. Public sewer will be extended from Heritage Country Estates and serve all new lots.
21. Storm water will be collected and sent to existing storm system in Heritage Country Estates, except that storm water that drains north east that will be collected, treated and detained in proposed Tract A.
22. Private utilities such as phone, cable & gas may be extended on to and throughout this plan.
23. There are NO environmental critical areas on or known within 100' of site.

#	DATE	REVISION TABLE DESCRIPTION	NOTES
1	05-03-2022	NWW	

Valley View
A Subdivision In The
NE ¼ of Section 02, T4N R1E WM
County Parcel #s: 209062000
Site Address: 2219 NE 339th Street
La Center, WA 98629

Preliminary Plat &
Preliminary Utility Plan

APPLICANT/CONTACT:
KDW, LLC
Mason Wolfe
NE 9 38th Avenue
Ridgefield, WASHINGTON 98642
360-907-9583
mason@wolfepm.com

DRAWING PROVIDED BY:
Wolfe Project Management, LLC
Mason Wolfe
2401 W Main Street, Suite 210
Battle Ground, Washington 98604
360-907-9588
mason@wolfepm.com

DATE:
04/13/2022

SCALE:
1" = 40'

SHEET:
P-1

Appendix C – Site Photos

Photo 1. Photo taken from the northeast corner of the site at NE 339th Street facing southwest.

Photo 2. Photo taken from the northeast corner of the site at NE 339th Street facing south.

Appendix C – Site Photos

Photo 3. Photo taken from the northeast corner of the site at NE 339th Street road ditch facing west.

Photo 4. Photo taken from the northeast corner of the site at NE 339th Street road ditch culvert.

Appendix C – Site Photos

Photo 5. Barn in the central part of the site facing north.

Photo 6. Central part of the site facing north.

Exhibit A.11

KDEV, LLC
Geotechnical Engineering Evaluation

Valley View Subdivision
2219 NE 339th St
La Center, Washington

True North Project No. 22-0216-1
August 2022

202 E Evergreen Blvd, Suite B, Vancouver, WA 98660 - 360-984-6584 - www.tnorthgeo.com

August 8, 2022

KDEV, LLC
740 S 85th Ave
Ridgefield, WA 98642

Attn: Mr. Mason Wolfe

Subject: **Geotechnical Engineering Evaluation**
Valley View Subdivision
2219 NE 339th St
La Center, Washington 98629
True North Project # 22-0216-1

Dear Mr. Wolfe:

At your request, True North Geotechnical Services (True North) is providing you with this report summarizing our geotechnical services for the proposed new Valley View Subdivision residential development to be located at the above-mentioned address in La Center, Washington (site). The purpose of our services was to provide a geotechnical evaluation of the site as it pertains to the proposed new development.

We have endeavored to prepare this report in accordance with generally accepted geotechnical engineering practices at the time we prepared it, for the exclusive use of KDev, LLC, the owner, and their agents, for specific application to this project. Use or reliance upon this report by a third party is at their own risk. True North does not make any representation or warranty, express or implied, to such other parties as to the accuracy or completeness of this report or the suitability of its use by such other parties for any purpose whatever, known or unknown, to True North.

Based on the results of our study, development of the site with the proposed buildings and associated parking and utilities is feasible provided the recommendations in this report are included in the project design and implemented during construction. The chief geotechnical concerns of note associated with the project are ensuring foundations are bearing on dense, competent native soils.

The attached report includes a summary of our project understanding, geologic site reconnaissance, subsurface explorations, and our conclusions regarding the expected effect that the proposed lot development will have on the site.

PURPOSE AND SCOPE OF WORK

The purpose of our services was to provide a geotechnical evaluation of the site as it pertains to the proposed new development. This report includes a summary of our project understanding, geologic site reconnaissance, subsurface exploration, our conclusions regarding the effects of the proposed lot development on the site, and recommendations for design and construction.
The following describes our specific scope of work that was completed:

- **Geologic Map and Literature Review**: We reviewed published geologic and geologic hazard mapping for the site.
- **Test Pit Excavations:** We completed five (5) test pit excavations on the property. The test pit excavations extended to depths ranging from about 12 to 13 feet below the ground surface (bgs).
- **Laboratory Testing:** Samples collected from the borings were returned to our office for further examination including classification in general accordance with the Unified Soil Classification, Visual-Manual Procedure. Select samples were subjected to laboratory testing, including natural moisture content analysis, and fines content analysis.
- **Analysis:** Data collected during the literature research, subsurface explorations, and laboratory testing were used to develop site-specific geotechnical design parameters and construction recommendations.
- **Report Preparation:** This Geotechnical Engineering Evaluation summarizes the results of our explorations and analyses, including information relating to the following:
    - Exploration logs and site plan with exploration locations
    - Laboratory test results
    - Summary of interpreted surface and subsurface conditions
    - Shallow foundation design recommendations
        - Minimum embedment and allowable bearing pressure
        - Estimated settlement
        - Sliding coefficient and passive earth pressure
    - Subsurface drainage requirements
    - Earthwork recommendations
        - Temporary and permanent slope inclinations
        - Structural fill materials and preparation
        - Suitability of native and on-site soils for reuse as structural fill
        - Wet weather/conditions consideration
    - Foundation, slab and pavement subgrade preparation recommendations
    - Flexible and rigid pavement design recommendations
    - Utility trench excavation and backfill recommendations for associated utilities
    - Seismic design criteria and design considerations

PROJECT UNDERSTANDING

True North understands that you are planning to subdivide an existing Clark County Tax Parcel, no. 209062000. The site with respect to existing nearby features is shown in the attached Vicinity Map, Figure 1. The location of our explorations with respect to existing site conditions and the preliminary planned subdivision lots is shown on the attached Site Plan, Figure 2.

True North's understanding of the proposed development is based on a review of a "Preliminary Plat" for the project, prepared by Wolfe Project Management, LLC, dated April 13, 2022. We understand that the proposed project consists of the subdivision of the existing 8.6-acre lot into 34 new lots. The new lots will range in size from approximately to 0.17 to 0.22 acres and will each accommodate one single-family home. We understand that four existing public roadways, East Upland Avenue, East Vine Maple Avenue, East 9th Street, and East White Oak Avenue, are planned to be extended through the site to provide access to the lots. The plan proposes half street improvements on NE 24th Avenue and NE 339th Street, the Eastern and Northern site boundaries, respectively. In general, we understand that utilities are planned below the new roadways.

We anticipate the future homes at all lots will have relatively short driveways to the new private roadway and will be supported by conventional concrete spread footings. Based on our understanding of proposed development, we anticipate cuts and fills of less than 4 feet. The purpose of our explorations was to evaluate subsurface conditions and provide geotechnical recommendations for design and construction, including site preparation and support of the proposed new development.

SITE CONDITIONS

The site is located in the norther reaches of the Portland Basin, a structural basin filled with a thick sequence of sediment associated with basaltic lava flows and repeated glacial outburst flooding of the Columbia River and its tributaries. The last of these outburst flooding events, known as the Missoula Floods, occurred about 12,000 years ago. The flood deposits include layers of clay, silt, sand, and gravel. Some of the layers may include boulders up to 8 feet in diameter, often carried within large blocks of glacial ice.

In the immediate vicinity of the site the near surface soils are mapped as the sand and silt facies (QTc/Qa) of the ancestral Columbia River flood deposits. Soils consist of unconsolidated silt, sand, clay, and gravel from cobble to boulder size. The flood deposits are underlain at depth by basin-fill deposits that include the conglomerates and sandstone of the Tertiary-age Troutdale Formation (USGS SIM-3357).

Surface Description

As discussed above, the site currently consists of one parcel comprising a total 8.64 acres, located off NE 339th Street in La Center, Washington. The parcel is currently occupied by a house, several detached storage buildings and barns, and a long gravel driveway connected to NE 339th Street. The existing garage/shop buildings will be demolished for the proposed new development.

The ground surface at the site is generally level across the site. The elevation at the site ranges from approximately 286 to 306 feet above mean sea level (AMSL). Photographs of some of our explorations are included in Figure 3.

Subsurface Conditions

We explored the subsurface conditions at the project site on June 14, 2022. The field explorations consisted of five test pit excavations, designated TP-1 through TP-5, extended to a maximum depth of about 13.0 feet below the existing ground surface (bgs). The approximate test pit locations are shown on Figure 2. The test pits were logged and representative soil samples collected by us, which were returned to our office for further testing and examination. Descriptions of field and laboratory procedures and the exploration logs are included in Attachment A. The following is a generalized description of the subsurface units encountered in our explorations.

Clayey SILT: Light brown/orange Clayey Silt (CL) with variable amounts of sand was encountered just below the ground surface in TP-1, TP-3, TP-4, and TP-5 extending to depths ranging from about 4.5 to 7.0 feet bgs. In general, the silt exhibited low to medium plasticity and the consistency was soft to medium stiff.. The moisture content of three samples tested from this layer ranged from 25 to 32 percent and the fines content from one sample was about 85 percent.

Sandy SILT/ Silty SAND: Light brown/orange Sandy Silt (ML/SM) and Silty Sand (SM) with dark concretions was encountered just below the Clayey Silt layer in TP-1, TP-3, TP-4 and TP-5, and just below the ground surface in TP-2, extending to depths ranging from about 7.0 to 12.5 feet. TP-5 was terminated in this layer. The sand was generally poorly-graded, appearing fine grained in some samples and coarse grained in others. The sand content generally increased with depth. The moisture content of nine samples from this layer ranged from 27 to 31 percent and the fines content from one sample was about 80 percent.

CLAY: Light brown/orange Clay (CL and CH) with varying amounts of sand and silt was encountered below the silty/sandy layer in TP-1, TP-2 TP-3 and TP-4extending to the termination depths of about 12 to 13 feet bgs in all, except for TP-3. In general, the sand was fine grained. Occasional sizeable dark concretions were observed in some of this layer. The moisture content of our samples from this layer ranged from 27 to 42 percent and the fines content from three sample was about 90 to 93 percent.

Groundwater

Groundwater was not encountered in any of our test pits at the time of our explorations. A review of publicly available well logs for nearby properties indicated groundwater is located at depths ranging from about 50 to 60 feet below the existing ground surface, although due to the fine-grained nature of the subsurface soil, layers of perched water may be present in localized areas seasonally.

USDA Soil Identification

According to the USDA Web Soil Survey, the near-surface soils at the site are generally identified as Gee silt loam, with small deposits of Hillsboro and Odne silt loam in the northeast corner of the site. These soils generally consist of loamy silt with varying amounts of coarse to fine sand and are assigned the hydrologic soil group "C" based on drainage and other properties, indicating the soils have a low to moderately high capacity to transmit water.

Geologic Hazards

The following provides a geologic hazard review for the subject site. The geologic hazard review as based on our site reconnaissance and explorations, as well as a review of publicly available published literature and maps.

Slope and Landslide Hazards:

Slopes between 5 and 15 percent can be observed within portions of the site. Relatively flat areas exist in the most of the center of the site. It is our understanding that the site will be graded to create relatively level lots, with cut and fill thickness of up to about 4 feet. Based on this understanding of the existing and planned topography, slope and landslide hazards are not considerd a concern at the property.

Seismic Hazards:

The following seismic hazards have been considered as part of our geologic hazards review for the project site:

Ground Motion Amplification: Based on a review of Clark County Maps Online, the site is designated as seismic Site Class "D". However, based on the limited depth of our exploration and recommendations below, it is our opinion that a Site Class "D" is more appropriate for use at the site. The seismic design parameters, in accordance with the 2018 IBC (with Washington State amendments), are summarized in Table 2.

Table 2. 2015 IBC Seismic Design Parameters

Location	Short Period	1-Second
Maximum Credible Earthquake Spectral Acceleration	S_s = 0.887 g	S_1 = 0.395 g
Site Class	D	
Site Coefficient	F_a = 1.145	F_v = 1.609
Adjusted Spectral Acceleration	S_{MS} = 1.016 g	S_{M1} = 0.636
Design Spectral Response Acceleration Parameters	S_{DS} = 0.677 g	S_{D1} = 0.424

g – acceleration due to gravity * see note below

Due to the Site Class "D" designation and the long period MCES (S_1) value exceeding 0.2 g, the structural engineer must apply the site-specific ground motion increases outlined in Section 11.4.8

of ASCE 7-16, including an increased of 50 percent to the seismic base shear coefficient, C_s. As an alternative to applying these conservative increases to the ground motions, a site-specific ground motion hazard analysis may be performed, however such an analysis was not included in the scope of this study.

Liquefaction: Due to the expected relatively deep groundwater below the site and the relative density and fines content of the soils encountered in our explorations, we consider the potential for liquefaction settlement within the site boundaries to be very low to negligible. Indeed, the site is mapped as having a "very low" liquefaction susceptibility based on the Liquefaction Susceptibility Map of Clark County.

CONCLUSIONS AND RECOMMENDATIONS

Geotechnical Design and Construction Considerations

Based on the results of our site reconnaissance, subsurface explorations, and geologic map review, it is our opinion that the planned single-family residential development of the site within the proposed new lots and the associated utilities, access roads and driveways are feasible provided the recommendations in this report are included in the project design and implemented during construction. The chief geotechnical concern of note associated with the project is ensuring foundations are bearing on competent dense native soils and maintaining proper moisture control of the fine grained site soils during site grading and filling operations. Our opinion is based on field observations and subsurface explorations completed by True North and review of the following documents and information sources: County soils and groundwater mapping, a published geologic map, and our understanding of the proposed development plans.

Site Preparation

After any surface and near surface water sources have been controlled, the construction areas should be cleared and stripped of organic matter, and other deleterious materials. Silt fences, hay bales, buffer zones of natural growth, sedimentation ponds, and granular haul roads should be used as required to reduce sediment transport during construction to acceptable levels.

Where present, existing topsoil and other disturbed surface materials should be stripped and removed from proposed development locations and for a five-foot-margin around such areas. Based on our explorations, the depth of stripping may range from 3 to 6 inches, although greater stripping depths may be required if loose or soft materials are encountered, or where mature trees and their associated roots are removed. Deleterious materials encountered during site preparation should be removed from the subgrade soils and hauled off site for disposal. Stripped material should be transported off site for disposal or stockpiled for use in landscaped areas. If stripping operations occur during wet weather, a generally greater stripping depth might be required in order to remove disturbed moisture sensitive soils; therefore, stripping is best performed during a period of dry weather.

Subgrade Verification

Following site preparation, including removal of all topsoil/till zone and compaction of the exposed subgrade and prior to placing aggregate base for the foundations, building pad, or pavement section, the exposed subgrade should be evaluated. The subgrades should be evaluated by qualified True North personnel using a steel foundation probe. Unsuitable areas identified during the field evaluation should be re-compacted to or be excavated to firm ground and replaced with structural fill.

Wet/Freezing-Weather/Wet-Soil Conditions

Due to the presence of fine-grained silt in the near-surface materials at the site, construction equipment may have difficulty operating on the near-surface soils when the moisture content of the surface soil is more than a few percentage points above the optimum moisture required for compaction. Soils that have been disturbed during site preparation activities, or unsuitable areas identified during proofrolling or probing, should be removed and replaced with compacted structural fill.

Site earthwork and subgrade preparation should not be completed during freezing conditions.

Protection of the subgrade is the responsibility of the contractor. Construction of granular haul roads may help reduce further damage to the pavement and disturbance of site soils. The thickness of the granular material for haul roads and staging areas will depend on the amount and type of construction traffic. The actual thickness of haul roads and staging areas should be based on the contractors' approach to site development, and the amount and type of construction traffic. The imported granular material should be placed in one lift over the prepared, undisturbed subgrade and compacted using a smooth-drum, non-vibratory roller. A geotextile fabric should be used to separate the subgrade from the imported granular material in areas of repeated construction traffic.

Excavations

Where required, temporary soil cuts associated with site excavations or regrading activities should be adequately sloped back to prevent sloughing and collapse, unless a shoring box or other suitable excavation side wall bracing is provided. It is the responsibility of the contractor to ensure that excavations are properly sloped or braced for worker safety protection, in accordance with OSHA safety guidelines.

Structural Fill

Structural fill includes any fill materials placed under footings, pavements, or driveways and backfill over the embedded mat foundation. Typical materials used for structural fill include: clean, well-graded sand and gravel; clean sand; crushed rock; controlled-density fill (CDF); lean-mix concrete; and various soil mixtures of silt, sand, and gravel. Use of the on-site soils as structural fill may be feasible, provided they are properly moisture conditioned prior to placement and

compaction. Due to their fine-grained nature, mass grading at the site should be limited to dry weather.

Imported granular structural fill should consist of angular pit or quarry run rock, crushed rock, or crushed gravel and sand that is fairly well graded between coarse and fine particle sizes. The fill should contain no organic matter or other deleterious materials, have a maximum particle size of one inch, and have less than 5 percent passing the U.S. No. 200 Sieve. In deep excavations, or where subgrade soils require stabilization, the particle size may be increased to four inches. The percentage of fines can be increased to 12 percent of the material passing the U.S. No. 200 Sieve if placed during dry weather and provided the fill material is moisture-conditioned, as necessary, for proper compaction. The material should be placed in lifts with a maximum uncompacted thickness of 12 inches and be compacted to not less than 95 percent of the maximum dry density, as determined by ASTM D 1557. During the wet season or when wet subgrade conditions exist, the initial lift thickness may be increased to 24 inches and should be compacted by rolling with a smooth-drum, nonvibratory roller.

Foundations

Continuous-wall and isolated-spread footings should be at least 12 and 24 inches wide, respectively. For frost protection, the footings should be founded at least 12 inches below the lowest adjacent grades or deeper if required by local building code. The footings should be founded below an imaginary line project at a 1H:1V slope from the base of any adjacent, parallel utility trenches.

Footings should bear on the near-surface silt or gravelly clay or structural fill placed in accordance with our recommendations. Footings should be sized for an allowable bearing capacity of 1,500 psf. We estimate post construction settlements will be less than one inch for our recommended allowable bearing capacity. We estimate that the differential settlement will be approximately half of the total settlement. Our recommended bearing capacity is based on limiting settlements and includes a minimum factor of safety of 3 against ultimate bearing failure.

Lateral loads acting on the foundations can be resisted by passive earth pressures on the sides of the foundation and by friction along the soil-rock-concrete interface at the base of the foundation. We recommend using an allowable passive earth pressure of 250 pounds per cubic foot (pcf) for foundations confined by the near-surface silty sand or structural fill placed in accordance with our recommendations. We recommend an allowable coefficient of friction of 0.35 for foundations. In order to develop these capacities, concrete must be poured neat in excavations, the adjacent grade must be level, and the static ground water level must remain below the base of the footing throughout the year. The passive pressure within the upper foot of embedment should be neglected. These allowable lateral resistance values include a factor of safety of 1.5.

Slab-on-grade Floors

Satisfactory subgrade support for lightly-loaded building floor slabs can be obtained on the undisturbed native soil or on engineered structural fill. A subgrade modulus of 125 pounds per cubic inch may be used to design floor slabs.

A minimum 6-inch-thick layer of drain rock should be placed and compacted over the prepared subgrade to assist as a capillary break and blanket drain. The drain rock may include a capping layer of clean ¾ inch minus crushed rock that contains no more than 5% fines. The drain rock and capping rock should be placed in one lift and compacted until well-keyed, about 90% of the maximum dry density as determined by ASTM D698.

A vapor retarder manufactured for use beneath floor slabs should be installed according to the manufacturer's recommendations. Careful attention should be made during construction to prevent perforating the retarder, and to seal edges and utility penetrations. We recommend following ACI 302.1, Chapter 3 with regard to installing a vapor retarder.

Pavement Design

The following pavement design recommendations are based on our experience with similar facilities and subgrade conditions.

For automobile parking areas, we recommend a pavement section consisting of 3 inches of asphaltic concrete (AC) over 8 inches of crushed rock base (CRB) or 5 inches of Portland Cement concrete (PCC) over 5 inches of crushed rock base (CRB). For truck traffic areas, the pavement section should consist of 4 inches of AC over 12 inches of CRB or 6 inches of PCC over 8 inches of CRB. These recommended pavement sections are based on the assumption that the subgrade consists of firm structural fill or compacted native subgrade and that the pavement will be constructed during the dry summer months. Proofrolling should be used to evaluate pavement subgrade. Any soft areas disclosed by proofrolling will likely need to be reworked. Some contingency should be provided for the repair of any soft areas. If pavement construction is scheduled for the wet season, it will be necessary to increase the above-recommended base course sections. AC and CRB materials should conform to WSDOT specifications. All CRB should be compacted to at least 95 percent of the modified proctor ASTM D-1557 laboratory test standard.

Permanent, properly installed drainage is also an essential aspect of pavement design and construction. All paved areas should have positive drainage to prevent ponding of surface water and saturation of the base course. This is particularly important in cut sections or at low points within the paved areas, such as around stormwater catch basins.

Drainage

The Contractor should be made responsible for temporary drainage of surface water and groundwater as necessary during construction to prevent standing water and/or erosion at the site.

As a matter of good construction practice, we recommend that perimeter drains be installed for all buildings. Perimeter drains should consist of perforated drainpipe embedded in a zone of free draining fill that is wrapped in a non-woven geotextile filter. The pipe should be connected to a tightline drainpipe leading to storm drain facilities. Foundation and crawl space drainage should be sloped to drain to a sump or low point drain outlet. Water should not be allowed to pond within crawl spaces. Roof drains should be connected to a tightline drainpipe leading to storm drain outlet facilities.

Water should not be allowed to “pond” or collect anywhere on the site. The ground surface around structures should be sloped to drain away from building foundations for a distance of at least 5 feet. Surface water should be directed away from all buildings into drainage swales or other approved drainage areas. “Trapped” planting areas should not be created next to any buildings without providing means for drainage.

Soil Erosion

Site-specific erosion control measures should be implemented to address the maintenance of slopes or exposed areas. This may include silt fence, bio-filter bags, straw wattles, or other suitable methods. During construction, all exposed areas should be well compacted and protected from erosion. Temporary slopes or expose areas may be covered with straw, crushed aggregate, or rip in localized areas to minimize erosion.

Finished slopes should be vegetated as soon as possible with erosion-resistant native grasses and plants. Once established, slope vegetation should be properly maintained. Concentrated water should be prevented from flowing over slope faces.

CONSTRUCTION OBSERVATIONS

Satisfactory earthwork performance depends on the quality of construction. Sufficient monitoring of the contractor’s activities is a key part ensuring that work is completed in accordance with the construction drawings and specifications. We recommend that True North observe that the subsurface conditions observed during our site investigation are consistent with those encountered during construction, and that foundation subgrades are suitable for placement of structural fill, rebar, or concrete for the new structures.

Clark County may require a final letter of geotechnical compliance before they will finalize a permit. If such a letter is required, a representative from True North MUST observe foundation subgrades PRIOR to concrete being poured for the foundation. If True North does not perform this observation, we cannot provide a final letter of geotechnical compliance, and a permit will not be

eligible for final sign-off. It is the owner's responsibility to ensure that True North be notified in a timely manner (i.e., at least 48 hours prior to the required site observation) of the need for our services on site during construction.

LIMITATIONS

We have prepared this report for use by the owner/developer and other members of the design and construction team for the proposed Valley View subdivision. The opinions and recommendations contained within this report are not intended to be, nor should they be, construed as a warranty of subsurface conditions, but are forwarded to assist in the planning and design process.

We have made observations based on our explorations that indicate the soil conditions at only those specific locations and only to the depths penetrated. These observations do not necessarily reflect soil types, strata thickness, or water level variations that may exist in other locations. If subsurface conditions vary from those encountered in our site exploration, True North should be alerted to the change in conditions so that we may provide additional geotechnical recommendations, if necessary. The future performance and integrity of the improvements will depend largely on proper initial site preparation, drainage, and construction procedures. Observation by experienced geotechnical personnel should be considered an integral part of the construction process.

The conclusions and recommendations contained in this report are based on our understanding of the currently proposed project, as derived from written and verbal information supplied to us by you. When the design has been finalized, we recommend that we review the design and specifications to see that our recommendations have been interpreted and implemented as intended. If design changes are made, we request that we be retained to review our conclusions and recommendations and to provide a written modification or verification.

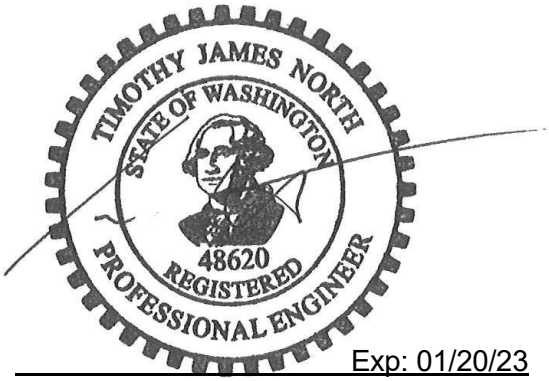
The scope of our services does not include services related to construction safety precautions, and our recommendations are not intended to direct the contractor's methods, techniques, sequences, or procedures, except as specifically described in our report for consideration in design.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with the generally accepted practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

CLOSING

I appreciate the opportunity to be of service to you. If you have any questions, or if I can be of further assistance to you, please contact me at (360) 984-6584.

Respectfully Submitted,

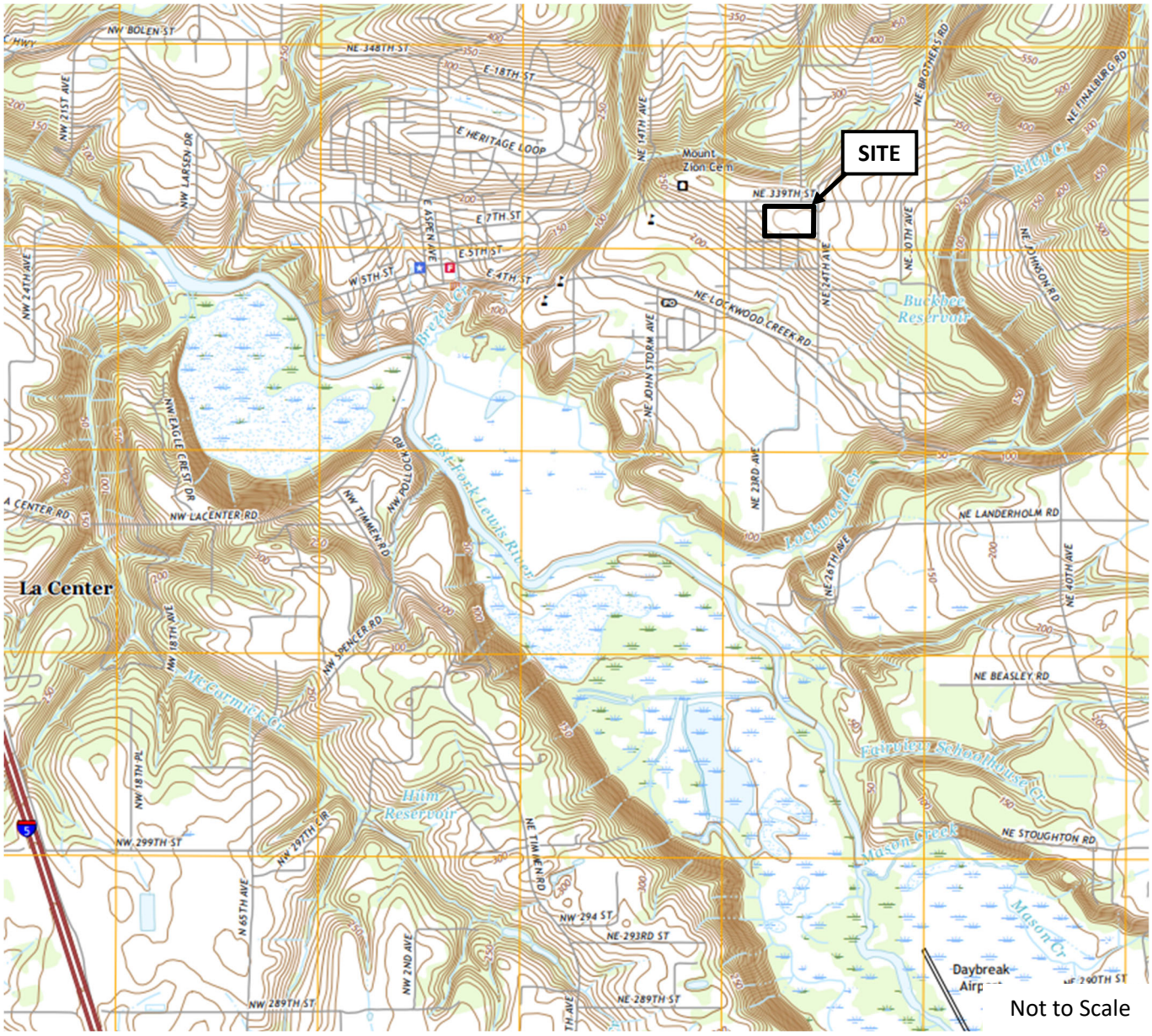


Exp: 01/20/23

Timothy J. North, P.E.
Geotechnical Engineer

Attachment:
Figure 1 – Vicinity Map
Figure 2 – Site & Exploration Plan
Figure 3 – Typical Cut and Fill Slope Detail
Appendix A – Field Exploration and Laboratory Testing Procedures
Test Pit Logs TP-1 through TP-5

FIGURES



Source: "Topographic Map of the Ridgefield Quadrangles, 7.5 minute series" 2020, United States Geological Survey, accessed June 16, 2022.

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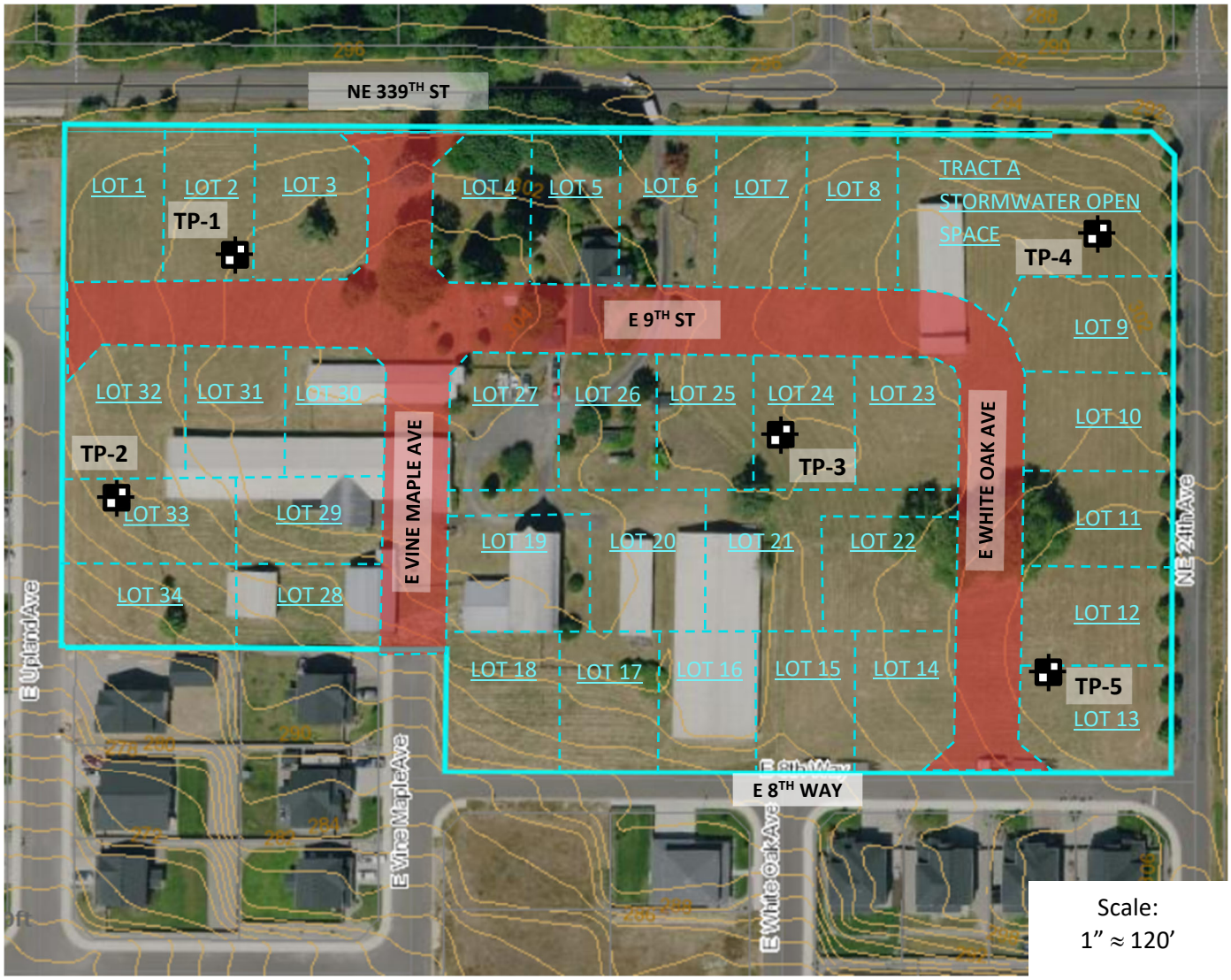
TRUE NORTH GEOTECHNICAL	KDEV, LLC Valley View Subdivision La Center, WA	Project # 22-0216-1
202 E Evergreen Blvd, Suite B Vancouver, WA 98660 360-984-6584	August 2022	Figure 1 – Vicinity Map



TP-1 Approximate Test Pit Locations, excavated June 14, 2022

Source: Aerial & Topo – Clark County MapsOnline, accessed June 16, 2022.

Subdivision Layout – “ Preliminary Plat & Preliminary Utility Plan”, by Wolfe Project Management, LLC, dated April 13, 2022.

TRUE NORTH GEOTECHNICAL	KDEV, LLC Valley View Subdivision La Center, WA	Project # 22-02106-1
202 E Evergreen Blvd, Suite B Vancouver, WA 98660 360-984-6584	August 2022	Figure 2 – Site and Exploration Plan

Photo 1. Excavation at TP-3; colorful silty clay observed in every test pit at varying depths.

Photo 2. Excavation at TP-5, arrow pointing toward damaged clay drainage pipe; no groundwater observed.

TRUE NORTH GEOTECHNICAL	KDEV, LLC Valley View Subdivision La Center, WA	Project # 22-0216-1
202 E Evergreen Blvd, Suite B Vancouver, WA 98660 360-984-6584	August 2022	Figure 3 (Sheet 1 of 1) – Site Photographs

APPENDIX A

Field Exploration Procedures
Laboratory Testing Procedures
Test Pit Logs

FIELD EXPLORATION PROCEDURES

General

We explored subsurface conditions at the site by excavating five test pits, designated TP-1 through TP-5, to depths ranging from about 12.0 to 13.0 feet bgs. The test pit explorations were excavated on June 14, 2022 with a Hitachi ZX tracked mini-excavator, owned and operated by Dan Tapani Excavating of Battle Ground, Washington. Upon completion, the test pits were backfilled with excavated soils.

Soil Sampling

A True North representative observed subsurface explorations to record the soil, rock, and groundwater conditions encountered, and to obtain soil samples. Disturbed soil sample were obtained from the sidewalls of the excavation, the excavator bucket, and the hand auger bit at selected depths throughout the explorations. Soil samples were sealed to retain moisture and returned to our laboratory for additional examination and testing.

Field Classification

Soil samples were initially classified visually in the field. Consistency, color, relative moisture, degree of plasticity, peculiar odors, and other distinguishing characteristics of the soil samples were noted. The terminology used is described in the key and glossary that follow.

Summary Exploration Logs

Results from the test pits are shown in the summary exploration logs. The left-hand portion of a log provides our interpretation of the soil encountered, sample depths, and groundwater information. The right-hand portion of a log shows the results of field and laboratory testing. Soil descriptions and interfaces between soil types shown in summary logs are interpretive, and actual transitions may be gradual.

LABORATORY TESTING PROCEDURES

Soil samples obtained during field explorations are examined in a laboratory, and representative samples may be selected for further testing. The testing program included visual-manual classification and natural moisture content testing.

Visual Manual Classification

Soil samples are classified in general accordance with guidelines presented in ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). The physical characteristics of the samples are noted and the field classifications are modified, where necessary, in accordance with ASTM terminology, though certain terminology that incorporates current local engineering practice may be used. The term which best described the major portion of the sample is used to describe the soil type.

Natural Moisture Content

Natural moisture content is determined in general accordance with guidelines presented in ASTM D2216, Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass. The natural moisture content is the ratio, expressed as a percentage, of the weight of water in a given amount of soil to the weight of solid particles.

Fines Content

Fines content testing is performed in general accordance with guidelines presented in ASTM D1140, *Standard Test Methods for Determining the Amount of Material Finer than 75-µm (No.200) Sieve in Soils by Washing*. The fines content is the fraction of soil that passes the U.S. Standard Number 200 Sieve. This sieve differentiates fines (silt and clay) from sand and gravel. Soil material that remains on the Number 200 sieve is sand. Material that passes the sieve is fines. The test is used to refine soil type.

TRUE NORTH GEOTECHNICAL
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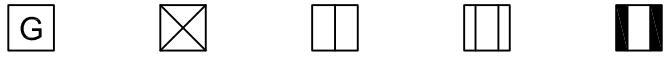
TABLE A1
Key to Test Pit and Boring Terminology and Symbols

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTION
Coarse Grained Soils: More Than 50% Material Retained on No. 200 Sieve	Gravel and Gravelly Soils: More Than 50% Coarse Fraction Retained on No. 4 Sieve	Clean Gravels (Little or No Fines)		GW	Well-graded Gravels, Gravel-Sand Mixtures, Little or No Fines
				GP	Poorly-graded Gravels, Gravel-Sand Mixtures, Little or No Fines
		Gravels with Fines (Significant Percentage of FIne)		GM	Silty Gravels, Gravel-Sand-Silt Mixtures
				GC	Clayey Gravels, Gravel-Sand-Clay Mixtures
	Sand and Sandy Soils: More Than 50% Coarse Fraction Passing No. 4 Sieve	Clean Sands (Little or No Fines)		SW	Well-graded Sands, Gravelly Sands, Little or No Fines
				SP	Poorly-graded Sands, Gravelly Sands, Little or No Fines
		Sands with Fines (Significant Percentage of FIne)		SM	Silty Sands, Sand-Silt Mixtures
				SC	Clayey Sands, Sand-Clay Mixtures
Fine Grained Soils: More Than 50% Material Passing No. 200 Sieve	Silts and Clays	Liquid Limit Less than 50 percent		ML	Inorganic Silts and Very Fine Sands, Rock Flour, Silty-Clayey Fine Sands, Clayey Silts
				CL	Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays
				OL	Organic Silts and Organic Silty Clays of Low Plasticity
	Silts and Clays	Liquid Limit Greater than 50 percent		MH	Inorganic Silts Micaceous or Diatomaceous Fine Sand or Silty Soils
				CH	Inorganic Clays of High Plasticity, Fat Clays
				OH	Organic Clays of Medium to High Plasticity, Organic Silts
				PT	Peat, Humus, Swamp Soils
Topsoil					Humus and Duff Layer
Fill					Highly Variable Constituents

Relative Density of Coarse-Grained Soils	
Relative Density	**N - Blows per Foot**
Very Loose	0 - 4
Loose	4 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	50+

Consistency of Fine-Grained Soils	
Relative Density	**N - Blows per Foot**
Very Soft	0 - 2
Soft	2 - 4
Medium Stiff	4 -8
Stiff	8 - 15
Very Stiff	15 - 30
Hard	30 - 50
Very Hard	50+

Key to Sampler Type Symbols



TRUE NORTH GEOTECHNICAL
202 E Evergreen Blvd Suite B, Vancouver, WA
360-558-0005 - tim@tnorthgeo.com

Project Name: KDEV - Valley View Estates		TEST PIT LOG TP-1
Project Location: 2219 NE 339th St, La Center WA 98629		Project No.: 22-0216-1
Operator: Dan Tapani Excavating	Equipment: Mini excavator w 2' bucket	Date Started: 06/14/22
Logged By: EP	Checked By: TJN	Date Completed: 06/14/22

Depth (feet)	Sample Type	Sample No.	Graphic Log	USCS Symbol	Soil Description	Water Content, %	Field Testing	Notes and Lab Data
0					Loose to medium stiff, dark brown TOPSOIL with trace sand; medium plasticity; fine sand; moist.			
1–5	G	S-1		ML/ CL	Medium stiff, light brown and orange Clayey SILT with trace sand; medium plasticity; fine sand; moist.	30	PP= 0.5 PP= 1.0 PP= 2.5 PP= 3.0	
5–10	G	S-2		ML/ SM	Medium stiff to stiff, orange Sandy SILT; low to medium plasticity; trace dark concretions; moist. increasing plasticity, stiffness, and sand content with depth	27 29		
10–13	G	S-4		CL	Medium stiff, orange/red and gray CLAY with silt and sand; low plasticity; fine sand; minor cementation; moist.	29		Fines content = 84%
13					Excavation terminated at 13.0 feet bgs. Groundwater not encountered. Backfilled with excavated soils.			
14–15								

TRUE NORTH GEOTECHNICAL
202 E Evergreen Blvd Suite B, Vancouver, WA
360-558-0005 - tim@tnorthgeo.com

Project Name: KDEV - Valley View Estates		TEST PIT LOG TP-2
Project Location: 2219 NE 339th St, La Center WA 98629		Project No.: 22-0216-1
Operator: Dan Tapani Excavating	Equipment: Mini excavator w 2' bucket	Date Started: 06/14/22
Logged By: EP	Checked By: TJN	Date Completed: 06/14/22

Depth (feet)	Sample Type	Sample No.	Graphic Log	USCS Symbol	Soil Description	Water Content, %	Field Testing	Notes and Lab Data
					Loose to medium stiff, dark brown TOPSOIL with trace sand; moist.			
1–4				ML/SM	Soft to medium stiff, light brown Sandy SILT; low plasticity; fine sand; moist. increasing stiffness and orange color with depth		PP= 1.0; PP= 1.0; PP= 1.5	
4	G	S-1				28	PP= 4.0	
5	G	S-2				28		
6–8				ML/SM	Medium stiff, orange and light brown Sandy SILT; low to medium plasticity; dark concretions; moist.			
8	G	S-3				27		Fines content = 86%
9–10				SM	Medium dense, red/orange Silty SAND; low plasticity; fine sand; gray concretions; moist.			
11				CL/ML	Stiff, yellow/orange Silty CLAY with trace sand; medium plasticity; fine sand; colorful concretions; moist.			
12	G	S-4				30		Fines content = 92%
12					Excavation terminated at 12.0 feet bgs. Groundwater not encountered. Backfilled with excavated soils.			
13–15								

TRUE NORTH GEOTECHNICAL
202 E Evergreen Blvd Suite B, Vancouver, WA
360-558-0005 - tim@tnorthgeo.com

Project Name: KDEV - Valley View Estates			TEST PIT LOG TP-3
Project Location: 2219 NE 339th St, La Center WA 98629			Project No.: 22-0216-1
Operator: Dan Tapani Excavating	Equipment: Mini excavator w 2' bucket		Date Started: 06/14/22
Logged By: EP	Checked By: TJN		Date Completed: 06/14/22

Depth (feet)	Sample Type	Sample No.	Graphic Log	USCS Symbol	Soil Description	Water Content, %	Field Testing	Notes and Lab Data
0					Loose, dark brown TOPSOIL with trace sand; moist.			
1–4	G	S-1		ML/ CL	Soft to medium stiff, light brown/gray Clayey SILT; medium plasticity; moist.	25	PP= 0.5 PP= 0.5 PP= 0.75 PP= 1.0	Fines content = 85%
5–7	G	S-2		ML/ SM	Medium stiff, orange and light brown Sandy SILT; low to med plasticity; coarse sand; dark concretions; moist.	23		
8–11	G	S-3		CH	Stiff, gray CLAY with trace red/orange silt and sand; high plasticity; fine sand; moist. increasing sand content with depth	27		Fines content = 90%
12	G	S-4		ML/ SM	Medium stiff, light brown Sandy SILT; med plasticity; fine sand; moist.	38		Fines content = 70%
13					Excavation terminated at 13.0 feet bgs. Groundwater not encountered. Backfilled with excavated soils.			
14–15								

TRUE NORTH GEOTECHNICAL
202 E Evergreen Blvd Suite B, Vancouver, WA
360-558-0005 - tim@tnorthgeo.com

Project Name: KDEV - Valley View Estates		TEST PIT LOG TP-4
Project Location: 2219 NE 339th St, La Center WA 98629		Project No.: 22-0216-1
Operator: Dan Tapani Excavating	Equipment: Mini excavator w 2' bucket	Date Started: 06/14/22
Logged By: EP	Checked By: TJN	Date Completed: 06/14/22

Depth (feet)	Sample Type	Sample No.	Graphic Log	USCS Symbol	Soil Description	Water Content, %	Field Testing	Notes and Lab Data
0					Loose, dark brown TOPSOIL with trace sand; moist.			
1–2	G	S-1		ML/CL	Soft, dark brown Clayey SILT; medium plasticity; moist.	32	PP= 1.0 PP= 1.0	
3–4	G	S-2		ML/CL	Soft, light brown Clayey SILT with trace sand; low plasticity; coarse sand; moist.	31	PP= 1.5 PP= 2.0	Fines content = 91%
5–6				SM	Medium dense, light brown Silty SAND; medium plasticity; fine sand; dark concretions; moist.			
7–8	G	S-3		CL	Stiff, light brown/orange Sandy CLAY; medium plasticity; fine sand; moist.	33		
9–10	G	S-4		CH	Stiff, brown/orange/gray CLAY with trace sand; high plasticity; fine sand; dark gray concretions; moist. increasing clay content with depth	42		Fines content = 93%
11–12								
13					Excavation terminated at 13.0 feet bgs. Groundwater not encountered. Backfilled with excavated soils.			
14–15								

TRUE NORTH GEOTECHNICAL
202 E Evergreen Blvd Suite B, Vancouver, WA
360-558-0005 - tim@tnorthgeo.com

Project Name: KDEV - Valley View Estates		TEST PIT LOG TP-5
Project Location: 2219 NE 339th St, La Center WA 98629		Project No.: 22-0216-1
Operator: Dan Tapani Excavating	Equipment: Mini excavator w 2' bucket	Date Started: 06/14/22
Logged By: EP	Checked By: TJN	Date Completed: 06/14/22

Depth (feet)	Sample Type	Sample No.	Graphic Log	USCS Symbol	Soil Description	Water Content, %	Field Testing	Notes and Lab Data
					Loose, dark brown TOPSOIL with trace sand; moist.			
1				ML/ CL	Soft to stiff, light brown/orange Clayey SILT with trace sand; coarse sand; low to medium plasticity; moist.		PP= 1.5	
2	G	S-1			increasing plasticity and stiffness with depth	30	PP= 2.0	Fines content = 90%
3							PP= 3.0	
4								
5							PP= 3.5	
6								
7	G	S-2				25		
8	G	S-3		ML/ SM	Very stiff, light brown/orange Sandy SILT; medium plasticity; fine sand; dark concretions; moist.	28		
9								
10				SM	Stiff, orange Sandy SILT with gray clay; medium plasticity; fine sand; dark concretions; moist.			
11	G	S-4				29		Fines content = 81%
12								
13					Excavation terminated at 12.5 feet bgs. Groundwater not encountered. Backfilled with excavated soils.			
14								
15								

Exhibit A.12


N.E. 339th STREET
E. 9th STREET
E. 8th WAY
E. VINE MAPLE AVE.
E. WHITE OAK AVE.
N.E. 24th AVENUE
E. UPLAND AVE.
CONSTRUCTION ENTRANCE GRAVEL ROAD PAD
INLET PROTECTION (TYP.)
FILTER FABRIC SILT FENCE (TYP.)
EXIST'G FIRE HYDRANT
EXIST'G 12" CONC. CULVERT
EXIST'G 10" CONC. CULVERT
PROPERTY LINE
EXIST'G 8" PVC WATERLINE
EXIST'G SAN MH
EXIST'G STORM MH
EX. 8" DIA. C-900 WATERLINE
EX. 8" DIA. PVC SANITARY SEWER
EX. 8" DIA. C-900 STORM PIPE
EX. 12" DIA. ADS STORM PIPE
EX. 18" DIA. ADS STORM PIPE
EX. 24" DIA. ADS STORM PIPE
EX. 30" DIA. ADS STORM PIPE
EX. 36" DIA. ADS STORM PIPE
EX. 42" DIA. ADS STORM PIPE
EX.

Exhibit A.13

2022-050

Clark Public Utilities
Customer-owned, customer-focused

REQUEST FOR UTILITY REVIEW – WATER AVAILABILITY
P. O. Box 8900 (8600 N.E. 117 Ave) Vancouver, WA 98668
(360) 992-8022 Email: wateradmin@clarkpud.com

APPLICANT INFORMATION

DATE: 4/18/2022

NAME Wolf Project Management, LLC
ADDRESS 740 S 85th Avenue
CITY Ridgefield STATE WA ZIP 98642
TELEPHONE (360) 907-9588 EMAIL mason@wolfepm.com

Notification Method: Email Type of Development: Subdivision
Number of Units: 33 lots

Property Location

Serial Acct. No 209062-000
Property Address 2219 NE 339th St, La Center (or nearest cross street)
Property Size 8.64 ACRES Requested Fire Flow TBD GPM

PLEASE SUBMIT PLAT MAP WITH REQUEST

GENERAL CONDITIONS FOR SERVICE (CPU Staff Only)

Clark Public Utilities (CPU) is the water purveyor for this site. CPU Water distribution maps indicate that there is an existing 8" water main within NE 339th St, an 8" water main within NE 24th Ave, an 8" water main within E 8th Way, an 8" water main stubbed within E Vine Maple Ave, and an 8" water main within E Upland Ave. There are multiple fire hydrants surrounding this parcel. See attached CPU water distribution map for reference. Utility drawings have not been field verified and are for reference only. The project engineer should verify existing conditions in the field prior to final design.

The fire flow in this area was previously calculated at 1,954 GPM at 20 psi. Static pressure at this site is expected to vary depending on site elevation, system demand and reservoir levels (HGL = 485-ft).

For this development, depending on site access and layout, plan to connect to the existing 8" water mains within surrounding this site and loop the public water system where possible. Install proper fire protection (i.e. hydrants and building sprinkler systems) as required by the Fire Marshal. Plan to extend a minimum 8" water main within the public access through the site. The water system shall be sized depending on the anticipated fire protection and domestic demand requirements. The Engineer shall certify that the proposed water distribution design adequately provides proper domestic and fire protection services.

Any existing, unused services shall be properly capped and abandoned. All water mains and services (up to the meter) located within private property, shall be included in an easement granted to Clark Public Utilities. Proper state approved backflow devices will be required for all domestic, fire and landscape water services. All hot taps shall be performed by a Utility approved contractor. The Developer is responsible for costs associated with the service and fire protection installation, right-of-way permitting, and any other needed water improvements.

Submit full engineering plan set for further requirements and comments.

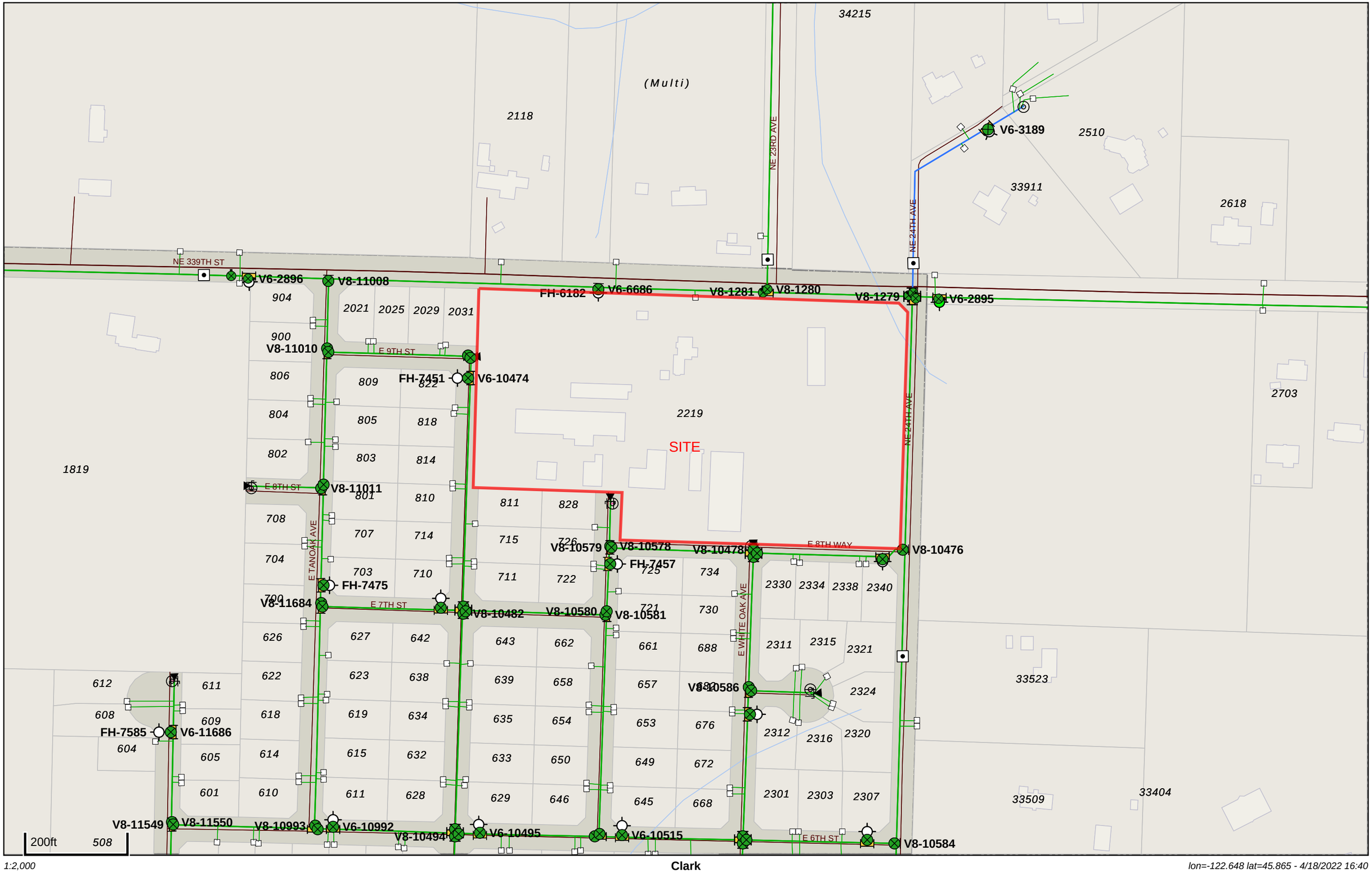
☒ Licensed Civil Eng. Drawing Required for Clark Public Utilities approval prior to construction
☒ Easement Required
☒ Clark Public Utilities has the capacity to serve, if the above conditions are met
☒ Developer/Owner shall pay County Right-of-Way fees based on off-site improvements

Review comments are subject to modification during detailed plan check and review.
This utility review is valid for six months after the date of signature below.

REVIEWED BY N. Flagg DATE 04/18/2022
Nick Flagg, PE

Revised 3/10/17 rk

2022-050



1:2,000

Clark

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Notice of Pre-Application Conference
Valley View Pre-Application Conference (File # 2022-014-PAC)

Pre-Application Conference: The City of La Center will conduct a pre-application conference on **Wednesday, April 27, 2022 beginning at 1:30 PM. The meeting will be conducted online via GoTo Meeting (a video conferencing service).** Participants do not need internet access and can connect by phone. Please see connection instructions below.

Valley View Pre-Application Conference
Wed, Apr 27, 2022 1:30 PM - 2:30 PM (PDT)

Please join my meeting from your computer, tablet or smartphone.

https://meet.goto.com/LaCenterCouncilMeetings/valleyviewpre-applicationconference

You can also dial in using your phone.

United States: +1 (872) 240-3212
- One-touch: tel:+18722403212,,251607533#

Access Code: 251-607-533

Description of Proposal: This proposal is to subdivide approximately 8.64 acres into 33 single-family detached residential lots.

Location of Proposal: 2219 NE 339th Street, La Center, WA 98629, ADJ LOT 1 SP 3-905 8.64A, parcel 209062000.

Applicant: Mason Wolfe, KDev, LLC, 740 S 85th Avenue, Ridgefield, WA 98642. Contact number 360-907-9588.

Applicant's Representative: Mason Wolfe, Wolfe Project Management, LLC, 2401 W Main Street, Suite 210, Battle Ground, WA 98604. Contact number 360-907-9588.

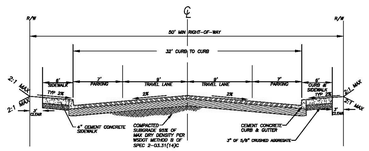
Applicable Criteria: The application will be reviewed for compliance with the La Center Municipal Code (LCMC) 3.35 Impact Fees; Title 12, Streets, Sidewalks & Public Ways; Title 13, Public Utilities; Title 18, Development Code (Chapter 18.130 Low Density Residential District; LCMC 18.147 Parks and Open Spaces, LCMC 18.210 Subdivision Provisions; LCMC 18.245 Supplementary Development Standards; LCMC 18.280 Off-Street Parking and Loading Requirements; 18.300 Critical Areas; 18.310 Environmental Policy; 18.320 Stormwater and Erosion Control; 18.330 Shorelines; 18.340 Native Plant List; 18.350 Tree Protection; and 18.360 Archaeological Resource Protection.

Public Review: The file may be examined on the City's Recent Land Use page at https://www.ci.lacenter.wa.us/city_departments/pw_landuse.php; The city contact person and telephone number for any questions on this review is Jessica Nash, Permit Technician, 360.263.7665.

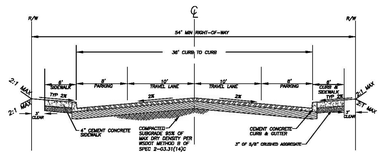
Valley View

A Subdivision In The
NE ¼ of Section 02, T4N R1E WM
County Parcel #s: ***209062000***
Site Address: **2219 NE 339th Street**
La Center, WA 98629
Site Area: **376,358+/- *SF (8.64+/- acres)***
Site Zoning: ***LDR-7.5***

Detail 1: Local Access
All Proposed Internal Roads
Not to Scale

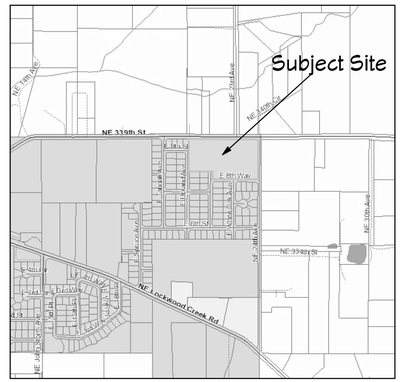


Detail 2: Neighborhood Access
NE 339th Street and NE 24th Avenue
Not to Scale



CURRENT OWNER:
The Chicken Ranch, LLC
PO Box 128
La Center, Washington 98629
503-348-1134
sandyperrott888@hotmail.com

VICINITY MAP



PLAT NOTES:

1. Total Gross Area = 376,358 SF / 8.64 acres
2. This subdivision proposes 33 single family residential lots,
3. Site is currently zoned LDR-7.5
4. Largest lot is 16,031 SF; Smallest lot is 7,509 SF; Average Lot size is 9,291 SF.
5. Gross density equals 3.82 dwelling units per acre; Net density equals 5.34 dwelling units per acre.
6. All existing structures are to be removed. No new buildings or structures are proposed. Refere to Existing Conditions for existing structures.
7. If required, a 6' tall chain-link fence around storm facility in proposed Tract A is only proposed fence. No walls are proposed.
8. Only proposed landscaping are required street trees installed at required locations.
9. Only proposed lighting is required street lighting that will be designed during final engineering.
10. Only street parking proposed with this plan. Driveway and garage parking will be provided during building permit. No loading facilities are proposed.
11. It is presumed that NE 339th St and NE 24th Ave are classified as "Neighborhood Access" roads.
12. All proposed internal roads are presumed to be classified as "Local Access" roads.
13. There are NO existing or proposed pedestrian facilities besides sidewalk.
14. There are NO existing or proposed easements.
15. There is an existing well shown on the Existing Conditions that will be properly abandon.
16. There is an existing septic tank and septic drain-field shown on the Existing Conditions that will be properly abandon.
17. There are NO other above ground tanks or known underground tanks.
18. Refere to Existing Conditions for all existing public and private utilities.
19. Public water will be extended from Heritage Country Estates and serve all new lots.
20. Public sewer will be extended from Heritage Country Estates and serve all new lots.
21. Storm water will be collected and sent to existing storm system in Heritage Country Estates, except that storm water that drains north east that will be collected, treated and detained in proposed Tract A.
22. Private utilities such as phone, cable & gas may be extended on to and throughout this plan.
23. There are NO environmental critical areas on or known within 100' of site.

LEGEND

- E-ROW — INDICATES EXISTING RIGHT-OF-WAY
- E-STM — INDICATES EXISTING STORM PIPE
- STM — INDICATES PROPOSED STORM PIPE
- E-Wat — INDICATES EXISTING WATER LINE
- Wat — INDICATES PROPOSED WATER LINE
- E-San — INDICATES EXISTING SANITARY SEWER LINE
- San — INDICATES PROPOSED SANITARY SEWER LINE

N

0 40 80

REVISION TABLE

NUMBER	DATE	REVISED BY

Valley View
A Subdivision In The
NE ¼ of Section 02, T4N R1E WM
County Parcel #s: 209062000
Site Address: 2219 NE 339th Street
La Center, WA 98629

Preliminary Plat &
Preliminary Utility Plan

APPLICANT/CONTACT:
KDev, LLC
Mason Wolfe
140 S 85th Avenue
RIDGEFIELD WASHINGTON 98642
360-401-1550
mason@wolfepm.com

DRAWING PROVIDED BY:
Wolfe Project Management, LLC
Mason Wolfe
2401 W Main Street, Suite 210
Battle Ground, Washington 98604
360-907-9588
mason@wolfepm.com

DATE:
04/13/2022

SCALE:
1" = 40'

SHEET:
P-1

Exhibit A.14

Archaeological Report - Contact Jessica Nash 360-263-7665

Exhibit A.15

THE WOLFE GROUP, L.L.C.
Land Planning, Consulting, & Civil Engineering

2401 W. Main Street, Suite 210
Battle Ground, WA 98604
(360) 687-2699

"VALLEY VIEW"

Preliminary Technical Information Report

July 2022

7-1-22

TABLE OF CONTENTS

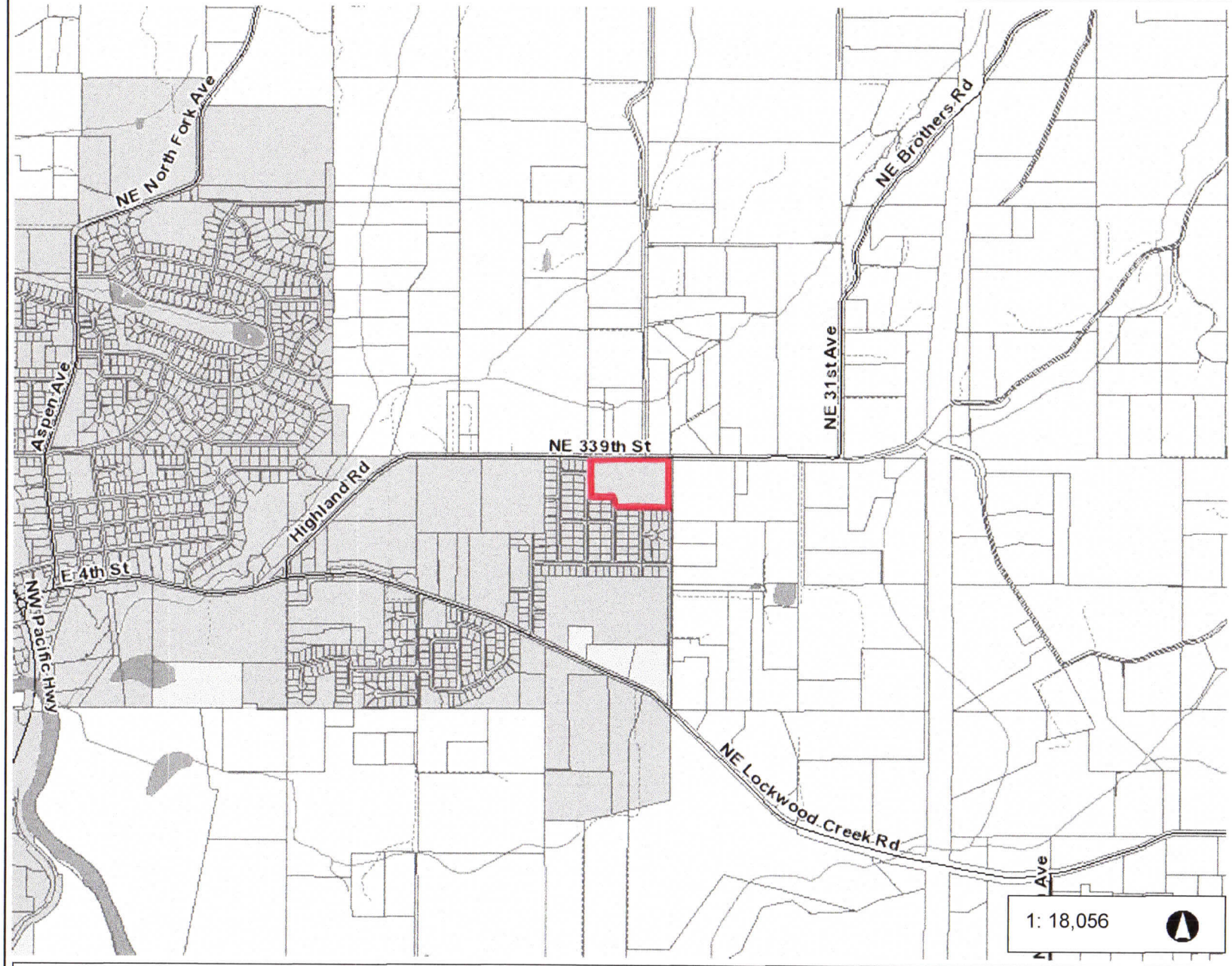
Report:

List of Tables:

VICINITY MAPS

Vicinity Map
Soils Map
1968 Aerial Photo

Vicinity Map



Legend

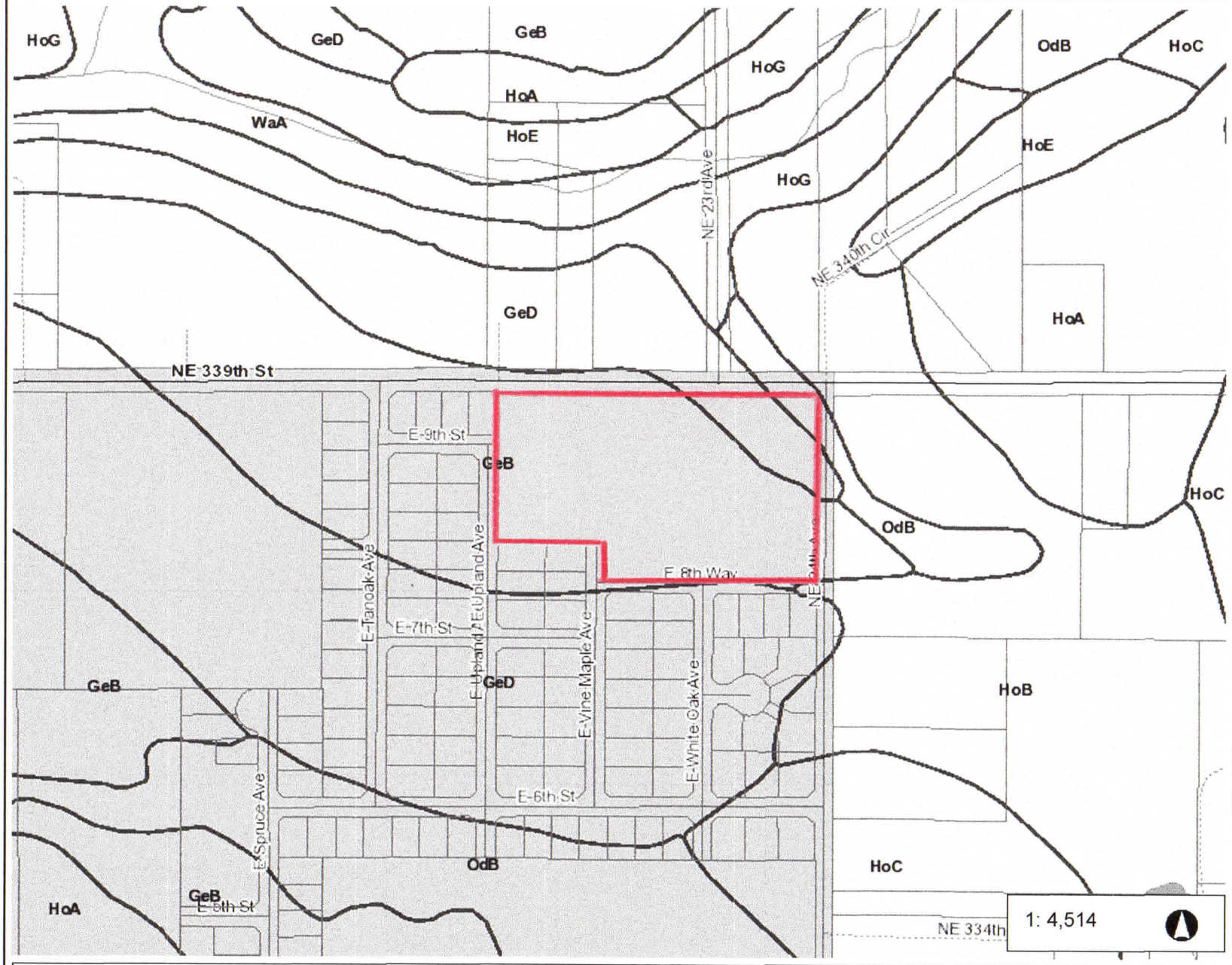
- Taxlots
- All Roads
  - Interstate
  - State Route
  - Arterial
  - Forest Arterial
  - Minor Collector
  - Forest Collector
  - Private or Other
- Cities Boundaries
- Urban Growth Boundaries

Notes:

3,009.3 0 1,504.67 3,009.3 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere
Clark County, WA. GIS - http://gis.clark.wa.gov

Soils Map



Legend

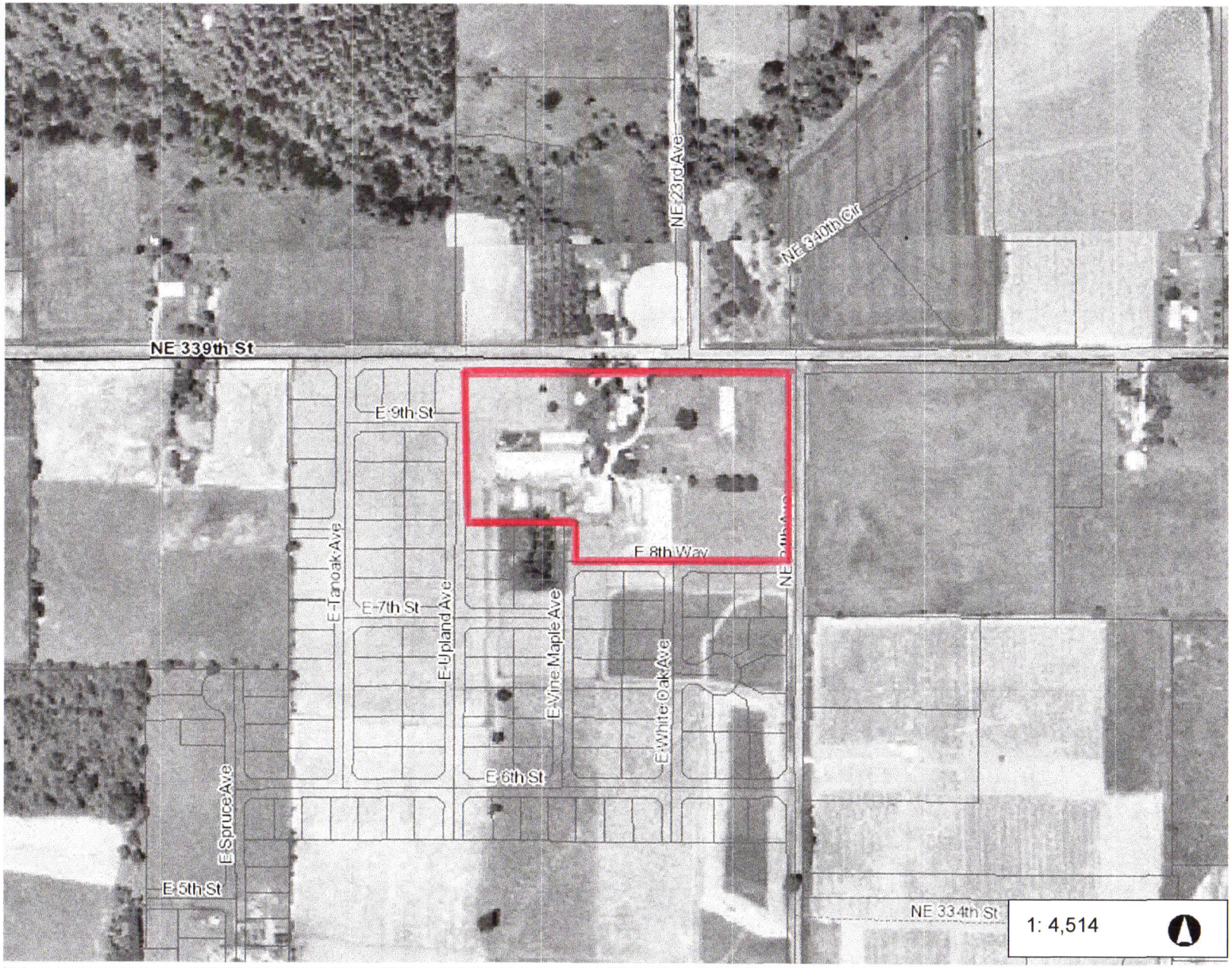
- Taxlots
- Soil Type
- All Roads
  - Interstate
  - State Route
  - Arterial
  - Forest Arterial
  - Minor Collector
  - Forest Collector
  - Private or Other
- Cities Boundaries
- Urban Growth Boundaries

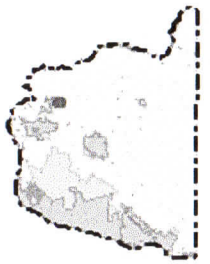
Notes:

752.3 0 376.17 752.3 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere
Clark County, WA. GIS - http://gis.clark.wa.gov

Aerial Photo (1968)





Legend

- Taxlots
- All Roads
  - Interstate
  - State Route
  - Arterial
  - Forest Arterial
  - Minor Collector
  - Forest Collector
  - Private or Other
- Cities Boundaries
- Urban Growth Boundaries

Notes:

752.3 0 376.17 752.3 Feet

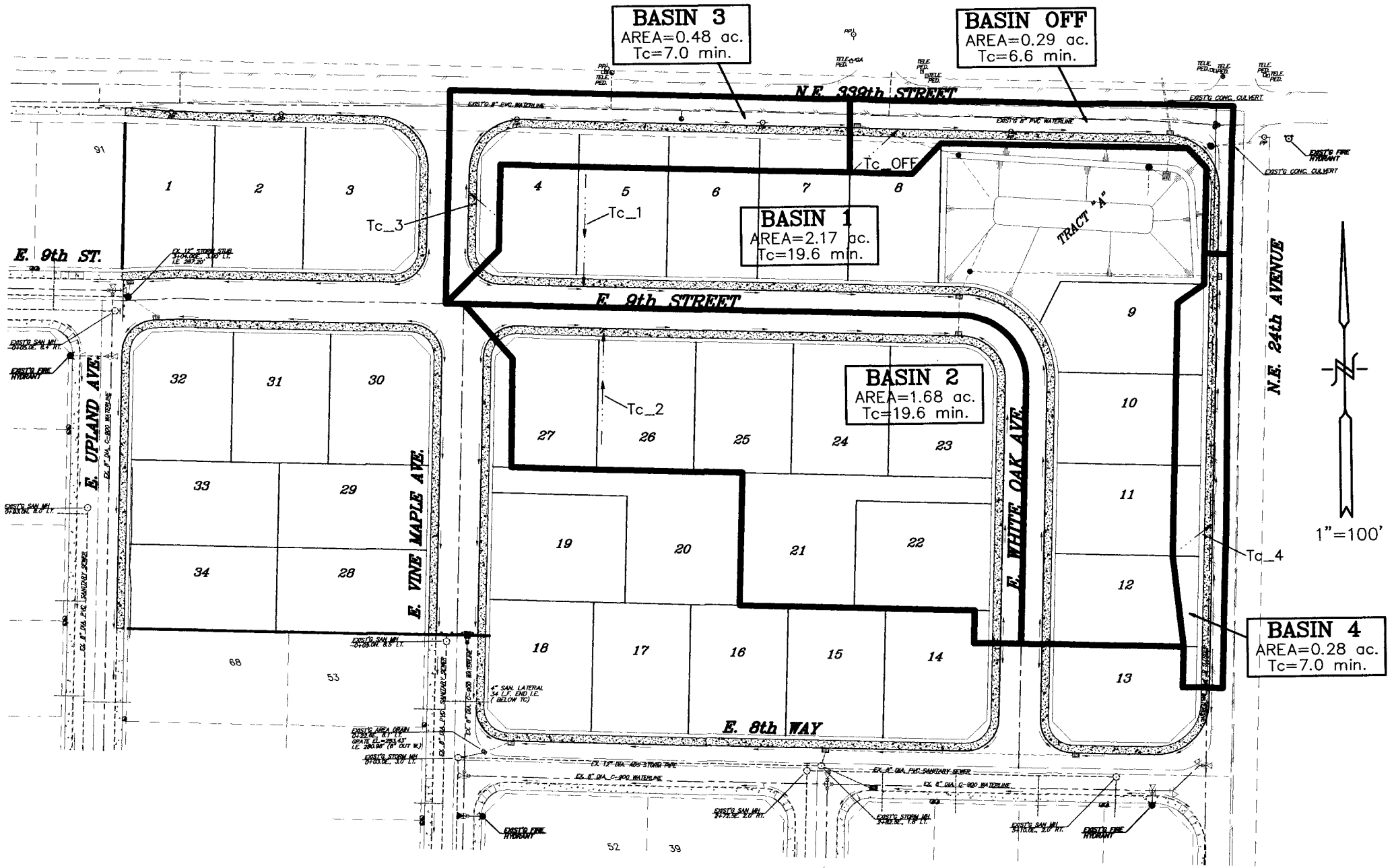
WGS_1984_Web_Mercator_Auxiliary_Sphere
Clark County, WA. GIS - http://gis.clark.wa.gov

DEVELOPMENT PLAN

Drainage Basins
Flow Routes

"VALLEY VIEW"

DEVELOPED DRAINAGE BASINS



SECTION A - PROJECT OVERVIEW

The project site consists of approximately 8.64 acres and lies at the southwest corner of the intersection of N.E. 24th Avenue and N.E. 339th Street. It is bordered on the west and south by the existing "Heritage Country Estates" residential development project. The entire site is primarily in a field/pasture condition with many existing structures present. Approximately 45% of the project drains in a southwesterly manner toward "Heritage Country Estates". The stormwater design of the "Heritage Country Estates" project anticipated this developed runoff entering the stormwater system. Therefore, the conveyance elements as well as the stormwater treatment and detention facilities have been designed to accommodate this developed runoff from the "Valley View" project. The remaining 55% of the project site drains northeasterly toward N.E. 339th Street and N.E. 24th Avenue. This stormwater runoff from the property enters roadside ditches along the south and west sides of N.E. 339th Street and N.E. 24th Avenue respectively. An existing culvert near the intersection of these two roadways conveys the flows northward across N.E. 339th Street. The flow is then directed to an existing ravine which drains north and westerly and eventually enters Brezee Creek.

An onsite wetpond and stormwater detention facility are proposed to treat and detain the stormwater runoff draining northeasterly toward N.E. 339th Street and N.E. 24th Avenue (approximately 55% of site runoff). The proposed stormwater facility is preliminarily located at the northeast corner of the proposed development. This facility will contain both a wetpond and a live detention pond. The stormwater facility has been preliminarily designed to account for the direct release of stormwater runoff from that portion of N.E. 339th Street and N.E. 24th Avenue that is too low in elevation to enter the proposed detention facility (Basin Off).

As mentioned previously, the area of the "Valley View" project draining southwesterly to the "Heritage Country Estates" project has been accounted for in the design of the stormwater facilities for that project.

SECTION B – APPROVAL CONDITIONS SUMMARY

Not applicable for this preliminary report as no conditions are issued at this time.

SECTION C – DOWNSTREAM ANALYSIS

A downstream analysis is to be prepared during the final design phase of the project.

SECTION D – QUANTITY CONTROL ANALYSIS & DESIGN

In computing the runoff volume and discharges from the site, the Santa Barbara Urban Hydrograph computer program used by the King County Public Works Dept. was utilized. In using this program, some assumptions had to be made regarding the particular runoff curve numbers to use. Because the hydrological soil group present at the site is group "C", a pervious curve number of 85 (meadow or pasture) has been determined to exist on the site. A pervious curve number of 86 has been used to represent the lawns, landscaped areas, and other open areas. A curve number of 98 is used for the impervious surfaces which consist of the streets, sidewalks, driveways, and roofs. These curve numbers were obtained from Table III-1.3 of the Stormwater Management Manual for the Puget Sound Basin. The amounts of pervious and impervious acreage existing and predicted for the site are shown in **Tables 1 & 2.**

TABLE 1:

EXISTING AREA QUANTITIES (acres)							
Drainage Basin:	Total Area:	Streets & Sidewalks:	Driveways:	Roofs:	Contrib. Impervious Area: (Roofs incl.):	Contrib. Impervious Area: (no Roofs):	Contrib. Pervious Area:
Basin A	5.05	0.25	0.16	0.25	0.66	0.41	4.39
TOTALS:	5.05			**TOTALS:**	0.66	0.41	4.39

TABLE 2:

DEVELOPED AREA QUANTITIES (acres)							
Drainage Basin:	Total Area:	Streets & Sidewalks:	Driveways:	Roofs:	Contrib. Impervious Area: (Roofs incl.):	Contrib. Impervious Area: (no Roofs):	Contrib. Pervious Area:
Basin 1	2.17	0.35	0.13	0.92	1.40	0.48	0.77
Basin 2	1.68	0.33	0.15	0.57	1.05	0.48	0.63
Basin 3	0.48	0.27	0.00	0.00	0.27	0.27	0.21
Basin 4	0.28	0.13	0.00	0.00	0.13	0.13	0.15
Basin Off	0.29	0.19	0.00	0.00	0.19	0.19	0.10
TOTALS:	4.90			**TOTALS:**	3.04	1.55	1.86

Basin 1 Roof Area includes 0.20 ac. for pond surface (roofs=0.72 ac.)
Each Roof Area assumed to be 3,500 SF
Each Driveway Area assumed to be 600 SF

The actual computer modeled runoff calculations are presented in appendix I. In **Tables 3 & 4**, the predicted and existing peak discharges from the project are tabulated by basin. The values presented in these tables have been obtained with the Santa Barbara Urban Hydrograph computer program by inputting those values listed in **Tables 1 & 2**.

TABLE 3: Developed Runoff Volumes/Discharge

DEVELOPED RUNOFF VOLUMES/DISCHARGE										
	66% 2-Yr, 24-hr. (6 month storm)		**2 yr., 24 hr. Storm**		**10 yr., 24 hr. Storm**		**25 yr., 24 hr. Storm**		**100 yr., 24 hr. Storm**	
Drainage Basin	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):
Basin 1	0.45	7,780	0.77	13,150	1.22	20,500	1.44	24,300	1.90	31,900
Basin 2	0.34	5,930	0.59	10,060	0.93	15,700	1.11	18,600	1.46	24,500
Basin 3	0.11	1,610	0.20	2,780	0.31	4,390	0.37	5,210	0.49	6,890
Basin 4	0.06	860	0.11	1,520	0.17	2,450	0.21	2,920	0.28	3,890
Basin Off	0.07	1,050	0.13	1,770	0.20	2,760	0.23	3,270	0.31	4,290
TOTALS:	1.03	17,230	1.80	29,280	2.83	45,800	3.36	54,300	4.44	71,470

TABLE 4: Existing Runoff Volumes/Discharge

EXISTING RUNOFF VOLUMES/DISCHARGE								
	2-Yr, 24-hr. Storm		**10 yr., 24 hr. Storm**		**25 yr., 24 hr. Storm**		**100 yr., 24 hr. Storm**	
Drainage Basin	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):
Basin A	0.93	20,400	1.78	35,700	2.23	43,800	3.16	60,500
TOTALS:	0.93	20,400	1.78	35,700	2.23	43,800	3.16	60,500

The detention facility proposed for the development consists of a proposed surface pond that will "stack" live storage volume above the permanent wet pool volume. The hydrographs for the various design storms for the site have been added together and routed through the proposed facility (see Appendix II). The results are shown in **Table 5**. The values shown in **Table 5** represent our final design values after the volume correction factor has been applied. The volume correction factor is based on the sites developed impervious cover and is calculated in Appendix II for the detention facility.

TABLE 5: PROPOSED DETENTION FACILITY PERFORMANCE

Storm Event:	Release Rate:	Allowable Release Rate:	Peak Storage:	Peak Stage:	% of allowable release rate:
2 yr., 24 hr.	0.40 cfs	0.80 cfs	7,200 ft^3	289.96'	50%
10 yr., 24 hr.	0.69 cfs	1.58 cfs	12,300 ft^3	290.58'	44%
25 yr., 24 hr.	1.14 cfs	2.00 cfs	13,450 ft^3	290.71'	57%
100 yr., 24 hr.	1.83 cfs	2.85 cfs	16,500 ft^3	291.04'	64%

Beginning stage elevation=289.00'

The stormwater facility locations and elevations are readily seen on the preliminary stormwater plan. All detailed information regarding the outlet structure and construction of the facility will be presented on the final engineering drawings.

SECTION E – CONVEYANCE SYSTEMS ANALYSIS & DESIGN

The stormwater conveyance system proposed for the project consists primarily of a series of inlets and storm piping that delivers the site stormwater runoff to the stormwater management facility. Because of the natural slopes on the project site and the project layout, minimal storm piping is anticipated.

The capacity of each pipe will be analyzed during final design using Manning's Equation for pipe flow with a Manning's roughness coefficient of 0.012. Pipe sizes are expected to range from 8" to 12" in diameter.

SECTION F – WATER QUALITY DESIGN

A wetpond is proposed to treat the contributing runoff from the site. The proposed wetpond will serve drainage basins 1-4 and is located at the northeast corner of the project site. The 6-month, 24-hr. storm runoff volume that will be stored in this wetpond is approximately 16,200 cubic feet. This is the volume of developed runoff from drainage basins 1-4 during the 6-month, 24-hr storm event.

As can be seen, the treatment requirements of the City of La Center Stormwater Ordinance have been met for all runoff entering the proposed wetpond.

SECTION G- SOILS EVALUATION

The Soil Conservation Service maps the majority of soil on the site as Gee silt loam (GeB, GeD) of hydrological soil group "C". There is a very small area at the northeast corner of the property mapped as Odne silt loam (OdB) of hydrologic group "D". Due to the silty characteristics of all of the onsite soils, infiltration is not being proposed for this site. A geotechnical site investigation has been performed by True North Geotechnical Services. Their report will be provided in the final stormwater report.

SECTION H - SPECIAL REPORTS AND STUDIES

A Geotechnical Site Investigation has been performed by True North Geotechnical Services.

SECTION I - OTHER PERMITS

An NPDES Permit from the Washington State Department of Ecology is required for this project and shall be obtained prior to construction. In conjunction with the NPDES permit, a Stormwater Pollution Prevention Plan (SWPPP) will also be prepared.

SECTION J – GROUNDWATER MONITORING

Not applicable

SECTION K – MAINTENANCE & OPERATIONS MANUAL

The city of La Center shall maintain the proposed stormwater facilities. At a minimum, the following maintenance items need to be performed periodically to insure proper operation of the stormwater facilities.

Cleaning of debris/litter that may accumulate in or around stormwater facilities.
Inspection of outfall structure (orifice/riser) to prevent plugging or clogging.
Inspection of fences encompassing stormwater facilities to insure effectiveness.

SECTION L - TECHNICAL APPENDIX

Appendix I
Runoff Calculations
Existing Conditions Basin Map
Developed Conditions Basin Map

Appendix II
Detention Calculations

Appendix III
Water Quality Calculations

Appendix I

Runoff Calculations

Existing Conditions Basin Map

Developed Conditions Basin Map

Developed Condition

DEVELOPED RUNOFF VOLUMES/DISCHARGE

Drainage Basin	66% 2-Yr, 24-hr. (6 month storm) Peak Discharge (cfs):	66% 2-Yr, 24-hr. (6 month storm) Total Volume (ft3):	2 yr., 24 hr. Storm Peak Discharge (cfs):	2 yr., 24 hr. Storm Total Volume (ft3):	10 yr., 24 hr. Storm Peak Discharge (cfs):	10 yr., 24 hr. Storm Total Volume (ft3):	25 yr., 24 hr. Storm Peak Discharge (cfs):	25 yr., 24 hr. Storm Total Volume (ft3):	100 yr., 24 hr. Storm Peak Discharge (cfs):	100 yr., 24 hr. Storm Total Volume (ft3):
Basin 1	0.45	7,780	0.77	13,150	1.22	20,500	1.44	24,300	1.90	31,900
Basin 2	0.34	5,930	0.59	10,060	0.93	15,700	1.11	18,600	1.46	24,500
Basin 3	0.11	1,610	0.20	2,780	0.31	4,390	0.37	5,210	0.49	6,890
Basin 4	0.06	860	0.11	1,520	0.17	2,450	0.21	2,920	0.28	3,890
Basin Off	0.07	1,050	0.13	1,770	0.20	2,760	0.23	3,270	0.31	4,290
TOTALS:	1.03	17,230	1.80	29,280	2.83	45,800	3.36	54,300	4.44	71,470

DEVELOPED AREA QUANTITIES (acres)

Drainage Basin:	Total Area:	Streets & Sidewalks:	Driveways:	Roofs:	Contrib. Impervious Area: (Roofs incl.):	Contrib. Impervious Area: (no Roofs):	Contrib. Pervious Area:	
Basin 1	2.17	0.35	0.13	0.92	1.40	0.48	0.77	Perv. CN=86
Basin 2	1.68	0.33	0.15	0.57	1.05	0.48	0.63	Perv. CN=86
Basin 3	0.48	0.27	0.00	0.00	0.27	0.27	0.21	Perv. CN=86
Basin 4	0.28	0.13	0.00	0.00	0.13	0.13	0.15	Perv. CN=86
Basin Off	0.29	0.19	0.00	0.00	0.19	0.19	0.10	Perv. CN=86
TOTALS:	4.90			**TOTALS:**	3.04	1.55	1.86	

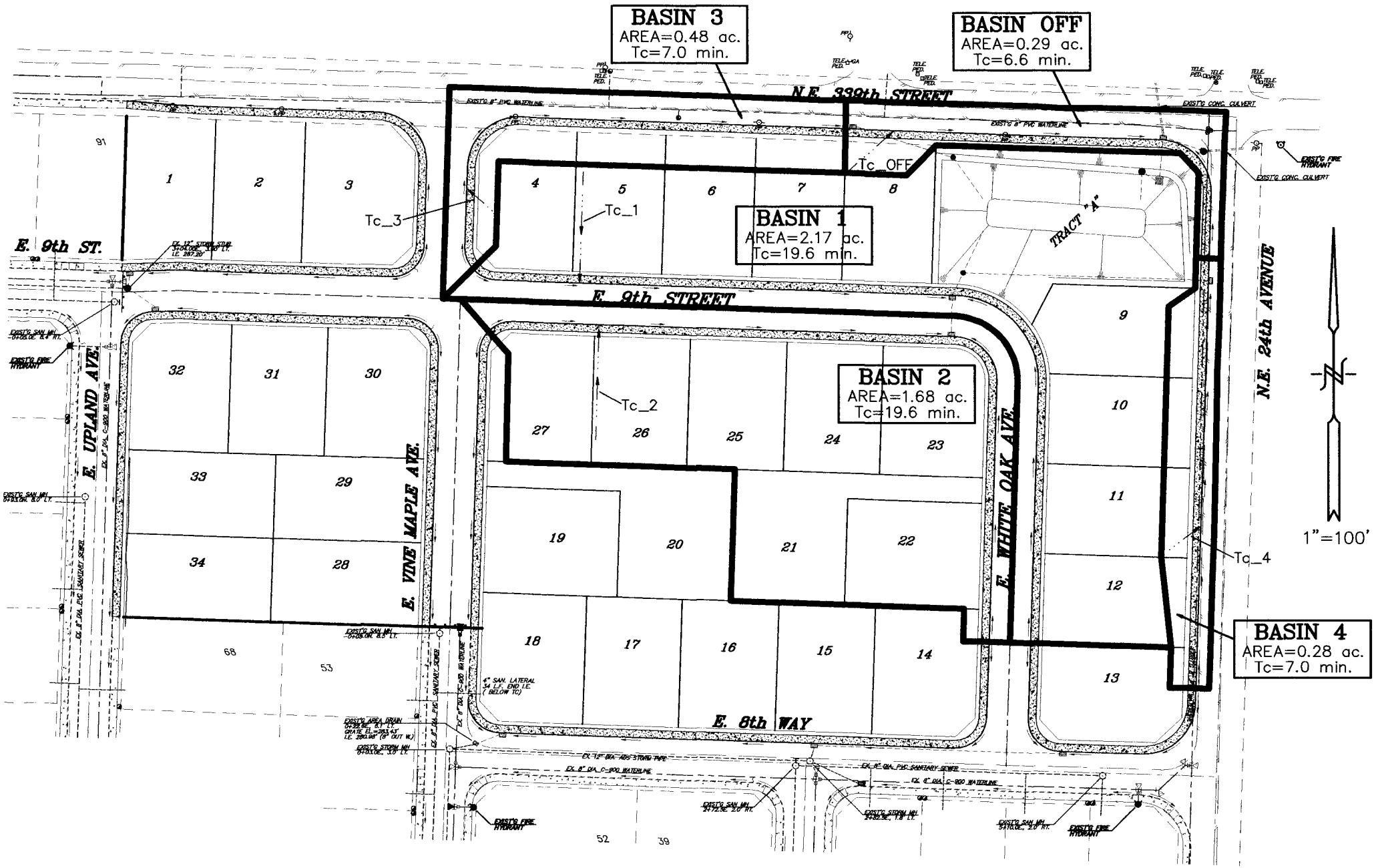
Basin 1 Roof Area includes 0.20 ac. for pond surface (roofs=0.72 ac.)
Each Roof Area assumed to be 3,500 SF
Each Driveway Area assumed to be 600 SF

DEVELOPED TIME OF CONCENTRATION CALCULATIONS

Drainage Basin:	Sheet Flow: 2 yr., 24 hr. rainfall total (inches) 2.25 Flow Length (ft.):	Sheet Flow: Average Slope (ft./ft.):	Sheet Flow: Rough. Coeff. (n):	Sheet Flow: Overland Flow Time (min.):	Gutter Flow: Flow Length (ft.):	Gutter Flow: Average Slope (ft./ft.):	Gutter Flow: Shallow Conc. Flow Time (min.):	Total Time of Conc. (min.)	Drainage Basin:
Basin 1	80	0.010	0.240	18.4	290	0.020	1.3	19.6	**Basin 1**
Basin 2	80	0.010	0.240	18.4	270	0.020	1.2	19.6	**Basin 2**
Basin 3	25	0.020	0.240	5.5	340	0.020	1.5	7.0	**Basin 3**
Basin 4	30	0.020	0.240	6.4	200	0.040	0.6	7.0	**Basin 4**
Basin Off	40	0.050	0.240	5.5	200	0.015	1.0	6.6	**Basin Off**

"VALLEY VIEW"

DEVELOPED DRAINAGE BASINS



Basin 1 (Developed)

```
------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
******* 6-MONTH  24-HOUR STORM  ****  1.49" TOTAL PRECIP. *******
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.77 86 1.40 98 19.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A      CN     A      CN
       2.2         .8   86.0    1.4   98.0        19.6
  PEAK-Q(CFS)    T-PEAK(HRS)     VOL(CU-FT)
       .45           7.83            7784

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_1_BIO


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
********* 2-YEAR  24-HOUR STORM  ****  2.25" TOTAL PRECIP. *******
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.77 86 1.40 98 19.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A      CN     A      CN
       2.2         .8   86.0    1.4   98.0        19.6
  PEAK-Q(CFS)    T-PEAK(HRS)     VOL(CU-FT)
       .77           7.83           13146

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_1_2


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
*********  10-YEAR  24-HOUR STORM  ****  3.25" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.77 86 1.40 98 19.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A      CN     A      CN
       2.2         .8   86.0    1.4   98.0        19.6
  PEAK-Q(CFS)    T-PEAK(HRS)     VOL(CU-FT)
      1.22           7.83           20517

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_1_10
```

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------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
*********  25-YEAR  24-HOUR STORM  ****  3.75" TOTAL PRECIP. *********
------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.77 86 1.40 98 19.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A      CN     A      CN
       2.2         .8   86.0    1.4   98.0        19.6
  PEAK-Q(CFS)    T-PEAK(HRS)     VOL(CU-FT)
      1.44           7.83           24276

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_1_25


------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
********* 100-YEAR  24-HOUR STORM  ****  4.75" TOTAL PRECIP. *********
------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.77 86 1.40 98 19.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A      CN     A      CN
       2.2         .8   86.0    1.4   98.0        19.6
  PEAK-Q(CFS)    T-PEAK(HRS)     VOL(CU-FT)
      1.90           7.83           31877

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_1_100
```

Basin 2 (Developed)

```
------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
******* 6-MONTH  24-HOUR STORM  ****  1.49" TOTAL PRECIP. *******
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.63 86 1.05 98 19.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
       1.7         .6  86.0    1.0  98.0        19.6
  PEAK-Q(CFS)   T-PEAK(HRS)     VOL(CU-FT)
       .34          7.83           5930

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_2_BIO


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
********* 2-YEAR  24-HOUR STORM  ****  2.25" TOTAL PRECIP. *******
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.63 86 1.05 98 19.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
       1.7         .6  86.0    1.0  98.0        19.6
  PEAK-Q(CFS)   T-PEAK(HRS)     VOL(CU-FT)
       .59          7.83          10057

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_2_2


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
*********  10-YEAR  24-HOUR STORM  ****  3.25" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.63 86 1.05 98 19.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
       1.7         .6  86.0    1.0  98.0        19.6
  PEAK-Q(CFS)   T-PEAK(HRS)     VOL(CU-FT)
       .93          7.83          15744

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_2_10
```

```
------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
*********  25-YEAR  24-HOUR STORM  ****  3.75" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.63 86 1.05 98 19.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
       1.7         .6  86.0    1.0  98.0        19.6
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
      1.11          7.83          18647

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_2_25


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
********* 100-YEAR  24-HOUR STORM  ****  4.75" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.63 86 1.05 98 19.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
       1.7         .6  86.0    1.0  98.0        19.6
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
      1.46          7.83          24522

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_2_100
```

Basin 3 (Developed)

```
------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
******* 6-MONTH  24-HOUR STORM  ****  1.49" TOTAL PRECIP. *******
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.21 86 .27 98 7

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
        .5         .2  86.0     .3  98.0         7.0
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .11          7.83          1614

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_3_BIO


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
********* 2-YEAR  24-HOUR STORM  ****  2.25" TOTAL PRECIP. *******
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.21 86 .27 98 7

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
        .5         .2  86.0     .3  98.0         7.0
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .20          7.83          2776

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_3_2


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
*********  10-YEAR  24-HOUR STORM  ****  3.25" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.21 86 .27 98 7

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
        .5         .2  86.0     .3  98.0         7.0
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .31          7.83          4388

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_3_10
```

```
------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
*********  25-YEAR  24-HOUR STORM  ****  3.75" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.21 86 .27 98 7

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
         .5        .2  86.0     .3  98.0         7.0
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .37          7.83          5214

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_3_25


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
********* 100-YEAR  24-HOUR STORM  ****  4.75" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.21 86 .27 98 7

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
         .5        .2  86.0     .3  98.0         7.0
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .49          7.83          6888

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_3_100
```

Basin 4 (Developed)

```
------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
******* 6-MONTH  24-HOUR STORM  ****  1.49" TOTAL PRECIP. *******
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.15 86 .13 98 7

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
        .3         .2  86.0     .1  98.0         7.0
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .06          7.83           863

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_4_BIO


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
********* 2-YEAR  24-HOUR STORM  ****  2.25" TOTAL PRECIP. *******
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.15 86 .13 98 7

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
        .3         .2  86.0     .1  98.0         7.0
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .11          7.83          1521

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_4_2


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
*********  10-YEAR  24-HOUR STORM  ****  3.25" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.15 86 .13 98 7

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
        .3         .2  86.0     .1  98.0         7.0
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .17          7.83          2446

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_4_10
```

```
------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
*********  25-YEAR  24-HOUR STORM  ****  3.75" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.15 86 .13 98 7

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
        .3         .2  86.0     .1  98.0         7.0
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .21          7.83          2922

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_4_25


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
********* 100-YEAR  24-HOUR STORM  ****  4.75" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.15 86 .13 98 7

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
        .3         .2  86.0     .1  98.0         7.0
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .28          7.83          3890

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_4_100
```

Basin Off (Developed)

```
------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
******* 6-MONTH  24-HOUR STORM  ****  1.49" TOTAL PRECIP. *******
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.10 86 .19 98 6.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
        .3         .1  86.0     .2  98.0         6.6
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .07          7.83          1052

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_OFF_BIO


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
********* 2-YEAR  24-HOUR STORM  ****  2.25" TOTAL PRECIP. *******
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.10 86 .19 98 6.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
        .3         .1  86.0     .2  98.0         6.6
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .13          7.83          1773

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_OFF_2


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
*********  10-YEAR  24-HOUR STORM  ****  3.25" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.10 86 .19 98 6.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
        .3         .1  86.0     .2  98.0         6.6
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .20          7.67          2762

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_OFF_10
```

```
------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
*********  25-YEAR  24-HOUR STORM  ****  3.75" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.10 86 .19 98 6.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
        .3         .1  86.0     .2  98.0         6.6
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .23          7.67          3267

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_OF_25


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
********* 100-YEAR  24-HOUR STORM  ****  4.75" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
.10 86 .19 98 6.6

DATA PRINT-OUT:
  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
        .3         .1  86.0     .2  98.0         6.6
  PEAK-Q(CFS)   T-PEAK(HRS)    VOL(CU-FT)
       .31          7.67          4286

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:VV_OF_10
```

Existing Condition

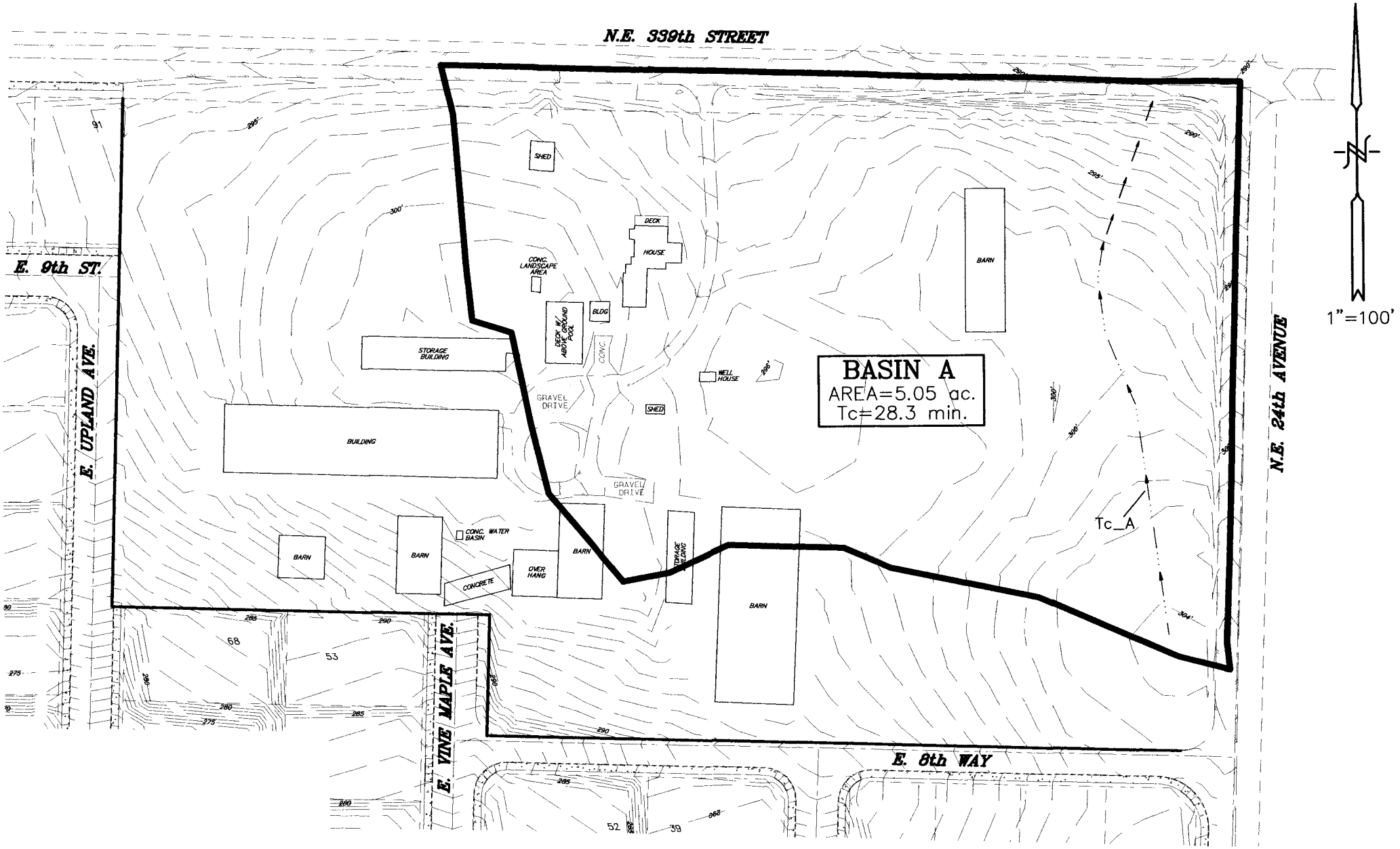
EXISTING RUNOFF VOLUMES/DISCHARGE								
	2-Yr, 24-hr. Storm		10 yr., 24 hr. Storm		25 yr., 24 hr. Storm		100 yr., 24 hr. Storm	
Drainage Basin	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):
Basin A	0.93	20,400	1.78	35,700	2.23	43,800	3.16	60,500
TOTALS:	0.93	20,400	1.78	35,700	2.23	43,800	3.16	60,500

EXISTING AREA QUANTITIES (acres)								
Drainage Basin:	Total Area:	Streets & Sidewalks:	Driveways:	Roofs:	Contrib. Impervious Area: (Roofs incl.):	Contrib. Impervious Area: (no Roofs):	Contrib. Pervious Area:	
Basin A	5.05	0.25	0.16	0.25	0.66	0.41	4.39	Perv. CN=85
TOTALS:	5.05			**TOTALS:**	0.66	0.41	4.39	

EXISTING TIME OF CONCENTRATION CALCULATIONS									
	Sheet Flow				Shallow Conc. Flow				
	2 yr., 24 hr. rainfall total (inches) 2.25								
Drainage Basin:	Flow Length (ft.):	Average Slope (ft./ft.):	Rough. Coeff. (n):	Overland Flow Time (min.):	Flow Length (ft.):	Average Slope (ft./ft.):	Shallow Conc. Flow Time (min.):	Total Time of Conc. (min.)	Drainage Basin:
Basin A	300	0.020	0.150	27.5	130	0.070	0.7	28.3	**Basin A**

"VALLEY VIEW"

EXISTING DRAINAGE BASIN



Basin A (Existing)-actual land use

```
------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
******* 6-MONTH  24-HOUR STORM  ****  1.49" TOTAL PRECIP. *******
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
4.39 85 .66 98 28.3

DATA PRINT-OUT:

  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
       5.0        4.4  85.0      .7  98.0        28.3

  PEAK-Q(CFS)   T-PEAK(HRS)     VOL(CU-FT)
       .39          7.83          10093


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
********* 2-YEAR  24-HOUR STORM  ****  2.25" TOTAL PRECIP. *******
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
4.39 85 .66 98 28.3

DATA PRINT-OUT:

  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
       5.0        4.4  85.0      .7  98.0        28.3

  PEAK-Q(CFS)   T-PEAK(HRS)     VOL(CU-FT)
       .93          7.83          20379


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
*********  10-YEAR  24-HOUR STORM  ****  3.25" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
4.39 85 .66 98 28.3

DATA PRINT-OUT:

  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
       5.0        4.4  85.0      .7  98.0        28.3

  PEAK-Q(CFS)   T-PEAK(HRS)     VOL(CU-FT)
      1.78          7.83          35717
```

```
------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
*********  25-YEAR  24-HOUR STORM  ****  3.75" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
4.39 85 .66 98 28.3

DATA PRINT-OUT:

  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
       5.0        4.4  85.0      .7  98.0        28.3

  PEAK-Q(CFS)   T-PEAK(HRS)     VOL(CU-FT)
      2.23          7.83           43811


------------------------------------------------------------------------
******************** S.C.S. TYPE-1A DISTRIBUTION ********************
********* 100-YEAR  24-HOUR STORM  ****  4.75" TOTAL PRECIP. *********
------------------------------------------------------------------------
ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO.  1
4.39 85 .66 98 28.3

DATA PRINT-OUT:

  AREA(ACRES)     PERVIOUS     IMPERVIOUS    TC(MINUTES)
                  A     CN     A     CN
       5.0        4.4  85.0      .7  98.0        28.3

  PEAK-Q(CFS)   T-PEAK(HRS)     VOL(CU-FT)
      3.16          7.83           60502
```

Appendix II
Detention Calculations

DETENTION METHODOLOGY

THE DETENTION FACILITY IS DESIGNED TO LIMIT THE PEAK RELEASE RATES DURING 2-YR, 24-HR., 10-YR, 24-HR, 25-YR, 24-HR, & 100-YR, 24-HR STORM EVENTS TO THOSE THAT PRESENTLY EXIST. BASINS 1-4 DRAIN TO THE DETENTION FACILITY WHILE BASIN OFF DOES NOT CONTRIBUTE FLOW TO THE DETENTION FACILITY. THE RUNOFF FROM BASIN OFF IS CONSIDERED TO BE A "DIRECT RELEASE." THEREFORE, THE PEAK RELEASE RATES FROM BASIN OFF MUST BE SUBTRACTED FROM THE ALLOWABLE SITE RELEASE TO ARRIVE AT THE ALLOWABLE DETENTION FACILITY RELEASE RATES. THE TABULATION BELOW ILLUSTRATES THIS METHODOLOGY TO DETERMINE THE ALLOWABLE FACILITY RELEASE RATES.

	2-YR.	10-YR.	25-YR.	100-YR.
EXISTING SITE RUNOFF: (BASIN A)	0.93 CFS	1.78 CFS	2.23 CFS	3.16 CFS
BASIN OFF RUNOFF:	0.13 CFS	0.20 CFS	0.23 CFS	0.31 CFS
⇒ ALLOWABLE DETENTION FACILITY RELEASE:	0.80 CFS	1.58 CFS	2.00 CFS	2.85 CFS
* ACTUAL DETENTION FACILITY RELEASE:	0.40 CFS	0.69 CFS	1.14 CFS	1.83 CFS

* AS CAN BE SEEN, THE DETENTION FACILITY DESIGN/PERFORMANCE ACTS TO DRASTICALLY REDUCE THE PEAK DISCHARGE RATES FAR BELOW THOSE THAT ARE ALLOWED.

INITIAL DETENTION CALCULATION

SUMMARY OF INPUT ITEMS

1) TYPE OF FACILITY: POND (3.0:1 SIDE SLOPES)
2) STORAGE DEPTH(ft): 1.50
3) VERTICAL PERMEABILITY(min/in): .00

4) PRIMARY DESIGN HYDROGRAPH FILENAME: VV_2
5) PRIMARY RELEASE RATE(cfs): .50

6) NUMBER OF TEST HYDROGRAPHS: 3
   TEST HYD 1 FILENAME: VV_10 TARGET RELEASE(cfs): 1.40
   TEST HYD 2 FILENAME: VV_25 TARGET RELEASE(cfs): 1.60
   TEST HYD 3 FILENAME: VV_100 TARGET RELEASE(cfs): 2.10

7) NUMBER-OF-ORIFICES, RISER-HEAD(ft), RISER-DIAM(in): 1, 1.50, 8
8) ITERATION DISPLAY: NO

INITIAL STORAGE VALUE FOR ITERATION PURPOSES: 10041 CU-FT

SINGLE ORIFICE RESTRICTOR: DIA= 3.88"

PERFORMANCE:	INFLOW	TARGET-OUTFLOW	ACTUAL-OUTFLOW	PK-STAGE	STORAGE
DESIGN HYD:	1.67 (2-YR.)	.50	.50	1.50	5489
TEST HYD 1:	2.63 (10-YR.)	1.40	1.62	1.89	7220
TEST HYD 2:	3.13 (25-YR.)	1.60	1.93	2.13	8330
TEST HYD 3:	4.13 (100-YR.)	2.10	2.38	2.56	10450

AS CAN BE SEEN ABOVE, THE DESIGN & STORAGE VOLUMES SHOWN PROVIDE MORE THAN ADEQUATE PEAK RELEASE RATES.

THE DEVELOPED SITE IS TO BECOME APPROX. 62% IMPERVIOUS ⇒ A VOLUME CORRECTION FACTOR OF 36% MUST BE APPLIED TO THE STORAGE VOLUMES (FROM FIGURE III-1.1 OF THE PUGET SOUND MANUAL)

⇒ REQUIRED STORAGE VOLUMES =

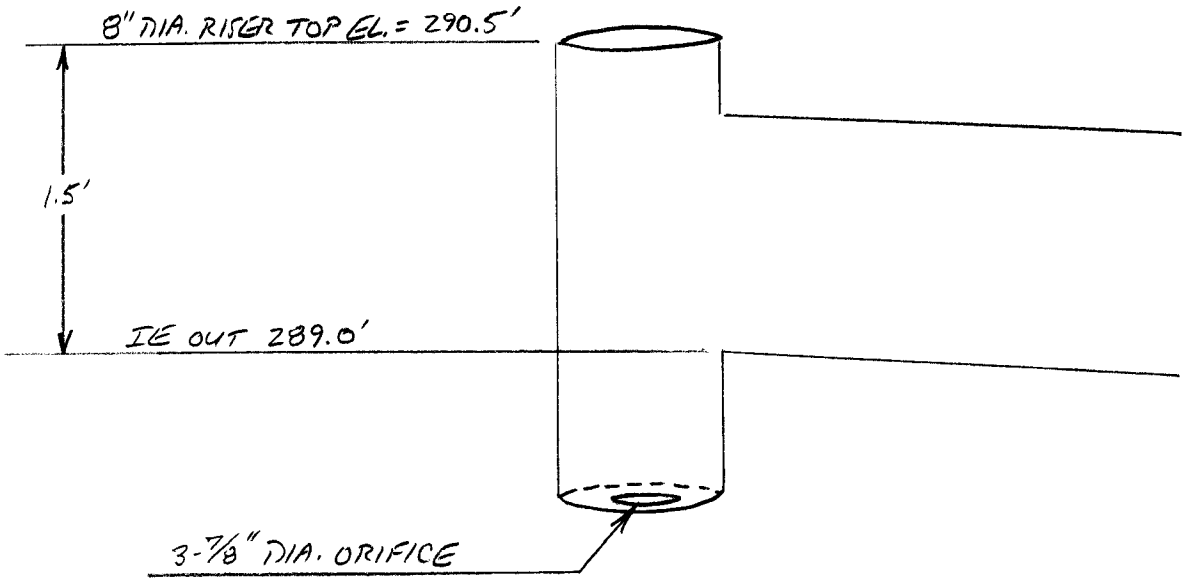
$(5,489\ FT^3)(1.36) = 7,465\ FT^3$ @ STAGE OF 1.5' (2-YR.)
$(7,220\ FT^3)(1.36) = 9,819\ FT^3$ @ STAGE OF 1.9' (10-YR.)
$(8,330\ FT^3)(1.36) = 11,330\ FT^3$ @ STAGE OF 2.1' (25-YR.)
$(10,450\ FT^3)(1.36) = 14,212\ FT^3$ @ STAGE OF 2.5' (100-YR.)

*AS CAN BE SEEN IN THE STORM DETENTION ROUTING DATA ON THE FOLLOWING SHEET, THESE REQUIRED STORAGE VOLUMES ARE NOT ONLY MET BUT ARE GREATLY EXCEEDED.

STORM DETENTION ROUTING DATA
(AFTER VOLUME CORRECTION FACTOR APPLIED)

N	ELEV	STAGE (FT.):	3-7/8" DIA. ORIF. ADISC (CFS):	8"DIA. RISER BDISC (CFS):	STORAGE (CU.FT.):	PERC-AREA
1	289.00	.00	.00	.00	.0	.0
2	289.10	.10	.13	.00	700.0	.0
3	289.20	.20	.19	.00	1400.0	.0
4	289.30	.30	.23	.00	2150.0	.0
5	289.40	.40	.26	.00	2880.0	.0
6	289.50	.50	.29	.00	3600.0	.0
7	289.60	.60	.32	.00	4350.0	.0
8	289.70	.70	.35	.00	5150.0	.0
9	289.80	.80	.37	.00	5900.0	.0
10	289.90	.90	.39	.00	6700.0	.0
11	290.00	1.00	.41	.00	7500.0	.0
12	290.10	1.10	.43	.00	8300.0	.0
13	290.20	1.20	.45	.00	9150.0	.0
14	290.30	1.30	.47	.00	9950.0	.0
15	290.40	1.40	.49	.00	10800.0	.0
16	290.50	1.50	.51	.00	11600.0	.0
17	290.60	1.60	.52	.21	12500.0	.0
18	290.70	1.70	.54	.58	13400.0	.0
19	290.80	1.80	.56	.92	14300.0	.0
20	290.90	1.90	.57	1.06	15200.0	.0
21	291.00	2.00	.59	1.19	16100.0	.0
22	291.10	2.10	.60	1.30	17000.0	.0
23	291.20	2.20	.61	1.41	17900.0	.0
24	291.30	2.30	.63	1.50	18800.0	.0
25	291.40	2.40	.64	1.59	19800.0	.0
26	291.50	2.50	.66	1.68	20700.0	.0
27	291.60	2.60	.67	1.76	21700.0	.0

INITIAL STAGE ELEV = 289.00
AVERAGE PERC-RATE = .0
FILENAME: VV_DATA



2-YR., 24-HR. STORM ROUTE THROUGH DETENTION FACILITY
(AFTER APPLICATION OF VOLUME CORRECTION FACTOR)

```
RESERVOIR ROUTING ROUTINE W/SPLIT-OUTFLOW

SPECIFY [d:][path]filename[.ext] OF ROUTING DATA
VV_DATA
 DISPLAY ROUTING DATA (Y or N)?
N

ENTER [d:][path]filename[.ext] OF COMPUTED HYDROGRAPH:
VV_2

INFLOW/OUTFLOW ANALYSIS:

  PEAK-INFLOW(CFS)    PEAK-OUTFLOW(CFS)    OUTFLOW-VOL(CU-FT)
                          A        B           A          B
        1.67              .40      .00        27329         0

  INITIAL-STAGE(FT)   TIME-OF-PEAK(HRS)    PEAK-STAGE-ELEV(FT)
      289.00              11.00                289.96

  REQUIRED STORAGE:      7190 CU-FT
```

Q_p = 0.40 CFS
ALLOWABLE = 0.80 CFS
⇒ O.K.

10-YR., 24-HR. STORM ROUTE THROUGH DETENTION FACILITY
(AFTER APPLICATION OF VOLUME CORRECTION FACTOR)

```
RESERVOIR ROUTING ROUTINE W/SPLIT-OUTFLOW

SPECIFY [d:][path]filename[.ext] OF ROUTING DATA
VV_DATA
 DISPLAY ROUTING DATA (Y or N)?
N

ENTER [d:][path]filename[.ext] OF COMPUTED HYDROGRAPH:
VV_10

INFLOW/OUTFLOW ANALYSIS:

  PEAK-INFLOW(CFS)    PEAK-OUTFLOW(CFS)    OUTFLOW-VOL(CU-FT)
                          A        B           A          B
        2.63              .52      .17        40873      2136

  INITIAL-STAGE(FT)   TIME-OF-PEAK(HRS)    PEAK-STAGE-ELEV(FT)
      289.00              10.67                290.58

  REQUIRED STORAGE:      12330 CU-FT
```

Q_p = 0.69 CFS
ALLOWABLE = 1.58 CFS
⇒ O.K.

25-YR., 24-HR. STORM ROUTE THROUGH DETENTION FACILITY
(AFTER APPLICATION OF VOLUME CORRECTION FACTOR)

```
RESERVOIR ROUTING ROUTINE W/SPLIT-OUTFLOW

SPECIFY [d:][path]filename[.ext] OF ROUTING DATA
VV_DATA
 DISPLAY ROUTING DATA (Y or N)?
N

ENTER [d:][path]filename[.ext] OF COMPUTED HYDROGRAPH:
VV_25

INFLOW/OUTFLOW ANALYSIS:

  PEAK-INFLOW(CFS)    PEAK-OUTFLOW(CFS)    OUTFLOW-VOL(CU-FT)
                          A        B           A          B
        3.13              .54      .60        44024      6927

  INITIAL-STAGE(FT)   TIME-OF-PEAK(HRS)    PEAK-STAGE-ELEV(FT)
      289.00               8.83                290.71

  REQUIRED STORAGE:     13450 CU-FT
```

Q_p = 1.14 CFS
ALLOWABLE = 2.00 CFS
⇒ O.K.

100-YR., 24-HR. STORM ROUTE THROUGH DETENTION FACILITY
(AFTER APPLICATION OF VOLUME CORRECTION FACTOR)

```
RESERVOIR ROUTING ROUTINE W/SPLIT-OUTFLOW

SPECIFY [d:][path]filename[.ext] OF ROUTING DATA
VV_DATA
 DISPLAY ROUTING DATA (Y or N)?
N

ENTER [d:][path]filename[.ext] OF COMPUTED HYDROGRAPH:
VV_100

INFLOW/OUTFLOW ANALYSIS:

  PEAK-INFLOW(CFS)    PEAK-OUTFLOW(CFS)    OUTFLOW-VOL(CU-FT)
                          A        B           A          B
        4.13              .59     1.24        48904      18066

  INITIAL-STAGE(FT)   TIME-OF-PEAK(HRS)    PEAK-STAGE-ELEV(FT)
      289.00               8.67                291.04

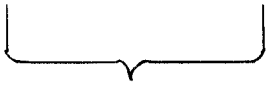
  REQUIRED STORAGE:     16480 CU-FT
```

Q_p = 1.83 CFS
ALLOWABLE = 2.85 CFS
⇒ O.K.

Appendix III

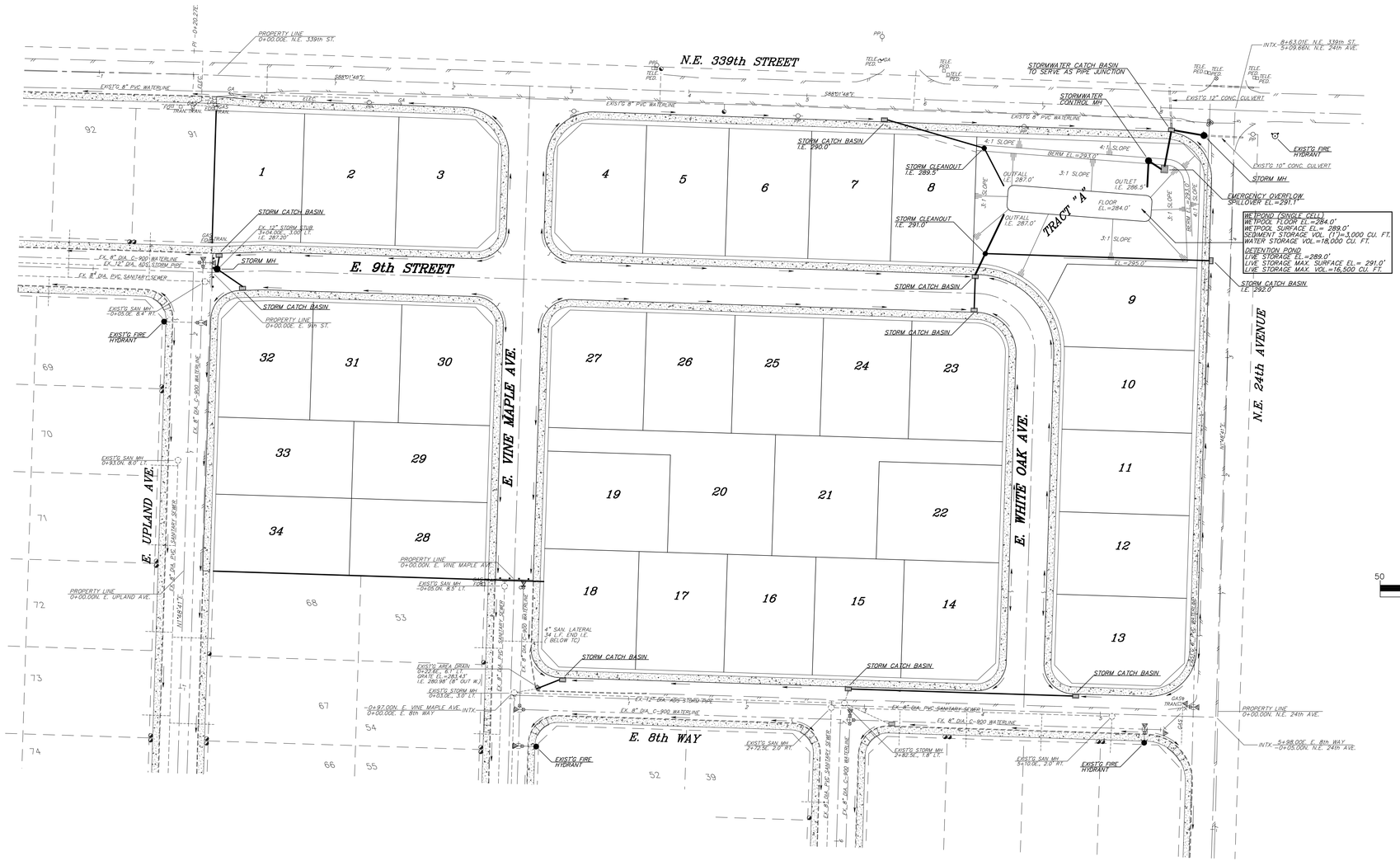
Water Quality Calculations

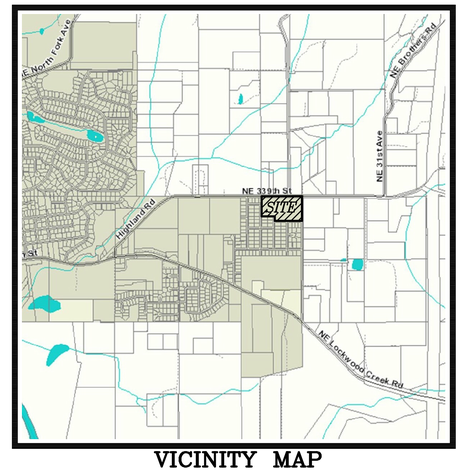
DEVELOPED RUNOFF VOLUMES/DISCHARGE										
	66% 2-Yr, 24-hr. storm (6 month storm)		**2 yr., 24 hr. storm**		**10 yr., 24 hr. storm**		**25 yr., 24 hr. storm**		**100 yr., 24 hr. storm**	
Drainage Basin	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):	Peak Discharge (cfs):	Total Volume (ft3):
Basin 1	0.45	7,780	0.77	13,150	1.22	20,500	1.44	24,300	1.90	31,900
Basin 2	0.34	5,930	0.59	10,060	0.93	15,700	1.11	18,600	1.46	24,500
Basin 3	0.11	1,610	0.20	2,780	0.31	4,390	0.37	5,210	0.49	6,890
Basin 4	0.06	860	0.11	1,520	0.17	2,450	0.21	2,920	0.28	3,890
Basin Off	0.07	1,050	0.13	1,770	0.20	2,760	0.23	3,270	0.31	4,290
TOTALS:	1.03	17,230	1.80	29,280	2.83	45,800	3.36	54,300	4.44	71,470



THE WETPOND WILL RECEIVE RUNOFF FROM DEVELOPED DRAINAGE BASINS 1-4. THE 6-MONTH, 24 HR. STORM VOLUME FROM BASINS 1-4 IS 16,180 FT^3.
⇒ THIS VOLUME MUST BE PROVIDED AS "DEAD STORAGE" WITHIN THE WETPOND.

Exhibit A.16





VICINITY MAP

APPLICANT:
SUMMERPLACE HOMES, INC.
12401 S.E. 2nd CIRCLE, SUITE A
VANCOUVER, WA 98684
CONTACT: SHAWN MACFARLANE
360-253-1488
shawn@summerplacehomes.com

NOTES:

THE MAJORITY OF STORMWATER RUNOFF GENERATED FROM THE PROJECT SITE WILL BE TREATED AND DETAINED ON THE SITE.

STORMWATER RUNOFF FROM THE PROPOSED DEVELOPMENT WILL BE TREATED WITH THE USE OF A WETPOND PRIOR TO RELEASE FROM THE SITE.

STORMWATER RUNOFF FROM THE PROPOSED DEVELOPMENT WILL BE DETAINED WITH THE USE OF A SURFACE DETENTION POND TO LIMIT THE PEAK DISCHARGE RATES LEAVING THE SITE.

ALL ROOF DRAINAGE WILL BE DIRECTED TO THE STREET OR DIRECTLY TO THE STORM DETENTION POND OR PIPE SYSTEM. STORM PIPING NEEDS ARE VERY MINIMAL FOR THIS PROJECT, THEREFORE, MOST, IF NOT ALL, ROOF RUNOFF WILL BE DIRECTED TO THE STREET THROUGH WEEP HOLES IN THE CURB.

THE EXISTING CONCRETE CULVERTS CARRYING FLOWS BENEATH N.E. 24th AVE. & N.E. 339th ST. ARE TO BE CONNECTED AS SHOWN TO MAINTAIN CURRENT FLOW PARAMETERS. THE "VALLEY VIEW" PROJECT WILL UTILIZE THE EXISTING CULVERT BENEATH N.E. 339th ST. AS THE PROJECT OUTLET AND WILL BE CONNECTED AS SHOWN.

MUCH OF THE EXISTING SITE RUNOFF PRESENTLY DRAINS SOUTH AND WESTERLY TO THE EXISTING "HERITAGE COUNTRY ESTATES" DEVELOPMENT. THE FUTURE DEVELOPED RUNOFF FROM THE PROPOSED "VALLEY VIEW" PROJECT WILL CONTINUE TO DRAIN IN THIS MANNER. THE DESIGN AND CONSTRUCTION OF THE STORMWATER FACILITIES FOR "HERITAGE COUNTRY ESTATES" ACCOUNTED FOR THE STORMWATER RUNOFF FROM THIS FUTURE DEVELOPMENT AND PROVIDES THE NECESSARY CONVEYANCE, TREATMENT, AND DETENTION.

THE WOLFE GROUP, L.L.C.
Land Planning, Consulting & Civil Engineering
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VALLEY VIEW

A Residential Subdivision in the N.E. 1/4 of Section 2 T.4N., R.1E., W.M. in the City of La Center, Clark County, WA

PRELIMINARY
STORMWATER PLAN

JOB #: 22-04
DESIGNED: JEW
DRAWN: JEW
APPROVED: JEW
DATE: OCT. 2022
SCALE: HORIZ.: 1"=50' VERT.: N/A
SHEET
1 / 1

Exhibit A.17

lancaster mobley

Valley View Subdivision

Transportation Impact Study

La Center, Washington

Date:
September 20, 2022

Prepared for:
Mason Wolfe
KDev LLC

Prepared by:
Daniel Stumpf, PE

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Executive Summary

1. The proposed Valley View Subdivision will include the construction of a residential subdivision located on a single property addressed at 2219 NE 339th Street in La Center, Washington, Washington. The project will subdivide the 8.46-acre lot into 34 single-family residential lots, removing 1 existing house and several ancillary farm structures for a net increase of 33 dwelling units. Main access to the site will be provided via the E Vine Maple Avenue extension to NE 339th Street and E 8th Way onto NE 24th Avenue; however, alternate routes to access the transportation system through the Sunrise Terrace Subdivision will be available.
2. The trip generation calculations show that the proposed project is projected to generate an additional 23 morning peak hour trips, 31 evening peak hour trips, and 310 average weekday trips.
3. No significant trends or crash patterns were identified at any of the study intersections that are indicative of safety concerns. Accordingly, no safety mitigation is recommended per the crash data analysis.
4. Provided any obstructing on-site foliage near the site access along NE 339th Street is removed/properly maintained and the existing on-site fence along the north edge of the site is removed, adequate intersection sight distances to the east and west of the proposed site access can be made available to ensure safe and efficient operation along NE 339th Street. No other mitigation is necessary or recommended with regard to sight distance at the proposed access intersection.
5. Left-turn lane warrants are not projected to be met at any of the applicable study intersections along NE Lockwood Creek Road, NE 24th Avenue, or NE 339th Street. Accordingly, no new left-turn lanes are necessary or recommended at any of the study intersections as part of the proposed Valley View Subdivision project.
6. Traffic signal warrants are projected to be met at the intersection of NW Timmen Road at NW La Center Road under year 2024 background conditions without the proposed development constructed. Per the City of La Center's Transportation Capital Facilities Plan and City staff, the intersection is currently planned as a roundabout and the improvement project is Traffic Impact Fee (TIF) eligible. No other new traffic signals are necessary or recommended at other study intersections as part of the proposed development application.
7. Based on the results of the operational analysis, the following intersections are currently or projected to exceed City of La Center mobility standards:

    1. NW Paradise Park Road at NW La Center Road
    2. NW Timmen Road at NW La Center Road

    Both intersections are under consideration to be reconstructed as roundabouts, provided signal warrants and/or sufficient TIF's have been collected for these projects. Once these mitigative measures are implemented both intersections are projected to operate acceptably per City of La Center standards. Accordingly, no other operational mitigation is necessary or recommended at these study intersections.
8. All other study intersections are currently operating acceptably per La Center standards and are projected to continue operating acceptably through the 2024 buildout year of the site, provided planned mitigation at the intersections of E Stonecreek Drive at E 4th Street and NE Highland Avenue at E 4th Street are implemented. Accordingly, no other operational mitigation is necessary or recommended at these study intersections.

Project Description

Introduction

The proposed Valley View Subdivision will include the construction of a residential subdivision located on a single property addressed at 2219 NE 339th Street in La Center, Washington, Washington. The project will subdivide the 8.46-acre lot into 34 single-family residential lots, removing 1 existing house and several ancillary farm structures for a net increase of 33 dwelling units. Main access to the site will be provided via the E Vine Maple Avenue extension to NE 339th Street and E 8th Way onto NE 24th Avenue; however, alternate routes to access the transportation system through the Sunrise Terrace Subdivision will be available.

Based on correspondence with La Center staff, the report conducts safety and capacity/level of service analyses at the following intersections:

1. NW Paradise Park Road at NW La Center Road
2. NW Timmen Road at NW La Center Road
3. Aspen Avenue at E/W 4th Street
4. E Stonecreek Drive at E 4th Street
5. NE Highland Avenue at E 4th Street
6. NE 24th Avenue at NE Lockwood Creek Road
7. NE 24th Avenue at E 8th Way (site access)
8. E Vine Maple Avenue at NE 339th Street (site access)

The purpose of this study is to determine whether the transportation system within the vicinity of the site is capable of safely and efficiently supporting the existing and proposed uses, and to determine any mitigation that may be necessary to do so. Detailed information on traffic counts, trip generation calculations, safety analyses, and level of service calculations is included in the appendix to this report.

Location Description

The project site is located north of E 8th Way, south of NE 339th Street, east of E Upland Avenue, and west of NE 24th Avenue in La Center, Washington. The subject site is located within a developing residential area of the City with a residential subdivision to the south and west, and low-density single-family detached houses surrounding the site in all other directions.

The site consists of a single assessor parcel (parcel 209062000) which encompasses an approximate total of 8.64 acres. A single-family detached house and several ancillary farm structures are currently built on-site. Following redevelopment of the site, the existing house and all ancillary structures will be removed. The site is currently served by one driveway which will be removed.

Figure 1 presents an aerial image of the nearby vicinity with the project site outlined in yellow.

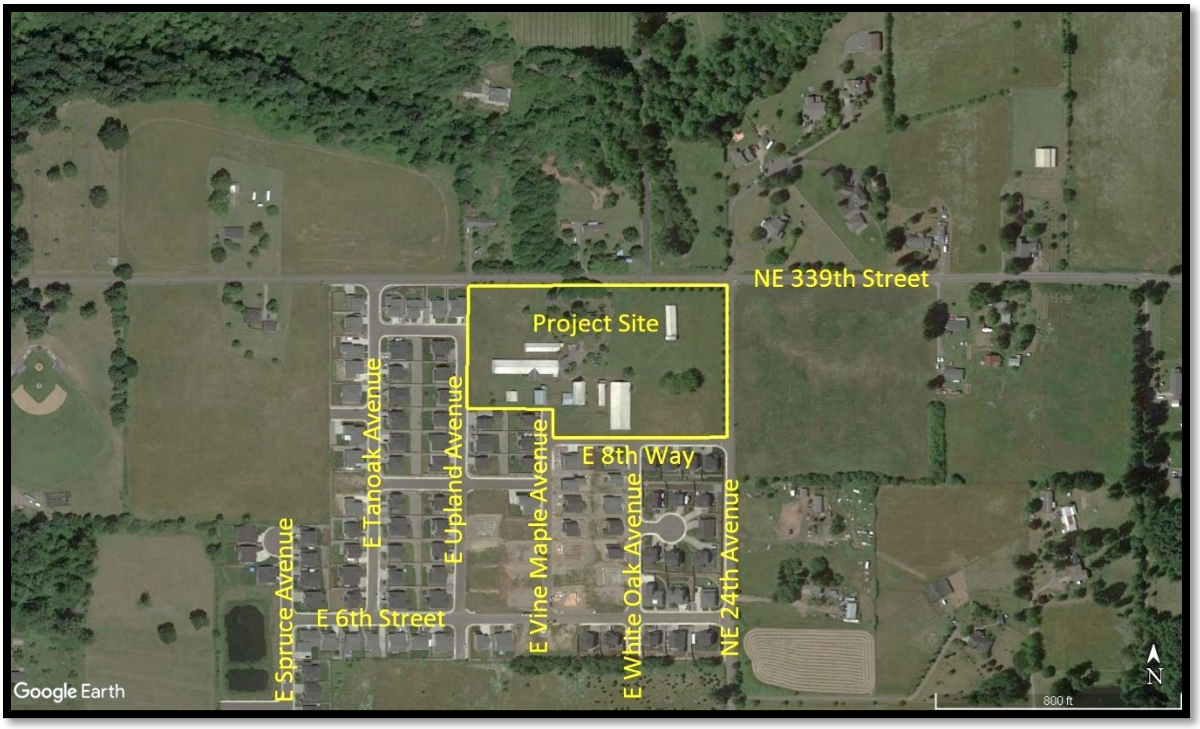


Figure 1: Aerial Photo of Site Vicinity (Image from Google Earth)

Vicinity Streets

The proposed development is expected to impact several roadways near the project site. Table 1 provides a description of each vicinity roadway.

Table 1: Vicinity Roadway Descriptions

Street Name	Jurisdiction	Functional Classification	Speed (MPH)	On-Street Parking	Curbs & Sidewalks	Bicycle Lanes
NW La Center Road	La Center	Principal Arterial	25/35/ 50	Not Permitted	Partial Both Sides	Partial Both Sides
NW Paradise Park Road	La Center	Major Collector	35	Not Permitted	Partial Both Sides	Partial Both Sides
NW Timmen Road	La Center	Minor Arterial	40	Not Permitted	None	None
Pacific Highway	La Center	Minor Arterial	25	Permitted Both Sides	Both Sides	None

Table Notes: *Functional classification based on Clark County 2016 Arterial Atlas and La Center Transportation Capital Facilities Plan Classification Map.*

Design speeds determined per Table 2.1 - Street Design Standards in City of La Centers Public Works Engineering Standards for Construction.

Table 1: Vicinity Roadway Descriptions (Continued)

Street Name	Jurisdiction	Functional Classification	Speed (MPH)	On-Street Parking	Curbs & Sidewalks	Bicycle Lanes
E/W 4th Street	La Center	Minor Arterial	25	Partially Permitted	Partial Both Sides	Partial Both Sides
Aspen Avenue	La Center	Major Collector	25	Partially Permitted	Both Sides	None
E Stonecreek Drive	La Center	Local Street	25	Permitted Both Sides	Both Sides	None
NE Highland Avenue	La Center	Major Collector	25/35	Not Permitted	Partial Both Sides	Partial Both Sides
NE Ivy Avenue	La Center	Local Street	25	Not Permitted	Both Sides	None
NE Lockwood Creek Road	La Center/ Clark County	Minor Arterial/ Rural Major Collector	25/35/ 50	Not Permitted	Partial Both Sides	Partial Both Sides
NE 339th Street	La Center/ Clark County	Major Collector/ Rural Minor Collector	35/50	Not Permitted	None	None
NE 24th Avenue	La Center	Minor Collector	25	Partially Permitted	Partial West Side	None
E Vine Maple Avenue	La Center	Local Street	25	Permitted Both Sides	Both Sides	None
E 8th Street	La Center	Local Street	25	Permitted South Side	South Side	None

Table Notes: *Functional classification based on Clark County 2016 Arterial Atlas and La Center Transportation Capital Facilities Plan Classification Map.*

Design speeds determined per Table 2.1 - Street Design Standards in City of La Centers Public Works Engineering Standards for Construction.

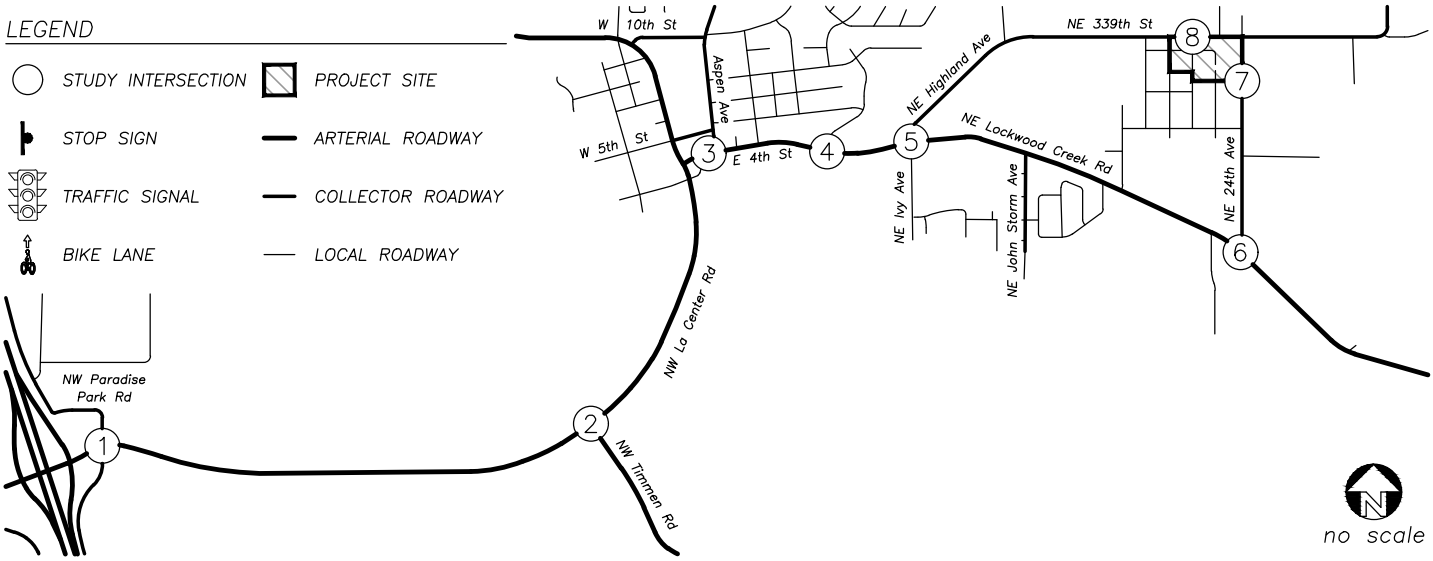
Study Intersections

A majority of site trips generated by the proposed development are expected to impact seven existing, nearby intersections of significance. A summarized description of these study intersections is provided in Table 2.

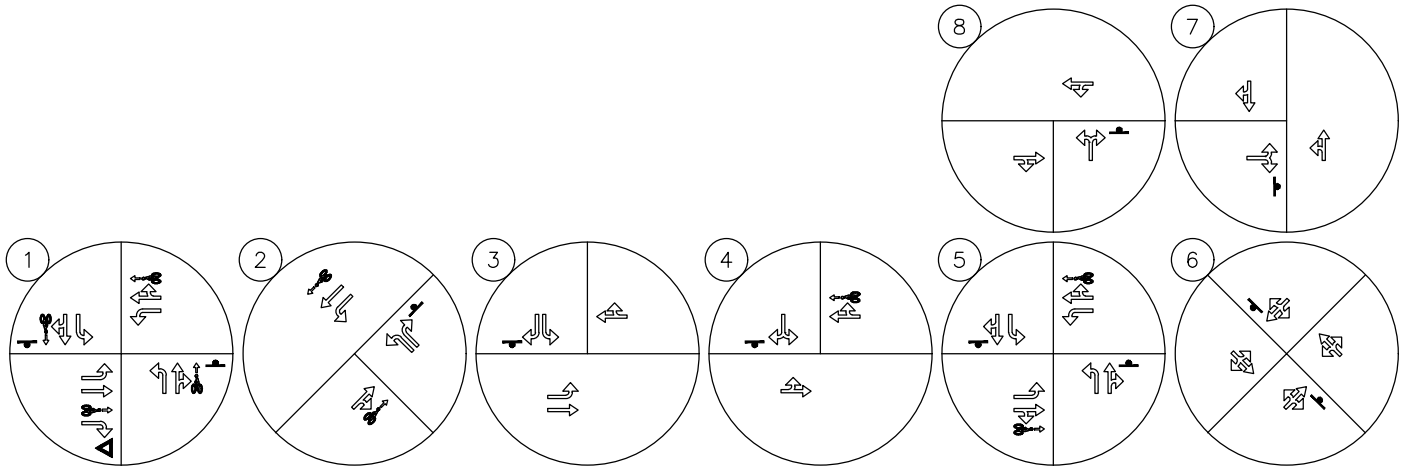
Table 2: Study Intersection Descriptions

Number	Intersection	Geometry	Traffic Control	Phasing/Stopped Approaches
1	NW Paradise Park Road at NW La Center Road	Four-Legged	Stop-Controlled	NB/SB Stop-Controlled Approaches, EB Right-turn Yield Controlled
2	NW Timmen Road at NW La Center Road	Three-Legged	Stop-Controlled	NWB Stop-Controlled Approach
3	Aspen Avenue at E/W 4th Street	Three-Legged	Stop-Controlled	SB Stop-Controlled Approach
4	E Stonecreek Drive at E 4th Street	Three-Legged	Stop-Controlled	SB Stop-Controlled Approach
5	NE Highland Avenue at E 4th Street	Four-Legged	Stop-Controlled	NB/SB Stop-Controlled Approaches
6	NE 24th Avenue at NE Lockwood Creek Road	Four-Legged	Stop-Controlled	NEB/SWB Stop-Controlled Approaches
7	NE 24th Avenue at E 8th Way	Three-Legged	Stop-Controlled	EB Stop-Controlled Approach

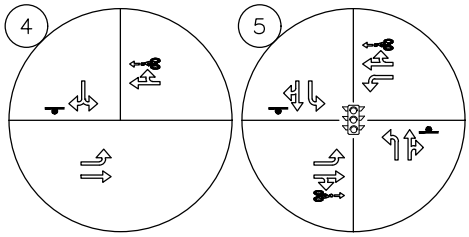
A vicinity map showing the project site, vicinity streets, and study intersection configurations are shown in Figure 2.



EXISTING INTERSECTION CONFIGURATIONS



PLANNED INTERSECTION CONFIGURATIONS



lancaster mobley

VICINITY MAP

Figure 2
Valley View Subdivision
9/20/2022

Site Trips

Trip Generation

The proposed development will include the construction of 34 single-family detached houses, removing 1 existing house and several ancillary farm structures for a net increase of 33 dwelling units. To estimate the number of trips that are currently and will be generated by the existing and proposed uses, trip rates from the *Trip Generation Manual*[1] were used. Specifically, data from land use code 210, *Single-Family Detached Housing*, was used to estimate site trip generation based on the number of dwelling units.

The trip generation calculations show that the proposed project is projected to generate an additional 23 morning peak hour trips, 31 evening peak hour trips, and 310 average weekday trips. The trip generation estimates are summarized in Table 3. Detailed trip generation calculations are included in the technical appendix.

Table 3: Trip Generation Summary

	ITE Code	Size/Rate	Morning Peak Hour			Evening Peak Hour			Weekday Total
			Enter	Exit	Total	Enter	Exit	Total	
Existing Conditions	210	1 dwelling units	0	1	1	1	0	1	10
Proposed Conditions	210	34 dwelling units	6	18	24	20	12	32	320
Net New Trips		**33 dwelling units**	**6**	**17**	**23**	**19**	**12**	**31**	**310**

Trip Distribution

The trip distribution of the proposed development was referenced from the assumed distribution utilized in the *Sunrise Terrace Transportation Impact Study* (TIS), dated July 7, 2015. The directional distribution percentages of trips to/from the Sunrise Terrace development were estimated based on the locations of likely trip destinations, locations of major transportation facilities in the site vicinity, and existing travel patterns at study area intersections.

[1] Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition, 2021.

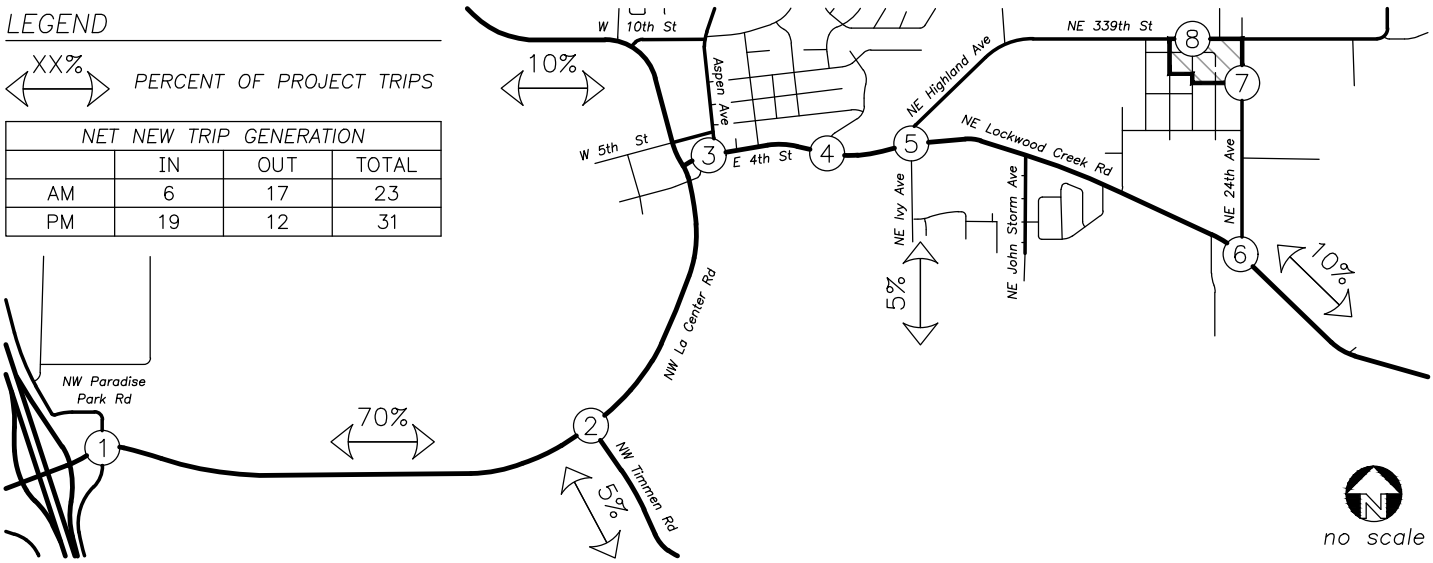
The following trip distribution is projected:

- Approximately 70 percent of site trips will travel to/from the west along NW La Center Road;
- Approximately 10 percent of site trips will travel to/from the north along NW Pacific Highway;
- Approximately 10 percent of site trips will travel to/from the east along NE Lockwood Creek Road;
- Approximately 5 percent of site trips will travel to/from the south along NW Timmen Road; and
- Approximately 5 percent of site trips will travel to/from the south along E Ivy Avenue (primarily to schools).

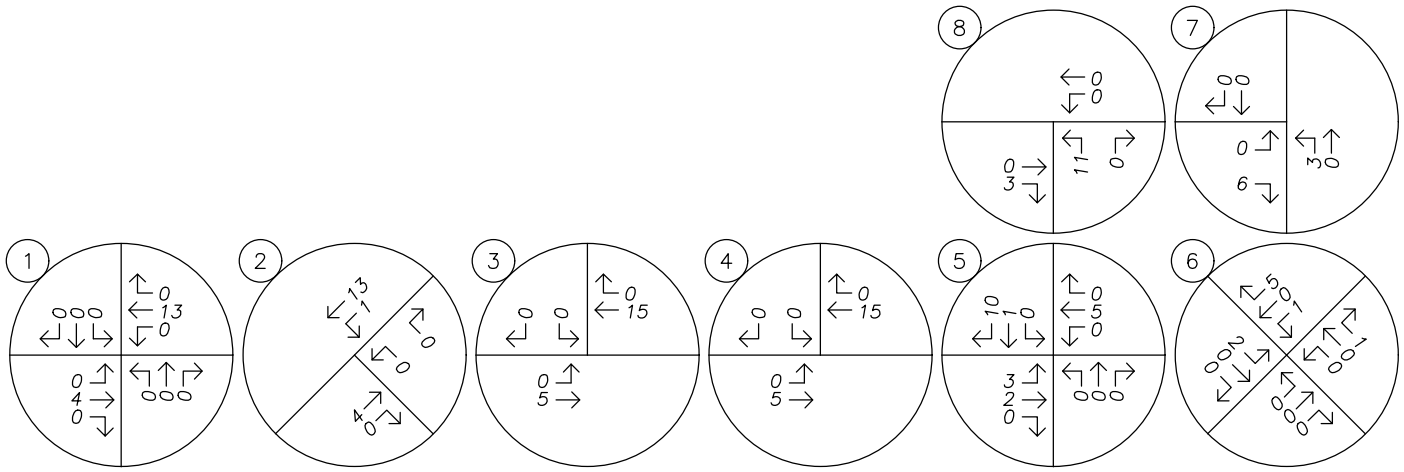
Although there are multiple routes of travel between the site and the greater transportation system, the main points of access are expected to include the intersections of NE 24th Avenue at E 8th Way and E Vine Maple Avenue at NE 339th Street. Based on the site location and trip distribution, for the purposes of this analysis site trips are anticipated to utilize site accesses accordingly:

- Approximately 60 percent of site trips will access the site via the intersection of E Vine Maple Avenue at NE 339th Street.
- Approximately 40 percent of site trips will access the site via the intersection of NE 24th Avenue at E 8th Way.

The trip distribution and assignment for the site trips generated during the morning and evening peak hours are shown in Figure 3.



AM PEAK HOUR



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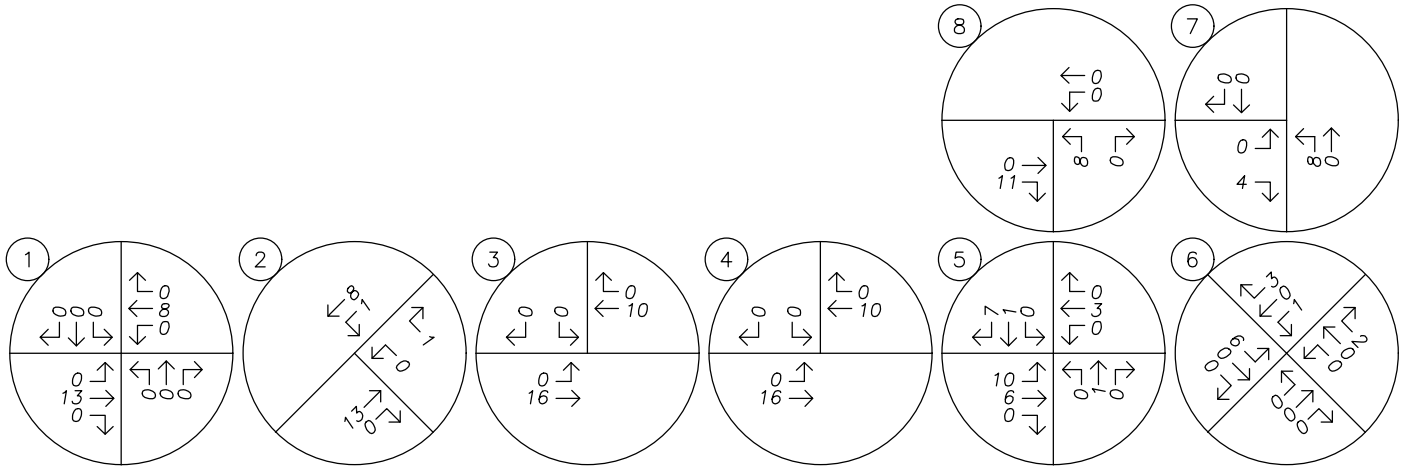


SITE TRIP DISTRIBUTION & ASSIGNMENT

Proposed Development Plan - Site Trips
AM & PM Peak Hours

Figure 3
Valley View Subdivision
9/20/2022

Traffic Volumes

Existing Conditions

Due to the ongoing COVID-19 viral pandemic, as of mid-March 2020 traffic volumes around Clark County have been depressed relative to normal conditions whereby traditional traffic count data collection methods are not recommended. A review of available traffic count data yielded morning and evening peak hour traffic counts at the following locations:

3. Aspen Avenue at E/W 4th Street (December 6, 2018).
4. E Stonecreek Drive at E 4th Street (December 6, 2018).
5. NE Highland Road at E 4th Street (December 6, 2018).

Given these available counts, the following methodology for data collection and volume adjustment was utilized:

- The historical 2018 traffic counts were grown to reflect 2022 existing conditions by applying a 1.26 percent per year compounded growth factor, in accordance with the Clark County Management Decision memorandum, dated March 20, 2020.
- Since 2018 - early 2020 traffic counts are not available at the other study intersections, current year 2022 traffic counts were collected at all of the existing study intersections on Wednesday, June 29, 2022, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. Additionally, 24-hour roadway counts were collected along NE 339th Street east of E Tanoak Avenue on Thursday, July 13, 2022 in order to estimate major-street volumes at the future access intersection along NE 339th Street.
- The 2018 historical count data (grown to reflect 2022 conditions) and the recently collected 2022 counts at Intersection 3, Intersection 4, and Intersection 5 were compared. Based on the difference in peak period volumes for the three count locations, adjustment factors were calculated. These adjustment factors are intended to estimate normal traffic conditions without impacts from the COVID-19 virus (i.e. normal commuter patterns, businesses open, etc).
- The calculated adjustment factors were applied to their respective year 2022 intersection counts for the morning and evening peak hours. For intersections where pre-COVID-19 count data is unavailable, the calculated adjustment factors were averaged between the three locations for the morning and evening peak hours and applied to the recently collected year 2022 traffic counts.

Table 4 presents the calculated adjustment factors for each of the count locations as well as average adjustment factors for both the morning and evening peak hours.

Table 4: COVID-19 Adjustment Factor Calculations

	AM Peak Period (7:00 AM to 9:00 AM)	PM Peak Period (4:00 PM to 6:00 PM)
3. Aspen Avenue at E/W 4th Street		
Collected 2022 Peak Hour Volumes	1,083	1,754
Historical 2018 Peak Hour Volumes	1,198	1,671
Compounded Growth Factor (1.26% Per Year Over 4 Years)	1.0514	1.0514
Historical 2018 Peak Hour Volumes (Grown to 2022)	1,260	1,757
New Volumes > Grown Historical Volumes?	No	No
Adjustment Factor	**1.163**	**1.002**
4. E Stonecreek Drive at E 4th Street		
Collected 2022 Peak Hour Volumes	752	1,285
Historical 2018 Peak Hour Volumes	1,264	1,473
Compounded Growth Factor (1.26% Per Year Over 4 Years)	1.0514	1.0514
Historical 2018 Peak Hour Volumes (Grown to 2022)	1,329	1,549
New Volumes > Grown Historical Volumes?	No	No
Adjustment Factor	**1.767**	**1.205**
5. NE Highland Avenue at E 4th Street		
Collected 2022 Peak Hour Volumes	738	1,271
Historical 2018 Peak Hour Volumes	1,195	1,450
Compounded Growth Factor (1.26% Per Year Over 4 Years)	1.0514	1.0514
Historical 2018 Peak Hour Volumes (Grown to 2022)	1,256	1,524
New Volumes > Grown Historical Volumes?	No	No
Adjustment Factor	**1.702**	**1.199**
Average Adjustment Factors		
Average	**1.544**	**1.135**

Figure 4 shows the adjusted year 2022 existing traffic volumes at the study intersections during the morning and evening peak hours.

Background Conditions

Volume Growth

To provide analysis of the impact of the proposed development on the nearby transportation facilities, an estimate of future traffic volumes is required. In order to approximate the future year 2024 traffic volumes at the study intersections, a compounded growth rate of two percent per year for an assumed buildout condition of two years was applied to the adjusted year 2022 existing traffic volumes.

In-Process Data

In addition to the traffic volume growth described above, there are several in-process developments that are currently approved/proposed for construction within the site vicinity that are expected to impact nearby study intersections. The in-process developments include the following:

- Asa's View Subdivision – 0 percent constructed
- Highland Terrace Subdivision (aka Riverside Estates) – Approximately 10 percent of houses constructed, 0 percent of apartment units constructed
- Lockwood Meadows Subdivision – 0 percent constructed
- Stephen Hillside Farm Subdivision – 0 percent constructed

The in-process developments are currently not fully contributing trips to the transportation system but may potentially be by the assumed 2024 buildout year of the site. Additional trips corresponding to each in-process development were added to the existing year traffic volumes in addition to the two years of traffic growth at each of the applicable study intersections. To maintain a conservative analysis of operation at the study intersections, all in-process developments were assumed to be constructed by year 2024. Figure A in the technical appendix shows the in-process development trips at the study intersections during the morning and evening peak hours.

Planned Transportation Infrastructure Projects

Based on correspondence with City of La Center staff and referring to the *Brezee Creek/4th Street Widening Traffic Analysis Report*, dated November 5, 2020, several transportation improvement projects are planned along E 4th Street near La Center Elementary School. Specific to applicable study intersections, the following are planned:

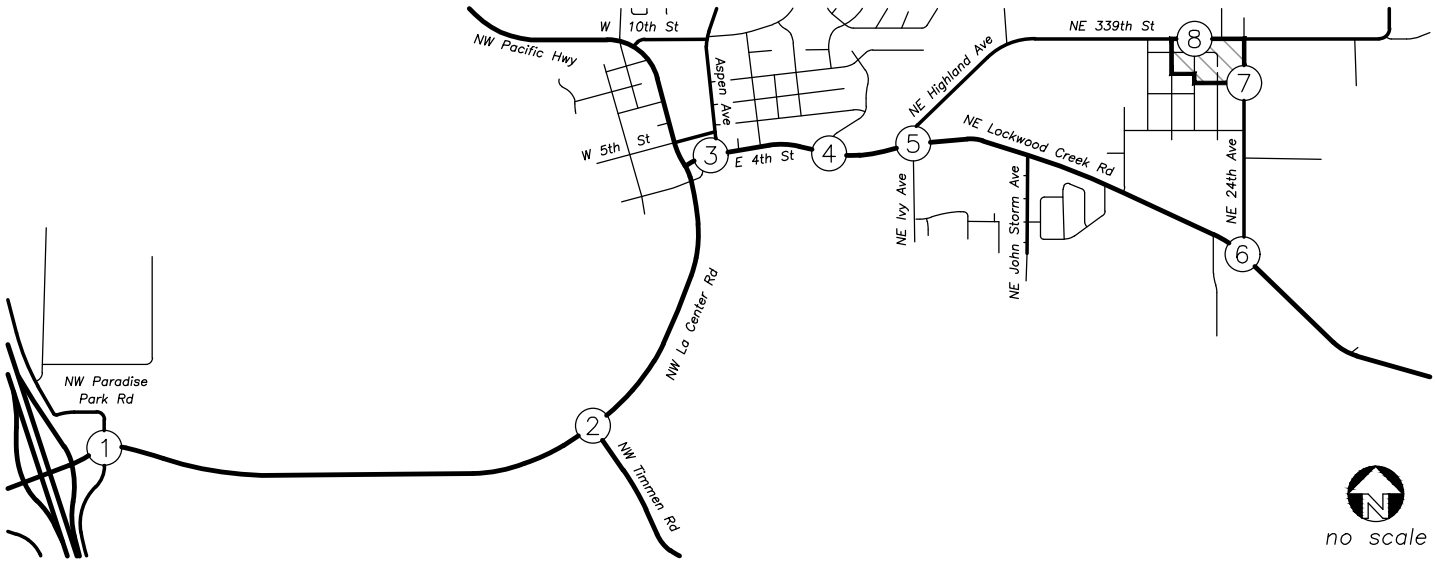
4. E Stonecreek Drive at E 4th Street
    a. Widen E 4th Street to a three-lane cross-section east of the intersection and stripe a center two-way left-turn lane.
    b. On the west leg of the intersection, stripe an eastbound left-turn lane.
5. NE Highland Avenue at E 4th Street
    a. Install a traffic signal at the intersection while maintaining existing lane configurations.

It is assumed that future year 2024 conditions would reflect the aforementioned revisions to the transportation system. Figure 2 presents these future planned intersection configurations. Figure 5 shows the projected year 2024 background traffic volumes at the study intersections during the morning and evening peak hours.

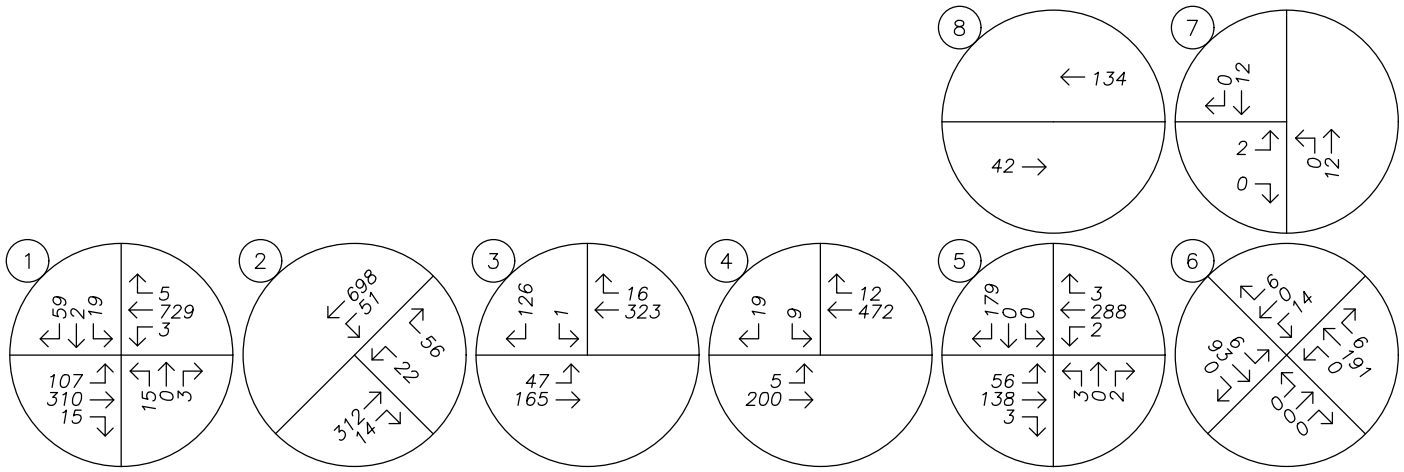
Buildout Conditions

Peak hour trips calculated to be generated by the proposed development, as described earlier within the *Site Trips* section, were added to the projected year 2024 background traffic volumes to obtain the expected 2024 site buildout volumes.

Figure 6 show the year 2024 buildout traffic volumes at the study intersections during the morning and evening peak hours.



AM PEAK HOUR



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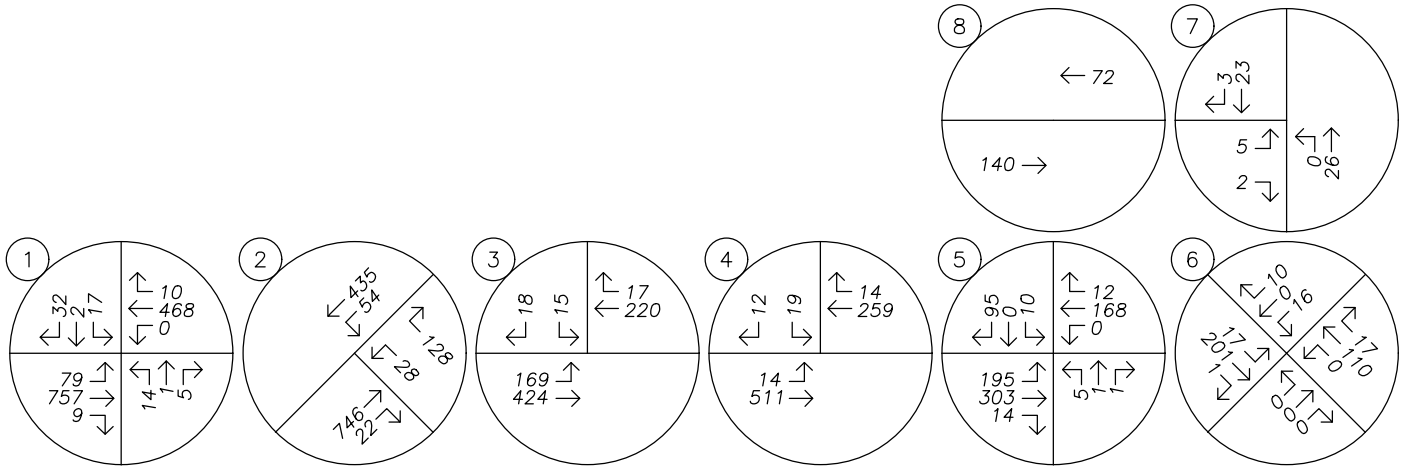
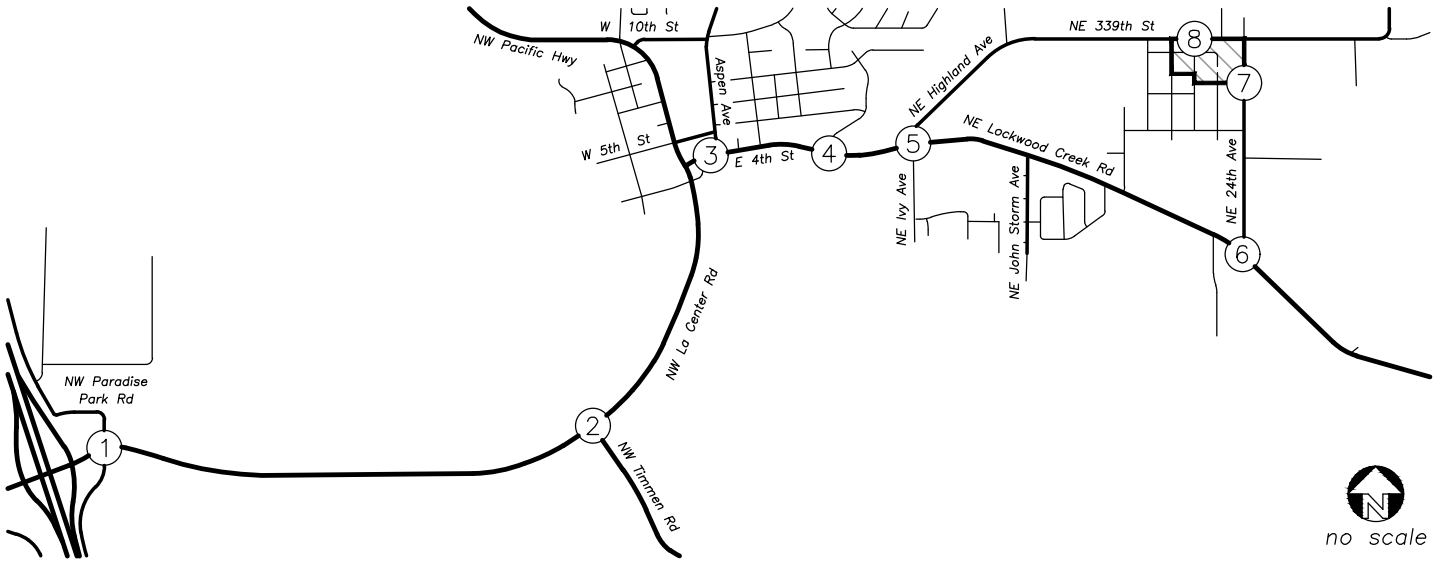


TRAFFIC VOLUMES
Year 2022 Existing Conditions
AM & PM Peak Hours

Figure 4
Valley View Subdivision
9/20/2022



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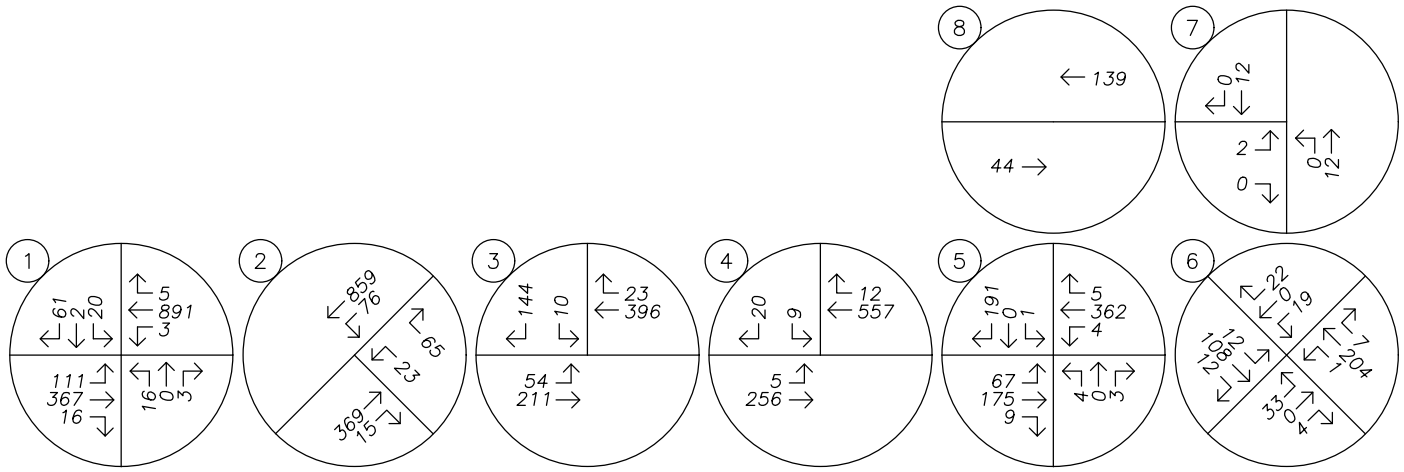

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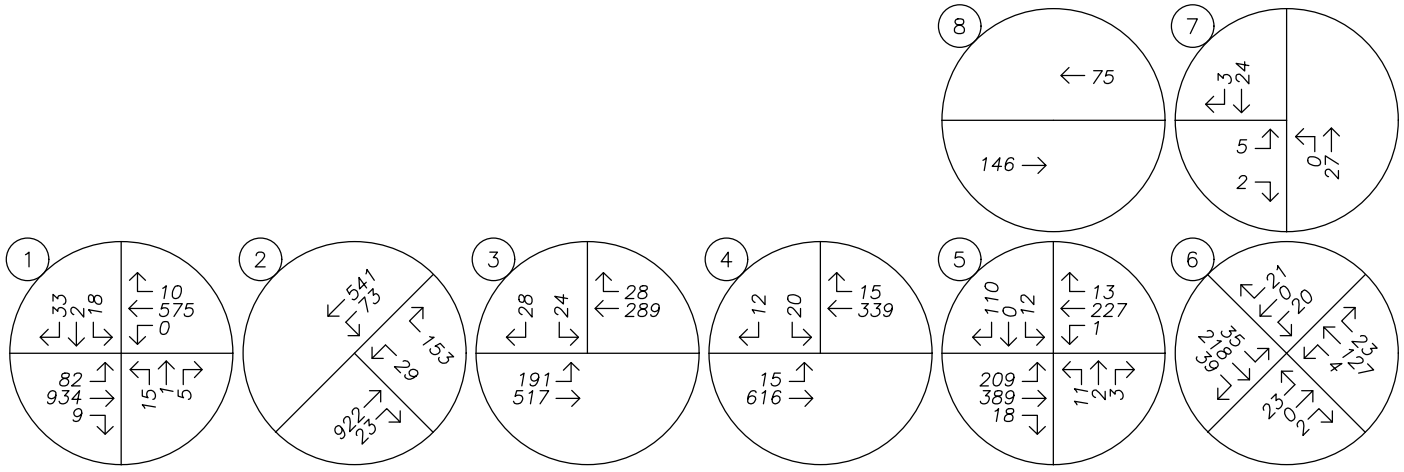
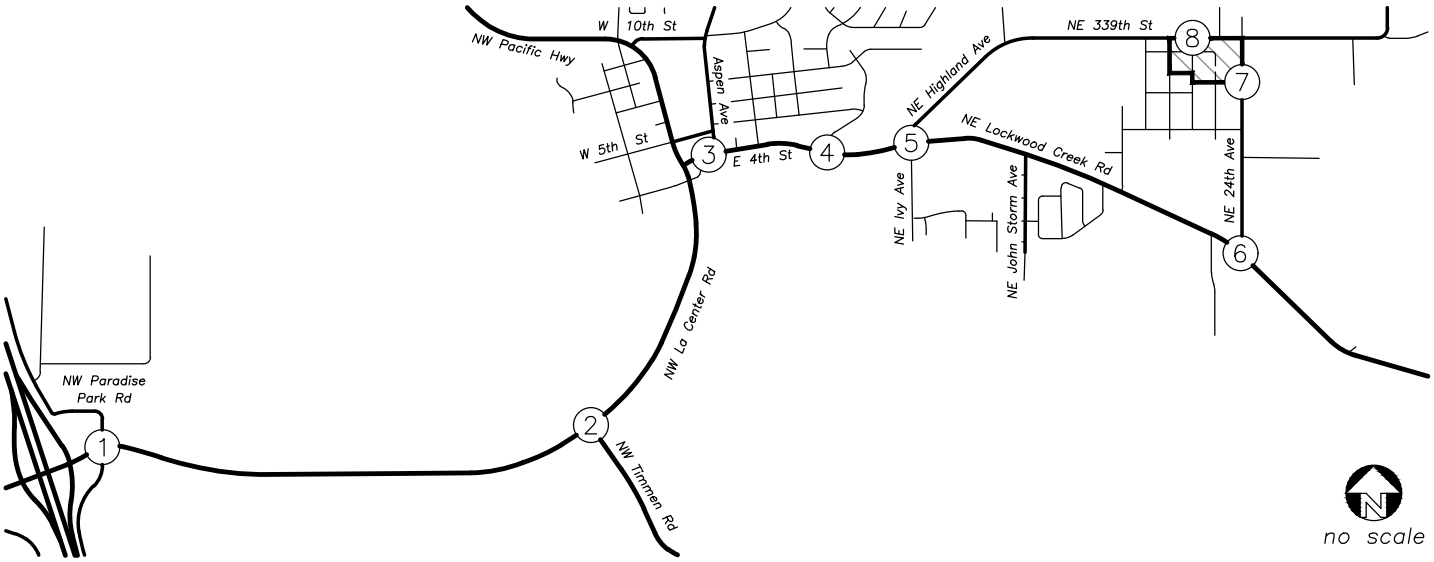
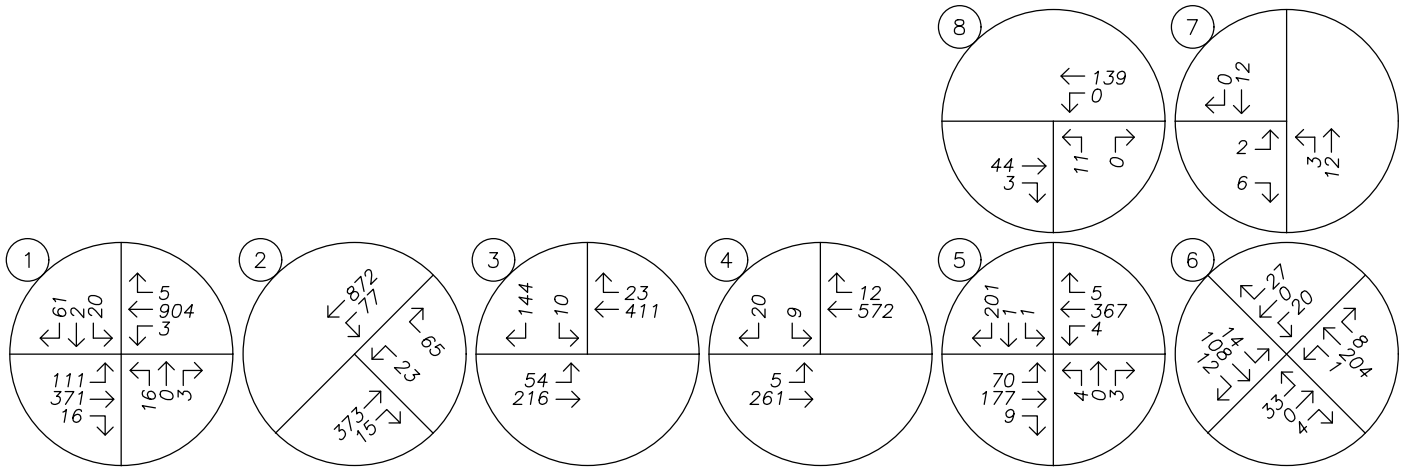


TRAFFIC VOLUMES
Year 2024 Background Conditions
AM & PM Peak Hours

Figure 5
Valley View Subdivision
9/20/2022



AM PEAK HOUR



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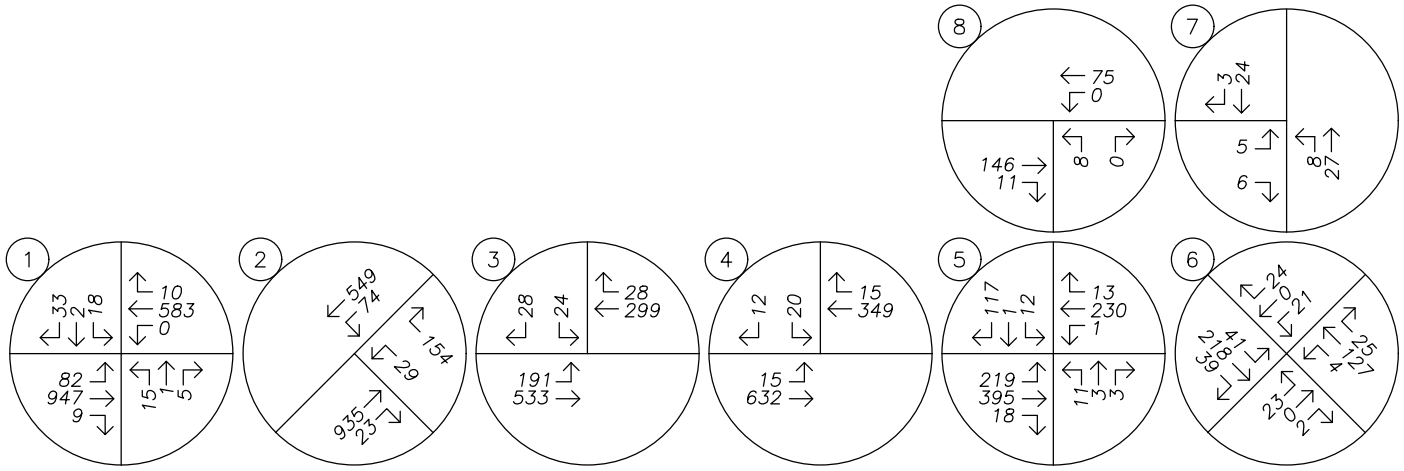


TRAFFIC VOLUMES
Year 2024 Buildout Conditions
AM & PM Peak Hours

Figure 6
Valley View Subdivision
9/20/2022

Safety Analysis

Crash History Review

Using data obtained from the Washington Department of Transportation (WSDOT) Crash Data and Reporting Branch, a review of the most recent available five years of crash history (January 2017 to December 2021) at the study intersections was performed. The crash data was evaluated based on the number of crashes, the type of collisions, the severity of the collisions, and the resulting crash rate for the intersection.

Crash rates provide the ability to compare safety risks at different intersections by accounting for both the number of crashes that have occurred during the study period and the number of vehicles that typically travel through the intersection. Crash rates were calculated using the common assumption that traffic counted during the evening peak hour represents approximately 10 percent of the annual average daily traffic (AADT) at the intersection. Crash rates in excess of 1.00 crashes per million entering vehicles (CMEV) may be indicative of design deficiencies and therefore require a need for further investigation and possible mitigation.

With regard to crash severity, WSDOT classifies crashes in the following categories:

- *No Apparent Injury* (NA);
- *Possible Injury* (P);
- *Suspected Minor Injury* (SM);
- *Suspected Serious Injury* (SS); and
- *Fatality* or *Fatal Injury*.

Table 5 provides a summary of crash types while Table 6 summarizes crash severities and rates for each of the applicable study intersections. Crash data is included in the technical appendix to this report.

Table 5: Crash Type Summary

Number	Intersection	Crash Type							Total
		Rear End	Turn	Angle	Fixed Object	Side swipe	Ped/ Bike	Other	
1	NW Paradise Park Road at NW La Center Road	0	1	1	0	0	0	0	2
2	NW Timmen Road at NW La Center Road	0	1	0	1	0	0	0	2
3	Aspen Avenue at E/W 4th Street	0	0	0	0	0	0	0	0
4	E Stonecreek Drive at E 4th Street	0	0	0	0	0	0	0	0

Table 5: Crash Type Summary (Continued)

Number	Intersection	Crash Type							Total
		Rear End	Turn	Angle	Fixed Object	Side swipe	Ped/ Bike	Other	
5	NE Highland Avenue at E 4th Street	0	0	1	0	0	1	0	2
6	NE 24th Avenue at NE Lockwood Creek Road	0	0	0	0	0	0	0	0
7	NE 24th Avenue at E 8th Way	0	0	0	0	0	0	0	0

Table 6: Crash Severity and Rate Summary

Number	Intersection	Crash Severity					Total Crashes	AADT	Crash Rate
		NA	P	SM	SS	Fatal			
1	NW Paradise Park Road at NW La Center Road	2	0	0	0	0	2	13,940	0.07
2	NW Timmen Road at NW La Center Road	0	1	1	0	0	2	14,130	0.08
3	Aspen Avenue at E/W 4th Street	0	0	0	0	0	0	8,630	0.00
4	E Stonecreek Drive at E 4th Street	0	0	0	0	0	0	8,290	0.00
5	NE Highland Avenue at E 4th Street	1	1	0	0	0	2	8,040	0.14
6	NE 24th Avenue at NE Lockwood Creek Road	0	0	0	0	0	0	3,720	0.00
7	NE 24th Avenue at E 8th Way	0	0	0	0	0	0	590	0.00

Table Notes: ***BOLDED*** *text indicates a crash rate in excess of 1.00 CMEV.*

Per Table 6, one crash at the intersection of NE Highland Avenue at E 4th Street involved a pedestrian. The crash occurred when the driver of an eastbound small truck/van failed to yield right-of-way to a pedestrian and struck

the pedestrian. The crash was classified as was classified as *Possible Injury*, where one person involved in the collision sustained injuries. There was another contributing factor for the crash occurring on the part of the pedestrian; however, no specifics were mentioned in the crash data.

Based on a review of available crash data, no significant trends or crash patterns were identified at any of the study intersections that are indicative of safety concerns. Accordingly, no safety mitigation is recommended per the crash data analysis.

Sight Distance Evaluation

Intersection sight distance was measured for the proposed site access intersection approach along NE 339th Street and evaluated in accordance with the standards established in *A Policy of Geometric Design of Highways and Streets*[2]. According to AASHTO, the driver's eye is assumed to be approximately 15 feet from the near edge of the nearest travel lane of the intersecting street and at a height of 3.5 feet above the minor-street approach pavement. The vehicle driver's eye height along the major-street approach is assumed to be 3.5 feet above the cross-street pavement. Based on the posted speed of 35 mph along NE 339th Street, the minimum recommended intersection sight distances include the following:

- 390 feet to the east for left turning vehicles.
- 335 feet to the west for right turning vehicles.

Note that due to an on-site fence and foliage near the access, sight distances were measured approximately 8 feet behind the edge of the roadway rather than the standard 15 feet behind the edge of the traveled way. However, no other obstructions were noted either on-site or along the roadway which would reduce sight distances to less than those measured in the field if measurements had been conducted at the standard 15-foot distance.

Provided any obstructing on-site foliage near the access is removed/properly maintained and the existing on-site fence along the north edge of the site is removed following redevelopment of the site, sight distances to the east and west were measured to be in excess of 400 feet in both directions. Therefore, adequate intersection sight distances to the east and west of the proposed site access can be made available to ensure safe and efficient operation along NE 339th Street. No other mitigation is necessary or recommended with regard to sight distance at the proposed access intersection.

Warrant Analysis

Left-turn lane and preliminary traffic signal warrants were examined for the study intersections where such treatments would be applicable.

Left-Turn Lane Warrants

A left-turn refuge lane is primarily a safety consideration for the major-street, removing left-turning vehicles from the through traffic stream. The left-turn lane warrants used were developed from the *National Cooperative Highway Research Project's* (NCHRP) *Report 457*. Turn lane warrants were evaluated based on the number of

[2] American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Streets*, 6th Edition, 2011.

advancing and opposing vehicles as well as the number of turning vehicles, the travel speed, and the number of through lanes.

Warrants were evaluated at study intersections where left-turn lanes are not currently provided or planned for installation. Left-turn lane warrants are not projected to be met at any of the applicable study intersections along NE Lockwood Creek Road, NE 24th Avenue, or NE 339th Street. Accordingly, no new left-turn lanes are necessary or recommended at any of the study intersections as part of the proposed Valley View Subdivision project.

Preliminary Traffic Signal Warrants

Preliminary traffic signal warrants were examined for the unsignalized study intersections where a traffic signal is currently not planned to determine whether the installation of a new traffic signal will be warranted at the intersections by the 2024 site buildout year. Based on the preliminary analysis following a review of Warrant 1 in the *Manual on Uniform Traffic Control Devices*, or MUTCD, traffic signal warrants are projected to be met at the intersection of NW Timmen Road at NW La Center Road under year 2024 background conditions without the proposed development constructed.

Per the City of La Center's Transportation Capital Facilities Plan, dated July 25, 2018, project ID T12 indicates the intersection is planned for improvement by either reconstructing it as a roundabout or installing a traffic signal. According to separate correspondence with City of La Center staff, the intersection is currently planned as a roundabout and the improvement project is Traffic Impact Fee (TIF) eligible.

No other new traffic signals are necessary or recommended as part of the proposed development application.

Operational Analysis

Intersection Capacity Analysis

A capacity and delay analysis were conducted for each of the study intersections per the signalized and unsignalized intersection analysis methodologies in the *Highway Capacity Manual* (HCM)[3]. Intersections are generally evaluated based on the average control delay experienced by vehicles and are assigned a grade according to their operation. The level of service (LOS) of an intersection can range from LOS A, which indicates very little or no delay experienced by vehicles, to LOS F, which indicates a high degree of congestion and delay. The volume-to-capacity (v/c) ratio is a measure that compares the traffic volumes (demand) against the available capacity of an intersection.

Performance Standards

Per the *La Center Transportation Capital Facilities Plan* (2018), the following minimum operation standards apply at intersections under City jurisdiction:

- Signalized intersections, as a whole, are required to operate at LOS D or better with a v/c ratio of 0.95 or less during the highest one-hour period of an average weekday.
- Unsignalized intersections are required to operate at LOS E or better for all movements during the highest one-hour period of an average weekday.

Delay & Capacity Analysis

The LOS, delay, and v/c results of the capacity analysis are shown in Table 7 for the morning and evening peak hours. Note that TrafficWare's Synchro 10 software, utilizing HCM 6th Edition methodologies, does not report an overall v/c ratio for signalized intersections. Therefore, the overall intersection v/c ratio for the NE Highland Avenue at E 4th Street intersection was reported based on HCM 2000 methodologies. Detailed calculations as well as tables showing the relationship between delay and LOS are included in the appendix to this report.

Table 7: Intersection Capacity Analysis Summary

Analysis Scenario	AM Peak Hour			PM Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
1. NW Paradise Park Road at NW La Center Road						
2022 Existing Conditions	**F**	85	0.28	**F**	54	0.20
2024 Background Conditions	**F**	>120	0.53	**F**	105	0.36
2024 Buildout Conditions	**F**	>120	0.55	**F**	110	0.37

Table Notes: ***BOLDED*** *text indicates intersection operation above jurisdictional standards.*

[3] Transportation Research Board, *Highway Capacity Manual 6th Edition*, 2016.

Table 7: Intersection Capacity Analysis Summary (Continued)

Analysis Scenario	AM Peak Hour			PM Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
2. NW Timmen Road at NW La Center Road						
2022 Existing Conditions	D	27	0.13	E	37	0.37
2024 Background Conditions	E	43	0.21	**F**	71	0.57
2024 Buildout Conditions	E	44	0.22	**F**	75	0.58
3. Aspen Avenue at E/W 4th Street						
2022 Existing Conditions	B	14	0.20	D	26	0.15
2024 Background Conditions	C	16	0.25	E	39	0.21
2024 Buildout Conditions	C	16	0.26	E	41	0.22
4. E Stonecreek Drive at E 4th Street						
2022 Existing Conditions	B	13	0.06	C	15	0.09
2024 Background Conditions*	B	13	0.07	B	14	0.08
2024 Buildout Conditions*	B	13	0.07	B	14	0.09
5. NE Highland Avenue at E 4th Street						
2022 Existing Conditions	C	19	0.26	D	29	0.16
2024 Background Conditions*	A	10	0.39	A	10	0.47
2024 Buildout Conditions *	B	10	0.40	A	10	0.48
6. NE 24th Avenue at NE Lockwood Creek Road						
2022 Existing Conditions	B	11	0.04	B	11	0.05
2024 Background Conditions	B	12	0.08	B	15	0.09
2024 Buildout Conditions	B	12	0.08	B	15	0.10
7. NE 24th Avenue at NE 8th Way						
2022 Existing Conditions	A	9	<0.01	A	9	0.01
2024 Background Conditions	A	9	<0.01	A	9	0.01
2024 Buildout Conditions	A	9	0.01	A	9	0.02
8. E Vine Maple Avenue at NE 339th Street						
2024 Buildout Conditions	A	10	0.02	B	10	0.01

Table Notes: ***BOLDED*** *text indicates intersection operation above jurisdictional standards.*
** Traffic controls revised based on planned transportation improvement projects.*

Based on the results of the operational analysis, the following intersections are currently or projected to exceed City of La Center mobility standards:

1. NW Paradise Park Road at NW La Center Road: LOS F under current year 2022 conditions during the morning and evening peak hours.
2. NW Timmen Road at NW La Center Road: LOS F under future year 2024 conditions, without project buildout, during the evening peak hour.

Further inspection and potential mitigation at these intersections are discussed within the *Mitigation Analysis* section.

All other study intersections are currently operating acceptably per La Center standards and are projected to continue operating acceptably through the 2024 buildout year of the site, provided planned mitigation at the intersections of E Stonecreek Drive at E 4th Street and NE Highland Avenue at E 4th Street are implemented. Accordingly, no other operational mitigation is necessary or recommended at these study intersections.

Mitigation Analysis

As determined within the *Intersection Capacity Analysis* section, the two study intersections along NW La Center Road are either currently and/or projected to exceed acceptable La Center mobility standards. According to City of La Center staff, both intersections are under consideration to be redesigned as roundabouts:

1. NW Paradise Park Road at NW La Center Road
    a. Per the City of La Center's Transportation Capital Facilities Plan, project ID T12 indicates the intersection is planned for improvement by either reconstructing it as a roundabout or installing a traffic signal. According to separate correspondence with City of La Center staff, the intersection is currently planned as a roundabout and the improvement project is TIF eligible.
    b. The intersection was assumed to have two eastbound and westbound approach lanes, consistent with the roundabout intersections to the west, and one northbound and southbound approach lane.
2. NW Timmen Road at NW La Center Road
    a. A roundabout is planned for construction at the intersection once traffic signal warrants are met. Per the *Warrant Analysis* section in this report, signal warrants are not projected to be met by the buildout year of the site.
    b. The intersection was assumed to be designed as a single lane roundabout.

Although not expected to be constructed by year 2024, upon implementation of these planned mitigations, both intersections are projected to operate within acceptable levels of capacity. Therefore, no further mitigation is necessary or recommended at these intersections.

The LOS, delay, and v/c results of the capacity analysis are shown in Table 8 for the morning and evening peak hours.

Table 8: Mitigation Analysis Summary

Analysis Scenario	AM Peak Hour			PM Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
1. NW Paradise Park Road at NW La Center Road						
2024 Buildout Conditions	**F**	>120	0.55	**F**	110	0.37
2024 Mitigated Conditions	A	7	0.44	A	6	0.41
2. NW Timmen Road at NW La Center Road						
2024 Buildout Conditions	E	44	0.22	F	75	0.58
2024 Mitigated Conditions	B	12	0.79	B	14	0.81

Table Notes: ***BOLDED*** *text indicates intersection operation above jurisdictional standards.*

Conclusions

No significant trends or crash patterns were identified at any of the study intersections that are indicative of safety concerns. Accordingly, no safety mitigation is recommended per the crash data analysis.

Provided any obstructing on-site foliage near the site access along NE 339th Street is removed/properly maintained and the existing on-site fence along the north edge of the site is removed, adequate intersection sight distances to the east and west of the proposed site access can be made available to ensure safe and efficient operation along NE 339th Street. No other mitigation is necessary or recommended with regard to sight distance at the proposed access intersection.

Left-turn lane warrants are not projected to be met at any of the applicable study intersections along NE Lockwood Creek Road, NE 24th Avenue, or NE 339th Street. Accordingly, no new left-turn lanes are necessary or recommended at any of the study intersections as part of the proposed Valley View Subdivision project.

Traffic signal warrants are projected to be met at the intersection of NW Timmen Road at NW La Center Road under year 2024 background conditions without the proposed development constructed. Per the City of La Center's Transportation Capital Facilities Plan and City staff, the intersection is currently planned as a roundabout and the improvement project is Traffic Impact Fee (TIF) eligible. No other new traffic signals are necessary or recommended at other study intersections as part of the proposed development application.

Based on the results of the operational analysis, the following intersections are currently or projected to exceed City of La Center mobility standards:

1. NW Paradise Park Road at NW La Center Road
2. NW Timmen Road at NW La Center Road

Both intersections are under consideration to be reconstructed as roundabouts, provided signal warrants and/or sufficient TIF's have been collected for these projects. Once these mitigative measures are implemented both intersections are projected to operate acceptably per City of La Center standards. Accordingly, no other operational mitigation is necessary or recommended at these study intersections.

All other study intersections are currently operating acceptably per La Center standards and are projected to continue operating acceptably through the 2024 buildout year of the site, provided planned mitigation at the intersections of E Stonecreek Drive at E 4th Street and NE Highland Avenue at E 4th Street are implemented. Accordingly, no other operational mitigation is necessary or recommended at these study intersections.

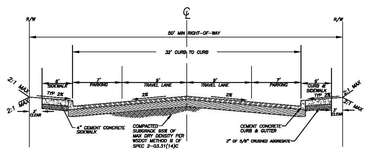
Appendix A – Site Plan

Site Plan

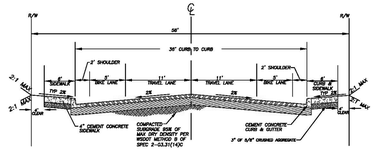
Valley View

A Subdivision In The
NE ¼ of Section 02, T4N R1E *WM*
County Parcel #s: ***209062000***
Site Address: **2219 NE 339th Street**
La Center, WA 98629
Site Area: **376,358+/- *SF (8.64+/- acres)***
Site Zoning: ***LDR-7.5***

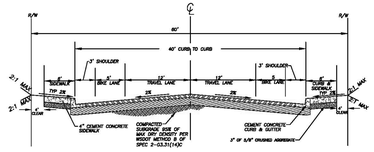
Detail 1: Local Access
All Proposed Internal Roads
Not to Scale



Detail 2: Rural Minor Collector
NE 24th Avenue
Not to Scale



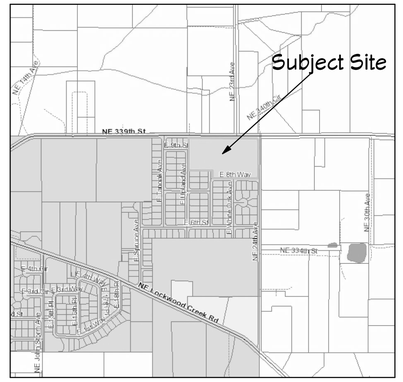
Detail 3: Rural Major Collector
NE 339th Street
Not to Scale



LEGEND

- E-ROW — INDICATES EXISTING RIGHT-OF-WAY
- E-STH — INDICATES EXISTING STORM PIPE
- STH — INDICATES PROPOSED STORM PIPE
- E-Wat — INDICATES EXISTING WATER LINE
- Wat — INDICATES PROPOSED WATER LINE
- E-San — INDICATES EXISTING SANITARY SEWER LINE
- San — INDICATES PROPOSED SANITARY SEWER LINE

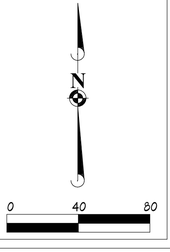
VICINITY MAP



CURRENT OWNER:
The Chicken Ranch, LLC
PO Box 128
La Center, Washington 98629
503-348-1134
sandyperrott888@hotmail.com

PLAT NOTES:

1. Total Gross Area = 376,358 SF / 8.64 acres
2. This subdivision proposes 34 single family residential lots,
3. Site is currently zoned LDR-7.5
4. Largest lot is 9,082 SF; Smallest lot is 7,500 SF; Average Lot size is 7,833 SF.
5. Two flag lots are proposed.
   - The flag "pole for both lots is 20' wide and only 104' long.
   - Both lots are 9,082 SF WITHOUT counting the flag "pole".
   - The flag "pole" for both lots can be constructed to the standards in 18.210.040.(3).(b).
6. Gross density equals 3.93 dwelling units per acre; Net density equals 5.54 dwelling units per acre.
7. All existing structures are to be removed. No new buildings or structures are proposed. Refere to Existing Conditions for existing structures.
8. If required, a 6' tall chain-link fence around storm facility in proposed Tract A is only proposed fence. No walls are proposed.
9. Only proposed landscaping are required street trees installed at required locations.
10. Only proposed lighting is required street lighting that will be designed during final engineering.
11. Only street parking proposed with this plan. Driveway and garage parking will be provided during building permit. No loading facilities are proposed.
12. NE 339th Street is classified a "Rural Major Collector".
13. NE 24th Ave are classified "Rural Minor Collector".
14. All proposed internal roads will be classified as "Local Access" roads.
15. There are NO existing or proposed pedestrian facilities besides sidewalk.
16. There are NO existing or proposed easements.
17. There is an existing well shown on the Existing Conditions that will be properly abandon.
18. There is an existing septic tank and septic drain-field shown on the Existing Conditions that will be properly abandon.
19. There are NO other above ground tanks or known underground tanks.
20. Refere to Existing Conditions for all existing public and private utilities.
21. Public water will be extended from Heritage Country Estates and serve all new lots.
22. Public sewer will be extended from Heritage Country Estates and serve all new lots.
23. Storm water that drains south and West will be collected and sent to existing storm system in Heritage Country Estates.
24. Storm water that drains north and east will be collected, treated and detained in proposed Tract A and released to existing drainage course to the north.
25. Private utilities such as phone, cable & gas may be extended on to and throughout this plan.
26. In the LDR-7.5, only those developments proposing 40 or more units have to address Parks and Open Space.
27. Impact Fees and System Development Charges: At time of the Application are as follows;
   - Traffic Impact Fee = $7,561.00 per dwelling unit. Total = $249,513.00
   - Park Impact Fee = $2,842.00 per dwelling unit. Total = $93,786.00
   - School Impact Fee = $3,501.00 per dwelling unit. Total = $115,533.00
   - Sanitary Sewer System Development Charge = $7,800.00 per dwelling unit. Total = $265,200.00
   - One lot will be exempt from Impact Fees as it is replacing an existing home.
28. There are NO environmental critical areas on or known within 100' of site.



REVISION TABLE			
#	DATE	REVISED BY	NOTES
1	09-23-2022	MWW	

Valley View
A Subdivision In The
NE ¼ of Section 02, T4N R1E WM
County Parcel #s: *209062000*
Site Address: *2219 NE 339th Street*
La Center, WA 98629

Preliminary Plat & Preliminary Utility Plan

APPLICANT:
Summerplace Homes, Inc.
Shaun Maclaine
12401 SE 2nd Circle, Suite A
VANCOUVER WASHINGTON 98684
360-253-1488
shaun@summerplacehomes.com

APPLICANT'S REPRESENTATIVE:
Wolfe Project Management, LLC
Mason Wolfe
2401 W Main Street, Suite 210
Battle Ground, Washington 98604
360-907-9588
mason@wolfepm.com

DATE:
04/13/2022

SCALE:
1" = 40'

SHEET:
P-1

Appendix B – Trip Generation and Distribution

Trip Generation

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition
Existing Conditions

Land Use:	Single-Family Detached Housing
Land Use Code:	210
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Variable Quantity:	1

WARNING: Variable Quantity is less than Minimum Survey Size for Peak Hours

AM PEAK HOUR

Trip Rate: 0.7

	Enter	Exit	Total
Directional Split	26%	74%	
Trip Ends	0	1	1

PM PEAK HOUR

Trip Rate: 0.94

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	1	0	1

WEEKDAY

Trip Rate: 9.43

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	5	5	10

SATURDAY

Trip Rate: 9.48

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	5	5	10

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition
Proposed Conditions

Land Use:	Single-Family Detached Housing
Land Use Code:	210
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Variable Quantity:	34

AM PEAK HOUR

Trip Rate: 0.7

	Enter	Exit	Total
Directional Split	26%	74%	
Trip Ends	6	18	24

PM PEAK HOUR

Trip Rate: 0.94

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	20	12	32

WEEKDAY

Trip Rate: 9.43

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	160	160	320

SATURDAY

Trip Rate: 9.48

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	161	161	322

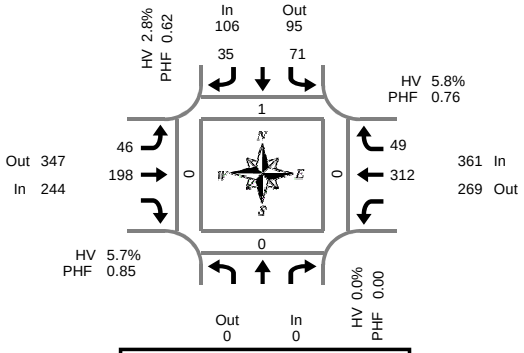
Appendix C – Traffic Volumes

Traffic Counts

In-Process Data

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:30 AM to 8:30 AM

Aspen Ave & E 4th St

Thursday, December 06, 2018
7:00 AM to 9:00 AM

5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
7:00 AM				0	2		2	0	1	6		0		26	2	0	39	1	0	0	1
7:05 AM				0	2		2	0	1	12		0		20	0	0	37	0	0	0	0
7:10 AM				0	2		2	0	0	7		0		27	2	0	40	0	0	0	0
7:15 AM				0	0		1	0	2	11		0		27	0	0	41	0	0	0	0
7:20 AM				0	2		3	0	0	10		0		21	1	0	37	0	0	0	0
7:25 AM				0	1		5	0	6	12		0		36	1	0	61	0	0	0	0
7:30 AM				0	2		1	0	3	13		0		27	1	0	47	0	0	0	0
7:35 AM				0	4		7	0	2	21		0		20	1	0	55	0	0	0	0
7:40 AM				0	2		2	0	1	13		0		18	3	0	39	0	0	0	0
7:45 AM				0	6		0	0	5	15		0		22	3	0	51	0	0	0	0
7:50 AM				0	10		4	0	6	21		0		22	6	0	69	0	0	0	0
7:55 AM				0	6		5	0	3	22		0		22	5	0	63	0	0	0	0
8:00 AM				0	11		5	0	1	14		0		24	3	0	58	0	0	0	0
8:05 AM				0	8		2	0	4	20		0		32	4	0	70	1	0	0	0
8:10 AM				0	15		2	0	4	18		0		31	4	0	74	0	0	0	0
8:15 AM				0	4		1	0	7	15		0		39	8	0	74	0	0	0	0
8:20 AM				0	2		2	0	5	8		0		27	5	0	49	0	0	0	0
8:25 AM				0	1		4	0	5	18		0		28	6	0	62	0	0	0	0
8:30 AM				0	2		6	0	5	7		0		21	5	0	46	0	0	0	0
8:35 AM				0	1		1	0	1	10		0		24	4	0	41	0	0	0	0
8:40 AM				0	3		3	0	6	13		0		15	3	0	43	0	0	0	0
8:45 AM				0	1		1	0	4	8		0		12	1	0	27	0	0	0	0
8:50 AM				0	3		2	0	2	12		0		17	3	0	39	0	0	0	0
8:55 AM				0	0		2	0	3	16		0		14	1	0	36	0	0	0	0
Total Survey				0	90		65	0	77	322		0		572	72	0	1,198	2	0	0	1

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
7:00 AM				0	6		6	0	2	25		0		73	4	0	116	1	0	0	1
7:15 AM				0	3		9	0	8	33		0		84	2	0	139	0	0	0	0
7:30 AM				0	8		10	0	6	47		0		65	5	0	141	0	0	0	0
7:45 AM				0	22		9	0	14	58		0		66	14	0	183	0	0	0	0
8:00 AM				0	34		9	0	9	52		0		87	11	0	202	1	0	0	0
8:15 AM				0	7		7	0	17	41		0		94	19	0	185	0	0	0	0
8:30 AM				0	6		10	0	12	30		0		60	12	0	130	0	0	0	0
8:45 AM				0	4		5	0	9	36		0		43	5	0	102	0	0	0	0
Total Survey				0	90		65	0	77	322		0		572	72	0	1,198	2	0	0	1

Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	106	95	201	0	244	347	591	0	361	269	630	0	711	1	0	0	0
%HV	0.0%				2.8%				5.7%				5.8%				5.3%				
PHF	0.00				0.62				0.85				0.76				0.82				

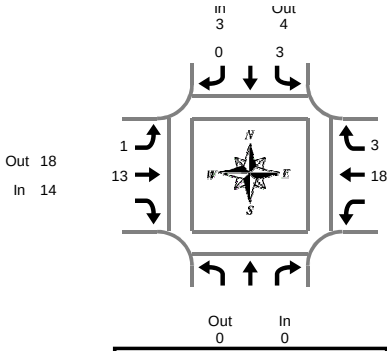
By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	71		35	106	46	198		244		312	49	361	711
%HV	NA	NA	NA	0.0%	4.2%	NA	0.0%	2.8%	2.2%	6.6%	NA	5.7%	NA	5.8%	6.1%	5.8%	5.3%
PHF				0.00	0.52		0.63	0.62	0.68	0.85		0.85		0.76	0.64	0.76	0.82

Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
7:00 AM				0	39		34	0	30	163		0		288	25	0	579	1	0	0	1
7:15 AM				0	67		37	0	37	190		0		302	32	0	665	1	0	0	0
7:30 AM				0	71		35	0	46	198		0		312	49	0	711	1	0	0	0
7:45 AM				0	69		35	0	52	181		0		307	56	0	700	1	0	0	0
8:00 AM				0	51		31	0	47	159		0		284	47	0	619	1	0	0	0

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



Aspen Ave & E 4th St

Thursday, December 06, 2018
7:00 AM to 9:00 AM

Peak Hour Summary
7:30 AM to 8:30 AM

Heavy Vehicle 5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
7:00 AM				0	0		0	0	0	3		3		0	1	1	4
7:05 AM				0	0		0	0	0	3		3		1	0	1	4
7:10 AM				0	0		0	0	0	2		2		1	0	1	3
7:15 AM				0	0		0	0	1	1		2		0	0	0	2
7:20 AM				0	0		0	0	0	0		0		0	0	0	0
7:25 AM				0	0		0	0	0	0		0		0	0	0	0
7:30 AM				0	0		0	0	0	0		0		0	0	0	0
7:35 AM				0	0		0	0	0	0		0		0	0	0	0
7:40 AM				0	0		0	0	0	0		0		0	0	0	0
7:45 AM				0	0		0	0	1	0		1		0	0	0	1
7:50 AM				0	1		0	1	0	1		1		1	1	2	4
7:55 AM				0	1		0	1	0	3		3		0	1	1	5
8:00 AM				0	1		0	1	0	0		0		0	1	1	2
8:05 AM				0	0		0	0	0	2		2		2	0	2	4
8:10 AM				0	0		0	0	0	1		1		11	0	11	12
8:15 AM				0	0		0	0	0	2		2		3	0	3	5
8:20 AM				0	0		0	0	0	1		1		1	0	1	2
8:25 AM				0	0		0	0	0	3		3		0	0	0	3
8:30 AM				0	0		0	0	0	0		0		0	1	1	1
8:35 AM				0	0		0	0	0	1		1		1	0	1	2
8:40 AM				0	0		0	0	0	0		0		1	0	1	1
8:45 AM				0	0		0	0	0	0		0		0	0	0	0
8:50 AM				0	0		0	0	0	2		2		1	1	2	4
8:55 AM				0	0		0	0	0	2		2		1	0	1	3
Total Survey				0	3		0	3	2	27		29		24	6	30	62

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
7:00 AM				0	0		0	0	0	8		8		2	1	3	11
7:15 AM				0	0		0	0	1	1		2		0	0	0	2
7:30 AM				0	0		0	0	0	0		0		0	0	0	0
7:45 AM				0	2		0	2	1	4		5		1	2	3	10
8:00 AM				0	1		0	1	0	3		3		13	1	14	18
8:15 AM				0	0		0	0	0	6		6		4	0	4	10
8:30 AM				0	0		0	0	0	1		1		2	1	3	4
8:45 AM				0	0		0	0	0	4		4		2	1	3	7
Total Survey				0	3		0	3	2	27		29		24	6	30	62

Heavy Vehicle Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	3	4	7	14	18	32	21	16	37	38
PHF	0.00			0.25			0.58			0.33			0.45

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	3		0	3	1	13		14		18	3	21	38
PHF				0.00	0.25		0.00	0.25	0.25	0.54		0.58		0.28	0.25	0.33	0.45

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

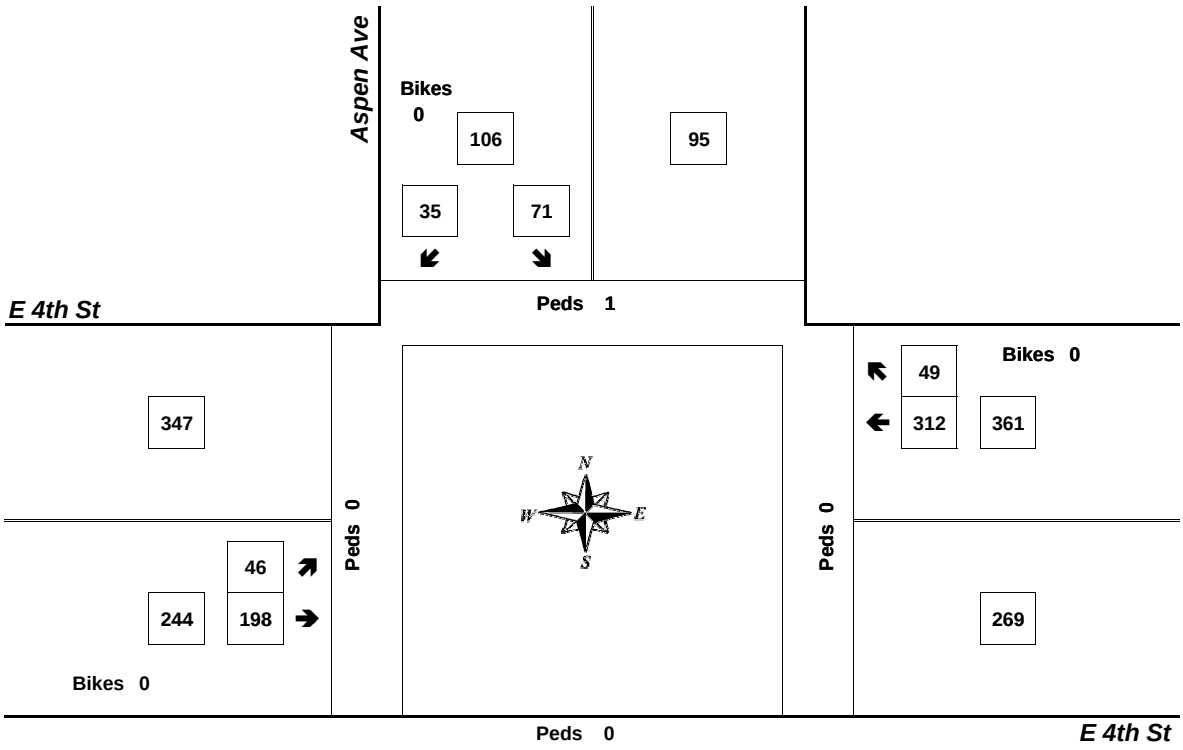
Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
7:00 AM				0	2		0	2	2	13		15		3	3	6	23
7:15 AM				0	3		0	3	2	8		10		14	3	17	30
7:30 AM				0	3		0	3	1	13		14		18	3	21	38
7:45 AM				0	3		0	3	1	14		15		20	4	24	42
8:00 AM				0	1		0	1	0	14		14		21	3	24	39

Peak Hour Summary

Clay Carney
(503) 833-2740

Aspen Ave & E 4th St

7:30 AM to 8:30 AM
Thursday, December 06, 2018

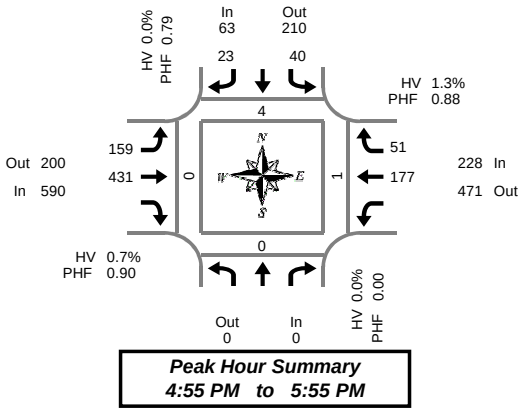


Approach	PHF	HV%	Volume
EB	0.85	5.7%	244
WB	0.76	5.8%	361
NB	0.00	0.0%	0
SB	0.62	2.8%	106
Intersection	0.82	5.3%	711

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Aspen Ave & E 4th St

Thursday, December 06, 2018
4:00 PM to 6:00 PM

5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
4:00 PM				0	2		2	0	10	39		0		17	3	0	73	0	0	0	0
4:05 PM				0	1		2	0	5	42		0		21	3	0	74	0	0	0	0
4:10 PM				0	2		1	0	16	29		0		19	2	0	69	0	0	0	0
4:15 PM				0	0		1	0	13	28		0		15	9	0	66	0	0	0	0
4:20 PM				0	1		2	0	10	28		0		14	1	0	56	2	0	1	0
4:25 PM				0	1		1	0	16	27		0		22	3	0	70	2	0	0	0
4:30 PM				0	1		2	0	17	33		0		16	2	0	71	1	0	0	0
4:35 PM				0	1		4	0	8	33		0		18	0	0	64	0	0	0	0
4:40 PM				0	4		2	0	14	30		0		17	3	0	70	0	0	0	0
4:45 PM				0	5		0	0	10	25		0		9	4	0	53	1	0	0	0
4:50 PM				0	3		2	0	12	26		0		18	2	0	63	0	0	0	0
4:55 PM				0	0		2	0	13	38		0		13	3	0	69	0	0	0	0
5:00 PM				0	3		0	0	15	32		0		12	8	0	70	1	0	0	0
5:05 PM				0	2		4	0	9	32		0		17	6	0	70	0	0	0	0
5:10 PM				0	2		2	0	8	32		0		19	3	0	66	0	0	0	0
5:15 PM				0	5		2	0	16	30		0		16	3	0	72	0	0	0	0
5:20 PM				0	4		0	0	23	38		0		16	1	0	82	1	0	0	0
5:25 PM				0	8		1	0	18	28		0		11	5	0	71	1	0	0	0
5:30 PM				0	2		5	0	16	41		0		15	4	0	83	1	0	0	0
5:35 PM				0	2		2	0	11	47		0		13	6	0	81	0	0	0	0
5:40 PM				0	4		1	0	14	35		0		16	2	0	72	0	0	1	0
5:45 PM				0	5		1	0	7	44		0		11	4	0	72	0	0	0	0
5:50 PM				0	3		3	0	9	34		0		18	6	0	73	0	0	0	0
5:55 PM				0	0		3	0	17	31		0		8	2	0	61	0	0	0	0
Total Survey				0	61		45	0	307	802		0		371	85	0	1,671	10	0	2	0

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
4:00 PM				0	5		5	0	31	110		0		57	8	0	216	0	0	0	0
4:15 PM				0	2		4	0	39	83		0		51	13	0	192	4	0	1	0
4:30 PM				0	6		8	0	39	96		0		51	5	0	205	1	0	0	0
4:45 PM				0	8		4	0	35	89		0		40	9	0	185	1	0	0	0
5:00 PM				0	7		6	0	32	96		0		48	17	0	206	1	0	0	0
5:15 PM				0	17		3	0	57	96		0		43	9	0	225	2	0	0	0
5:30 PM				0	8		8	0	41	123		0		44	12	0	236	1	0	1	0
5:45 PM				0	8		7	0	33	109		0		37	12	0	206	0	0	0	0
Total Survey				0	61		45	0	307	802		0		371	85	0	1,671	10	0	2	0

Peak Hour Summary
4:55 PM to 5:55 PM

By Approach	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	63	210	273	0	590	200	790	0	228	471	699	0	881	4	0	1	0
%HV	0.0%				0.0%				0.7%				1.3%				0.8%				
PHF	0.00				0.79				0.90				0.88				0.93				

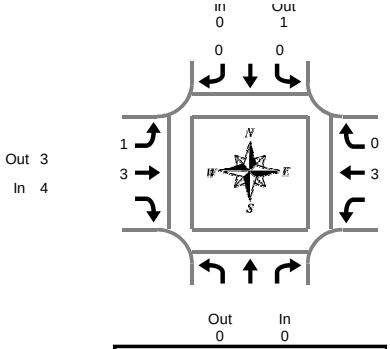
By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	40		23	63	159	431		590		177	51	228	881
%HV	NA	NA	NA	0.0%	0.0%	NA	0.0%	0.0%	0.6%	0.7%	NA	0.7%	NA	1.7%	0.0%	1.3%	0.8%
PHF				0.00	0.59		0.72	0.79	0.70	0.86		0.90		0.85	0.75	0.88	0.93

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
4:00 PM				0	21		21	0	144	378		0		199	35	0	798	6	0	1	0
4:15 PM				0	23		22	0	145	364		0		190	44	0	788	7	0	1	0
4:30 PM				0	38		21	0	163	377		0		182	40	0	821	5	0	0	0
4:45 PM				0	40		21	0	165	404		0		175	47	0	852	5	0	1	0
5:00 PM				0	40		24	0	163	424		0		172	50	0	873	4	0	1	0

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



Aspen Ave & E 4th St

Thursday, December 06, 2018
4:00 PM to 6:00 PM

Peak Hour Summary
4:55 PM to 5:55 PM

Heavy Vehicle 5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
4:00 PM				0	0		1	1	0	1		1		1	0	1	3
4:05 PM				0	0		1	1	0	2		2		1	0	1	4
4:10 PM				0	0		0	0	0	0		0		1	0	1	1
4:15 PM				0	0		0	0	0	0		0		2	0	2	2
4:20 PM				0	0		0	0	0	0		0		2	0	2	2
4:25 PM				0	0		0	0	0	0		0		0	0	0	0
4:30 PM				0	0		0	0	0	3		3		0	0	0	3
4:35 PM				0	0		0	0	0	2		2		1	0	1	3
4:40 PM				0	0		0	0	0	0		0		2	0	2	2
4:45 PM				0	0		0	0	0	1		1		0	0	0	1
4:50 PM				0	0		0	0	0	0		0		0	0	0	0
4:55 PM				0	0		0	0	0	0		0		0	0	0	0
5:00 PM				0	0		0	0	0	0		0		0	0	0	0
5:05 PM				0	0		0	0	0	1		1		0	0	0	1
5:10 PM				0	0		0	0	0	0		0		1	0	1	1
5:15 PM				0	0		0	0	0	0		0		0	0	0	0
5:20 PM				0	0		0	0	0	0		0		0	0	0	0
5:25 PM				0	0		0	0	1	0		1		1	0	1	2
5:30 PM				0	0		0	0	0	1		1		1	0	1	2
5:35 PM				0	0		0	0	0	1		1		0	0	0	1
5:40 PM				0	0		0	0	0	0		0		0	0	0	0
5:45 PM				0	0		0	0	0	0		0		0	0	0	0
5:50 PM				0	0		0	0	0	0		0		0	0	0	0
5:55 PM				0	0		0	0	0	0		0		0	0	0	0
Total Survey				0	0		2	2	1	12		13		13	0	13	28

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
4:00 PM				0	0		2	2	0	3		3		3	0	3	8
4:15 PM				0	0		0	0	0	0		0		4	0	4	4
4:30 PM				0	0		0	0	0	5		5		3	0	3	8
4:45 PM				0	0		0	0	0	1		1		0	0	0	1
5:00 PM				0	0		0	0	0	1		1		1	0	1	2
5:15 PM				0	0		0	0	1	0		1		1	0	1	2
5:30 PM				0	0		0	0	0	2		2		1	0	1	3
5:45 PM				0	0		0	0	0	0		0		0	0	0	0
Total Survey				0	0		2	2	1	12		13		13	0	13	28

Heavy Vehicle Peak Hour Summary
4:55 PM to 5:55 PM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	1	1	4	3	7	3	3	6	7
PHF	0.00			0.00			0.33			0.38			0.35

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	0		0	0	1	3		4		3	0	3	7
PHF				0.00	0.00		0.00	0.00	0.25	0.38		0.33		0.38	0.00	0.38	0.35

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

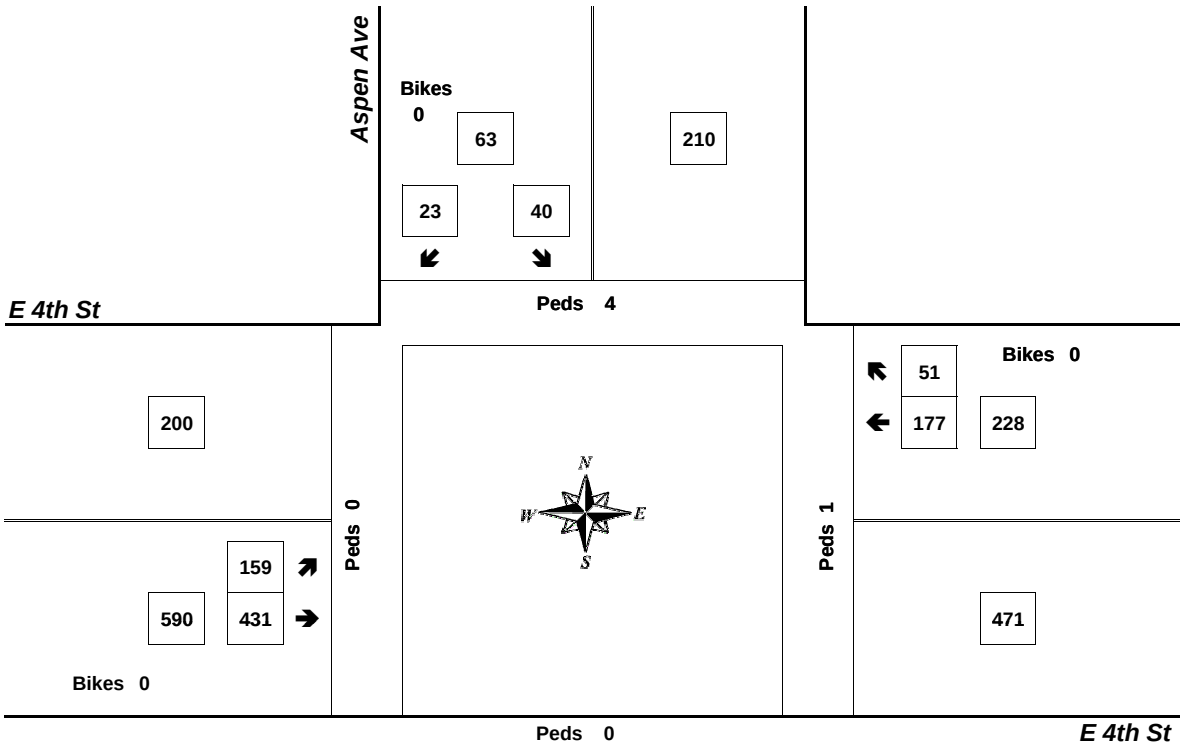
Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
4:00 PM				0	0		2	2	0	9		9		10	0	10	21
4:15 PM				0	0		0	0	0	7		7		8	0	8	15
4:30 PM				0	0		0	0	1	7		8		5	0	5	13
4:45 PM				0	0		0	0	1	4		5		3	0	3	8
5:00 PM				0	0		0	0	1	3		4		3	0	3	7

Peak Hour Summary

Clay Carney
(503) 833-2740

Aspen Ave & E 4th St

4:55 PM to 5:55 PM
Thursday, December 06, 2018



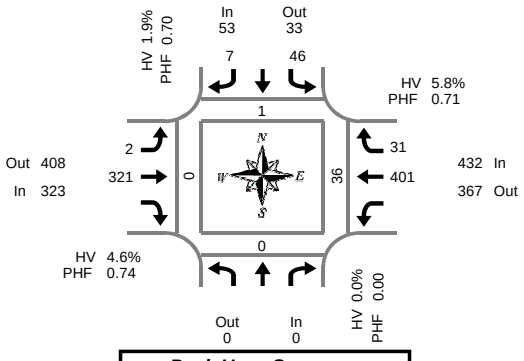
Bikes
0

Approach	PHF	HV%	Volume
EB	0.90	0.7%	590
WB	0.88	1.3%	228
NB	0.00	0.0%	0
SB	0.79	0.0%	63
Intersection	0.93	0.8%	881

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:25 AM to 8:25 AM

E Stonecreek Dr & E 4th St

Thursday, December 06, 2018
7:00 AM to 9:00 AM

5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
7:00 AM				0	2		0	0	0	11		0		16	1	0	30	0	0	1	0
7:05 AM				0	1		0	0	0	15		0		29	0	0	45	0	0	0	0
7:10 AM				0	1		0	0	0	10		0		25	0	0	36	0	0	1	0
7:15 AM				0	1		0	0	0	13		0		30	0	0	44	0	0	0	0
7:20 AM				0	2		1	0	0	11		0		19	0	0	33	0	0	0	0
7:25 AM				0	1		2	0	0	15		0		41	0	0	59	0	0	0	0
7:30 AM				0	2		0	0	0	19		0		17	0	0	38	0	0	1	0
7:35 AM				0	7		1	0	0	25		0		28	3	0	64	1	0	3	0
7:40 AM				0	2		0	0	0	18		0		25	3	0	48	0	0	0	0
7:45 AM				0	4		1	0	0	26		0		26	0	0	57	0	0	2	0
7:50 AM				0	7		1	0	0	35		0		27	3	0	73	0	0	1	0
7:55 AM				0	3		0	0	0	28		0		30	1	0	62	0	0	2	0
8:00 AM				0	8		0	0	0	33		0		32	6	0	79	0	0	1	0
8:05 AM				0	3		0	0	0	34		0		39	3	0	79	0	0	11	0
8:10 AM				0	2		0	0	0	42		0		55	3	0	102	0	0	9	0
8:15 AM				0	3		1	0	0	30		0		46	6	0	86	0	0	5	0
8:20 AM				0	4		1	0	2	16		0		35	3	0	61	0	0	1	0
8:25 AM				0	2		1	0	0	20		0		26	2	0	51	0	0	0	0
8:30 AM				0	1		1	0	0	9		0		26	0	0	37	0	0	0	0
8:35 AM				0	2		0	0	0	10		0		26	1	0	39	0	0	0	0
8:40 AM				0	2		0	0	0	15		0		15	0	0	32	0	0	0	0
8:45 AM				0	0		0	0	0	11		0		13	2	0	26	0	0	0	0
8:50 AM				0	1		1	0	1	13		0		24	0	0	40	0	0	0	0
8:55 AM				0	2		0	0	0	21		0		18	2	0	43	0	0	2	0
Total Survey				0	63		11	0	3	480		0		668	39	0	1,264	1	0	40	0

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
7:00 AM				0	4		0	0	0	36		0		70	1	0	111	0	0	2	0
7:15 AM				0	4		3	0	0	39		0		90	0	0	136	0	0	0	0
7:30 AM				0	11		1	0	0	62		0		70	6	0	150	1	0	4	0
7:45 AM				0	14		2	0	0	89		0		83	4	0	192	0	0	5	0
8:00 AM				0	13		0	0	0	109		0		126	12	0	260	0	0	21	0
8:15 AM				0	9		3	0	2	66		0		107	11	0	198	0	0	6	0
8:30 AM				0	5		1	0	0	34		0		67	1	0	108	0	0	0	0
8:45 AM				0	3		1	0	1	45		0		55	4	0	109	0	0	2	0
Total Survey				0	63		11	0	3	480		0		668	39	0	1,264	1	0	40	0

Peak Hour Summary
7:25 AM to 8:25 AM

By Approach	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	53	33	86	0	323	408	731	0	432	367	799	0	808	1	0	36	0
%HV	0.0%				1.9%				4.6%				5.8%				5.1%				
PHF	0.00				0.70				0.74				0.71				0.76				

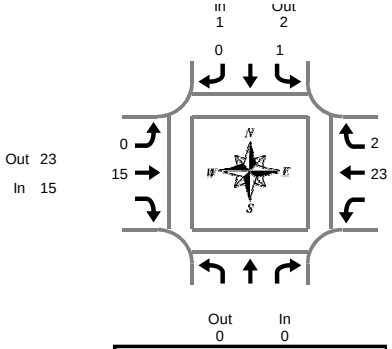
By Movement	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	46		7	53	2	321		323		401	31	432	808
%HV	NA	NA	NA	0.0%	2.2%	NA	0.0%	1.9%	0.0%	4.7%	NA	4.6%	NA	5.7%	6.5%	5.8%	5.1%
PHF				0.00	0.64		0.58	0.70	0.25	0.74		0.74		0.72	0.65	0.71	0.76

Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
7:00 AM				0	33		6	0	0	226		0		313	11	0	589	1	0	11	0
7:15 AM				0	42		6	0	0	299		0		369	22	0	738	1	0	30	0
7:30 AM				0	47		6	0	2	326		0		386	33	0	800	1	0	36	0
7:45 AM				0	41		6	0	2	298		0		383	28	0	758	0	0	32	0
8:00 AM				0	30		5	0	3	254		0		355	28	0	675	0	0	29	0

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



E Stonecreek Dr & E 4th St

Thursday, December 06, 2018
7:00 AM to 9:00 AM

Peak Hour Summary
7:25 AM to 8:25 AM

Heavy Vehicle 5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
7:00 AM				0	1		0	1	0	3		3		1	0	1	5
7:05 AM				0	0		0	0	0	3		3		2	0	2	5
7:10 AM				0	0		0	0	0	2		2		0	0	0	2
7:15 AM				0	0		0	0	0	1		1		0	0	0	1
7:20 AM				0	0		0	0	0	0		0		0	0	0	0
7:25 AM				0	0		0	0	0	0		0		1	0	1	1
7:30 AM				0	0		0	0	0	0		0		0	0	0	0
7:35 AM				0	0		0	0	0	0		0		0	1	1	1
7:40 AM				0	0		0	0	0	0		0		0	1	1	1
7:45 AM				0	0		0	0	0	2		2		1	0	1	3
7:50 AM				0	1		0	1	0	2		2		1	0	1	4
7:55 AM				0	0		0	0	0	3		3		1	0	1	4
8:00 AM				0	0		0	0	0	1		1		1	0	1	2
8:05 AM				0	0		0	0	0	2		2		6	0	6	8
8:10 AM				0	0		0	0	0	1		1		8	0	8	9
8:15 AM				0	0		0	0	0	3		3		3	0	3	6
8:20 AM				0	0		0	0	0	1		1		1	0	1	2
8:25 AM				0	0		0	0	0	3		3		0	0	0	3
8:30 AM				0	0		0	0	0	0		0		3	0	3	3
8:35 AM				0	0		0	0	0	1		1		0	0	0	1
8:40 AM				0	0		0	0	0	0		0		1	0	1	1
8:45 AM				0	0		0	0	0	0		0		0	0	0	0
8:50 AM				0	0		0	0	0	2		2		1	0	1	3
8:55 AM				0	0		0	0	0	1		1		0	0	0	1
Total Survey				0	2		0	2	0	31		31		31	2	33	66

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
7:00 AM				0	1		0	1	0	8		8		3	0	3	12
7:15 AM				0	0		0	0	0	1		1		1	0	1	2
7:30 AM				0	0		0	0	0	0		0		0	2	2	2
7:45 AM				0	1		0	1	0	7		7		3	0	3	11
8:00 AM				0	0		0	0	0	4		4		15	0	15	19
8:15 AM				0	0		0	0	0	7		7		4	0	4	11
8:30 AM				0	0		0	0	0	1		1		4	0	4	5
8:45 AM				0	0		0	0	0	3		3		1	0	1	4
Total Survey				0	2		0	2	0	31		31		31	2	33	66

Heavy Vehicle Peak Hour Summary
7:25 AM to 8:25 AM

By Approach	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	1	2	3	15	23	38	25	16	41	41
PHF	0.00			0.25			0.54			0.37			0.45

By Movement	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	1		0	1	0	15		15		23	2	25	41
PHF				0.00	0.25		0.00	0.25	0.00	0.54		0.54		0.34	0.25	0.37	0.45

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

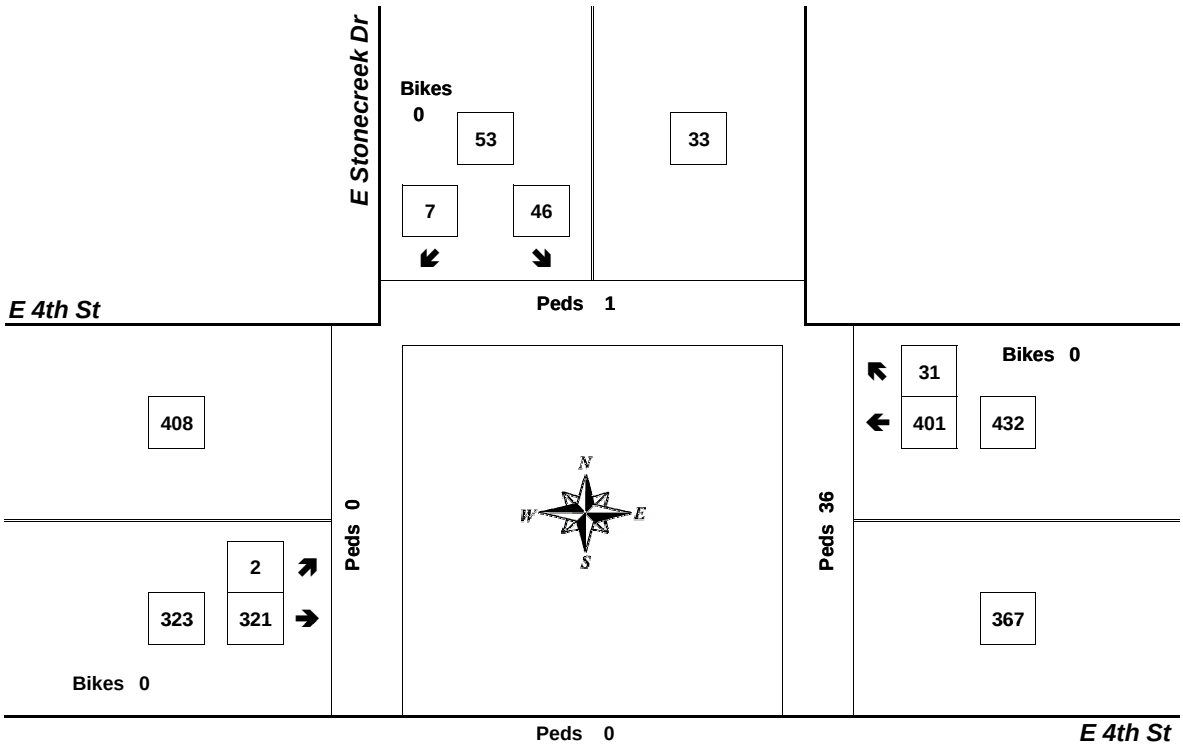
Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
7:00 AM				0	2		0	2	0	16		16		7	2	9	27
7:15 AM				0	1		0	1	0	12		12		19	2	21	34
7:30 AM				0	1		0	1	0	18		18		22	2	24	43
7:45 AM				0	1		0	1	0	19		19		26	0	26	46
8:00 AM				0	0		0	0	0	15		15		24	0	24	39

Peak Hour Summary

Clay Carney
(503) 833-2740

E Stonecreek Dr & E 4th St

7:25 AM to 8:25 AM
Thursday, December 06, 2018



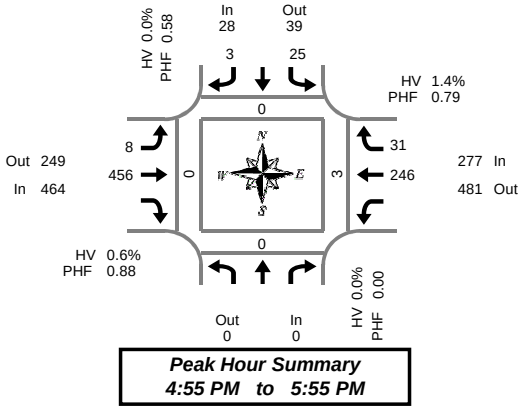
Bikes
0

Approach	PHF	HV%	Volume
EB	0.74	4.6%	323
WB	0.71	5.8%	432
NB	0.00	0.0%	0
SB	0.70	1.9%	53
Intersection	0.76	5.1%	808

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
4:55 PM to 5:55 PM

E Stonecreek Dr & E 4th St

Thursday, December 06, 2018
4:00 PM to 6:00 PM

5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
4:00 PM				0	3		0	0	1	38		0		30	1	0	73	0	0	0	0
4:05 PM				0	6		0	0	1	43		0		22	3	0	75	0	0	0	0
4:10 PM				0	0		0	0	0	32		0		25	6	0	63	0	0	0	0
4:15 PM				0	1		0	0	2	33		0		23	3	0	62	0	0	2	0
4:20 PM				0	0		0	0	0	27		0		11	1	0	39	0	0	0	0
4:25 PM				0	3		1	0	0	29		0		27	2	0	62	0	0	0	0
4:30 PM				0	1		0	0	1	33		0		16	5	0	56	0	0	0	0
4:35 PM				0	1		1	0	1	33		0		19	1	0	56	0	0	0	0
4:40 PM				0	1		1	0	2	26		0		17	1	0	48	0	0	0	0
4:45 PM				0	1		0	0	0	33		0		19	2	0	55	0	0	0	0
4:50 PM				0	1		1	0	0	34		0		28	1	0	65	0	0	0	0
4:55 PM				0	4		1	0	1	37		0		15	4	0	62	0	0	0	0
5:00 PM				0	3		0	0	1	32		0		25	5	0	66	0	0	0	0
5:05 PM				0	0		0	0	1	36		0		23	5	0	65	0	0	0	0
5:10 PM				0	1		0	0	2	25		0		29	1	0	58	0	0	2	0
5:15 PM				0	1		0	1	0	32		0		15	2	0	50	0	0	0	0
5:20 PM				0	0		1	0	0	40		0		16	3	0	60	0	0	0	0
5:25 PM				0	3		0	0	1	38		0		17	2	0	61	0	0	0	0
5:30 PM				0	5		0	0	0	41		0		26	4	0	76	0	0	0	0
5:35 PM				0	4		0	0	0	45		0		19	2	0	70	0	0	0	0
5:40 PM				0	0		0	0	1	41		0		19	1	0	62	0	0	0	0
5:45 PM				0	3		1	0	0	44		0		18	1	0	67	0	0	0	0
5:50 PM				0	1		0	0	1	45		0		24	1	0	72	0	0	1	0
5:55 PM				0	6		2	0	1	29		0		11	1	0	50	0	0	0	0
Total Survey				0	49		9	1	17	846		0		494	58	0	1,473	0	0	5	0

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
4:00 PM				0	9		0	0	2	113		0		77	10	0	211	0	0	0	0
4:15 PM				0	4		1	0	2	89		0		61	6	0	163	0	0	2	0
4:30 PM				0	3		2	0	4	92		0		52	7	0	160	0	0	0	0
4:45 PM				0	6		2	0	1	104		0		62	7	0	182	0	0	0	0
5:00 PM				0	4		0	0	4	93		0		77	11	0	189	0	0	2	0
5:15 PM				0	4		1	1	1	110		0		48	7	0	171	0	0	0	0
5:30 PM				0	9		0	0	1	127		0		64	7	0	208	0	0	0	0
5:45 PM				0	10		3	0	2	118		0		53	3	0	189	0	0	1	0
Total Survey				0	49		9	1	17	846		0		494	58	0	1,473	0	0	5	0

Peak Hour Summary
4:55 PM to 5:55 PM

By Approach	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	28	39	67	1	464	249	713	0	277	481	758	0	769	0	0	3	0
%HV	0.0%				0.0%				0.6%				1.4%				0.9%				
PHF	0.00				0.58				0.88				0.79				0.92				

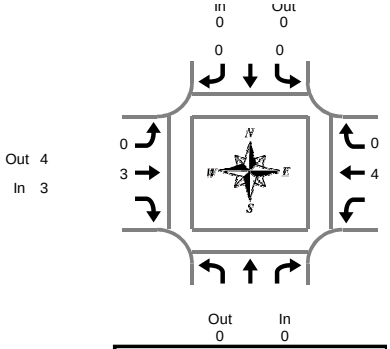
By Movement	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	25		3	28	8	456		464		246	31	277	769
%HV	NA	NA	NA	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.7%	NA	0.6%	NA	1.6%	0.0%	1.4%	0.9%
PHF				0.00	0.52		0.75	0.58	0.50	0.88		0.88		0.80	0.55	0.79	0.92

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
4:00 PM				0	22		5	0	9	398		0		252	30	0	716	0	0	2	0
4:15 PM				0	17		5	0	11	378		0		252	31	0	694	0	0	4	0
4:30 PM				0	17		5	1	10	399		0		239	32	0	702	0	0	2	0
4:45 PM				0	23		3	1	7	434		0		251	32	0	750	0	0	2	0
5:00 PM				0	27		4	1	8	448		0		242	28	0	757	0	0	3	0

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



E Stonecreek Dr & E 4th St

Thursday, December 06, 2018
4:00 PM to 6:00 PM

Peak Hour Summary
4:55 PM to 5:55 PM

Heavy Vehicle 5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
4:00 PM				0	0		0	0	0	1		1		0	0	0	1
4:05 PM				0	0		0	0	0	2		2		1	0	1	3
4:10 PM				0	0		0	0	0	0		0		1	0	1	1
4:15 PM				0	0		0	0	0	0		0		3	0	3	3
4:20 PM				0	0		0	0	0	0		0		0	0	0	0
4:25 PM				0	0		0	0	0	0		0		0	0	0	0
4:30 PM				0	0		0	0	0	3		3		0	0	0	3
4:35 PM				0	0		0	0	0	2		2		1	0	1	3
4:40 PM				0	0		1	1	0	0		0		1	0	1	2
4:45 PM				0	0		0	0	0	1		1		0	0	0	1
4:50 PM				0	0		0	0	0	0		0		0	0	0	0
4:55 PM				0	0		0	0	0	0		0		1	0	1	1
5:00 PM				0	0		0	0	0	0		0		0	0	0	0
5:05 PM				0	0		0	0	0	1		1		0	0	0	1
5:10 PM				0	0		0	0	0	0		0		1	0	1	1
5:15 PM				0	0		0	0	0	0		0		1	0	1	1
5:20 PM				0	0		0	0	0	0		0		0	0	0	0
5:25 PM				0	0		0	0	0	0		0		1	0	1	1
5:30 PM				0	0		0	0	0	1		1		0	0	0	1
5:35 PM				0	0		0	0	0	1		1		0	0	0	1
5:40 PM				0	0		0	0	0	0		0		0	0	0	0
5:45 PM				0	0		0	0	0	0		0		0	0	0	0
5:50 PM				0	0		0	0	0	0		0		0	0	0	0
5:55 PM				0	0		0	0	0	0		0		0	0	0	0
Total Survey				0	0		1	1	0	12		12		11	0	11	24

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
4:00 PM				0	0		0	0	0	3		3		2	0	2	5
4:15 PM				0	0		0	0	0	0		0		3	0	3	3
4:30 PM				0	0		1	1	0	5		5		2	0	2	8
4:45 PM				0	0		0	0	0	1		1		1	0	1	2
5:00 PM				0	0		0	0	0	1		1		1	0	1	2
5:15 PM				0	0		0	0	0	0		0		2	0	2	2
5:30 PM				0	0		0	0	0	2		2		0	0	0	2
5:45 PM				0	0		0	0	0	0		0		0	0	0	0
Total Survey				0	0		1	1	0	12		12		11	0	11	24

Heavy Vehicle Peak Hour Summary
4:55 PM to 5:55 PM

By Approach	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	3	4	7	4	3	7	7
PHF	0.00			0.00			0.38			0.50			0.58

By Movement	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	0		0	0	0	3		3		4	0	4	7
PHF				0.00	0.00		0.00	0.00	0.00	0.38		0.38		0.50	0.00	0.50	0.58

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

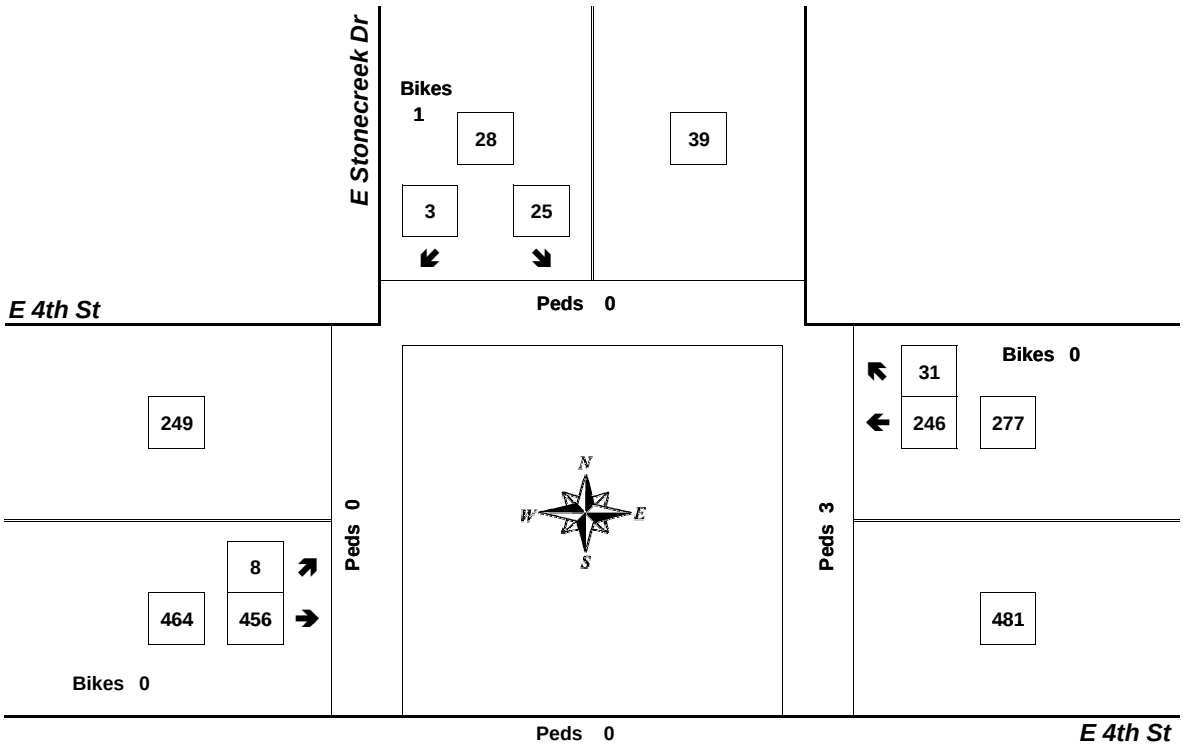
Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
4:00 PM				0	0		1	1	0	9		9		8	0	8	18
4:15 PM				0	0		1	1	0	7		7		7	0	7	15
4:30 PM				0	0		1	1	0	7		7		6	0	6	14
4:45 PM				0	0		0	0	0	4		4		4	0	4	8
5:00 PM				0	0		0	0	0	3		3		3	0	3	6

Peak Hour Summary

Clay Carney
(503) 833-2740

E Stonecreek Dr & E 4th St

4:55 PM to 5:55 PM
Thursday, December 06, 2018



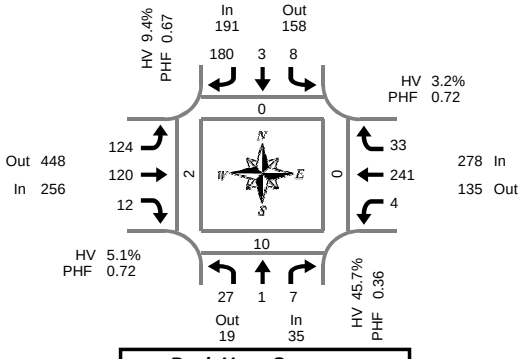
Bikes
0

Approach	PHF	HV%	Volume
EB	0.88	0.6%	464
WB	0.79	1.4%	277
NB	0.00	0.0%	0
SB	0.58	0.0%	28
Intersection	0.92	0.9%	769

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:25 AM to 8:25 AM

NE Highland Rd & E 4th St

Thursday, December 06, 2018
7:00 AM to 9:00 AM

5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	0	0	5	0	4	7	0	0	0	11	0	0	27	0	0	0	0
7:05 AM	0	0	0	0	0	0	14	0	2	9	2	0	0	17	0	0	44	0	0	0	0
7:10 AM	0	0	0	0	0	0	9	0	2	9	0	0	0	15	0	0	35	0	0	0	0
7:15 AM	0	0	0	0	0	0	12	0	8	5	0	0	0	17	0	0	42	0	1	0	0
7:20 AM	0	0	0	0	0	0	10	0	5	6	0	0	0	12	0	0	33	0	0	0	0
7:25 AM	0	0	1	0	0	0	12	0	4	7	1	0	0	27	1	0	53	0	0	0	0
7:30 AM	0	0	0	0	0	0	6	0	7	4	0	0	0	14	1	0	32	0	1	0	1
7:35 AM	0	0	0	0	0	0	16	0	13	9	0	0	0	21	2	0	61	0	0	0	0
7:40 AM	1	0	0	0	0	0	15	0	8	5	0	0	0	15	0	0	44	0	2	0	0
7:45 AM	0	0	1	0	0	0	8	0	14	9	1	0	0	17	3	0	53	0	1	0	0
7:50 AM	0	0	0	0	1	0	17	0	16	7	1	0	0	19	8	0	69	0	1	0	0
7:55 AM	0	0	0	0	1	0	21	0	14	6	0	0	0	16	4	0	62	0	2	0	1
8:00 AM	2	0	1	0	2	1	28	0	18	13	0	0	0	28	6	0	99	0	0	0	0
8:05 AM	9	0	2	0	2	2	14	0	11	19	2	0	2	26	5	0	94	0	1	0	0
8:10 AM	7	0	0	0	1	0	16	0	6	15	5	0	1	27	2	0	80	0	2	0	0
8:15 AM	5	0	1	0	1	0	14	0	9	17	0	0	1	16	1	0	65	0	0	0	0
8:20 AM	3	1	1	0	0	0	13	0	4	9	2	0	0	15	0	0	48	0	0	0	0
8:25 AM	3	0	0	0	0	0	6	0	7	12	1	0	0	11	2	0	42	0	0	0	0
8:30 AM	2	0	0	0	1	0	7	0	2	5	1	0	0	14	0	0	32	0	0	0	0
8:35 AM	1	0	0	0	0	0	9	0	5	9	0	0	0	15	1	0	40	0	0	0	0
8:40 AM	0	1	0	0	0	0	4	0	6	8	2	0	0	11	0	0	32	0	0	0	1
8:45 AM	0	0	1	0	0	0	5	0	1	8	0	0	0	11	0	0	26	0	0	0	0
8:50 AM	0	0	0	0	0	0	10	0	4	9	1	0	0	11	0	0	35	0	0	0	0
8:55 AM	0	0	0	0	0	0	4	0	6	18	1	0	0	17	1	0	47	0	0	0	0
Total Survey	33	2	8	0	9	3	275	0	176	225	20	0	4	403	37	0	1,195	0	11	0	3

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	0	0	28	0	8	25	2	0	0	43	0	0	106	0	0	0	0
7:15 AM	0	0	1	0	0	0	34	0	17	18	1	0	0	56	1	0	128	0	1	0	0
7:30 AM	1	0	0	0	0	0	37	0	28	18	0	0	0	50	3	0	137	0	3	0	1
7:45 AM	0	0	1	0	2	0	46	0	44	22	2	0	0	52	15	0	184	0	4	0	1
8:00 AM	18	0	3	0	5	3	58	0	35	47	7	0	3	81	13	0	273	0	3	0	0
8:15 AM	11	1	2	0	1	0	33	0	20	38	3	0	1	42	3	0	155	0	0	0	0
8:30 AM	3	1	0	0	1	0	20	0	13	22	3	0	0	40	1	0	104	0	0	0	1
8:45 AM	0	0	1	0	0	0	19	0	11	35	2	0	0	39	1	0	108	0	0	0	0
Total Survey	33	2	8	0	9	3	275	0	176	225	20	0	4	403	37	0	1,195	0	11	0	3

Peak Hour Summary
7:25 AM to 8:25 AM

By Approach	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	35	19	54	0	191	158	349	0	256	448	704	0	278	135	413	0	760	0	10	0	2
%HV	45.7%				9.4%				5.1%				3.2%				7.4%				
PHF	0.36				0.67				0.72				0.72				0.70				

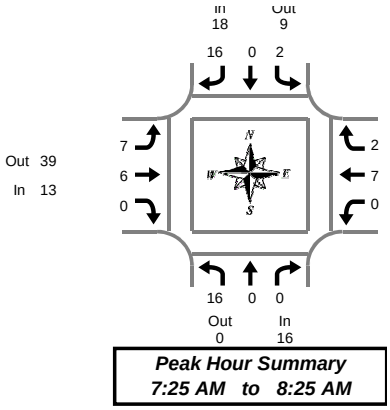
By Movement	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	27	1	7	35	8	3	180	191	124	120	12	256	4	241	33	278	760
%HV	59.3%	0.0%	0.0%	45.7%	25.0%	0.0%	8.9%	9.4%	5.6%	5.0%	0.0%	5.1%	0.0%	2.9%	6.1%	3.2%	7.4%
PHF	0.32	0.25	0.58	0.36	0.40	0.25	0.68	0.67	0.65	0.59	0.43	0.72	0.25	0.74	0.46	0.72	0.70

Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	1	0	2	0	2	0	145	0	97	83	5	0	0	201	19	0	555	0	8	0	2
7:15 AM	19	0	5	0	7	3	175	0	124	105	10	0	3	239	32	0	722	0	11	0	2
7:30 AM	30	1	6	0	8	3	174	0	127	125	12	0	4	225	34	0	749	0	10	0	2
7:45 AM	32	2	6	0	9	3	157	0	112	129	15	0	4	215	32	0	716	0	7	0	2
8:00 AM	32	2	6	0	7	3	130	0	79	142	15	0	4	202	18	0	640	0	3	0	1

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



NE Highland Rd & E 4th St

Thursday, December 06, 2018
7:00 AM to 9:00 AM

Peak Hour Summary
7:25 AM to 8:25 AM

Heavy Vehicle 5-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	5	0	5	0	1	0	1	6
7:05 AM	0	0	0	0	0	0	1	1	1	2	0	3	0	1	0	1	5
7:10 AM	0	0	0	0	0	0	1	1	0	2	0	2	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
7:50 AM	0	0	0	0	1	0	0	1	3	1	0	4	0	1	1	2	7
7:55 AM	0	0	0	0	1	0	2	3	2	0	0	2	0	2	0	2	7
8:00 AM	0	0	0	0	0	0	10	10	1	0	0	1	0	0	1	1	12
8:05 AM	8	0	0	8	0	0	2	2	0	3	0	3	0	1	0	1	14
8:10 AM	6	0	0	6	0	0	2	2	0	0	0	0	0	0	0	0	8
8:15 AM	1	0	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
8:20 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:25 AM	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
8:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:40 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
8:50 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
8:55 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Survey	16	0	0	16	2	0	18	20	10	21	0	31	0	13	2	15	82

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	2	2	1	9	0	10	0	2	0	2	14
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
7:45 AM	0	0	0	0	2	0	2	4	6	1	0	7	0	4	1	5	16
8:00 AM	14	0	0	14	0	0	14	14	1	3	0	4	0	1	1	2	34
8:15 AM	2	0	0	2	0	0	0	0	2	3	0	5	0	0	0	0	7
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
8:45 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5
Total Survey	16	0	0	16	2	0	18	20	10	21	0	31	0	13	2	15	82

Heavy Vehicle Peak Hour Summary
7:25 AM to 8:25 AM

By Approach	Northbound NE Highland Rd			Southbound NE Highland Rd			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	16	0	16	18	9	27	13	39	52	9	8	17	56
PHF	0.27			0.30			0.46			0.45			0.41

By Movement	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	16	0	0	16	2	0	16	18	7	6	0	13	0	7	2	9	56
PHF	0.27	0.00	0.00	0.27	0.25	0.00	0.29	0.30	0.29	0.30	0.00	0.46	0.00	0.44	0.25	0.45	0.41

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

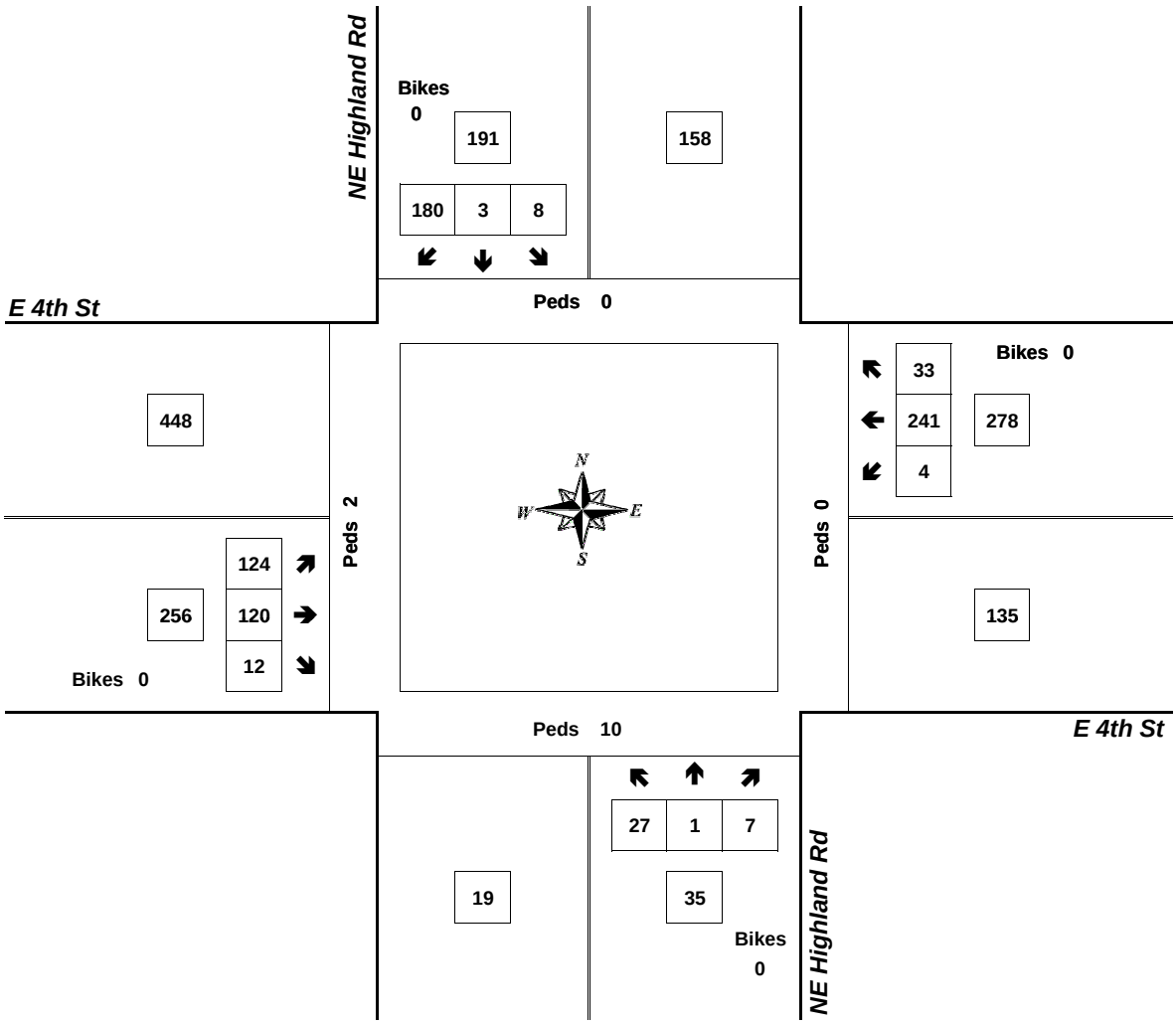
Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	2	0	4	6	7	11	0	18	0	8	1	9	33
7:15 AM	14	0	0	14	2	0	16	18	7	5	0	12	0	7	2	9	53
7:30 AM	16	0	0	16	2	0	16	18	9	7	0	16	0	7	2	9	59
7:45 AM	16	0	0	16	2	0	16	18	9	8	0	17	0	7	2	9	60
8:00 AM	16	0	0	16	0	0	14	14	3	10	0	13	0	5	1	6	49

Peak Hour Summary

Clay Carney
(503) 833-2740

NE Highland Rd & E 4th St

7:25 AM to 8:25 AM
Thursday, December 06, 2018

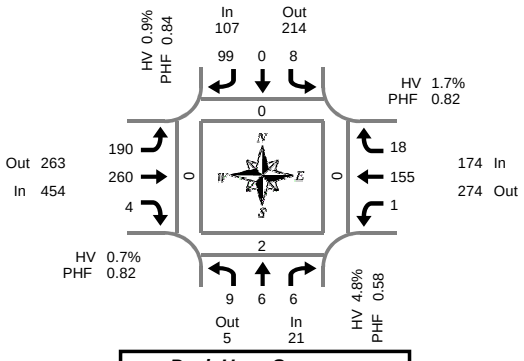


Approach	PHF	HV%	Volume
EB	0.72	5.1%	256
WB	0.72	3.2%	278
NB	0.36	45.7%	35
SB	0.67	9.4%	191
Intersection	0.70	7.4%	760

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



NE Highland Rd & E 4th St

Thursday, December 06, 2018
4:00 PM to 6:00 PM

Peak Hour Summary
4:55 PM to 5:55 PM

5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	1	0	0	0	1	0	13	0	10	27	1	0	0	14	0	0	67	0	3	0	0
4:05 PM	0	0	0	0	4	0	12	0	20	29	0	0	1	10	1	0	77	0	0	0	0
4:10 PM	0	0	0	0	0	0	10	0	16	27	0	0	0	13	2	0	68	0	2	0	0
4:15 PM	3	0	0	0	0	0	6	0	14	17	0	0	1	9	1	0	51	0	0	0	0
4:20 PM	0	0	0	0	3	0	4	0	8	17	0	0	0	9	2	0	43	1	0	0	0
4:25 PM	0	0	0	0	2	0	12	0	14	26	0	0	0	17	2	0	73	0	0	0	0
4:30 PM	0	0	0	0	0	0	2	0	16	21	0	0	0	13	2	0	54	0	0	0	0
4:35 PM	0	0	0	0	2	0	7	0	17	12	0	0	0	15	1	0	54	0	0	0	0
4:40 PM	0	0	0	0	0	0	2	0	9	22	0	0	0	12	0	0	45	0	1	0	0
4:45 PM	0	0	0	0	0	0	7	0	12	20	0	0	0	14	1	0	54	0	1	0	0
4:50 PM	1	0	0	0	1	0	7	0	16	15	0	0	0	17	4	0	61	0	0	0	0
4:55 PM	0	1	0	0	0	0	10	0	17	19	0	0	1	10	1	0	59	0	0	0	0
5:00 PM	1	0	0	0	1	0	10	0	15	13	1	0	0	16	2	0	59	0	0	0	0
5:05 PM	1	0	0	0	1	0	10	0	15	21	0	0	0	17	0	0	65	0	0	0	0
5:10 PM	2	2	0	0	1	0	9	0	12	22	0	0	0	16	2	0	66	0	0	0	0
5:15 PM	0	0	3	0	1	0	9	0	17	12	0	0	0	10	1	0	53	0	1	0	0
5:20 PM	2	0	0	0	0	0	3	0	15	17	2	0	0	14	2	0	55	0	0	0	0
5:25 PM	1	0	1	0	1	0	6	0	16	23	0	0	0	17	1	0	66	0	0	0	0
5:30 PM	0	0	0	0	0	0	10	0	14	28	0	0	0	9	3	0	64	0	0	0	0
5:35 PM	0	0	0	0	0	0	11	0	22	29	0	0	0	10	1	0	73	0	0	0	0
5:40 PM	0	0	1	0	2	0	5	0	13	28	0	0	0	13	0	0	62	0	1	0	0
5:45 PM	2	1	1	0	1	0	7	0	16	29	1	0	0	8	3	0	69	0	0	0	0
5:50 PM	0	2	0	0	0	0	9	0	18	19	0	0	0	15	2	0	65	0	0	0	0
5:55 PM	0	0	0	0	0	0	9	0	9	22	0	0	0	7	0	0	47	0	2	0	0
Total Survey	14	6	6	0	21	0	190	0	351	515	5	0	3	305	34	0	1,450	1	11	0	0

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	1	0	0	0	5	0	35	0	46	83	1	0	1	37	3	0	212	0	5	0	0
4:15 PM	3	0	0	0	5	0	22	0	36	60	0	0	1	35	5	0	167	1	0	0	0
4:30 PM	0	0	0	0	2	0	11	0	42	55	0	0	0	40	3	0	153	0	1	0	0
4:45 PM	1	1	0	0	1	0	24	0	45	54	0	0	1	41	6	0	174	0	1	0	0
5:00 PM	4	2	0	0	3	0	29	0	42	56	1	0	0	49	4	0	190	0	0	0	0
5:15 PM	3	0	4	0	2	0	18	0	48	52	2	0	0	41	4	0	174	0	1	0	0
5:30 PM	0	0	1	0	2	0	26	0	49	85	0	0	0	32	4	0	199	0	1	0	0
5:45 PM	2	3	1	0	1	0	25	0	43	70	1	0	0	30	5	0	181	0	2	0	0
Total Survey	14	6	6	0	21	0	190	0	351	515	5	0	3	305	34	0	1,450	1	11	0	0

Peak Hour Summary
4:55 PM to 5:55 PM

By Approach	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	21	5	26	0	107	214	321	0	454	263	717	0	174	274	448	0	756	0	2	0	0
%HV	4.8%				0.9%				0.7%				1.7%				1.1%				
PHF	0.58				0.84				0.82				0.82				0.93				

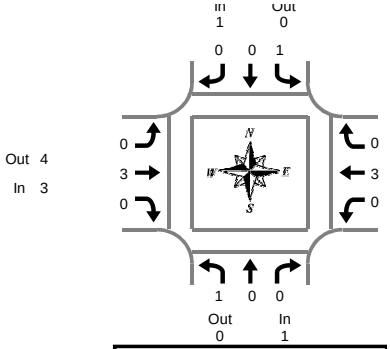
By Movement	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	9	6	6	21	8	0	99	107	190	260	4	454	1	155	18	174	756
%HV	11.1%	0.0%	0.0%	4.8%	12.5%	0.0%	0.0%	0.9%	0.0%	1.2%	0.0%	0.7%	0.0%	1.9%	0.0%	1.7%	1.1%
PHF	0.56	0.50	0.38	0.58	0.67	0.00	0.83	0.84	0.91	0.76	0.50	0.82	0.25	0.79	0.75	0.82	0.93

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	5	1	0	0	13	0	92	0	169	252	1	0	3	153	17	0	706	1	7	0	0
4:15 PM	8	3	0	0	11	0	86	0	165	225	1	0	2	165	18	0	684	1	2	0	0
4:30 PM	8	3	4	0	8	0	82	0	177	217	3	0	1	171	17	0	691	0	3	0	0
4:45 PM	8	3	5	0	8	0	97	0	184	247	3	0	1	163	18	0	737	0	3	0	0
5:00 PM	9	5	6	0	8	0	98	0	182	263	4	0	0	152	17	0	744	0	4	0	0

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



NE Highland Rd & E 4th St

Thursday, December 06, 2018
4:00 PM to 6:00 PM

Peak Hour Summary
4:55 PM to 5:55 PM

Heavy Vehicle 5-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
4:05 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
4:10 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
4:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
4:35 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
4:40 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:10 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:35 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	1	0	0	1	1	0	2	3	2	11	0	13	0	8	0	8	25

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	1	1	0	4	0	4	0	1	0	1	6
4:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
4:30 PM	0	0	0	0	0	0	0	0	2	3	0	5	0	2	0	2	7
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
5:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	2	3
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	1	0	0	1	1	0	2	3	2	11	0	13	0	8	0	8	25

Heavy Vehicle Peak Hour Summary
4:55 PM to 5:55 PM

By Approach	Northbound NE Highland Rd			Southbound NE Highland Rd			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	1	0	1	1	0	1	3	4	7	3	4	7	8
PHF	0.25			0.25			0.38			0.38			0.50

By Movement	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	1	0	0	1	1	0	0	1	0	3	0	3	0	3	0	3	8
PHF	0.25	0.00	0.00	0.25	0.25	0.00	0.00	0.25	0.00	0.38	0.00	0.38	0.00	0.38	0.00	0.38	0.50

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

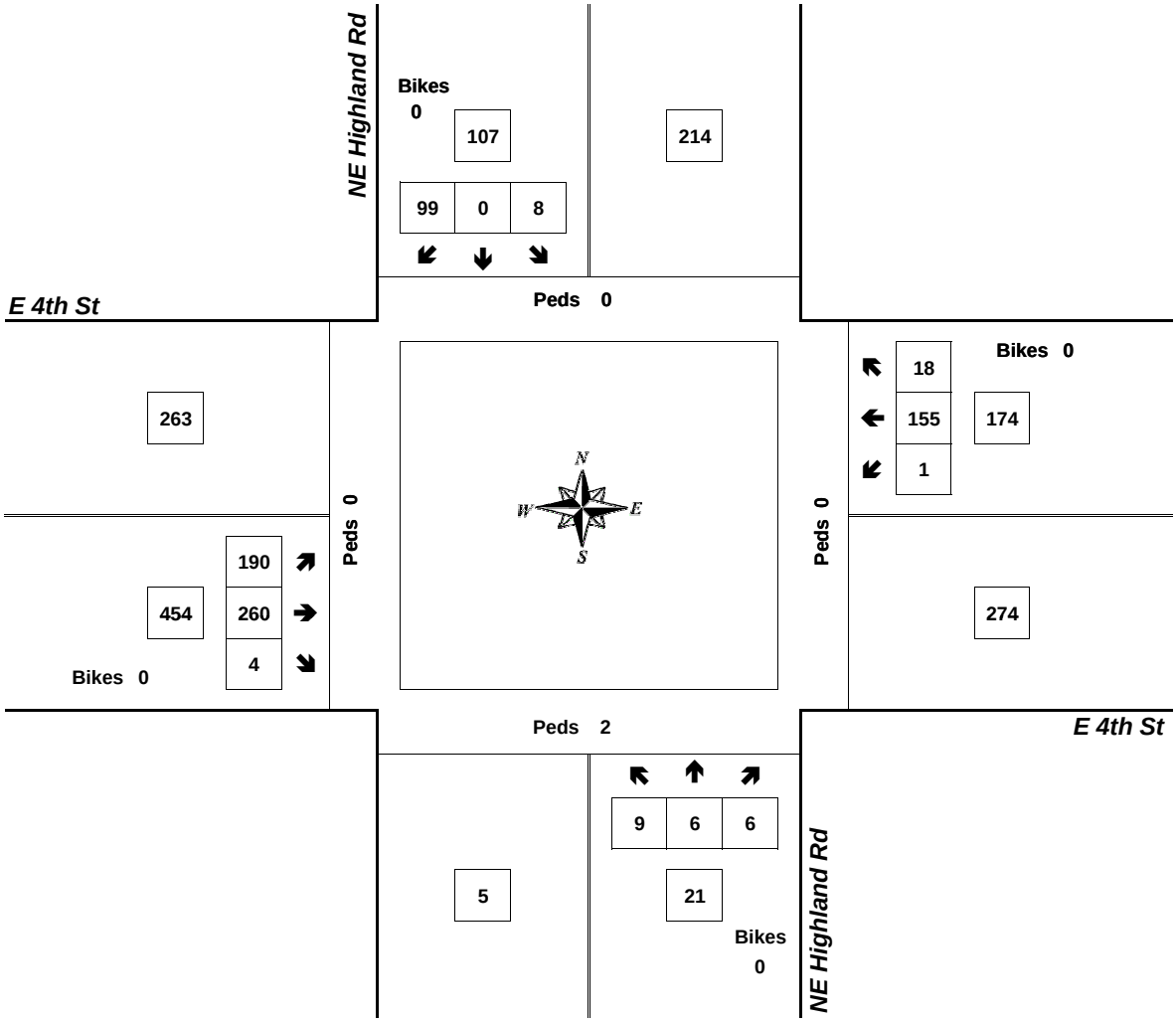
Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	2	2	2	8	0	10	0	6	0	6	18
4:15 PM	1	0	0	1	0	0	1	1	2	5	0	7	0	5	0	5	14
4:30 PM	1	0	0	1	1	0	0	1	2	5	0	7	0	5	0	5	14
4:45 PM	1	0	0	1	1	0	0	1	0	4	0	4	0	3	0	3	9
5:00 PM	1	0	0	1	1	0	0	1	0	3	0	3	0	2	0	2	7

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

NE Highland Rd & E 4th St

4:55 PM to 5:55 PM
Thursday, December 06, 2018



Approach	PHF	HV%	Volume
EB	0.82	0.7%	454
WB	0.82	1.7%	174
NB	0.58	4.8%	21
SB	0.84	0.9%	107
Intersection	0.93	1.1%	756

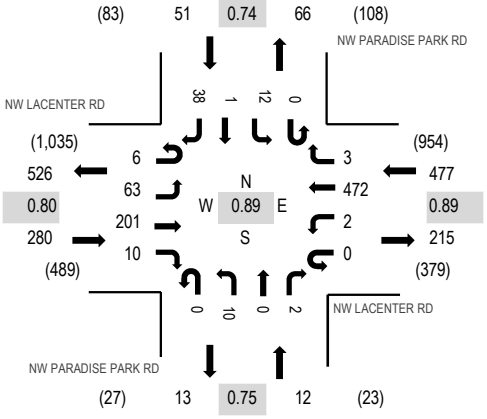
Count Period: 4:00 PM to 6:00 PM

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

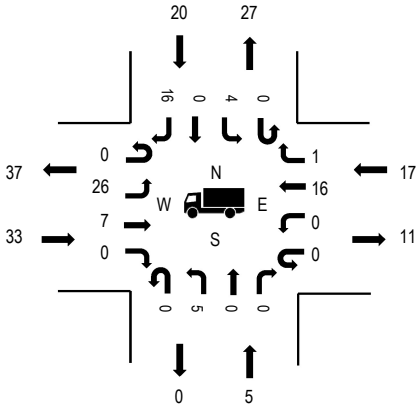
Location: 1 NW PARADISE PARK RD & NW LACENTER RD AM
Date: Wednesday, June 29, 2022
Peak Hour: 07:50 AM - 08:50 AM
Peak 15-Minutes: 08:35 AM - 08:50 AM

Peak Hour

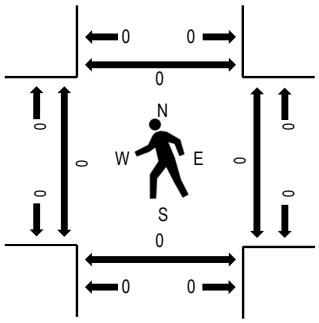
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	11.8%	0.80
WB	3.6%	0.89
NB	41.7%	0.75
SB	39.2%	0.74
All	9.1%	0.89

Traffic Counts - Motorized Vehicles

Interval Start Time	NW LACENTER RD Eastbound				NW LACENTER RD Westbound				NW PARADISE PARK RD Northbound				NW PARADISE PARK RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	2	2	7	0	0	0	33	0	0	0	0	0	0	1	0	1	46	768
7:05 AM	0	2	7	1	0	0	33	0	0	0	0	0	0	0	0	1	44	787
7:10 AM	0	5	10	1	0	0	44	0	0	1	0	0	0	0	1	2	64	801
7:15 AM	0	2	14	0	0	0	46	0	0	0	0	0	0	0	0	3	65	807
7:20 AM	0	5	12	0	0	1	44	0	0	0	0	0	0	1	0	2	65	790
7:25 AM	1	4	14	2	0	1	38	0	0	1	0	1	0	0	0	2	64	800
7:30 AM	0	4	10	0	0	0	62	1	0	1	0	0	0	0	0	1	79	799
7:35 AM	0	3	11	1	0	0	34	0	0	1	0	1	0	1	0	4	56	780
7:40 AM	0	5	14	0	0	1	50	0	0	2	0	0	0	0	0	1	73	799
7:45 AM	1	1	16	2	0	0	36	0	0	2	0	0	0	0	0	3	61	805
7:50 AM	0	5	21	1	0	1	52	0	0	1	0	1	0	1	0	3	86	820
7:55 AM	0	10	19	1	0	0	33	0	0	0	0	0	0	0	0	2	65	795
8:00 AM	1	5	12	1	0	1	39	0	0	3	0	0	0	0	0	3	65	781
8:05 AM	0	5	11	0	0	0	40	0	0	0	0	0	0	0	0	2	58	
8:10 AM	1	7	11	2	0	0	45	1	0	1	0	0	0	1	0	1	70	
8:15 AM	1	6	11	0	0	0	22	1	0	1	0	1	0	4	0	1	48	
8:20 AM	1	4	21	1	0	0	41	0	0	1	0	0	0	1	1	4	75	
8:25 AM	0	1	21	2	0	0	31	0	0	1	0	0	0	1	0	6	63	
8:30 AM	1	6	12	2	0	0	35	0	0	0	0	0	0	1	0	3	60	
8:35 AM	1	5	11	0	0	0	51	0	0	1	0	0	0	1	0	5	75	
8:40 AM	0	6	24	0	0	0	43	1	0	0	0	0	0	1	0	4	79	
8:45 AM	0	3	27	0	0	0	40	0	0	1	0	0	0	1	0	4	76	
8:50 AM	0	2	25	0	0	0	28	1	0	0	1	0	0	1	0	3	61	
8:55 AM	0	4	17	2	0	0	24	0	0	0	0	0	0	1	1	2	51	
Count Total	10	102	358	19	0	5	944	5	0	18	1	4	0	17	3	63	1,549	
Peak Hour	6	63	201	10	0	2	472	3	0	10	0	2	0	12	1	38	820	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

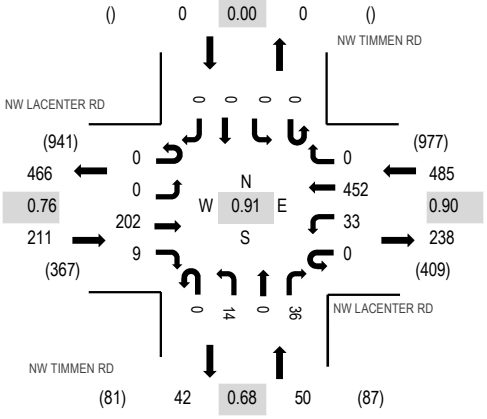
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	1	0	1	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	3	0	0	0	3	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	1	0	0	1	2	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	2	0	2	1	5	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	2	0	1	0	3	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	1	1	1	3	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	3	1	0	1	5	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	3	0	1	0	4	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	5	0	3	0	8	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	1	0	0	2	3	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	4	1	2	1	8	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	7	0	0	0	7	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	1	3	0	2	6	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	3	0	3	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	4	0	1	0	5	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	5	1	1	4	11	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	2	0	1	3	6	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	1	0	2	3	6	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	2	0	0	2	4	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	3	0	1	1	5	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	2	0	1	2	5	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	2	0	5	2	9	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	2	0	0	2	4	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	1	1	8:55 AM	0	1	0	0	1	8:55 AM	0	0	0	0	0
Count Total	55	7	26	29	117	Count Total	0	1	0	0	1	Count Total	0	0	0	0	0
Peak Hour	33	5	17	20	75	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

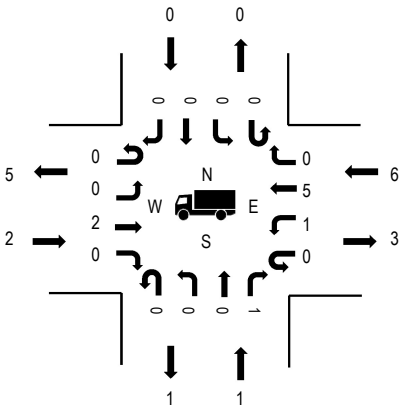
Location: 2 NW TIMMEN RD & NW LACENTER RD AM
Date: Wednesday, June 29, 2022
Peak Hour: 07:50 AM - 08:50 AM
Peak 15-Minutes: 08:35 AM - 08:50 AM

Peak Hour

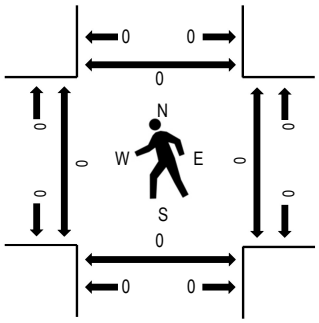
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.9%	0.76
WB	1.2%	0.90
NB	2.0%	0.68
SB	0.0%	0.00
All	1.2%	0.91

Traffic Counts - Motorized Vehicles

Interval Start Time	NW LACENTER RD Eastbound				NW LACENTER RD Westbound				NW TIMMEN RD Northbound				NW TIMMEN RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	6	2	0	1	33	0	0	1	0	1	0	0	0	0	44	713
7:05 AM	0	0	8	0	0	4	38	0	0	2	0	2	0	0	0	0	54	728
7:10 AM	0	0	8	0	0	1	37	0	0	0	0	1	0	0	0	0	47	735
7:15 AM	0	0	7	1	0	3	44	0	0	1	0	0	0	0	0	0	56	745
7:20 AM	0	0	14	2	0	1	50	0	0	1	0	3	0	0	0	0	71	736
7:25 AM	0	0	11	1	0	2	39	0	0	2	0	2	0	0	0	0	57	735
7:30 AM	0	0	11	0	0	3	54	0	0	1	0	2	0	0	0	0	71	733
7:35 AM	0	0	11	1	0	1	44	0	0	0	0	1	0	0	0	0	58	717
7:40 AM	0	0	15	0	0	3	37	0	1	0	0	1	0	0	0	0	57	731
7:45 AM	0	0	14	0	0	5	37	0	0	3	0	3	0	0	0	0	62	736
7:50 AM	0	0	19	0	0	3	47	0	0	1	0	4	0	0	0	0	74	746
7:55 AM	0	0	22	1	0	5	31	0	0	0	0	3	0	0	0	0	62	732
8:00 AM	0	0	9	2	0	2	41	0	0	0	0	5	0	0	0	0	59	718
8:05 AM	0	0	12	0	0	1	43	0	0	2	0	3	0	0	0	0	61	
8:10 AM	0	0	10	2	0	1	35	0	0	4	0	5	0	0	0	0	57	
8:15 AM	0	0	14	0	0	1	31	0	0	0	0	1	0	0	0	0	47	
8:20 AM	0	0	23	0	0	4	36	0	0	0	0	7	0	0	0	0	70	
8:25 AM	0	0	19	1	0	2	30	0	0	0	0	3	0	0	0	0	55	
8:30 AM	0	0	15	0	0	2	36	0	0	2	0	0	0	0	0	0	55	
8:35 AM	0	0	14	0	0	5	49	0	0	1	0	3	0	0	0	0	72	
8:40 AM	0	0	16	1	0	4	39	0	0	1	0	1	0	0	0	0	62	
8:45 AM	0	0	29	2	0	3	34	0	0	3	0	1	0	0	0	0	72	
8:50 AM	0	0	22	1	0	2	31	0	0	0	0	4	0	0	0	0	60	
8:55 AM	0	0	20	1	0	3	19	0	0	1	0	4	0	0	0	0	48	
Count Total	0	0	349	18	0	62	915	0	1	26	0	60	0	0	0	0	1,431	
Peak Hour	0	0	202	9	0	33	452	0	0	14	0	36	0	0	0	0	746	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

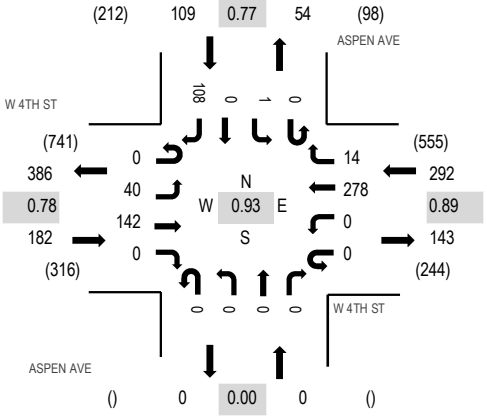
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	1	0	0	1	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	1	0	1	0	2	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	1	0	0	0	1	7:40 AM	0	1	0	0	1	7:40 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	0	1	0	1	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	0	1	0	1	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	1	0	1	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	0	1	0	0	1	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	2	0	0	0	2	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	0	0	2	0	2	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	0	1	0	1	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0	8:50 AM	0	0	1	0	1
8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	5	2	7	0	14	Count Total	0	1	0	0	1	Count Total	0	0	1	0	1
Peak Hour	2	1	6	0	9	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

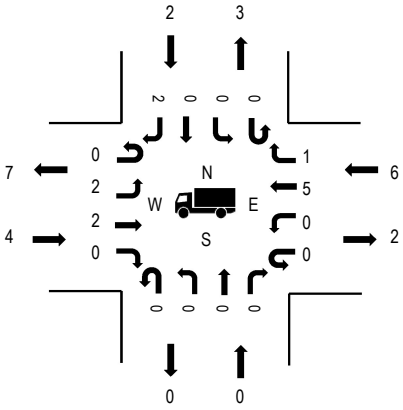
Location: 3 ASPEN AVE & W 4TH ST AM
Date: Wednesday, June 29, 2022
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

Peak Hour

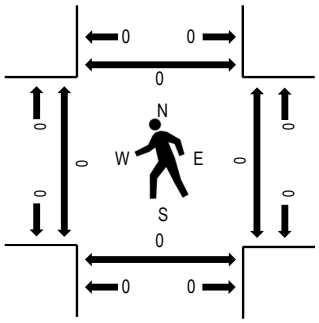
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	2.2%	0.78
WB	2.1%	0.89
NB	0.0%	0.00
SB	1.8%	0.77
All	2.1%	0.93

Traffic Counts - Motorized Vehicles

Interval Start Time	W 4TH ST Eastbound				W 4TH ST Westbound				ASPEN AVE Northbound				ASPEN AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	2	0	0	0	17	0	0	0	0	0	0	0	0	8	27	518
7:05 AM	0	2	1	0	0	0	24	0	0	0	0	0	0	0	0	9	36	540
7:10 AM	0	2	5	0	0	0	27	1	0	0	0	0	0	0	0	4	39	551
7:15 AM	0	1	8	0	0	0	28	0	0	0	0	0	0	0	0	5	42	554
7:20 AM	0	2	14	0	0	0	25	1	0	0	0	0	0	2	0	11	55	557
7:25 AM	0	2	5	0	0	0	22	0	0	0	0	0	0	0	0	15	44	550
7:30 AM	0	5	5	0	0	0	26	0	0	0	0	0	0	1	0	10	47	556
7:35 AM	0	4	6	0	0	0	22	1	0	0	0	0	0	0	0	11	44	557
7:40 AM	0	2	7	0	0	0	20	1	0	0	0	0	0	1	0	8	39	569
7:45 AM	0	4	12	0	0	0	18	1	0	0	0	0	0	0	0	16	51	583
7:50 AM	0	1	13	0	0	0	22	3	0	0	0	0	0	0	0	7	46	578
7:55 AM	0	4	15	0	0	0	20	4	0	0	0	0	0	0	0	5	48	581
8:00 AM	0	4	13	0	0	0	24	2	0	0	0	0	0	0	0	6	49	565
8:05 AM	0	7	7	0	0	0	20	0	0	0	0	0	0	0	0	13	47	
8:10 AM	0	1	8	0	0	0	24	0	0	0	0	0	0	0	0	9	42	
8:15 AM	0	2	9	0	0	0	29	0	0	0	0	0	0	0	0	5	45	
8:20 AM	0	3	17	0	0	0	19	0	0	0	0	0	0	0	0	9	48	
8:25 AM	0	3	16	0	0	0	23	1	0	0	0	0	0	1	0	6	50	
8:30 AM	0	5	12	0	0	0	20	2	0	0	0	0	0	0	0	9	48	
8:35 AM	0	2	7	0	0	0	32	1	0	0	0	0	0	0	0	14	56	
8:40 AM	0	4	13	0	0	0	27	0	0	0	0	0	0	0	0	9	53	
8:45 AM	0	7	17	0	0	0	14	1	0	0	0	0	0	0	0	7	46	
8:50 AM	0	4	19	0	0	0	19	0	0	0	0	0	0	0	0	7	49	
8:55 AM	0	6	8	0	0	0	12	2	0	0	0	0	0	0	0	4	32	
Count Total	0	77	239	0	0	0	534	21	0	0	0	0	0	5	0	207	1,083	
Peak Hour	0	40	142	0	0	0	278	14	0	0	0	0	0	1	0	108	583	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	2	2
7:20 AM	2	0	0	0	2	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	1	0	1	0	2	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	1	1
7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	1	0	1	0	2	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	0	0	1	1	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	0	2	0	2	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	2	0	2	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	1	0	0	0	1	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	2	0	1	1	4	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	1	0	0	0	1	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	1	1	8:55 AM	0	0	0	0	0
Count Total	8	0	7	2	17	Count Total	0	0	0	1	1	Count Total	0	0	0	3	3
Peak Hour	4	0	6	2	12	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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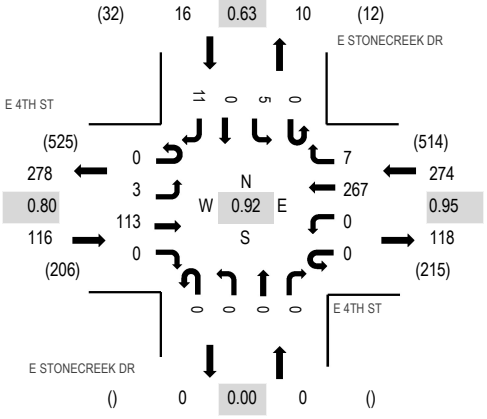
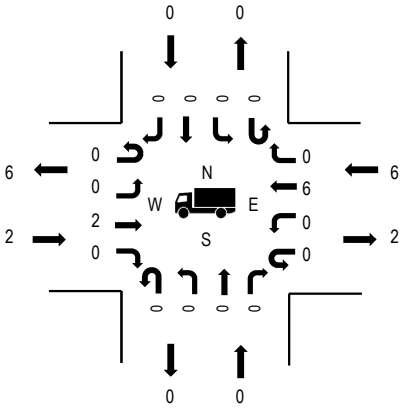
Location: 4 E STONECREEK DR & E 4TH ST AM
Date: Wednesday, June 29, 2022
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:25 AM - 08:40 AM

Peak Hour

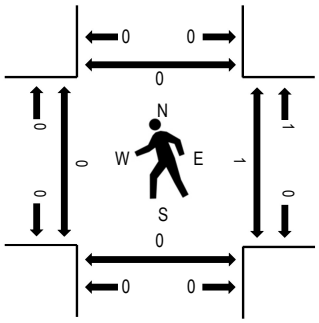
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.7%	0.80
WB	2.2%	0.95
NB	0.0%	0.00
SB	0.0%	0.63
All	2.0%	0.92

Traffic Counts - Motorized Vehicles

Interval Start Time	E 4TH ST Eastbound				E 4TH ST Westbound				E STONECREEK DR Northbound				E STONECREEK DR Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	3	0	0	0	17	0	0	0	0	0	0	1	0	0	21	355
7:05 AM	0	0	1	0	0	0	21	1	0	0	0	0	0	0	0	0	23	370
7:10 AM	0	0	5	0	0	0	23	0	0	0	0	0	0	0	0	2	30	376
7:15 AM	0	0	7	0	0	0	20	0	0	0	0	0	0	0	0	1	28	378
7:20 AM	0	0	13	0	0	0	24	0	0	0	0	0	0	0	0	0	37	383
7:25 AM	0	0	5	0	0	0	23	0	0	0	0	0	0	1	0	0	29	375
7:30 AM	0	0	4	0	0	0	23	0	0	0	0	0	0	0	0	1	28	382
7:35 AM	0	0	4	0	0	0	18	0	0	0	0	0	0	0	0	2	24	389
7:40 AM	0	0	8	0	0	0	24	0	0	0	0	0	0	1	0	0	33	404
7:45 AM	0	0	10	0	0	0	26	1	0	0	0	0	0	0	0	2	39	406
7:50 AM	0	0	9	0	0	0	22	0	0	0	0	0	0	0	0	0	31	395
7:55 AM	0	1	8	0	0	0	21	1	0	0	0	0	0	1	0	0	32	397
8:00 AM	0	0	11	0	0	0	24	0	0	0	0	0	0	0	0	1	36	397
8:05 AM	0	0	7	0	0	0	21	0	0	0	0	0	0	0	0	1	29	
8:10 AM	0	0	8	0	0	0	23	1	0	0	0	0	0	0	0	0	32	
8:15 AM	0	0	7	0	0	0	23	1	0	0	0	0	0	1	0	1	33	
8:20 AM	0	1	12	0	0	0	15	1	0	0	0	0	0	0	0	0	29	
8:25 AM	0	1	13	0	0	0	20	1	0	0	0	0	0	0	0	1	36	
8:30 AM	0	0	8	0	0	0	23	0	0	0	0	0	0	1	0	3	35	
8:35 AM	0	0	11	0	0	0	27	0	0	0	0	0	0	1	0	0	39	
8:40 AM	0	0	9	0	0	0	22	1	0	0	0	0	0	1	0	2	35	
8:45 AM	0	0	12	0	0	0	15	0	0	0	0	0	0	0	0	1	28	
8:50 AM	0	0	15	0	0	0	16	1	0	0	0	0	0	1	0	0	33	
8:55 AM	0	0	13	0	0	0	14	0	0	0	0	0	0	3	0	2	32	
Count Total	0	3	203	0	0	0	505	9	0	0	0	0	0	12	0	20	752	
Peak Hour	0	3	113	0	0	0	267	7	0	0	0	0	0	5	0	11	406	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0	7:05 AM	0	0	2	0	2
7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0	7:10 AM	0	0	1	0	1
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	2	0	0	0	2	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0	7:25 AM	0	0	1	0	1
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	0	0	1	0	1	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0	7:40 AM	0	0	1	0	1
7:45 AM	1	0	1	0	2	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	0	2	0	2	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	2	0	2	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	1	0	0	0	1	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0	8:35 AM	0	0	1	0	1
8:40 AM	0	0	1	0	1	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	0	0	8:55 AM	1	0	0	0	1	8:55 AM	0	0	0	0	0
Count Total	4	0	7	0	11	Count Total	1	0	0	0	1	Count Total	0	0	6	0	6
Peak Hour	2	0	6	0	8	Peak Hour	0	0	0	0	0	Peak Hour	0	0	1	0	1

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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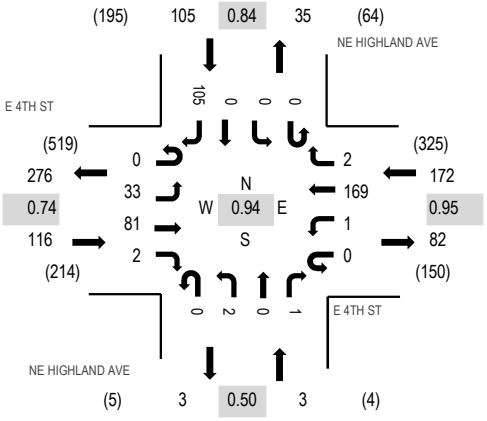
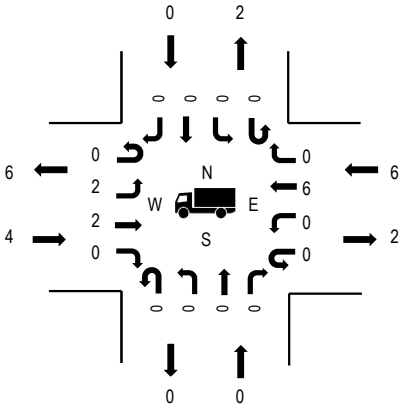
Location: 5 NE HIGHLAND AVE & E 4TH ST AM
Date: Wednesday, June 29, 2022
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour

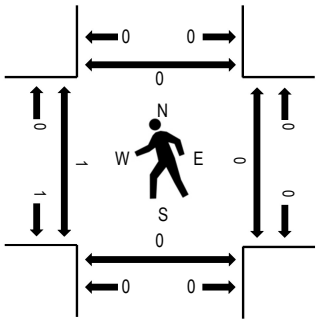
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	3.4%	0.74
WB	3.5%	0.95
NB	0.0%	0.50
SB	0.0%	0.84
All	2.5%	0.94

Traffic Counts - Motorized Vehicles

Interval Start Time	E 4TH ST Eastbound				E 4TH ST Westbound				NE HIGHLAND AVE Northbound				NE HIGHLAND AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	2	3	0	0	0	8	0	0	0	0	0	0	0	0	8	21	352
7:05 AM	0	0	0	0	0	0	12	0	0	0	0	0	0	1	0	11	24	361
7:10 AM	0	1	4	0	0	0	17	0	0	0	0	0	0	0	0	5	27	370
7:15 AM	0	4	3	0	0	0	18	0	0	0	0	0	0	0	0	6	31	372
7:20 AM	0	1	11	0	0	0	10	0	0	0	0	0	0	0	0	9	31	373
7:25 AM	0	3	3	0	0	0	18	0	0	0	0	0	0	0	0	8	32	370
7:30 AM	0	0	5	0	0	0	16	0	0	0	0	0	0	0	0	6	27	377
7:35 AM	0	1	3	0	0	0	11	0	0	0	0	0	0	0	0	7	22	378
7:40 AM	0	2	7	0	0	0	17	0	0	0	0	0	0	0	0	6	32	392
7:45 AM	0	2	8	0	0	0	18	1	0	0	0	0	0	0	0	8	37	396
7:50 AM	0	0	7	0	0	0	14	0	0	0	0	0	0	0	0	8	29	385
7:55 AM	0	2	9	0	0	0	16	1	0	0	0	0	0	0	0	11	39	388
8:00 AM	0	0	9	0	0	0	16	0	0	0	0	0	0	0	0	5	30	386
8:05 AM	0	0	8	0	0	0	16	0	0	1	0	0	0	0	0	8	33	
8:10 AM	0	6	3	0	0	0	13	0	0	0	0	0	0	0	0	7	29	
8:15 AM	0	6	1	0	0	0	18	0	0	0	0	0	0	0	0	7	32	
8:20 AM	0	2	8	1	0	1	6	0	0	0	0	0	0	0	0	10	28	
8:25 AM	0	5	9	0	0	0	12	0	0	0	0	0	0	0	0	13	39	
8:30 AM	0	4	4	0	0	0	12	0	0	1	0	1	0	0	0	6	28	
8:35 AM	0	3	5	0	0	0	17	0	0	0	0	0	0	0	0	11	36	
8:40 AM	0	3	10	1	0	0	11	0	0	0	0	0	0	0	0	11	36	
8:45 AM	0	5	5	0	0	0	6	0	0	0	0	0	0	0	0	10	26	
8:50 AM	0	5	8	1	0	0	10	0	0	1	0	0	0	0	0	7	32	
8:55 AM	0	5	15	1	0	0	10	0	0	0	0	0	0	0	0	6	37	
Count Total	0	62	148	4	0	1	322	2	0	3	0	1	0	1	0	194	738	
Peak Hour	0	33	81	2	0	1	169	2	0	2	0	1	0	0	0	105	396	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	1	0	0	0	1	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0	7:10 AM	0	2	0	0	2
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	1	0	0	1
7:20 AM	2	0	0	0	2	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	1	0	0	1
7:35 AM	0	0	1	0	1	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	1	0	1	0	2	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0	7:50 AM	1	0	0	0	1
7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	0	2	0	2	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	1	0	1	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	1	0	1	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	2	0	0	0	2	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	1	0	0	0	1	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	0	0	1	0	1	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	1	1
8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	0	0	8:55 AM	1	0	0	0	1	8:55 AM	0	0	0	0	0
Count Total	7	0	7	0	14	Count Total	1	0	0	0	1	Count Total	1	4	0	1	6
Peak Hour	4	0	6	0	10	Peak Hour	0	0	0	0	0	Peak Hour	1	0	0	0	1

ALL TRAFFIC DATA SERVICES
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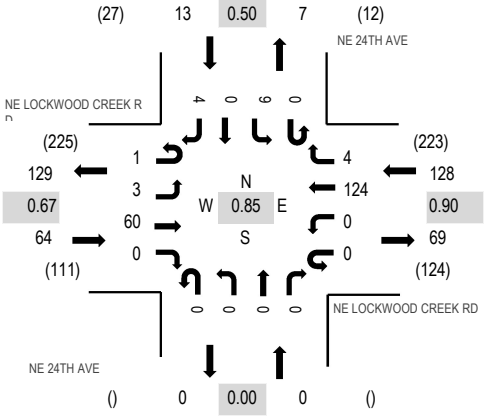
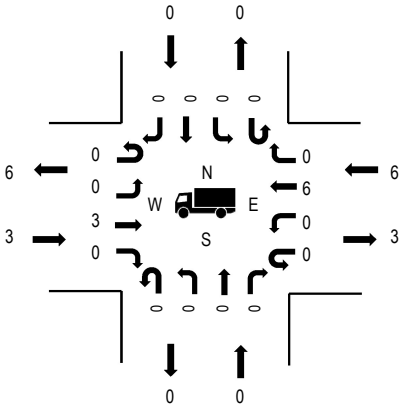
Location: 6 NE 24TH AVE & NE LOCKWOOD CREEK RD AM
Date: Wednesday, June 29, 2022
Peak Hour: 07:20 AM - 08:20 AM
Peak 15-Minutes: 07:50 AM - 08:05 AM

Peak Hour

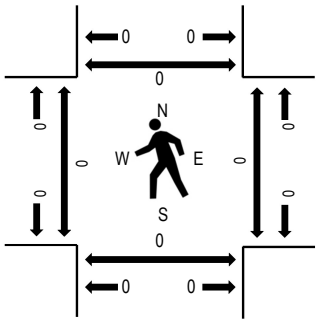
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	4.7%	0.67
WB	4.7%	0.90
NB	0.0%	0.00
SB	0.0%	0.50
All	4.4%	0.85

Traffic Counts - Motorized Vehicles

Interval Start Time	NE LOCKWOOD CREEK RD Eastbound				NE LOCKWOOD CREEK RD Westbound				NE 24TH AVE Northbound				NE 24TH AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	2	0	0	0	7	1	0	0	0	0	0	1	0	0	11	187
7:05 AM	0	0	1	0	0	0	12	0	0	0	0	0	0	2	0	0	15	199
7:10 AM	0	0	1	0	0	0	11	1	0	0	0	0	0	1	0	0	14	201
7:15 AM	0	0	2	0	0	0	10	0	0	0	0	0	0	0	0	0	12	204
7:20 AM	0	0	7	0	0	0	6	2	0	0	0	0	0	1	0	0	16	205
7:25 AM	0	0	6	0	0	0	12	0	0	0	0	0	0	2	0	0	20	198
7:30 AM	0	0	1	0	0	0	9	1	0	0	0	0	0	0	0	1	12	193
7:35 AM	0	0	3	0	0	0	8	0	0	0	0	0	0	0	0	0	11	197
7:40 AM	0	0	7	0	0	0	10	0	0	0	0	0	0	0	0	1	18	200
7:45 AM	0	2	4	0	0	0	14	1	0	0	0	0	0	0	0	0	21	190
7:50 AM	0	0	3	0	0	0	12	0	0	0	0	0	0	2	0	1	18	178
7:55 AM	0	0	9	0	0	0	9	0	0	0	0	0	0	1	0	0	19	175
8:00 AM	0	0	8	0	0	0	15	0	0	0	0	0	0	0	0	0	23	174
8:05 AM	0	1	6	0	0	0	10	0	0	0	0	0	0	0	0	0	17	
8:10 AM	0	0	4	0	0	0	10	0	0	0	0	0	0	3	0	0	17	
8:15 AM	1	0	2	0	0	0	9	0	0	0	0	0	0	0	0	1	13	
8:20 AM	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	2	9	
8:25 AM	0	0	6	0	0	0	9	0	0	0	0	0	0	0	0	0	15	
8:30 AM	0	0	5	0	0	0	10	0	0	0	0	0	0	1	0	0	16	
8:35 AM	0	0	2	0	0	0	12	0	0	0	0	0	0	0	0	0	14	
8:40 AM	0	0	6	0	0	0	2	0	0	0	0	0	0	0	0	0	8	
8:45 AM	0	0	5	0	0	0	3	1	0	0	0	0	0	0	0	0	9	
8:50 AM	0	0	4	0	0	0	7	1	0	0	0	0	0	2	0	1	15	
8:55 AM	0	1	9	0	0	0	4	0	0	0	0	0	0	2	0	2	18	
Count Total	1	4	106	0	0	0	215	8	0	0	0	0	0	18	0	9	361	
Peak Hour	1	3	60	0	0	0	124	4	0	0	0	0	0	9	0	4	205	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	1	0	0	0	1	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	1	0	0	0	1	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	1	0	0	0	1	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	1	0	1	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	1	0	1	0	2	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	0	2	0	2	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	1	0	1	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	1	0	1	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	0	0	1	0	1	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	0	0	0	0	0	8:40 AM	0	0	1	0	1	8:40 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	4	0	7	0	11	Count Total	0	0	1	0	1	Count Total	0	0	0	0	0
Peak Hour	3	0	6	0	9	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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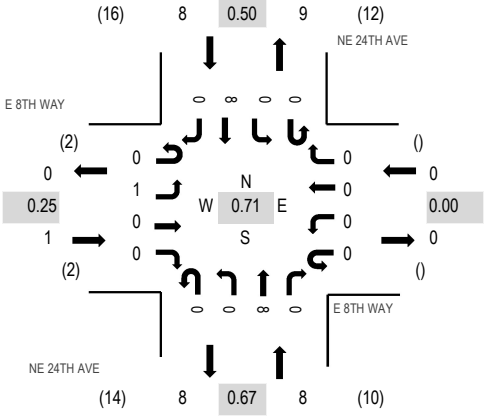
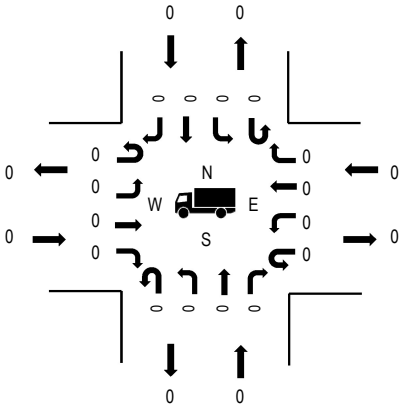
Location: 7 NE 24TH AVE & E 8TH WAY AM
Date: Wednesday, June 29, 2022
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:00 AM - 07:15 AM

Peak Hour

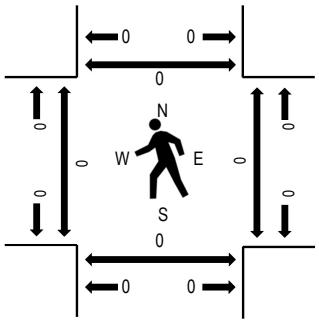
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.25
WB	0.0%	0.00
NB	0.0%	0.67
SB	0.0%	0.50
All	0.0%	0.71

Traffic Counts - Motorized Vehicles

Interval Start Time	E 8TH WAY Eastbound				E 8TH WAY Westbound				NE 24TH AVE Northbound				NE 24TH AVE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	17
7:05 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	15
7:10 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	13
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
7:20 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	12
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	10
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	11
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
7:50 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	11
7:55 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	10
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
8:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	
8:25 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
8:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:50 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	
8:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	
Count Total	0	2	0	0	0	0	0	0	0	0	10	0	0	0	14	2	28	
Peak Hour	0	1	0	0	0	0	0	0	0	0	8	0	0	0	8	0	17	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0	8:45 AM	0	1	0	0	1	8:45 AM	0	0	0	0	0
8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	0	0	0	0	0	Count Total	0	1	0	0	1	Count Total	0	0	0	0	0
Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
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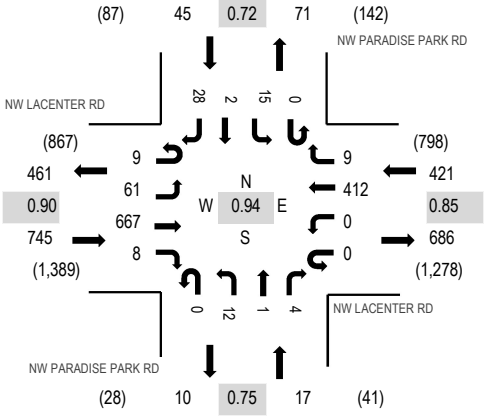
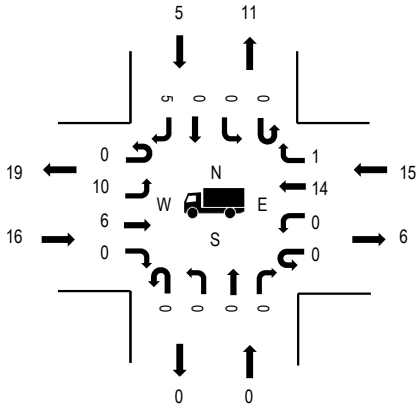
Location: 1 NW PARADISE PARK RD & NW LACENTER RD PM
Date: Wednesday, June 29, 2022
Peak Hour: 04:55 PM - 05:55 PM
Peak 15-Minutes: 05:05 PM - 05:20 PM

Peak Hour

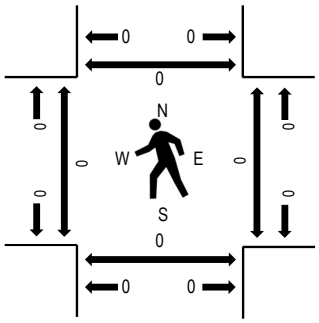
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	2.1%	0.90
WB	3.6%	0.85
NB	0.0%	0.75
SB	11.1%	0.72
All	2.9%	0.94

Traffic Counts - Motorized Vehicles

Interval Start Time	NW LACENTER RD Eastbound				NW LACENTER RD Westbound				NW PARADISE PARK RD Northbound				NW PARADISE PARK RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	4	43	0	0	0	24	0	0	3	0	1	0	0	0	0	75	1,100
4:05 PM	1	4	45	1	0	0	41	0	0	0	0	1	0	1	0	1	95	1,126
4:10 PM	1	9	47	2	0	0	33	1	0	0	0	1	0	2	0	0	96	1,144
4:15 PM	1	4	51	2	0	0	23	1	0	1	0	0	0	2	0	3	88	1,146
4:20 PM	1	3	53	0	0	0	41	0	0	1	0	0	0	0	0	1	100	1,173
4:25 PM	0	5	44	2	0	1	32	1	0	2	0	2	0	0	0	2	91	1,163
4:30 PM	0	5	52	1	0	0	26	0	0	1	0	1	0	2	0	3	91	1,167
4:35 PM	0	4	46	2	0	1	27	1	0	1	0	1	0	2	0	5	90	1,190
4:40 PM	0	9	37	1	0	1	35	0	0	0	0	1	0	3	0	3	90	1,212
4:45 PM	0	5	48	2	0	0	28	3	0	3	1	1	0	2	1	0	94	1,222
4:50 PM	0	3	46	1	0	0	24	1	0	1	1	0	0	2	0	1	80	1,217
4:55 PM	1	6	68	0	0	0	30	3	0	0	0	0	0	1	1	0	110	1,228
5:00 PM	1	4	58	0	0	0	35	0	0	1	0	0	0	1	0	1	101	1,215
5:05 PM	0	5	62	1	0	0	34	1	0	2	0	2	0	4	0	2	113	
5:10 PM	0	2	54	1	0	0	35	0	0	3	0	0	0	2	0	1	98	
5:15 PM	1	7	62	1	0	0	31	1	0	3	0	0	0	2	0	7	115	
5:20 PM	3	5	38	0	0	0	37	0	0	2	0	1	0	1	0	3	90	
5:25 PM	0	6	44	0	0	0	42	1	0	0	0	1	0	0	0	1	95	
5:30 PM	1	7	61	2	0	0	37	0	0	1	1	0	0	0	1	3	114	
5:35 PM	0	8	55	2	0	0	43	1	0	0	0	0	0	0	0	3	112	
5:40 PM	1	2	59	0	0	0	32	0	0	0	0	0	0	3	0	3	100	
5:45 PM	1	3	61	0	0	0	22	0	0	0	0	0	0	0	0	2	89	
5:50 PM	0	6	45	1	0	0	34	2	0	0	0	0	0	1	0	2	91	
5:55 PM	0	6	53	0	0	0	32	0	0	0	0	0	0	2	0	4	97	
Count Total	13	122	1,232	22	0	3	778	17	0	25	3	13	0	33	3	51	2,315	
Peak Hour	9	61	667	8	0	0	412	9	0	12	1	4	0	15	2	28	1,228	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	2	0	1	0	3	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	2	1	3	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	3	0	0	0	3	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	4	0	1	0	5	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	2	0	6	0	8	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	2	1	1	0	4	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	1	1	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	3	3
4:35 PM	2	0	2	0	4	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	2	1	1	0	4	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	1	0	1	0	2	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	3	0	0	0	3	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	2	0	2	0	4	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	1	1	2	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	1	0	3	0	4	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	1	0	1	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	3	0	2	1	6	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	1	0	0	1	2	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	1	0	2	0	3	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	1	0	1	1	3	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	1	0	0	0	1	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	2	0	0	0	2	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	2	0	1	1	4	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	2	0	2	0	4	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	2	0	0	0	2	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	39	2	30	7	78	Count Total	0	0	0	0	0	Count Total	0	0	0	3	3
Peak Hour	16	0	15	5	36	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
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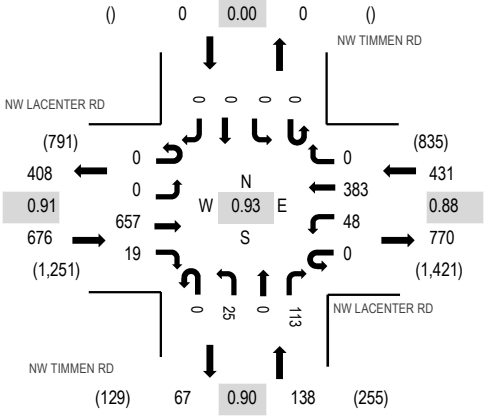
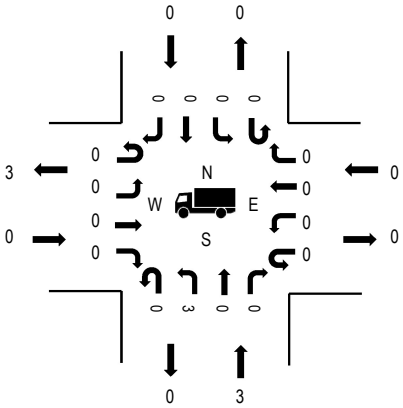
Location: 2 NW TIMMEN RD & NW LACENTER RD PM
Date: Wednesday, June 29, 2022
Peak Hour: 04:55 PM - 05:55 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour

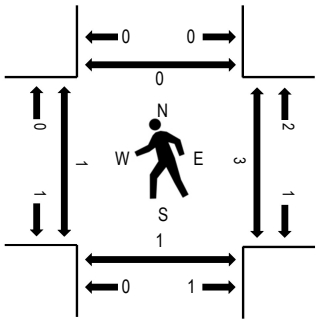
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.91
WB	0.0%	0.88
NB	2.2%	0.90
SB	0.0%	0.00
All	0.2%	0.93

Traffic Counts - Motorized Vehicles

Interval Start Time	NW LACENTER RD Eastbound				NW LACENTER RD Westbound				NW TIMMEN RD Northbound				NW TIMMEN RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	44	2	0	7	31	0	0	2	0	7	0	0	0	0	93	1,101
4:05 PM	0	0	43	1	0	1	32	0	0	0	0	8	0	0	0	0	85	1,132
4:10 PM	0	0	47	3	0	7	27	0	0	3	0	7	0	0	0	0	94	1,152
4:15 PM	0	0	42	3	0	3	31	0	0	3	0	3	0	0	0	0	85	1,164
4:20 PM	0	0	58	0	0	3	45	0	0	1	0	5	0	0	0	0	112	1,187
4:25 PM	0	0	39	3	0	4	25	0	0	1	0	8	0	0	0	0	80	1,175
4:30 PM	0	0	53	1	0	2	23	0	0	1	0	14	0	0	0	0	94	1,184
4:35 PM	0	0	49	1	0	4	23	0	0	4	0	9	0	0	0	0	90	1,197
4:40 PM	0	0	44	1	0	5	33	0	0	1	0	9	0	0	0	0	93	1,221
4:45 PM	0	0	50	3	0	0	29	0	0	3	0	10	0	0	0	0	95	1,228
4:50 PM	0	0	38	1	0	4	29	0	0	1	0	7	0	0	0	0	80	1,225
4:55 PM	0	0	59	2	0	5	24	0	0	1	0	9	0	0	0	0	100	1,245
5:00 PM	0	0	65	2	0	4	38	0	0	4	0	11	0	0	0	0	124	1,240
5:05 PM	0	0	55	2	0	5	32	0	0	4	0	7	0	0	0	0	105	
5:10 PM	0	0	62	0	0	3	29	0	0	3	0	9	0	0	0	0	106	
5:15 PM	0	0	61	1	0	3	27	0	0	2	0	14	0	0	0	0	108	
5:20 PM	0	0	46	1	0	3	42	0	0	1	0	7	0	0	0	0	100	
5:25 PM	0	0	42	2	0	6	34	0	0	1	0	4	0	0	0	0	89	
5:30 PM	0	0	47	2	0	3	36	0	0	2	0	17	0	0	0	0	107	
5:35 PM	0	0	65	0	0	3	37	0	0	3	0	6	0	0	0	0	114	
5:40 PM	0	0	57	3	0	1	29	0	0	1	0	9	0	0	0	0	100	
5:45 PM	0	0	48	1	0	8	21	0	0	0	0	14	0	0	0	0	92	
5:50 PM	0	0	50	3	0	4	34	0	0	3	0	6	0	0	0	0	100	
5:55 PM	0	0	48	1	0	2	34	0	0	1	0	9	0	0	0	0	95	
Count Total	0	0	1,212	39	0	90	745	0	0	46	0	209	0	0	0	0	2,341	
Peak Hour	0	0	657	19	0	48	383	0	0	25	0	113	0	0	0	0	1,245	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	1	0	0	0	1	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	2	1	0	0	3	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	1	0	1	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	0	1	0	1	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	1	0	0	0	1	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	1	1	2	0	4
5:00 PM	0	2	0	0	2	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	0	0	1	0	1
5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	1	0	0	1	5:15 PM	1	0	0	0	1	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	1	0	1	5:20 PM	0	0	0	0	0
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	4	4	2	0	10	Count Total	1	0	1	0	2	Count Total	1	1	3	0	5
Peak Hour	0	3	0	0	3	Peak Hour	1	0	1	0	2	Peak Hour	1	1	3	0	5

ALL TRAFFIC DATA SERVICES
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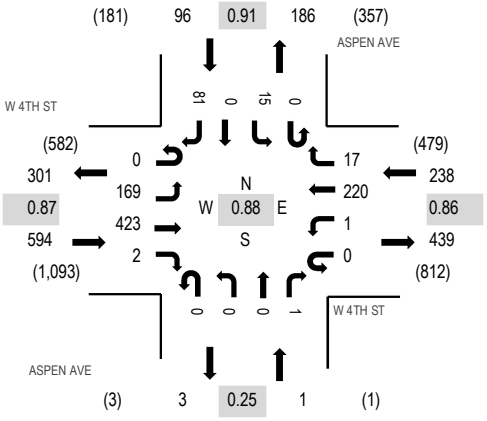
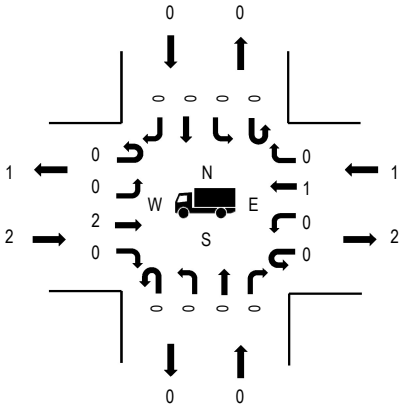
Location: 3 ASPEN AVE & W 4TH ST PM
Date: Wednesday, June 29, 2022
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour

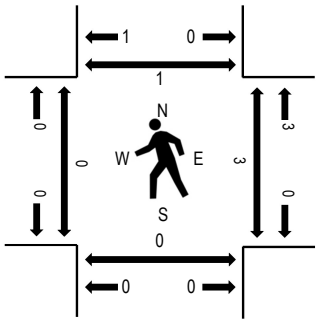
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.3%	0.87
WB	0.4%	0.86
NB	0.0%	0.25
SB	0.0%	0.91
All	0.3%	0.88

Traffic Counts - Motorized Vehicles

Interval Start Time	W 4TH ST Eastbound				W 4TH ST Westbound				ASPEN AVE Northbound				ASPEN AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	12	25	0	0	0	29	2	0	0	0	0	0	2	0	7	77	825
4:05 PM	0	8	28	0	0	0	18	4	0	0	0	0	0	1	0	5	64	857
4:10 PM	0	10	30	0	0	0	14	2	0	0	0	0	0	1	0	1	58	867
4:15 PM	0	6	30	0	0	0	25	2	0	0	0	0	0	0	0	5	68	891
4:20 PM	0	18	27	0	0	0	17	6	0	0	0	0	0	1	0	3	72	889
4:25 PM	0	12	24	0	0	0	17	3	0	0	0	0	0	1	0	8	65	905
4:30 PM	0	9	42	0	0	0	17	2	0	0	0	0	0	1	0	6	77	895
4:35 PM	0	12	30	0	0	0	12	0	0	0	0	0	0	2	0	8	64	897
4:40 PM	0	14	31	0	0	0	25	1	0	0	0	0	0	1	0	5	77	908
4:45 PM	0	14	30	0	0	0	9	0	0	0	0	0	0	5	0	5	63	907
4:50 PM	0	16	23	0	0	0	17	2	0	0	0	0	0	1	0	9	68	921
4:55 PM	0	12	36	0	0	0	13	4	0	0	0	0	0	1	0	6	72	925
5:00 PM	0	17	52	0	0	0	30	1	0	0	0	0	0	1	0	8	109	929
5:05 PM	0	14	35	0	0	0	12	3	0	0	0	1	0	1	0	8	74	
5:10 PM	0	13	39	0	0	0	19	3	0	0	0	0	0	3	0	5	82	
5:15 PM	0	14	32	0	0	0	12	0	0	0	0	0	0	0	0	8	66	
5:20 PM	0	13	40	0	0	0	26	1	0	0	0	0	0	1	0	7	88	
5:25 PM	0	10	22	1	0	0	14	0	0	0	0	0	0	1	0	7	55	
5:30 PM	0	12	36	0	0	0	18	0	0	0	0	0	0	3	0	10	79	
5:35 PM	0	12	41	0	0	1	14	1	0	0	0	0	0	2	0	4	75	
5:40 PM	0	19	31	0	0	0	19	1	0	0	0	0	0	0	0	6	76	
5:45 PM	0	15	35	1	0	0	19	2	0	0	0	0	0	1	0	4	77	
5:50 PM	0	10	31	0	0	0	20	3	0	0	0	0	0	2	0	6	72	
5:55 PM	0	20	29	0	0	0	17	2	0	0	0	0	0	0	0	8	76	
Count Total	0	312	779	2	0	1	433	45	0	0	0	1	0	32	0	149	1,754	
Peak Hour	0	169	423	2	0	1	220	17	0	0	0	1	0	15	0	81	929	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

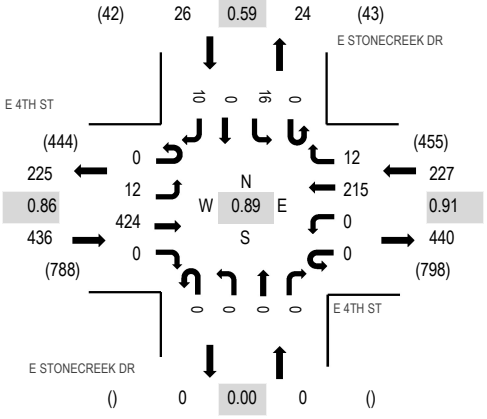
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	1	0	1	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	1	0	0	0	1	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	1	1
4:15 PM	0	0	1	0	1	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	1	0	0	0	1	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	1	1
4:25 PM	1	0	0	0	1	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	1	1	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	1	0	1	0	2	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	1	0	0	0	1	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	1	1
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	1	1
5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	1	0	1	5:25 PM	0	0	0	0	0	5:25 PM	0	0	2	0	2
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	1	0	1
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	2	0	0	0	2	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	7	0	4	1	12	Count Total	0	0	0	0	0	Count Total	0	0	3	4	7
Peak Hour	2	0	1	0	3	Peak Hour	0	0	0	0	0	Peak Hour	0	0	3	1	4

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

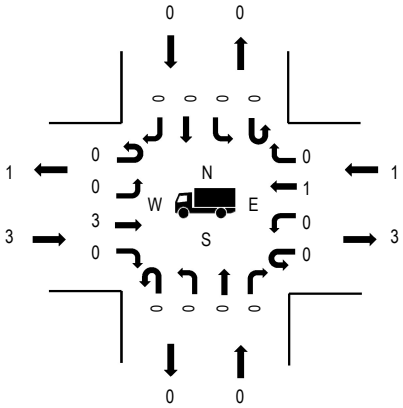
Location: 4 E STONECREEK DR & E 4TH ST PM
Date: Wednesday, June 29, 2022
Peak Hour: 04:25 PM - 05:25 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour

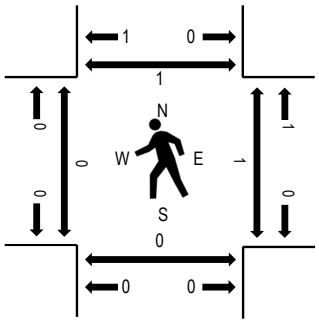
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.7%	0.86
WB	0.4%	0.91
NB	0.0%	0.00
SB	0.0%	0.59
All	0.6%	0.89

Traffic Counts - Motorized Vehicles

Interval Start Time	E 4TH ST Eastbound				E 4TH ST Westbound				E STONECREEK DR Northbound				E STONECREEK DR Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	1	34	0	0	0	26	0	0	0	0	0	0	1	0	1	63	630
4:05 PM	0	0	25	0	0	0	20	0	0	0	0	0	0	1	0	0	46	637
4:10 PM	0	0	33	0	0	0	19	0	0	0	0	0	0	0	0	0	52	657
4:15 PM	0	1	21	0	0	0	18	1	0	0	0	0	0	0	0	1	42	662
4:20 PM	0	2	26	0	0	0	20	4	0	0	0	0	0	1	0	0	53	671
4:25 PM	0	1	35	0	0	0	15	3	0	0	0	0	0	1	0	3	58	689
4:30 PM	0	2	29	0	0	0	16	0	0	0	0	0	0	1	0	3	51	670
4:35 PM	0	1	32	0	0	0	18	3	0	0	0	0	0	0	0	0	54	666
4:40 PM	0	0	40	0	0	0	23	0	0	0	0	0	0	0	0	0	63	674
4:45 PM	0	0	29	0	0	0	12	0	0	0	0	0	0	2	0	1	44	656
4:50 PM	0	2	26	0	0	0	18	0	0	0	0	0	0	3	0	1	50	670
4:55 PM	0	1	30	0	0	0	19	1	0	0	0	0	0	3	0	0	54	670
5:00 PM	0	0	44	0	0	0	22	0	0	0	0	0	0	2	0	2	70	655
5:05 PM	0	2	42	0	0	0	20	1	0	0	0	0	0	1	0	0	66	
5:10 PM	0	0	39	0	0	0	15	2	0	0	0	0	0	1	0	0	57	
5:15 PM	0	2	33	0	0	0	13	2	0	0	0	0	0	1	0	0	51	
5:20 PM	0	1	45	0	0	0	24	0	0	0	0	0	0	1	0	0	71	
5:25 PM	0	0	22	0	0	0	16	1	0	0	0	0	0	0	0	0	39	
5:30 PM	0	0	33	0	0	0	14	0	0	0	0	0	0	0	0	0	47	
5:35 PM	0	0	42	0	0	0	19	1	0	0	0	0	0	0	0	0	62	
5:40 PM	0	0	23	0	0	0	17	3	0	0	0	0	0	2	0	0	45	
5:45 PM	0	1	37	0	0	0	16	2	0	0	0	0	0	2	0	0	58	
5:50 PM	0	1	27	0	0	0	18	0	0	0	0	0	0	2	0	2	50	
5:55 PM	0	0	23	0	0	0	12	1	0	0	0	0	0	3	0	0	39	
Count Total	0	18	770	0	0	0	430	25	0	0	0	0	0	28	0	14	1,285	
Peak Hour	0	12	424	0	0	0	215	12	0	0	0	0	0	16	0	10	689	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	1	0	1	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	1	0	0	0	1	4:10 PM	0	0	0	0	0	4:10 PM	0	0	1	0	1
4:15 PM	0	0	1	0	1	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	1	0	0	0	1	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	1	1
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	1	0	1	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	1	0	0	0	1	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	1	0	0	0	1	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	1	0	1
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	0	0	1	0	1
5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0	5:10 PM	0	0	1	0	1
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	2	0	0	0	2	5:20 PM	0	0	0	0	0
5:25 PM	0	0	1	0	1	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	1	0	0	0	1	5:40 PM	0	0	0	0	0
5:45 PM	2	0	0	0	2	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	1	0	1	5:55 PM	0	0	2	0	2	5:55 PM	0	0	0	0	0
Count Total	6	0	5	0	11	Count Total	3	0	2	0	5	Count Total	0	0	4	1	5
Peak Hour	3	0	1	0	4	Peak Hour	2	0	0	0	2	Peak Hour	0	0	3	1	4

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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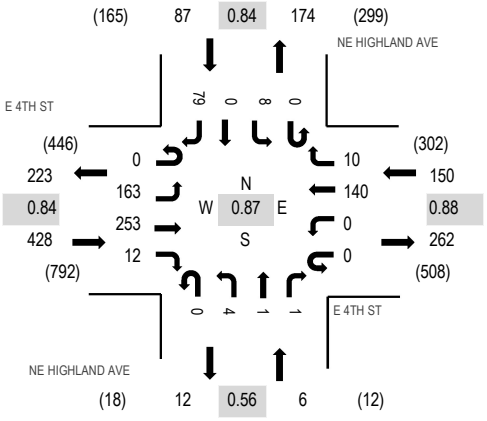
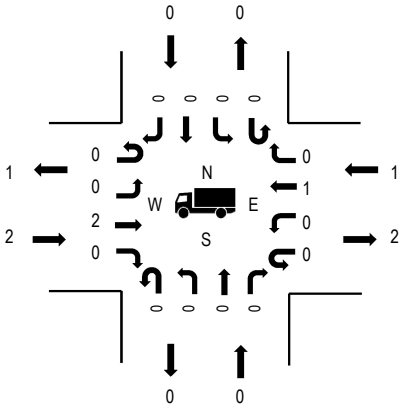
Location: 5 NE HIGHLAND AVE & E 4TH ST PM
Date: Wednesday, June 29, 2022
Peak Hour: 04:55 PM - 05:55 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour

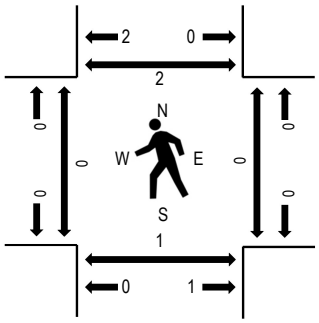
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.5%	0.84
WB	0.7%	0.88
NB	0.0%	0.56
SB	0.0%	0.84
All	0.4%	0.87

Traffic Counts - Motorized Vehicles

Interval Start Time	E 4TH ST Eastbound				E 4TH ST Westbound				NE HIGHLAND AVE Northbound				NE HIGHLAND AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	14	21	0	0	0	17	1	0	1	0	0	0	0	1	7	62	612
4:05 PM	0	6	19	0	0	0	12	0	0	0	0	0	0	1	0	8	46	613
4:10 PM	0	13	20	0	0	0	15	0	0	0	0	1	0	0	0	5	54	638
4:15 PM	0	9	16	0	0	0	10	0	0	0	0	0	0	0	1	10	46	642
4:20 PM	0	8	18	0	0	0	17	0	0	2	0	0	0	1	0	3	49	646
4:25 PM	0	14	19	0	0	0	10	1	0	0	0	0	0	0	0	8	52	665
4:30 PM	0	10	18	1	0	0	13	0	0	0	0	0	0	0	0	3	45	656
4:35 PM	0	13	22	0	0	0	13	0	0	1	0	1	0	0	0	8	58	657
4:40 PM	0	14	22	0	0	0	13	0	0	0	0	0	0	0	0	8	57	664
4:45 PM	0	6	24	2	0	0	7	0	0	0	0	0	0	0	0	4	43	651
4:50 PM	0	7	22	1	0	0	13	0	0	0	0	0	0	0	0	4	47	666
4:55 PM	0	7	21	2	0	0	15	1	0	0	0	0	0	0	0	7	53	671
5:00 PM	0	13	30	1	0	0	12	0	0	1	0	1	0	0	0	5	63	659
5:05 PM	0	18	25	0	0	0	12	1	0	2	0	0	0	2	0	11	71	
5:10 PM	0	15	27	1	0	0	7	0	0	0	0	0	0	0	0	8	58	
5:15 PM	0	17	17	1	0	0	10	0	0	0	0	0	0	1	0	4	50	
5:20 PM	0	18	26	1	0	0	15	1	0	0	0	0	0	0	0	7	68	
5:25 PM	0	8	13	2	0	0	9	1	0	0	0	0	0	1	0	9	43	
5:30 PM	0	18	14	0	0	0	7	0	0	0	0	0	0	0	0	7	46	
5:35 PM	0	15	24	1	0	0	16	1	0	1	0	0	0	2	0	5	65	
5:40 PM	0	7	19	0	0	0	13	1	0	0	0	0	0	0	0	4	44	
5:45 PM	0	16	19	1	0	0	12	2	0	0	0	0	0	2	0	6	58	
5:50 PM	0	11	18	2	0	0	12	2	0	0	1	0	0	0	0	6	52	
5:55 PM	0	7	18	0	0	0	8	2	0	0	0	0	0	3	0	3	41	
Count Total	0	284	492	16	0	0	288	14	0	8	1	3	0	13	2	150	1,271	
Peak Hour	0	163	253	12	0	0	140	10	0	4	1	1	0	8	0	79	671	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

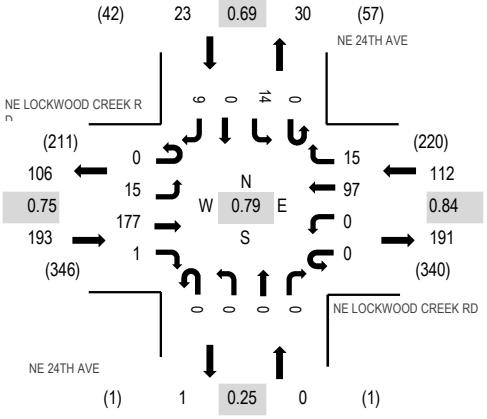
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	1	0	1	4:00 PM	0	0	0	0	0	4:00 PM	0	1	0	0	1
4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	1	0	1	0	2	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	1	0	0	0	1	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	1	0	1	4:35 PM	0	0	0	0	0	4:35 PM	0	1	0	0	1
4:40 PM	1	0	0	0	1	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	1	0	0	0	1	4:45 PM	0	0	0	0	0	4:45 PM	0	1	0	0	1
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	1	0	0	1
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	1	0	1	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	2	0	0	0	2	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	2	2
5:55 PM	0	0	1	0	1	5:55 PM	0	0	0	0	0	5:55 PM	0	2	0	0	2
Count Total	6	0	5	0	11	Count Total	0	0	0	0	0	Count Total	0	6	0	2	8
Peak Hour	2	0	1	0	3	Peak Hour	0	0	0	0	0	Peak Hour	0	1	0	2	3

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

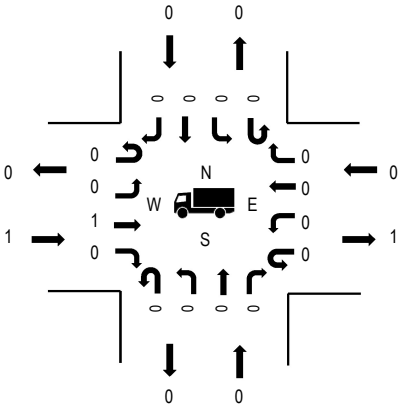
Location: 6 NE 24TH AVE & NE LOCKWOOD CREEK RD PM
Date: Wednesday, June 29, 2022
Peak Hour: 04:25 PM - 05:25 PM
Peak 15-Minutes: 05:05 PM - 05:20 PM

Peak Hour

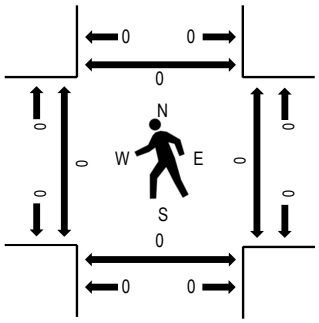
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.5%	0.75
WB	0.0%	0.84
NB	0.0%	0.25
SB	0.0%	0.69
All	0.3%	0.79

Traffic Counts - Motorized Vehicles

Interval Start Time	NE LOCKWOOD CREEK RD Eastbound				NE LOCKWOOD CREEK RD Westbound				NE 24TH AVE Northbound				NE 24TH AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	1	12	0	0	0	9	0	0	0	0	0	0	2	0	0	24	282
4:05 PM	0	1	8	0	0	0	4	0	0	0	0	0	0	1	0	0	14	282
4:10 PM	0	1	13	0	0	0	10	1	0	0	0	0	0	1	0	0	26	316
4:15 PM	0	0	20	0	0	0	6	0	0	0	0	0	0	1	0	1	28	313
4:20 PM	0	4	5	0	0	0	4	0	0	0	0	0	0	0	0	1	14	318
4:25 PM	0	1	17	0	0	0	11	2	0	0	0	0	0	0	0	1	32	328
4:30 PM	0	2	11	0	0	0	9	0	0	0	0	0	0	1	0	2	25	316
4:35 PM	0	2	11	0	0	0	6	3	0	0	0	0	0	2	0	0	24	306
4:40 PM	0	1	12	0	0	0	9	2	0	0	0	0	0	2	0	1	27	311
4:45 PM	0	2	13	0	0	0	11	0	0	0	0	0	0	0	0	1	27	309
4:50 PM	0	0	12	0	0	0	11	1	0	0	0	0	0	2	0	0	26	305
4:55 PM	0	1	10	0	0	0	4	0	0	0	0	0	0	0	0	0	15	311
5:00 PM	0	0	16	0	0	0	6	1	0	0	0	0	0	0	0	1	24	327
5:05 PM	0	2	28	0	0	0	12	1	0	0	0	0	0	4	0	1	48	
5:10 PM	0	1	14	0	0	0	3	3	0	0	0	0	0	1	0	1	23	
5:15 PM	0	1	17	1	0	0	11	1	0	0	0	0	0	2	0	0	33	
5:20 PM	0	2	16	0	0	0	4	1	0	0	0	0	0	0	0	1	24	
5:25 PM	0	1	6	0	0	0	7	2	0	1	0	0	0	3	0	0	20	
5:30 PM	0	0	6	0	0	0	8	1	0	0	0	0	0	0	0	0	15	
5:35 PM	0	0	14	0	0	0	12	2	0	0	0	0	0	1	0	0	29	
5:40 PM	0	2	12	0	0	0	8	0	0	0	0	0	0	2	0	1	25	
5:45 PM	0	4	6	0	0	0	13	0	0	0	0	0	0	0	0	0	23	
5:50 PM	0	0	18	0	0	0	10	2	0	0	0	0	0	0	0	2	32	
5:55 PM	0	4	15	0	0	0	8	1	0	0	0	0	0	3	0	0	31	
Count Total	0	33	312	1	0	0	196	24	0	1	0	0	0	28	0	14	609	
Peak Hour	0	15	177	1	0	0	97	15	0	0	0	0	0	14	0	9	328	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

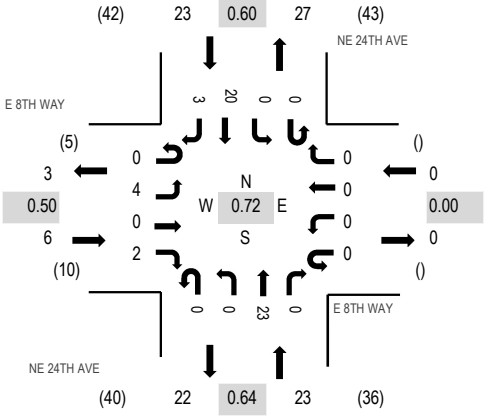
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	1	0	1	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	1	0	1	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	1	0	0	0	1	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	1	0	0	0	1	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	1	0	0	0	1	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	2	0	2	0	4	Count Total	1	0	0	0	1	Count Total	0	0	0	0	0
Peak Hour	1	0	0	0	1	Peak Hour	1	0	0	0	1	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

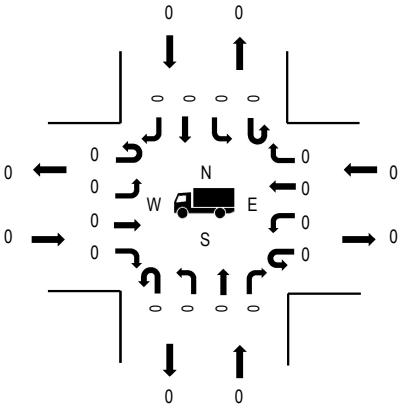
Location: 7 NE 24TH AVE & E 8TH WAY PM
Date: Wednesday, June 29, 2022
Peak Hour: 04:25 PM - 05:25 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour

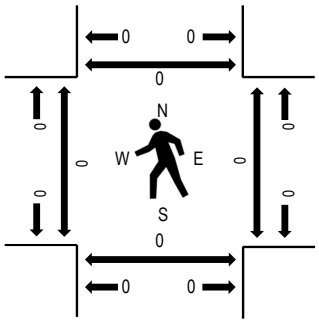
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.50
WB	0.0%	0.00
NB	0.0%	0.64
SB	0.0%	0.60
All	0.0%	0.72

Traffic Counts - Motorized Vehicles

Interval Start Time	E 8TH WAY Eastbound				E 8TH WAY Westbound				NE 24TH AVE Northbound				NE 24TH AVE Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2	0	4	41
4:05 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	41
4:10 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2	1	5	45
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	44
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	50
4:25 PM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	3	52
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	5	50
4:35 PM	0	1	0	0	0	0	0	0	0	0	4	0	0	0	2	0	7	47
4:40 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	6	43
4:45 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	1	0	4	39
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	38
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1	4	47
5:05 PM	0	1	0	1	0	0	0	0	0	0	3	0	0	0	1	0	6	
5:10 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	
5:15 PM	0	1	0	0	0	0	0	0	0	0	3	0	0	0	4	0	8	
5:20 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
5:30 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	
5:35 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	
5:50 PM	0	0	0	1	0	0	0	0	0	0	3	0	0	0	2	1	7	
5:55 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	
Count Total	0	7	0	3	0	0	0	0	0	0	36	0	0	0	37	5	88	
Peak Hour	0	4	0	2	0	0	0	0	0	0	23	0	0	0	20	3	52	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	0	0	1	1	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	0	0	0	1	1	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

All Traffic Data Services, LLC
alltrafficdata.net

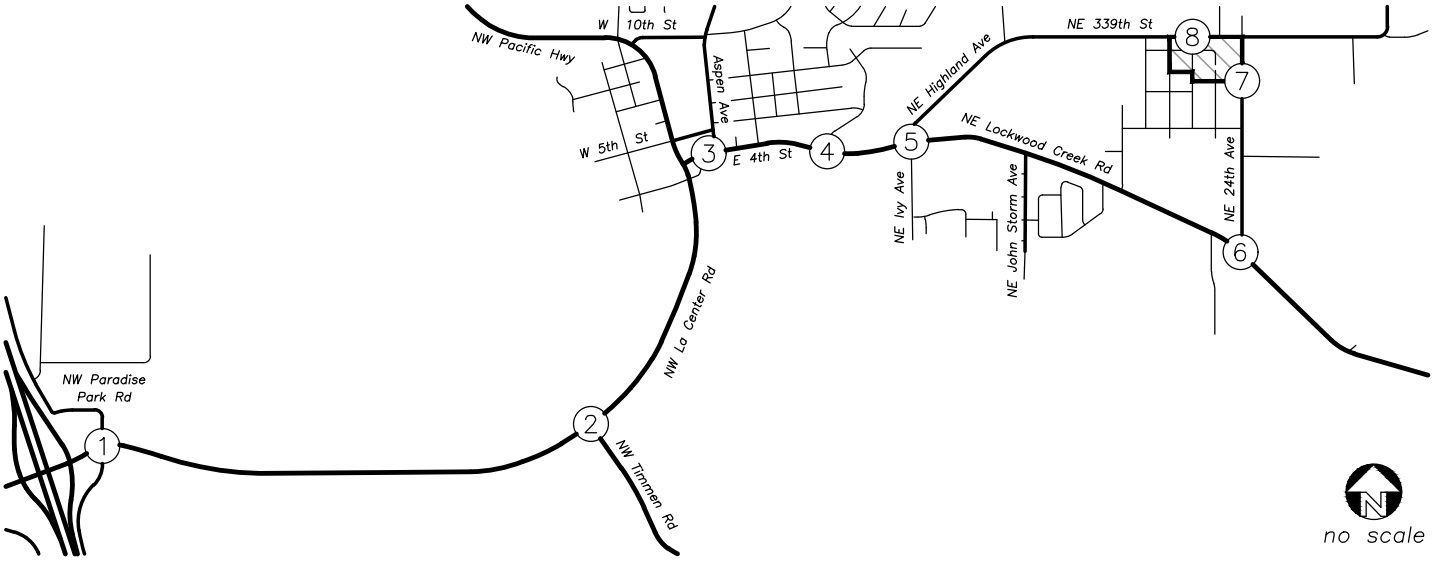
Date Start: 13-Jul-22
Date End: 14-Jul-22
NE 339th St E-O E Tanoak Ave
Site Code: 1

Start Time	13-Jul-22 Wed	EB	WB							Total
12:00 AM		*	*							*
01:00		*	*							*
02:00		*	*							*
03:00		*	*							*
04:00		*	*							*
05:00		*	*							*
06:00		*	*							*
07:00		*	*							*
08:00		*	*							*
09:00		*	*							*
10:00		*	*							*
11:00		**46**	**67**							**113**
12:00 PM		64	55							119
01:00		64	54							118
02:00		68	55							123
03:00		98	**67**							**165**
04:00		96	50							146
05:00		**100**	59							159
06:00		78	52							130
07:00		72	34							106
08:00		55	24							79
09:00		50	12							62
10:00		30	8							38
11:00		12	2							14
Total		833	539							1372
Percent		60.7%	39.3%							
AM Peak	-	11:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	46	67	-	-	-	-	-	-	113
PM Peak	-	17:00	15:00	-	-	-	-	-	-	15:00
Vol.	-	100	67	-	-	-	-	-	-	165

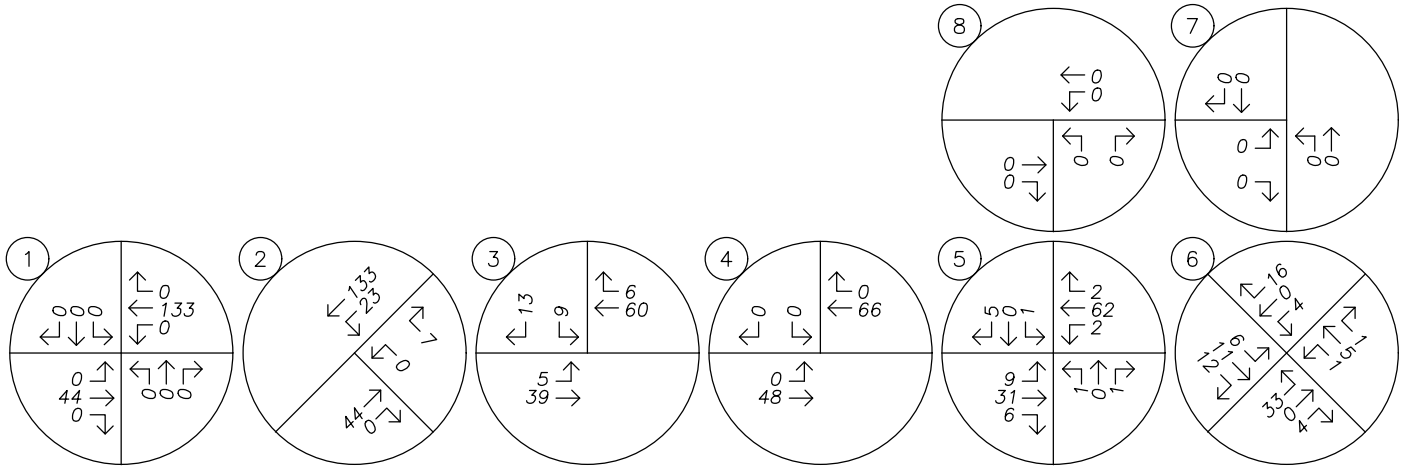
All Traffic Data Services, LLC
alltrafficdata.net

Date Start: 13-Jul-22
Date End: 14-Jul-22
NE 339th St E-O E Tanoak Ave
Site Code: 1

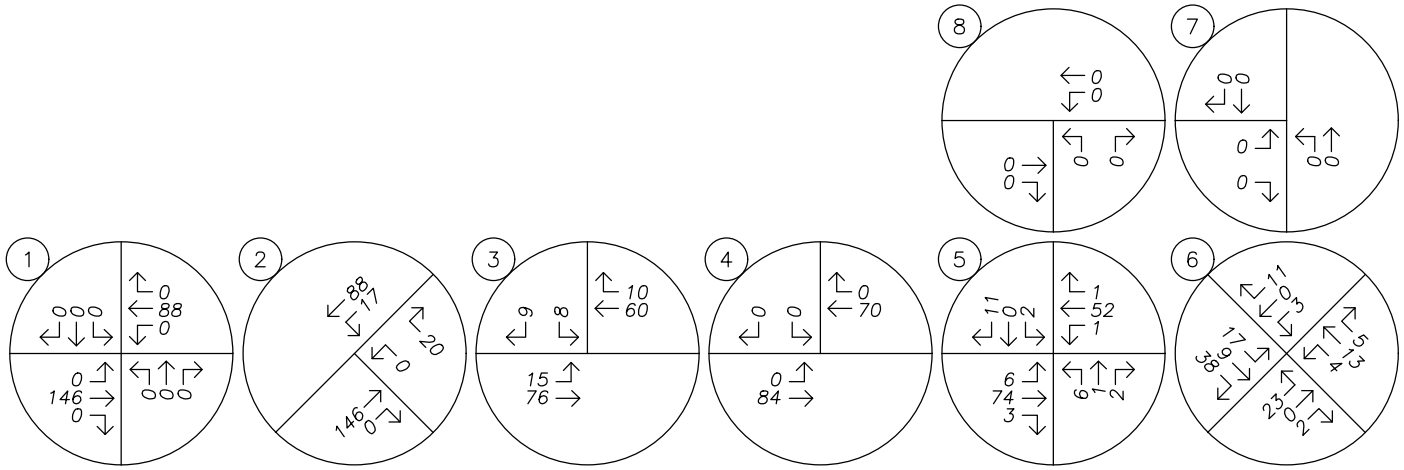
Start Time	14-Jul-22 Thu	EB	WB							Total
12:00 AM		12	2							14
01:00		6	0							6
02:00		4	2							6
03:00		1	9							10
04:00		2	16							18
05:00		1	51							52
06:00		16	86							102
07:00		16	76							92
08:00		27	**87**							114
09:00		31	76							107
10:00		**41**	75							**116**
11:00		*	*							*
12:00 PM		*	*							*
01:00		*	*							*
02:00		*	*							*
03:00		*	*							*
04:00		*	*							*
05:00		*	*							*
06:00		*	*							*
07:00		*	*							*
08:00		*	*							*
09:00		*	*							*
10:00		*	*							*
11:00		*	*							*
Total		157	480							637
Percent		24.6%	75.4%							
AM Peak	-	10:00	08:00	-	-	-	-	-	-	10:00
Vol.	-	41	87	-	-	-	-	-	-	116
PM Peak	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-
Grand Total		990	1019							2009
Percent		49.3%	50.7%							
ADT		ADT 2,009		AADT 2,009						



AM PEAK HOUR



PM PEAK HOUR



TRAFFIC VOLUMES
In-Process Development Trips
AM & PM Peak Hours

Figure A
Valley View Subdivision
8/9/2022

Appendix D – Safety Analysis

Crash History Data

Left-turn Lane Warrant Analysis

Traffic Signal Warrant Analysis

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

PARADISE PARK RD @ LA CENTER RD

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/ SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION
City Street	Clark	La Center	NW LA CENTER RD	2798	NW PARADISE PARK RD							No	EB57965	08/14/2021	14:27	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Overcast	Dry	Daylight	From opposite direction - one left turn - one straight	Going Straight Ahead
City Street	Clark	La Center	NW LACENTER RD	0	NW PARADISE PARK RD							No	E866954	11/26/2018	16:30	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Overcast	Wet	Dark-Street Lights On	Entering at angle	Going Straight Ahead

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

PARADISE PARK RD @ LA CENTER RD

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
Making Left Turn	West	East	East	South	None			Did Not Grant RW to Vehicle						Lane of Primary Trafficway	1079903.93	197214.91
Going Straight Ahead	South	North	West	East	Inattention			None						Lane of Primary Trafficway	1079896.34	197210.52

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

TIMMEN RD @ LA CENTER RD

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/ SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION
City Street	Clark	La Center	NW TIMMEN RD	31986	NW LA CENTER RD							No	EC15297	12/18/2021	23:24	Suspected Minor Injury	1	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Snowing	Wet	Dark-Street Lights On	Guardrail - Through, Over or Under	Going Straight Ahead
City Street	Clark	La Center	NW TIMMEN RD	0	NW LACENTER RD							No	E839247	08/29/2018	19:45	Possible Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Dusk	Entering at angle	Other*

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

TIMMEN RD @ LA CENTER RD

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
	Southeast	Northwest			Under Influence of Alcohol	Operating Handheld Cell Phone	Disregard Traffic Sign and Signals							Other Location (City/County/Misc. Trafficway)	1085769.12	197298.37
Going Straight Ahead	North	West	West	East	Did Not Grant RW to Vehicle			Driver Not Distracted						Lane of Primary Trafficway	1085768.8	197299.71

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

ASPEN AVE @ 4th ST - *No Reported Crashes*

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/ SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

ASPEN AVE @ 4th ST - *No Reported Crashes*

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

STONECREEK DR @ 4th ST

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

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JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/ SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

STONECREEK DR @ 4th ST

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

HIGHLAND RD / IVY AVE @ 4th ST

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

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JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/ SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION
City Street	Clark	La Center	E 4TH ST	0	NE HIGHLAND RD							No	E826699	06/14/2018	11:25	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead
City Street	Clark	La Center	E 4TH ST	0	NE HIGHLAND RD							No	E713418	09/18/2017	07:56	Possible Injury	1	0	1	1	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Raining	Wet	Daylight	Vehicle going straight hits pedestrian	Going Straight Ahead

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

HIGHLAND RD / IVY AVE @ 4th ST

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
Going Straight Ahead	North	South	East	West	Did Not Grant RW to Vehicle			None						Lane of Primary Trafficway	1089710.55	200594.81
	West	East			Did Not Grant R/W to Non Motorist						Other Contributing Circ Not Listed			Lane of Primary Trafficway	1089710.55	200594.81

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

LOCKWOOD CREEK RD - *west leg (City St)* @ 24th Ave - *No Reported Crashes*

COUNTY ROADS

LOCKWOOD CREEK RD - *east leg* (Co Rd #94450, MP 7.340 - 7.380) @ 24th AVE (Co Rd #60430, MP 0.470 - 0.490) - *No Reported Crashes*

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

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JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/ SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

LOCKWOOD CREEK RD - *west leg (City St)* @ 24th Ave - *No Reported Crashes*

COUNTY ROADS

LOCKWOOD CREEK RD - *east leg* (Co Rd #94450, MP 7.340 - 7.380) @ 24th AVE (Co Rd #60430, MP 0.470 - 0.490) - *No Reported Crashes*

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

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VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

24th AVE @ 8th WAY - *No Reported Crashes*

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

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JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/ SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of MULTIPLE* INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

24th AVE @ 8th WAY - *No Reported Crashes*

01/01/2017 - 12/31/2021 *See 2nd tab below for road information*

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VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD

Left-Turn Lane Warrant Analysis

Project: Valley View Subdivision
Intersection: 6. NE 24th Avenue at NE Lockwood Creek Road
Date: 8/4/2022
Scenario: 2024 Buildout Conditions - AM Peak Hour (EB)

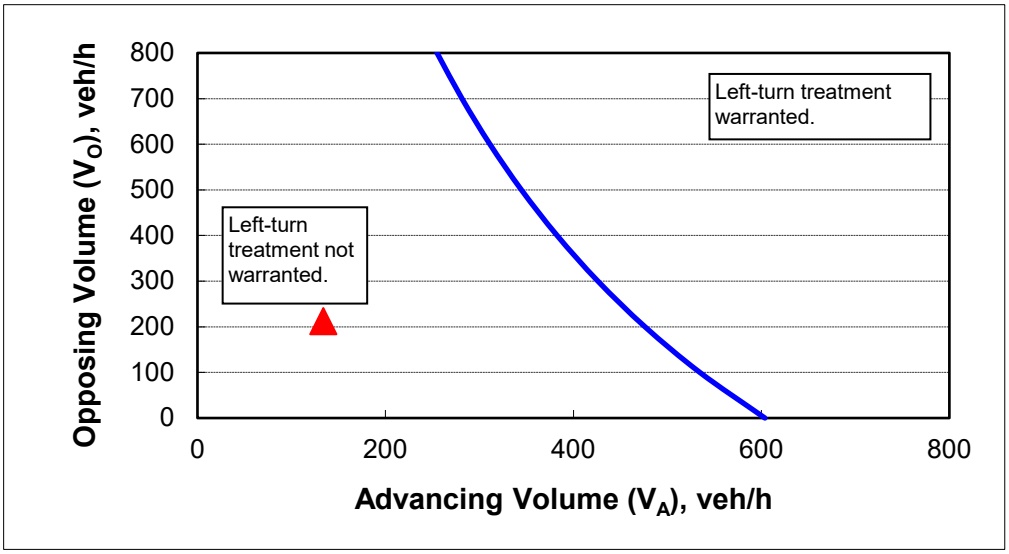
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	10%
Advancing volume (V_A), veh/h:	134
Opposing volume (V_O), veh/h:	212

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	470
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT 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

Left-Turn Lane Warrant Analysis

Project: Valley View Subdivision
Intersection: 6. NE 24th Avenue at NE Lockwood Creek Road
Date: 8/4/2022
Scenario: 2024 Buildout Conditions - AM Peak Hour (WB)

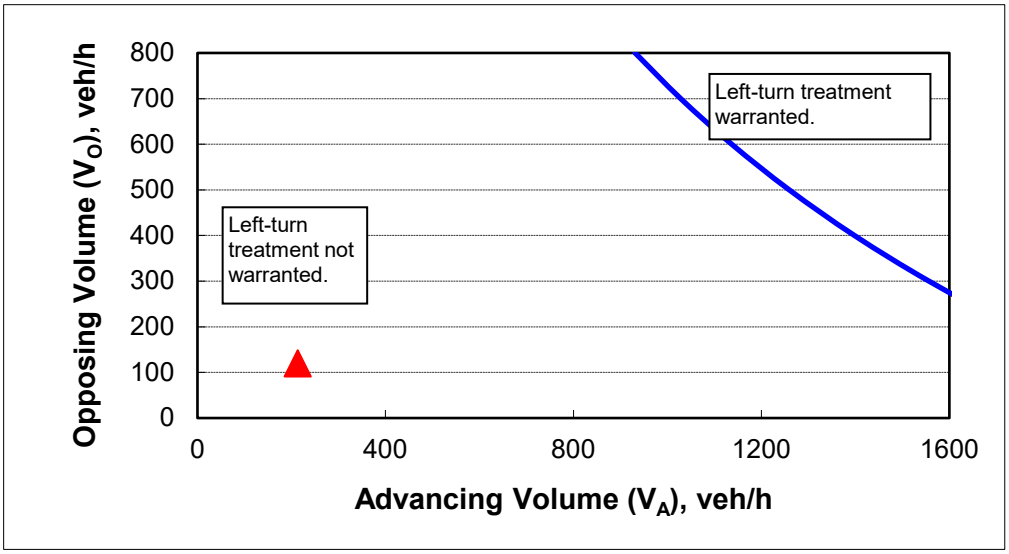
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	50
Percent of left-turns in advancing volume (V_A), %:	0%
Advancing volume (V_A), veh/h:	213
Opposing volume (V_O), veh/h:	120

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1907
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT 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

Left-Turn Lane Warrant Analysis

Project: Valley View Subdivision
Intersection: 6. NE 24th Avenue at NE Lockwood Creek Road
Date: 8/4/2022
Scenario: 2024 Buildout Conditions - PM Peak Hour (EB)

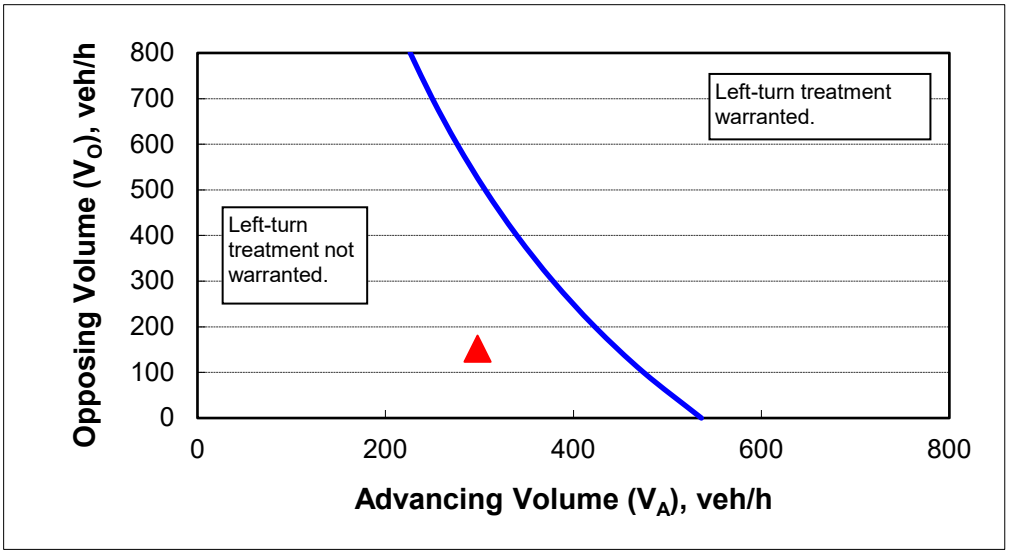
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	14%
Advancing volume (V_A), veh/h:	298
Opposing volume (V_O), veh/h:	152

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	447
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT 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

Left-Turn Lane Warrant Analysis

Project: Valley View Subdivision
Intersection: 6. NE 24th Avenue at NE Lockwood Creek Road
Date: 8/4/2022
Scenario: 2024 Buildout Conditions - PM Peak Hour (WB)

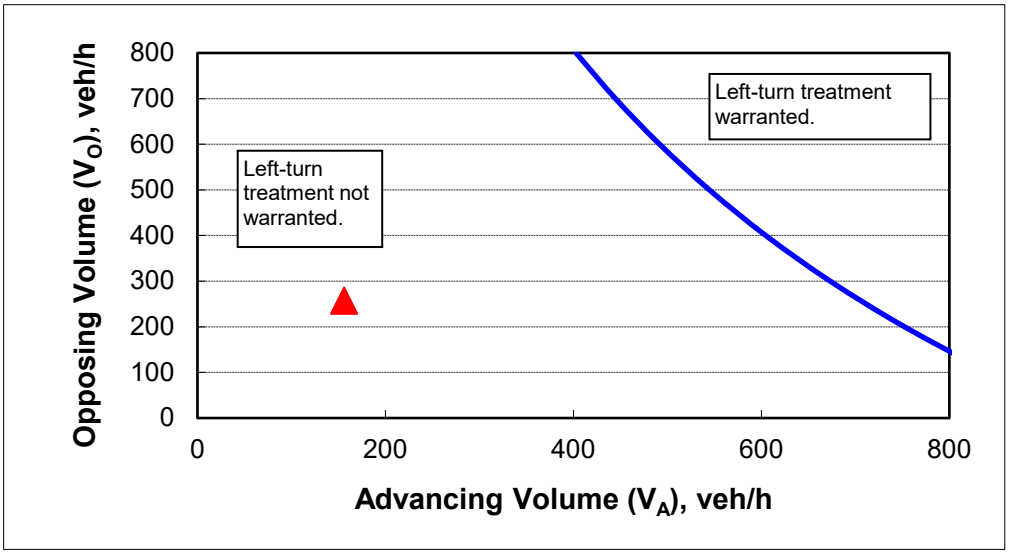
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	50
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	156
Opposing volume (V_O), veh/h:	257

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	706
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT 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

Left-Turn Lane Warrant Analysis

Project: Valley View Subdivision
Intersection: 7. NE 24th Avenue at E 8th Way
Date: 8/4/2022
Scenario: 2024 Buildout Conditions - AM Peak Hour (NB)

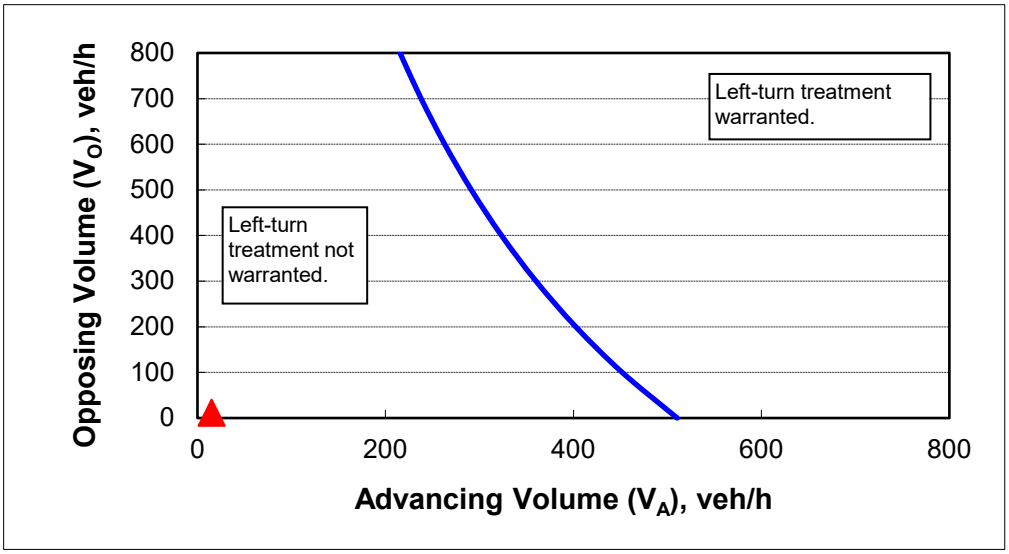
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	20%
Advancing volume (V_A), veh/h:	15
Opposing volume (V_O), veh/h:	12

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	503
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT 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

Left-Turn Lane Warrant Analysis

Project: Valley View Subdivision
Intersection: 7. NE 24th Avenue at E 8th Way
Date: 8/4/2022
Scenario: 2024 Buildout Conditions - PM Peak Hour (NB)

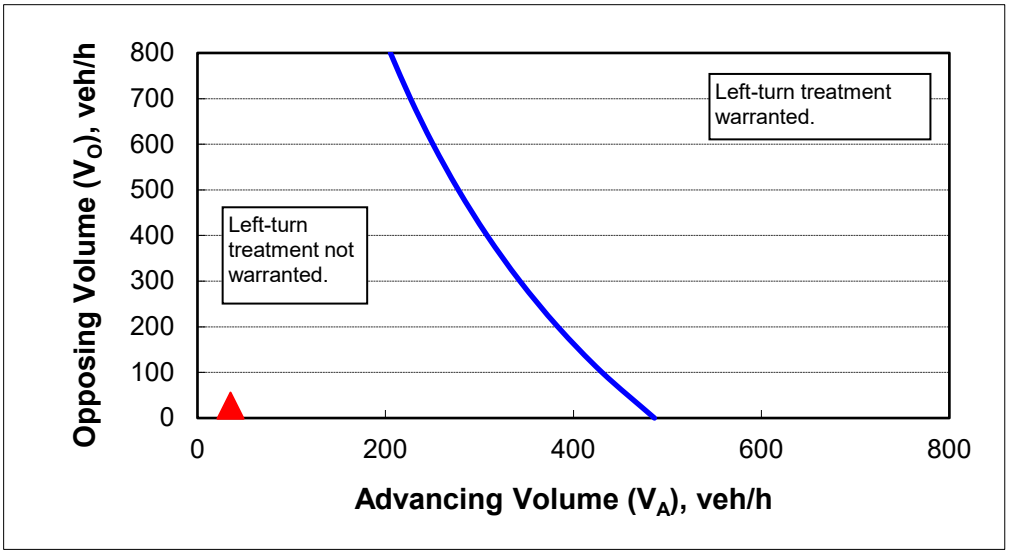
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	23%
Advancing volume (V_A), veh/h:	35
Opposing volume (V_O), veh/h:	27

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	470
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT 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

Left-Turn Lane Warrant Analysis

Project: Valley View Subdivision
Intersection: 8. E Vine Maple Avenue at NE 339th Street
Date: 8/4/2022
Scenario: 2024 Buildout Conditions - AM Peak Hour (WB)

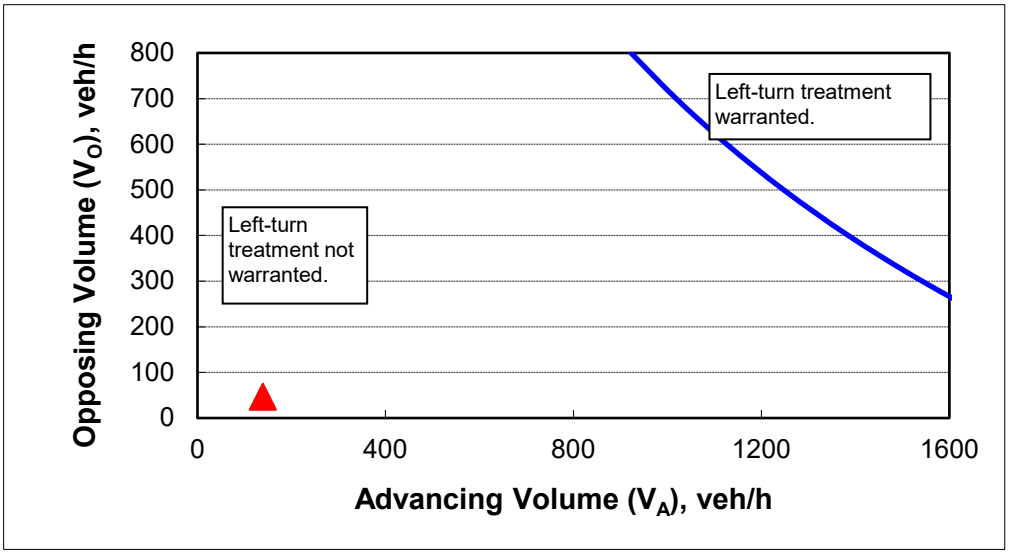
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	139
Opposing volume (V_O), veh/h:	47

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	2062
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT 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

Left-Turn Lane Warrant Analysis

Project: Valley View Subdivision
Intersection: 8. E Vine Maple Avenue at NE 339th Street
Date: 8/4/2022
Scenario: 2024 Buildout Conditions - PM Peak Hour (WB)

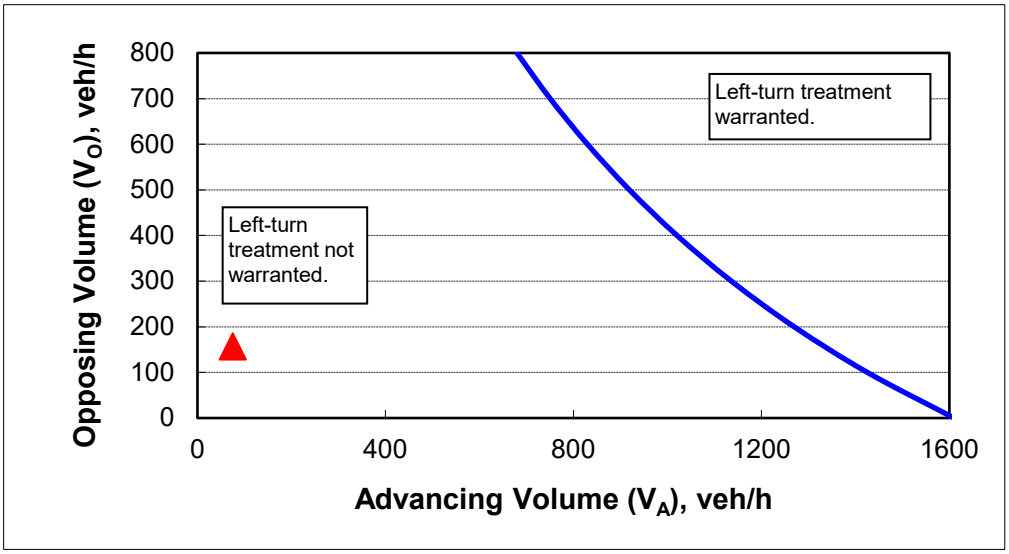
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	75
Opposing volume (V_O), veh/h:	157

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1334
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT 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 Signal Warrant Analysis

Project: Valley View Subdivision
Date: 8/4/2022
Scenario: 2024 Buildout Conditions

Major Street:	NW La Center Road	Minor Street:	NW Paradise Park Road
Number of Lanes:	2	Number of Lanes:	2
PM Peak Hour Volumes:	1631	PM Peak Hour Volumes:	45

Warrant Used:

	100 percent of standard warrants used
X	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	16,310	7,400	
Minor Street*	450	2,500	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	16,310	11,100	
Minor Street*	450	1,250	**No**
Combination Warrant			
Major Street	16,310	8,880	
Minor Street*	450	2,000	**No**

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis

Project: Valley View Subdivision
Date: 8/4/2022
Scenario: 2024 Background Conditions

Major Street:	NW La Center Road	Minor Street:	NW Timmen Road
Number of Lanes:	1	Number of Lanes:	2
PM Peak Hour Volumes:	1559	PM Peak Hour Volumes:	144

Warrant Used:

_____	100 percent of standard warrants used
X	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	15,590	6,200	
Minor Street*	1,440	2,500	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	15,590	9,300	
Minor Street*	1,440	1,250	**Yes**
Combination Warrant			
Major Street	15,590	7,440	
Minor Street*	1,440	2,000	**No**

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis

Project: Valley View Subdivision
Date: 8/4/2022
Scenario: 2024 Buildout Conditions

Major Street:	E/W 4th Street	Minor Street:	Aspen Avenue
Number of Lanes:	1	Number of Lanes:	2
PM Peak Hour Volumes:	1051	PM Peak Hour Volumes:	45

Warrant Used:

	100 percent of standard warrants used
X	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	10,510	6,200	
Minor Street*	450	2,500	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	10,510	9,300	
Minor Street*	450	1,250	**No**
Combination Warrant			
Major Street	10,510	7,440	
Minor Street*	450	2,000	**No**

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis

Project: Valley View Subdivision
Date: 8/4/2022
Scenario: 2024 Buildout Conditions

Major Street:	E 4th Street	Minor Street:	E Stonecreek Drive
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	1011	PM Peak Hour Volumes:	29

Warrant Used:

	100 percent of standard warrants used
X	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	10,110	6,200	
Minor Street*	290	1,850	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	10,110	9,300	
Minor Street*	290	950	**No**
Combination Warrant			
Major Street	10,110	7,440	
Minor Street*	290	1,480	**No**

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis

Project: Valley View Subdivision
Date: 8/4/2022
Scenario: 2024 Buildout Conditions

Major Street:	NE Lockwood Creek Road	Minor Street:	NE 24th Avenue
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	454	PM Peak Hour Volumes:	39

Warrant Used:

	100 percent of standard warrants used
X	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	4,540	6,200	
Minor Street*	390	1,850	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	4,540	9,300	
Minor Street*	390	950	**No**
Combination Warrant			
Major Street	4,540	7,440	
Minor Street*	390	1,480	**No**

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis

Project: Valley View Subdivision
Date: 8/4/2022
Scenario: 2024 Buildout Conditions

Major Street:	NE 24th Avenue	Minor Street:	E 8th Way
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	62	PM Peak Hour Volumes:	10

Warrant Used:

	100 percent of standard warrants used
X	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	620	6,200	
Minor Street*	100	1,850	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	620	9,300	
Minor Street*	100	950	**No**
Combination Warrant			
Major Street	620	7,440	
Minor Street*	100	1,480	**No**

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis

Project: Valley View Subdivision
Date: 8/4/2022
Scenario: 2024 Buildout Conditions

Major Street:	NE 339th Street	Minor Street:	E Vine Maple Avenue
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	232	PM Peak Hour Volumes:	8

Warrant Used:

	100 percent of standard warrants used
X	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	2,320	6,200	
Minor Street*	80	1,850	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	2,320	9,300	
Minor Street*	80	950	**No**
Combination Warrant			
Major Street	2,320	7,440	
Minor Street*	80	1,480	**No**

Note: Minor street right-turning traffic volumes reduced by 25%.

Appendix E – Operation Analysis

Level of Service Descriptions

Capacity Reports

Level of Service Definitions

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.

Level of Service Criteria
For Signalized Intersections

Level of Service (LOS)	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 (LOS)	Control Delay per Vehicle (Seconds)
A	<10
B	10-15
C	15-25
D	25-35
E	35-50
F	>50

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	107	310	15	3	729	5	15	0	3	19	2	59
Future Vol, veh/h	107	310	15	3	729	5	15	0	3	19	2	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	175	-	-	140	-	-	130	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	12	12	12	4	4	4	42	42	42	39	39	39
Mvmt Flow	120	348	17	3	819	6	17	0	3	21	2	66

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	825	0	0	348	0	0	1450	1419	348	1418	1416	822
Stage 1	-	-	-	-	-	-	588	588	-	828	828	-
Stage 2	-	-	-	-	-	-	862	831	-	590	588	-
Critical Hdwy	4.22	-	-	4.14	-	-	7.52	6.92	6.62	7.49	6.89	6.59
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.92	-	6.49	5.89	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.92	-	6.49	5.89	-
Follow-up Hdwy	2.308	-	-	2.236	-	-	3.878	4.378	3.678	3.851	4.351	3.651
Pot Cap-1 Maneuver	764	-	-	1200	-	-	89	113	613	95	115	323
Stage 1	-	-	-	-	-	-	432	438	-	317	338	-
Stage 2	-	-	-	-	-	-	299	333	-	435	442	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	764	-	-	1200	-	-	61	95	613	83	97	323
Mov Cap-2 Maneuver	-	-	-	-	-	-	61	95	-	83	97	-
Stage 1	-	-	-	-	-	-	364	369	-	267	337	-
Stage 2	-	-	-	-	-	-	235	332	-	365	373	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.6	0	72.8	30.5
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	61	613	764	-	-	1200	-	-	83	300
HCM Lane V/C Ratio	0.276	0.005	0.157	-	-	0.003	-	-	0.257	0.228
HCM Control Delay (s)	85.2	10.9	10.6	-	-	8	-	-	62.8	20.5
HCM Lane LOS	F	B	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	1	0	0.6	-	-	0	-	-	0.9	0.9

Intersection	
Int Delay, s/veh	1.4

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	22	56	312	14	51	698
Future Vol, veh/h	22	56	312	14	51	698
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	1	1	1	1
Mvmt Flow	24	62	343	15	56	767

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1230	351	0	0	358	0
Stage 1	351	-	-	-	-	-
Stage 2	879	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.11	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.209	-
Pot Cap-1 Maneuver	196	692	-	-	1206	-
Stage 1	713	-	-	-	-	-
Stage 2	406	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	187	692	-	-	1206	-
Mov Cap-2 Maneuver	187	-	-	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	387	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	15.3	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	187	692	1206	-
HCM Lane V/C Ratio	-	-	0.129	0.089	0.046	-
HCM Control Delay (s)	-	-	27.1	10.7	8.1	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.3	0.1	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	47	165	323	16	1	126
Future Vol, veh/h	47	165	323	16	1	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	90	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	177	347	17	1	135

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	364	0	-	0	635	356
Stage 1	-	-	-	-	356	-
Stage 2	-	-	-	-	279	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1195	-	-	-	443	688
Stage 1	-	-	-	-	709	-
Stage 2	-	-	-	-	768	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1195	-	-	-	424	688
Mov Cap-2 Maneuver	-	-	-	-	424	-
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	768	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1195	-	-	-	424	688
HCM Lane V/C Ratio	0.042	-	-	-	0.003	0.197
HCM Control Delay (s)	8.1	-	-	-	13.5	11.5
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0	0.7

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	200	472	12	9	19
Future Vol, veh/h	5	200	472	12	9	19
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	0	0
Mvmt Flow	5	217	513	13	10	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	526	0	-	0	748	520
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	4.12	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1041	-	-	-	383	560
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	815	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1041	-	-	-	381	560
Mov Cap-2 Maneuver	-	-	-	-	381	-
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	815	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1041	-	-	-	487
HCM Lane V/C Ratio	0.005	-	-	-	0.062
HCM Control Delay (s)	8.5	0	-	-	12.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	56	138	3	2	288	3	3	0	2	0	0	179
Future Vol, veh/h	56	138	3	2	288	3	3	0	2	0	0	179
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	180	-	-	110	-	-	180	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	4	4	4	0	0	0	0	0	0
Mvmt Flow	60	147	3	2	306	3	3	0	2	0	0	190

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	309	0	0	150	0	0	677	582	149	582	582	309
Stage 1	-	-	-	-	-	-	269	269	-	312	312	-
Stage 2	-	-	-	-	-	-	408	313	-	270	270	-
Critical Hdwy	4.13	-	-	4.14	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.236	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1246	-	-	1419	-	-	369	427	903	427	427	736
Stage 1	-	-	-	-	-	-	741	690	-	703	661	-
Stage 2	-	-	-	-	-	-	624	661	-	740	690	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1246	-	-	1419	-	-	263	406	903	410	406	735
Mov Cap-2 Maneuver	-	-	-	-	-	-	263	406	-	410	406	-
Stage 1	-	-	-	-	-	-	705	657	-	669	660	-
Stage 2	-	-	-	-	-	-	461	660	-	703	657	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.3	0.1	14.9	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	263	903	1246	-	-	1419	-	-	-	735
HCM Lane V/C Ratio	0.012	0.002	0.048	-	-	0.001	-	-	-	0.259
HCM Control Delay (s)	18.9	9	8	-	-	7.5	-	-	0	11.6
HCM Lane LOS	C	A	A	-	-	A	-	-	A	B
HCM 95th %tile Q(veh)	0	0	0.1	-	-	0	-	-	-	1

Intersection	
Int Delay, s/veh	0.8

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	6	93	0	0	191	6	0	0	0	14	0	6
Future Vol, veh/h	6	93	0	0	191	6	0	0	0	14	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5	0	0	0	0	0	0
Mvmt Flow	7	109	0	0	225	7	0	0	0	16	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	232	0	0	109	0	0	355	355	109	352	352	229
Stage 1	-	-	-	-	-	-	123	123	-	229	229	-
Stage 2	-	-	-	-	-	-	232	232	-	123	123	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1318	-	-	1463	-	-	604	574	950	607	576	815
Stage 1	-	-	-	-	-	-	886	798	-	778	718	-
Stage 2	-	-	-	-	-	-	775	716	-	886	798	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1318	-	-	1463	-	-	596	571	950	604	573	815
Mov Cap-2 Maneuver	-	-	-	-	-	-	596	571	-	604	573	-
Stage 1	-	-	-	-	-	-	881	793	-	773	718	-
Stage 2	-	-	-	-	-	-	768	716	-	881	793	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.5	0	0	10.7
HCM LOS			A	B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	-	1463	-	-	1318	-	-	655
HCM Lane V/C Ratio	-	-	-	-	0.005	-	-	0.036
HCM Control Delay (s)	0	0	-	-	7.7	0	-	10.7
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	12	12	0
Future Vol, veh/h	2	0	0	12	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	0	0	17	17	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	34	17	17	0	-	0
Stage 1	17	-	-	-	-	-
Stage 2	17	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	984	1068	1613	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	984	1068	1613	-	-	-
Mov Cap-2 Maneuver	984	-	-	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	1011	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1613	-	984	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	0	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	79	757	9	0	468	10	14	1	5	17	2	32
Future Vol, veh/h	79	757	9	0	468	10	14	1	5	17	2	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	175	-	-	140	-	-	130	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	0	0	0	11	11	11
Mvmt Flow	84	805	10	0	498	11	15	1	5	18	2	34

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	509	0	0	805	0	0	1495	1482	805	1480	1477	504
Stage 1	-	-	-	-	-	-	973	973	-	504	504	-
Stage 2	-	-	-	-	-	-	522	509	-	976	973	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.1	6.5	6.2	7.21	6.61	6.31
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.21	5.61	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.21	5.61	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.5	4	3.3	3.599	4.099	3.399
Pot Cap-1 Maneuver	1056	-	-	811	-	-	102	126	386	99	121	550
Stage 1	-	-	-	-	-	-	306	333	-	534	526	-
Stage 2	-	-	-	-	-	-	542	541	-	291	319	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1056	-	-	811	-	-	89	116	386	91	111	550
Mov Cap-2 Maneuver	-	-	-	-	-	-	89	116	-	91	111	-
Stage 1	-	-	-	-	-	-	282	306	-	491	526	-
Stage 2	-	-	-	-	-	-	506	541	-	263	293	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0	42.9	27.2
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	89	278	1056	-	-	811	-	-	91	446
HCM Lane V/C Ratio	0.167	0.023	0.08	-	-	-	-	-	0.199	0.081
HCM Control Delay (s)	53.4	18.3	8.7	-	-	0	-	-	54.1	13.8
HCM Lane LOS	F	C	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.6	0.1	0.3	-	-	0	-	-	0.7	0.3

Intersection	
Int Delay, s/veh	2.9

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	28	128	746	22	54	435
Future Vol, veh/h	28	128	746	22	54	435
Conflicting Peds, #/hr	1	3	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	30	138	802	24	58	468

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1400	818	0	0	827	0
Stage 1	815	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.1	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.2	-
Pot Cap-1 Maneuver	155	376	-	-	813	-
Stage 1	435	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	144	375	-	-	812	-
Mov Cap-2 Maneuver	144	-	-	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	517	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	23	0	1.1
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	144	375	812	-
HCM Lane V/C Ratio	-	-	0.209	0.367	0.072	-
HCM Control Delay (s)	-	-	36.5	20.1	9.8	-
HCM Lane LOS	-	-	E	C	A	-
HCM 95th %tile Q(veh)	-	-	0.8	1.6	0.2	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	169	424	220	17	15	18
Future Vol, veh/h	169	424	220	17	15	18
Conflicting Peds, #/hr	1	0	0	1	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	90	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	192	482	250	19	17	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	270	0	-	0	1130	261
Stage 1	-	-	-	-	261	-
Stage 2	-	-	-	-	869	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1305	-	-	-	227	783
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	414	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1304	-	-	-	193	782
Mov Cap-2 Maneuver	-	-	-	-	193	-
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	414	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	16.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1304	-	-	-	193	782
HCM Lane V/C Ratio	0.147	-	-	-	0.088	0.026
HCM Control Delay (s)	8.2	-	-	-	25.5	9.7
HCM Lane LOS	A	-	-	-	D	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.3	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	511	259	14	19	12
Future Vol, veh/h	14	511	259	14	19	12
Conflicting Peds, #/hr	1	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	16	574	291	16	21	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	308	0	-	0	907	300
Stage 1	-	-	-	-	300	-
Stage 2	-	-	-	-	607	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1264	-	-	-	309	744
Stage 1	-	-	-	-	756	-
Stage 2	-	-	-	-	548	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1263	-	-	-	303	743
Mov Cap-2 Maneuver	-	-	-	-	303	-
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	547	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1263	-	-	-	393
HCM Lane V/C Ratio	0.012	-	-	-	0.089
HCM Control Delay (s)	7.9	0	-	-	15
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	195	303	14	0	168	12	5	1	1	10	0	95
Future Vol, veh/h	195	303	14	0	168	12	5	1	1	10	0	95
Conflicting Peds, #/hr	2	0	1	1	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	180	-	-	110	-	-	180	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	224	348	16	0	193	14	6	1	1	11	0	109

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	209	0	0	365	0	0	1060	1014	357	1007	1015	202
Stage 1	-	-	-	-	-	-	805	805	-	202	202	-
Stage 2	-	-	-	-	-	-	255	209	-	805	813	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1368	-	-	1199	-	-	204	240	692	221	240	844
Stage 1	-	-	-	-	-	-	379	398	-	805	738	-
Stage 2	-	-	-	-	-	-	754	733	-	379	395	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1365	-	-	1198	-	-	155	200	691	192	200	842
Mov Cap-2 Maneuver	-	-	-	-	-	-	155	200	-	192	200	-
Stage 1	-	-	-	-	-	-	316	332	-	671	737	-
Stage 2	-	-	-	-	-	-	656	732	-	315	330	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	0	25.6	11.3
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	155	310	1365	-	-	1198	-	-	192	842
HCM Lane V/C Ratio	0.037	0.007	0.164	-	-	-	-	-	0.06	0.13
HCM Control Delay (s)	29.1	16.7	8.2	-	-	0	-	-	24.9	9.9
HCM Lane LOS	D	C	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.1	0	0.6	-	-	0	-	-	0.2	0.4

Intersection	
Int Delay, s/veh	1.1

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	17	201	1	0	110	17	0	0	0	16	0	10
Future Vol, veh/h	17	201	1	0	110	17	0	0	0	16	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	254	1	0	139	22	0	0	0	20	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	161	0	0	255	0	0	456	460	255	449	449	150
Stage 1	-	-	-	-	-	-	299	299	-	150	150	-
Stage 2	-	-	-	-	-	-	157	161	-	299	299	-
Critical Hdwy	4.11	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1424	-	-	1322	-	-	518	501	789	524	508	902
Stage 1	-	-	-	-	-	-	714	670	-	857	777	-
Stage 2	-	-	-	-	-	-	850	769	-	714	670	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1424	-	-	1322	-	-	503	492	789	517	499	902
Mov Cap-2 Maneuver	-	-	-	-	-	-	503	492	-	517	499	-
Stage 1	-	-	-	-	-	-	701	658	-	842	777	-
Stage 2	-	-	-	-	-	-	838	769	-	701	658	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.6	0	0	11.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	-	1322	-	-	1424	-	-	619
HCM Lane V/C Ratio	-	-	-	-	0.015	-	-	0.053
HCM Control Delay (s)	0	0	-	-	7.6	0	-	11.1
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	2	0	26	23	3
Future Vol, veh/h	5	2	0	26	23	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	3	0	36	32	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	70	34	36	0	-	0
Stage 1	34	-	-	-	-	-
Stage 2	36	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	939	1045	1588	-	-	-
Stage 1	994	-	-	-	-	-
Stage 2	992	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	939	1045	1588	-	-	-
Mov Cap-2 Maneuver	939	-	-	-	-	-
Stage 1	994	-	-	-	-	-
Stage 2	992	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1588	-	967	-	-
HCM Lane V/C Ratio	-	-	0.01	-	-
HCM Control Delay (s)	0	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	111	367	16	3	891	5	16	0	3	20	2	61
Future Vol, veh/h	111	367	16	3	891	5	16	0	3	20	2	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	175	-	-	140	-	-	130	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	12	12	12	4	4	4	42	42	42	39	39	39
Mvmt Flow	125	412	18	3	1001	6	18	0	3	22	2	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1007	0	0	412	0	0	1708	1675	412	1674	1672	1004
Stage 1	-	-	-	-	-	-	662	662	-	1010	1010	-
Stage 2	-	-	-	-	-	-	1046	1013	-	664	662	-
Critical Hdwy	4.22	-	-	4.14	-	-	7.52	6.92	6.62	7.49	6.89	6.59
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.92	-	6.49	5.89	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.92	-	6.49	5.89	-
Follow-up Hdwy	2.308	-	-	2.236	-	-	3.878	4.378	3.678	3.851	4.351	3.651
Pot Cap-1 Maneuver	650	-	-	1136	-	-	57	77	562	62	79	250
Stage 1	-	-	-	-	-	-	391	403	-	248	274	-
Stage 2	-	-	-	-	-	-	233	270	-	394	407	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	650	-	-	1136	-	-	34	62	562	52	64	250
Mov Cap-2 Maneuver	-	-	-	-	-	-	34	62	-	52	64	-
Stage 1	-	-	-	-	-	-	316	326	-	200	273	-
Stage 2	-	-	-	-	-	-	167	269	-	316	329	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.7	0	166.6	49.6
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	34	562	650	-	-	1136	-	-	52	229
HCM Lane V/C Ratio	0.529	0.006	0.192	-	-	0.003	-	-	0.432	0.309
HCM Control Delay (s)	195.7	11.4	11.8	-	-	8.2	-	-	119.1	27.6
HCM Lane LOS	F	B	B	-	-	A	-	-	F	D
HCM 95th %tile Q(veh)	1.8	0	0.7	-	-	0	-	-	1.6	1.3

Intersection	
Int Delay, s/veh	1.7

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	23	65	369	15	76	859
Future Vol, veh/h	23	65	369	15	76	859
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	25	71	405	16	84	944

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1525	413	0	0	421	0
Stage 1	413	-	-	-	-	-
Stage 2	1112	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.12	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.218	-
Pot Cap-1 Maneuver	130	641	-	-	1138	-
Stage 1	670	-	-	-	-	-
Stage 2	316	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	120	641	-	-	1138	-
Mov Cap-2 Maneuver	120	-	-	-	-	-
Stage 1	670	-	-	-	-	-
Stage 2	293	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	19.5	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	120	641	1138	-
HCM Lane V/C Ratio	-	-	0.211	0.111	0.073	-
HCM Control Delay (s)	-	-	42.8	11.3	8.4	-
HCM Lane LOS	-	-	E	B	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0.4	0.2	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	54	211	396	23	10	144
Future Vol, veh/h	54	211	396	23	10	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	90	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	227	426	25	11	155

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	451	0	-	0	782	439
Stage 1	-	-	-	-	439	-
Stage 2	-	-	-	-	343	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1109	-	-	-	363	618
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	719	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1109	-	-	-	344	618
Mov Cap-2 Maneuver	-	-	-	-	344	-
Stage 1	-	-	-	-	616	-
Stage 2	-	-	-	-	719	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1109	-	-	-	344	618
HCM Lane V/C Ratio	0.052	-	-	-	0.031	0.251
HCM Control Delay (s)	8.4	-	-	-	15.8	12.8
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	1

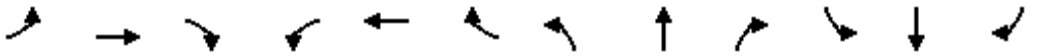
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	256	557	12	9	20
Future Vol, veh/h	5	256	557	12	9	20
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	0	0
Mvmt Flow	5	278	605	13	10	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	618	0	-	0	901	612
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	289	-
Critical Hdwy	4.12	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	962	-	-	-	311	497
Stage 1	-	-	-	-	545	-
Stage 2	-	-	-	-	765	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	962	-	-	-	309	497
Mov Cap-2 Maneuver	-	-	-	-	423	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	765	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.2
HCM LOS			B

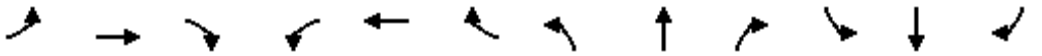
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	962	-	-	-	471
HCM Lane V/C Ratio	0.006	-	-	-	0.067
HCM Control Delay (s)	8.8	-	-	-	13.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	175	9	4	362	5	4	0	3	1	0	191
Future Volume (vph)	67	175	9	4	362	5	4	0	3	1	0	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		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		1.00	0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1831		1736	1823		1804	1615		1805	1581	
Flt Permitted	0.40	1.00		0.63	1.00		0.69	1.00		0.76	1.00	
Satd. Flow (perm)	737	1831		1159	1823		1310	1615		1436	1581	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	71	186	10	4	385	5	4	0	3	1	0	203
RTOR Reduction (vph)	0	2	0	0	1	0	0	3	0	0	177	0
Lane Group Flow (vph)	71	194	0	4	389	0	4	0	0	1	26	0
Confl. Peds. (#/hr)							1					1
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	23.6	20.8		19.4	18.7		6.5	5.8		6.5	5.8	
Effective Green, g (s)	23.6	20.8		19.4	18.7		6.5	5.8		6.5	5.8	
Actuated g/C Ratio	0.51	0.45		0.42	0.41		0.14	0.13		0.14	0.13	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	439	827		497	741		192	203		208	199	
v/s Ratio Prot	c0.01	0.11		0.00	c0.21		c0.00	0.00		0.00	c0.02	
v/s Ratio Perm	0.07			0.00			0.00			0.00		
v/c Ratio	0.16	0.23		0.01	0.53		0.02	0.00		0.00	0.13	
Uniform Delay, d1	6.0	7.7		7.7	10.3		17.0	17.6		17.0	17.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.1		0.0	0.7		0.0	0.0		0.0	0.3	
Delay (s)	6.2	7.9		7.7	11.0		17.0	17.6		17.0	18.1	
Level of Service	A	A		A	B		B	B		B	B	
Approach Delay (s)		7.4			10.9			17.3			18.1	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	46.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	46.8%	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												
Traffic Volume (veh/h)	67	175	9	4	362	5	4	0	3	1	0	191
Future Volume (veh/h)	67	175	9	4	362	5	4	0	3	1	0	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		1.00	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	71	186	8	4	385	4	4	0	0	1	0	26
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
Percent Heavy Veh, %	3	3	3	4	4	4	0	0	0	0	0	0
Cap, veh/h	480	664	29	594	560	6	271	80	0	290	0	61
Arrive On Green	0.07	0.38	0.38	0.01	0.31	0.31	0.01	0.00	0.00	0.00	0.00	0.04
Sat Flow, veh/h	1767	1766	76	1753	1818	19	1810	1900	0	1810	0	1605
Grp Volume(v), veh/h	71	0	194	4	0	389	4	0	0	1	0	26
Grp Sat Flow(s),veh/h/ln	1767	0	1842	1753	0	1837	1810	1900	0	1810	0	1605
Q Serve(g_s), s	0.8	0.0	2.3	0.0	0.0	5.8	0.1	0.0	0.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.8	0.0	2.3	0.0	0.0	5.8	0.1	0.0	0.0	0.0	0.0	0.5
Prop In Lane	1.00		0.04	1.00		0.01	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	480	0	693	594	0	566	271	80	0	290	0	61
V/C Ratio(X)	0.15	0.00	0.28	0.01	0.00	0.69	0.01	0.00	0.00	0.00	0.00	0.42
Avail Cap(c_a), veh/h	638	0	1094	864	0	1086	550	1116	0	573	0	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.8	0.0	6.8	7.4	0.0	9.5	14.4	0.0	0.0	14.4	0.0	14.7
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.6	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.0	0.0	7.0	7.4	0.0	11.0	14.4	0.0	0.0	14.4	0.0	19.3
LnGrp LOS	A	A	A	A	A	B	B	A	A	B	A	B
Approach Vol, veh/h		265			393			4			27	
Approach Delay, s/veh		7.0			11.0			14.4			19.1	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	5.8	4.7	16.3	4.7	5.7	6.8	14.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.4	5.0	18.6	5.0	18.4	5.1	18.5
Max Q Clear Time (g_c+I1), s	2.0	0.0	2.0	4.3	2.1	2.5	2.8	7.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	0.1	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	2.3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	108	12	1	204	7	33	0	4	19	0	22
Future Vol, veh/h	12	108	12	1	204	7	33	0	4	19	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5	0	0	0	0	0	0
Mvmt Flow	14	127	14	1	240	8	39	0	5	22	0	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	248	0	0	141	0	0	421	412	134	411	415	244
Stage 1	-	-	-	-	-	-	162	162	-	246	246	-
Stage 2	-	-	-	-	-	-	259	250	-	165	169	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1300	-	-	1424	-	-	546	533	920	555	531	800
Stage 1	-	-	-	-	-	-	845	768	-	762	706	-
Stage 2	-	-	-	-	-	-	750	704	-	842	763	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1300	-	-	1424	-	-	523	526	920	547	524	800
Mov Cap-2 Maneuver	-	-	-	-	-	-	523	526	-	547	524	-
Stage 1	-	-	-	-	-	-	835	759	-	753	705	-
Stage 2	-	-	-	-	-	-	725	703	-	828	754	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.7	0	12.1	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	549	1424	-	-	1300	-	- 659
HCM Lane V/C Ratio	0.079	0.001	-	-	0.011	-	- 0.073
HCM Control Delay (s)	12.1	7.5	0	-	7.8	0	- 10.9
HCM Lane LOS	B	A	A	-	A	A	- B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	- 0.2

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	12	12	0
Future Vol, veh/h	2	0	0	12	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	0	0	17	17	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	34	17	17	0	-	0
Stage 1	17	-	-	-	-	-
Stage 2	17	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	984	1068	1613	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	984	1068	1613	-	-	-
Mov Cap-2 Maneuver	984	-	-	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	1011	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1613	-	984	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	0	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	82	934	9	0	575	10	15	1	5	18	2	33
Future Vol, veh/h	82	934	9	0	575	10	15	1	5	18	2	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	175	-	-	140	-	-	130	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	0	0	0	11	11	11
Mvmt Flow	87	994	10	0	612	11	16	1	5	19	2	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	623	0	0	994	0	0	1804	1791	994	1789	1786	618
Stage 1	-	-	-	-	-	-	1168	1168	-	618	618	-
Stage 2	-	-	-	-	-	-	636	623	-	1171	1168	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.1	6.5	6.2	7.21	6.61	6.31
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.21	5.61	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.21	5.61	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.5	4	3.3	3.599	4.099	3.399
Pot Cap-1 Maneuver	958	-	-	688	-	-	62	82	300	60	77	473
Stage 1	-	-	-	-	-	-	238	270	-	462	467	-
Stage 2	-	-	-	-	-	-	469	481	-	225	257	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	958	-	-	688	-	-	52	75	300	54	70	473
Mov Cap-2 Maneuver	-	-	-	-	-	-	52	75	-	54	70	-
Stage 1	-	-	-	-	-	-	216	245	-	420	467	-
Stage 2	-	-	-	-	-	-	432	481	-	200	234	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0	79.8	46.3
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	52	200	958	-	-	688	-	-	54	356
HCM Lane V/C Ratio	0.307	0.032	0.091	-	-	-	-	-	0.355	0.105
HCM Control Delay (s)	102.3	23.6	9.1	-	-	0	-	-	104.6	16.3
HCM Lane LOS	F	C	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	1.1	0.1	0.3	-	-	0	-	-	1.3	0.3

Intersection	
Int Delay, s/veh	4.5

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	29	153	922	23	73	541
Future Vol, veh/h	29	153	922	23	73	541
Conflicting Peds, #/hr	1	3	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	31	165	991	25	78	582

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1744	1008	0	0	1017	0
Stage 1	1005	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.1	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.2	-
Pot Cap-1 Maneuver	95	292	-	-	690	-
Stage 1	354	-	-	-	-	-
Stage 2	472	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	84	291	-	-	689	-
Mov Cap-2 Maneuver	84	-	-	-	-	-
Stage 1	354	-	-	-	-	-
Stage 2	418	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	38.5	0	1.3
HCM LOS	E		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	84	291	689	-
HCM Lane V/C Ratio	-	-	0.371	0.565	0.114	-
HCM Control Delay (s)	-	-	71.2	32.3	10.9	-
HCM Lane LOS	-	-	F	D	B	-
HCM 95th %tile Q(veh)	-	-	1.5	3.2	0.4	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	191	517	289	28	24	28
Future Vol, veh/h	191	517	289	28	24	28
Conflicting Peds, #/hr	1	0	0	1	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	90	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	217	588	328	32	27	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	361	0	-	0	1370	345
Stage 1	-	-	-	-	345	-
Stage 2	-	-	-	-	1025	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1209	-	-	-	163	702
Stage 1	-	-	-	-	722	-
Stage 2	-	-	-	-	349	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1208	-	-	-	133	701
Mov Cap-2 Maneuver	-	-	-	-	133	-
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	349	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	23.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1208	-	-	-	133	701
HCM Lane V/C Ratio	0.18	-	-	-	0.205	0.045
HCM Control Delay (s)	8.6	-	-	-	38.9	10.4
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.7	-	-	-	0.7	0.1

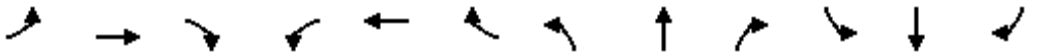
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	616	339	15	20	12
Future Vol, veh/h	15	616	339	15	20	12
Conflicting Peds, #/hr	1	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	17	692	381	17	22	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	399	0	-	0	1118	391
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	727	-
Critical Hdwy	4.11	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.209	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1165	-	-	-	231	662
Stage 1	-	-	-	-	688	-
Stage 2	-	-	-	-	482	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1164	-	-	-	227	661
Mov Cap-2 Maneuver	-	-	-	-	356	-
Stage 1	-	-	-	-	677	-
Stage 2	-	-	-	-	482	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	14.1
HCM LOS			B

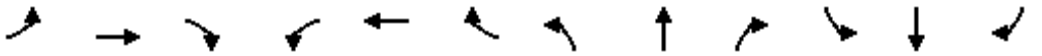
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1164	-	-	-	430
HCM Lane V/C Ratio	0.014	-	-	-	0.084
HCM Control Delay (s)	8.1	-	-	-	14.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	209	389	18	1	227	13	11	2	3	12	0	110
Future Volume (vph)	209	389	18	1	227	13	11	2	3	12	0	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		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		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.91		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1786	1867		1787	1864		1805	1729		1805	1615	
Flt Permitted	0.45	1.00		0.49	1.00		0.89	1.00		0.89	1.00	
Satd. Flow (perm)	846	1867		930	1864		1689	1729		1689	1615	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	240	447	21	1	261	15	13	2	3	14	0	126
RTOR Reduction (vph)	0	2	0	0	2	0	0	3	0	0	114	0
Lane Group Flow (vph)	240	466	0	1	274	0	13	2	0	14	12	0
Confl. Peds. (#/hr)	2		1	1		2						
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	27.1	21.9		18.0	17.3		5.2	4.5		5.2	4.5	
Effective Green, g (s)	27.1	21.9		18.0	17.3		5.2	4.5		5.2	4.5	
Actuated g/C Ratio	0.59	0.48		0.39	0.38		0.11	0.10		0.11	0.10	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	609	892		378	704		193	169		193	158	
v/s Ratio Prot	c0.05	c0.25		0.00	0.15		0.00	0.00		c0.00	c0.01	
v/s Ratio Perm	0.19			0.00			0.01			0.01		
v/c Ratio	0.39	0.52		0.00	0.39		0.07	0.01		0.07	0.08	
Uniform Delay, d1	4.8	8.3		8.4	10.4		18.1	18.6		18.1	18.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	0.6		0.0	0.4		0.1	0.0		0.2	0.2	
Delay (s)	5.2	8.9		8.4	10.7		18.3	18.7		18.3	19.0	
Level of Service	A	A		A	B		B	B		B	B	
Approach Delay (s)		7.6			10.7			18.4			18.9	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	45.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	44.3%	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												
Traffic Volume (veh/h)	209	389	18	1	227	13	11	2	3	12	0	110
Future Volume (veh/h)	209	389	18	1	227	13	11	2	3	12	0	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	240	447	19	1	261	13	13	2	0	14	0	12
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
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	599	678	29	393	427	21	298	63	0	307	0	56
Arrive On Green	0.14	0.38	0.38	0.00	0.24	0.24	0.02	0.03	0.00	0.02	0.00	0.03
Sat Flow, veh/h	1795	1795	76	1795	1780	89	1810	1900	0	1810	0	1610
Grp Volume(v), veh/h	240	0	466	1	0	274	13	2	0	14	0	12
Grp Sat Flow(s),veh/h/ln	1795	0	1871	1795	0	1869	1810	1900	0	1810	0	1610
Q Serve(g_s), s	2.7	0.0	6.5	0.0	0.0	4.1	0.2	0.0	0.0	0.2	0.0	0.2
Cycle Q Clear(g_c), s	2.7	0.0	6.5	0.0	0.0	4.1	0.2	0.0	0.0	0.2	0.0	0.2
Prop In Lane	1.00		0.04	1.00		0.05	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	599	0	706	393	0	448	298	63	0	307	0	56
V/C Ratio(X)	0.40	0.00	0.66	0.00	0.00	0.61	0.04	0.03	0.00	0.05	0.00	0.22
Avail Cap(c_a), veh/h	639	0	1095	671	0	1088	553	1112	0	560	0	942
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.5	0.0	8.2	9.2	0.0	10.7	14.4	14.8	0.0	14.3	0.0	14.8
Incr Delay (d2), s/veh	0.4	0.0	1.1	0.0	0.0	1.4	0.1	0.2	0.0	0.1	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.9	0.0	0.0	1.5	0.1	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.9	0.0	9.2	9.2	0.0	12.1	14.4	15.0	0.0	14.4	0.0	16.7
LnGrp LOS	A	A	A	A	A	B	B	B	A	B	A	B
Approach Vol, veh/h		706			275			15			26	
Approach Delay, s/veh		8.4			12.0			14.5			15.5	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	5.6	4.5	16.4	5.0	5.6	8.9	12.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.5	5.0	18.5	5.0	18.5	5.1	18.4
Max Q Clear Time (g_c+I1), s	2.2	2.0	2.0	8.5	2.2	2.2	4.7	6.1
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	2.2

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	35	218	39	4	127	23	23	0	2	20	0	21
Future Vol, veh/h	35	218	39	4	127	23	23	0	2	20	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	44	276	49	5	161	29	29	0	3	25	0	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	190	0	0	325	0	0	588	589	301	576	599	176
Stage 1	-	-	-	-	-	-	389	389	-	186	186	-
Stage 2	-	-	-	-	-	-	199	200	-	390	413	-
Critical Hdwy	4.11	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1390	-	-	1246	-	-	423	423	743	431	418	872
Stage 1	-	-	-	-	-	-	639	612	-	820	750	-
Stage 2	-	-	-	-	-	-	807	739	-	638	597	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1390	-	-	1246	-	-	396	404	743	415	400	872
Mov Cap-2 Maneuver	-	-	-	-	-	-	396	404	-	415	400	-
Stage 1	-	-	-	-	-	-	614	588	-	788	746	-
Stage 2	-	-	-	-	-	-	778	735	-	611	574	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.9	0.2	14.5	12
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	411	1246	-	-	1390	-	-	567
HCM Lane V/C Ratio	0.077	0.004	-	-	0.032	-	-	0.092
HCM Control Delay (s)	14.5	7.9	0	-	7.7	0	-	12
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	2	0	27	24	3
Future Vol, veh/h	5	2	0	27	24	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	3	0	38	33	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	73	35	37	0	-	0
Stage 1	35	-	-	-	-	-
Stage 2	38	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	936	1044	1587	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	990	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	936	1044	1587	-	-	-
Mov Cap-2 Maneuver	936	-	-	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	990	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1587	-	965	-	-
HCM Lane V/C Ratio	-	-	0.01	-	-
HCM Control Delay (s)	0	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	111	371	16	3	904	5	16	0	3	20	2	61
Future Vol, veh/h	111	371	16	3	904	5	16	0	3	20	2	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	175	-	-	140	-	-	130	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	12	12	12	4	4	4	42	42	42	39	39	39
Mvmt Flow	125	417	18	3	1016	6	18	0	3	22	2	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1022	0	0	417	0	0	1728	1695	417	1694	1692	1019
Stage 1	-	-	-	-	-	-	667	667	-	1025	1025	-
Stage 2	-	-	-	-	-	-	1061	1028	-	669	667	-
Critical Hdwy	4.22	-	-	4.14	-	-	7.52	6.92	6.62	7.49	6.89	6.59
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.92	-	6.49	5.89	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.92	-	6.49	5.89	-
Follow-up Hdwy	2.308	-	-	2.236	-	-	3.878	4.378	3.678	3.851	4.351	3.651
Pot Cap-1 Maneuver	642	-	-	1131	-	-	55	75	558	60	76	245
Stage 1	-	-	-	-	-	-	389	401	-	243	270	-
Stage 2	-	-	-	-	-	-	228	266	-	392	405	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	642	-	-	1131	-	-	33	60	558	51	61	245
Mov Cap-2 Maneuver	-	-	-	-	-	-	33	60	-	51	61	-
Stage 1	-	-	-	-	-	-	313	323	-	196	269	-
Stage 2	-	-	-	-	-	-	162	265	-	314	326	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.7	0	174.1	51
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	33	558	642	-	-	1131	-	-	51	224
HCM Lane V/C Ratio	0.545	0.006	0.194	-	-	0.003	-	-	0.441	0.316
HCM Control Delay (s)	204.6	11.5	12	-	-	8.2	-	-	122.5	28.3
HCM Lane LOS	F	B	B	-	-	A	-	-	F	D
HCM 95th %tile Q(veh)	1.8	0	0.7	-	-	0	-	-	1.6	1.3

Intersection	
Int Delay, s/veh	1.7

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	23	65	373	15	77	872
Future Vol, veh/h	23	65	373	15	77	872
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	25	71	410	16	85	958

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1546	418	0	0	426	0
Stage 1	418	-	-	-	-	-
Stage 2	1128	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.12	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.218	-
Pot Cap-1 Maneuver	127	637	-	-	1133	-
Stage 1	666	-	-	-	-	-
Stage 2	310	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	117	637	-	-	1133	-
Mov Cap-2 Maneuver	117	-	-	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	287	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	19.9	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	117	637	1133	-
HCM Lane V/C Ratio	-	-	0.216	0.112	0.075	-
HCM Control Delay (s)	-	-	44.1	11.4	8.4	-
HCM Lane LOS	-	-	E	B	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0.4	0.2	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	54	216	411	23	10	144
Future Vol, veh/h	54	216	411	23	10	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	90	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	232	442	25	11	155

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	467	0	-	0	803	455
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	348	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1094	-	-	-	353	605
Stage 1	-	-	-	-	639	-
Stage 2	-	-	-	-	715	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1094	-	-	-	334	605
Mov Cap-2 Maneuver	-	-	-	-	334	-
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	715	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1094	-	-	-	334	605
HCM Lane V/C Ratio	0.053	-	-	-	0.032	0.256
HCM Control Delay (s)	8.5	-	-	-	16.1	13
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	1

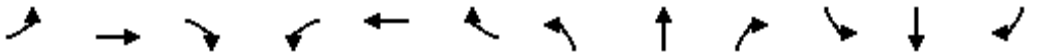
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	261	572	12	9	20
Future Vol, veh/h	5	261	572	12	9	20
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	0	0
Mvmt Flow	5	284	622	13	10	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	635	0	-	0	924	629
Stage 1	-	-	-	-	629	-
Stage 2	-	-	-	-	295	-
Critical Hdwy	4.12	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	948	-	-	-	302	486
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	760	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	948	-	-	-	300	486
Mov Cap-2 Maneuver	-	-	-	-	415	-
Stage 1	-	-	-	-	532	-
Stage 2	-	-	-	-	760	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.4
HCM LOS			B

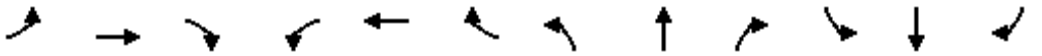
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	948	-	-	-	461
HCM Lane V/C Ratio	0.006	-	-	-	0.068
HCM Control Delay (s)	8.8	-	-	-	13.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	177	9	4	367	5	4	0	3	1	1	201
Future Volume (vph)	70	177	9	4	367	5	4	0	3	1	1	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		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		1.00	0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1831		1736	1823		1804	1615		1805	1582	
Flt Permitted	0.39	1.00		0.63	1.00		0.57	1.00		0.76	1.00	
Satd. Flow (perm)	716	1831		1157	1823		1085	1615		1436	1582	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	74	188	10	4	390	5	4	0	3	1	1	214
RTOR Reduction (vph)	0	2	0	0	1	0	0	3	0	0	182	0
Lane Group Flow (vph)	74	196	0	4	394	0	4	0	0	1	33	0
Confl. Peds. (#/hr)							1					1
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	23.9	21.1		19.7	19.0		7.7	7.0		7.7	7.0	
Effective Green, g (s)	23.9	21.1		19.7	19.0		7.7	7.0		7.7	7.0	
Actuated g/C Ratio	0.50	0.44		0.41	0.40		0.16	0.15		0.16	0.15	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	421	813		488	729		186	238		238	233	
v/s Ratio Prot	c0.01	0.11		0.00	c0.22		c0.00	0.00		0.00	c0.02	
v/s Ratio Perm	0.08			0.00			0.00			0.00		
v/c Ratio	0.18	0.24		0.01	0.54		0.02	0.00		0.00	0.14	
Uniform Delay, d1	6.5	8.2		8.2	10.9		16.7	17.3		16.7	17.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.2		0.0	0.8		0.0	0.0		0.0	0.3	
Delay (s)	6.7	8.4		8.2	11.7		16.8	17.3		16.7	17.9	
Level of Service	A	A		A	B		B	B		B	B	
Approach Delay (s)		7.9			11.7			17.0			17.9	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	47.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	47.7%	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												
Traffic Volume (veh/h)	70	177	9	4	367	5	4	0	3	1	1	201
Future Volume (veh/h)	70	177	9	4	367	5	4	0	3	1	1	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		1.00	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	188	8	4	390	4	4	0	0	1	1	32
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
Percent Heavy Veh, %	3	3	3	4	4	4	0	0	0	0	0	0
Cap, veh/h	477	669	28	592	562	6	271	94	0	296	2	71
Arrive On Green	0.08	0.38	0.38	0.01	0.31	0.31	0.01	0.00	0.00	0.00	0.05	0.05
Sat Flow, veh/h	1767	1767	75	1753	1819	19	1810	1900	0	1810	49	1564
Grp Volume(v), veh/h	74	0	196	4	0	394	4	0	0	1	0	33
Grp Sat Flow(s),veh/h/ln	1767	0	1842	1753	0	1837	1810	1900	0	1810	0	1613
Q Serve(g_s), s	0.9	0.0	2.4	0.0	0.0	6.0	0.1	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear(g_c), s	0.9	0.0	2.4	0.0	0.0	6.0	0.1	0.0	0.0	0.0	0.0	0.6
Prop In Lane	1.00		0.04	1.00		0.01	1.00		0.00	1.00		0.97
Lane Grp Cap(c), veh/h	477	0	698	592	0	567	271	94	0	296	0	73
V/C Ratio(X)	0.16	0.00	0.28	0.01	0.00	0.69	0.01	0.00	0.00	0.00	0.00	0.45
Avail Cap(c_a), veh/h	627	0	1075	857	0	1067	545	1097	0	575	0	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.9	0.0	6.9	7.5	0.0	9.7	14.4	0.0	0.0	14.5	0.0	14.8
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.7	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.1	0.0	7.1	7.5	0.0	11.2	14.4	0.0	0.0	14.5	0.0	19.1
LnGrp LOS	A	A	A	A	A	B	B	A	A	B	A	B
Approach Vol, veh/h		270			398			4			34	
Approach Delay, s/veh		7.1			11.2			14.4			18.9	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.5	6.1	4.7	16.6	4.7	5.9	6.9	14.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.4	5.0	18.6	5.0	18.4	5.1	18.5
Max Q Clear Time (g_c+I1), s	2.0	0.0	2.0	4.4	2.1	2.6	2.9	8.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	0.1	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	2.5

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	14	108	12	1	204	8	33	0	4	20	0	27
Future Vol, veh/h	14	108	12	1	204	8	33	0	4	20	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5	0	0	0	0	0	0
Mvmt Flow	16	127	14	1	240	9	39	0	5	24	0	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	249	0	0	141	0	0	429	417	134	416	420	245
Stage 1	-	-	-	-	-	-	166	166	-	247	247	-
Stage 2	-	-	-	-	-	-	263	251	-	169	173	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1299	-	-	1424	-	-	540	530	920	551	528	799
Stage 1	-	-	-	-	-	-	841	765	-	761	706	-
Stage 2	-	-	-	-	-	-	747	703	-	838	760	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1299	-	-	1424	-	-	513	523	920	542	521	799
Mov Cap-2 Maneuver	-	-	-	-	-	-	513	523	-	542	521	-
Stage 1	-	-	-	-	-	-	830	755	-	751	705	-
Stage 2	-	-	-	-	-	-	717	702	-	823	750	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.8	0	12.3	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	539	1424	-	-	1299	-	-	665
HCM Lane V/C Ratio	0.081	0.001	-	-	0.013	-	-	0.083
HCM Control Delay (s)	12.3	7.5	0	-	7.8	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	6	3	12	12	0
Future Vol, veh/h	2	6	3	12	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	8	4	17	17	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	42	17	17	0	-	0
Stage 1	17	-	-	-	-	-
Stage 2	25	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	974	1068	1613	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	1003	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	971	1068	1613	-	-	-
Mov Cap-2 Maneuver	971	-	-	-	-	-
Stage 1	1008	-	-	-	-	-
Stage 2	1003	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	1.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1613	-	1042	-	-
HCM Lane V/C Ratio	0.003	-	0.011	-	-
HCM Control Delay (s)	7.2	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	44	3	0	139	11	0
Future Vol, veh/h	44	3	0	139	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	4	0	176	14	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	60	0	234	58
Stage 1	-	-	-	-	58	-
Stage 2	-	-	-	-	176	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1544	-	754	1008
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	855	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1544	-	754	1008
Mov Cap-2 Maneuver	-	-	-	-	754	-
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	855	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	754	-	-	1544	-
HCM Lane V/C Ratio	0.018	-	-	-	-
HCM Control Delay (s)	9.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	82	947	9	0	583	10	15	1	5	18	2	33
Future Vol, veh/h	82	947	9	0	583	10	15	1	5	18	2	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	175	-	-	140	-	-	130	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	0	0	0	11	11	11
Mvmt Flow	87	1007	10	0	620	11	16	1	5	19	2	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	631	0	0	1007	0	0	1825	1812	1007	1810	1807	626
Stage 1	-	-	-	-	-	-	1181	1181	-	626	626	-
Stage 2	-	-	-	-	-	-	644	631	-	1184	1181	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.1	6.5	6.2	7.21	6.61	6.31
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.21	5.61	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.21	5.61	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.5	4	3.3	3.599	4.099	3.399
Pot Cap-1 Maneuver	951	-	-	680	-	-	60	79	295	58	75	468
Stage 1	-	-	-	-	-	-	234	266	-	457	463	-
Stage 2	-	-	-	-	-	-	465	477	-	221	254	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	951	-	-	680	-	-	50	72	295	52	68	468
Mov Cap-2 Maneuver	-	-	-	-	-	-	50	72	-	52	68	-
Stage 1	-	-	-	-	-	-	213	242	-	415	463	-
Stage 2	-	-	-	-	-	-	428	477	-	196	231	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0	83.8	48.3
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	50	195	951	-	-	680	-	-	52	350
HCM Lane V/C Ratio	0.319	0.033	0.092	-	-	-	-	-	0.368	0.106
HCM Control Delay (s)	107.7	24.1	9.2	-	-	0	-	-	110.1	16.5
HCM Lane LOS	F	C	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	1.1	0.1	0.3	-	-	0	-	-	1.3	0.4

Intersection	
Int Delay, s/veh	4.6

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	29	154	935	23	74	549
Future Vol, veh/h	29	154	935	23	74	549
Conflicting Peds, #/hr	1	3	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	31	166	1005	25	80	590

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1770	1022	0	0	1031	0
Stage 1	1019	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.1	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.2	-
Pot Cap-1 Maneuver	92	287	-	-	682	-
Stage 1	348	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	81	286	-	-	681	-
Mov Cap-2 Maneuver	81	-	-	-	-	-
Stage 1	348	-	-	-	-	-
Stage 2	411	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	40.1	0	1.3
HCM LOS	E		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	81	286	681	-
HCM Lane V/C Ratio	-	-	0.385	0.579	0.117	-
HCM Control Delay (s)	-	-	74.9	33.6	11	-
HCM Lane LOS	-	-	F	D	B	-
HCM 95th %tile Q(veh)	-	-	1.5	3.4	0.4	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	191	533	299	28	24	28
Future Vol, veh/h	191	533	299	28	24	28
Conflicting Peds, #/hr	1	0	0	1	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	90	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	217	606	340	32	27	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	373	0	-	0	1400	357
Stage 1	-	-	-	-	357	-
Stage 2	-	-	-	-	1043	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1197	-	-	-	156	692
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	342	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1196	-	-	-	127	691
Mov Cap-2 Maneuver	-	-	-	-	127	-
Stage 1	-	-	-	-	583	-
Stage 2	-	-	-	-	342	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	24.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1196	-	-	-	127	691
HCM Lane V/C Ratio	0.181	-	-	-	0.215	0.046
HCM Control Delay (s)	8.7	-	-	-	40.9	10.5
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.7	-	-	-	0.8	0.1

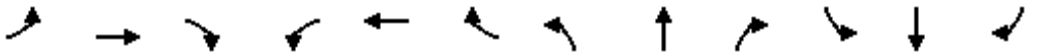
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	632	349	15	20	12
Future Vol, veh/h	15	632	349	15	20	12
Conflicting Peds, #/hr	1	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	17	710	392	17	22	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	410	0	-	0	1147	402
Stage 1	-	-	-	-	402	-
Stage 2	-	-	-	-	745	-
Critical Hdwy	4.11	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.209	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1154	-	-	-	222	653
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	473	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1153	-	-	-	218	652
Mov Cap-2 Maneuver	-	-	-	-	348	-
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	473	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	14.3
HCM LOS			B

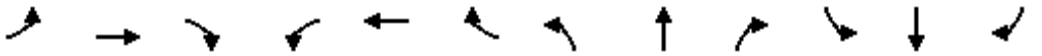
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1153	-	-	-	422
HCM Lane V/C Ratio	0.015	-	-	-	0.085
HCM Control Delay (s)	8.2	-	-	-	14.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	395	18	1	230	13	11	3	3	12	1	117
Future Volume (vph)	219	395	18	1	230	13	11	3	3	12	1	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		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		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.93		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1786	1867		1787	1864		1805	1758		1805	1617	
Flt Permitted	0.44	1.00		0.49	1.00		0.78	1.00		0.78	1.00	
Satd. Flow (perm)	832	1867		924	1864		1490	1758		1490	1617	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	252	454	21	1	264	15	13	3	3	14	1	134
RTOR Reduction (vph)	0	2	0	0	3	0	0	3	0	0	119	0
Lane Group Flow (vph)	252	473	0	1	276	0	13	3	0	14	16	0
Confl. Peds. (#/hr)	2		1	1		2						
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	27.0	21.8		17.8	17.1		5.8	5.1		5.8	5.1	
Effective Green, g (s)	27.0	21.8		17.8	17.1		5.8	5.1		5.8	5.1	
Actuated g/C Ratio	0.58	0.47		0.38	0.37		0.13	0.11		0.13	0.11	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	596	879		368	688		191	193		191	178	
v/s Ratio Prot	c0.05	c0.25		0.00	0.15		0.00	0.00		c0.00	c0.01	
v/s Ratio Perm	0.20			0.00			0.01			0.01		
v/c Ratio	0.42	0.54		0.00	0.40		0.07	0.02		0.07	0.09	
Uniform Delay, d1	5.1	8.7		8.8	10.8		17.8	18.4		17.9	18.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	0.6		0.0	0.4		0.2	0.0		0.2	0.2	
Delay (s)	5.6	9.3		8.8	11.2		18.0	18.4		18.0	18.7	
Level of Service	A	A		A	B		B	B		B	B	
Approach Delay (s)		8.0			11.2			18.1			18.7	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	10.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	46.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	44.6%	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												
Traffic Volume (veh/h)	219	395	18	1	230	13	11	3	3	12	1	117
Future Volume (veh/h)	219	395	18	1	230	13	11	3	3	12	1	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	252	454	19	1	264	12	13	3	0	14	1	16
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
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	596	679	28	386	429	20	300	75	0	313	4	63
Arrive On Green	0.14	0.38	0.38	0.00	0.24	0.24	0.02	0.04	0.00	0.02	0.04	0.04
Sat Flow, veh/h	1795	1796	75	1795	1789	81	1810	1900	0	1810	96	1529
Grp Volume(v), veh/h	252	0	473	1	0	276	13	3	0	14	0	17
Grp Sat Flow(s),veh/h/ln	1795	0	1871	1795	0	1870	1810	1900	0	1810	0	1625
Q Serve(g_s), s	2.9	0.0	6.7	0.0	0.0	4.2	0.2	0.0	0.0	0.2	0.0	0.3
Cycle Q Clear(g_c), s	2.9	0.0	6.7	0.0	0.0	4.2	0.2	0.0	0.0	0.2	0.0	0.3
Prop In Lane	1.00		0.04	1.00		0.04	1.00		0.00	1.00		0.94
Lane Grp Cap(c), veh/h	596	0	708	386	0	449	300	75	0	313	0	67
V/C Ratio(X)	0.42	0.00	0.67	0.00	0.00	0.62	0.04	0.04	0.00	0.04	0.00	0.26
Avail Cap(c_a), veh/h	631	0	1082	661	0	1075	551	1098	0	563	0	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.6	0.0	8.3	9.3	0.0	10.8	14.3	14.8	0.0	14.3	0.0	14.9
Incr Delay (d2), s/veh	0.5	0.0	1.1	0.0	0.0	1.4	0.1	0.2	0.0	0.1	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.0	0.0	0.0	1.5	0.1	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.1	0.0	9.4	9.3	0.0	12.2	14.4	15.0	0.0	14.4	0.0	16.9
LnGrp LOS	A	A	A	A	A	B	B	B	A	B	A	B
Approach Vol, veh/h		725			277			16			31	
Approach Delay, s/veh		8.6			12.2			14.5			15.7	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	5.8	4.5	16.6	5.0	5.8	9.0	12.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.5	5.0	18.5	5.0	18.5	5.1	18.4
Max Q Clear Time (g_c+I1), s	2.2	2.0	2.0	8.7	2.2	2.3	4.9	6.2
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	2.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	41	218	39	4	127	25	23	0	2	21	0	24
Future Vol, veh/h	41	218	39	4	127	25	23	0	2	21	0	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	52	276	49	5	161	32	29	0	3	27	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	193	0	0	325	0	0	607	608	301	593	616	177
Stage 1	-	-	-	-	-	-	405	405	-	187	187	-
Stage 2	-	-	-	-	-	-	202	203	-	406	429	-
Critical Hdwy	4.11	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1386	-	-	1246	-	-	411	413	743	420	409	871
Stage 1	-	-	-	-	-	-	626	602	-	819	749	-
Stage 2	-	-	-	-	-	-	805	737	-	626	587	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1386	-	-	1246	-	-	381	392	743	402	388	871
Mov Cap-2 Maneuver	-	-	-	-	-	-	381	392	-	402	388	-
Stage 1	-	-	-	-	-	-	597	574	-	781	745	-
Stage 2	-	-	-	-	-	-	773	733	-	595	560	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	1.1	0.2	14.9	12.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	396	1246	-	-	1386	-	-	564
HCM Lane V/C Ratio	0.08	0.004	-	-	0.037	-	-	0.101
HCM Control Delay (s)	14.9	7.9	0	-	7.7	0	-	12.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	6	8	27	24	3
Future Vol, veh/h	5	6	8	27	24	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	8	11	38	33	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	95	35	37	0	-	0
Stage 1	35	-	-	-	-	-
Stage 2	60	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	909	1044	1587	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	968	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	903	1044	1587	-	-	-
Mov Cap-2 Maneuver	903	-	-	-	-	-
Stage 1	986	-	-	-	-	-
Stage 2	968	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	1.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1587	-	975	-	-
HCM Lane V/C Ratio	0.007	-	0.016	-	-
HCM Control Delay (s)	7.3	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	146	11	0	75	8	0
Future Vol, veh/h	146	11	0	75	8	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	164	12	0	84	9	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	176	0	254	170
Stage 1	-	-	-	-	170	-
Stage 2	-	-	-	-	84	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1400	-	735	874
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	939	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1400	-	735	874
Mov Cap-2 Maneuver	-	-	-	-	735	-
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	939	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10
HCM LOS			B

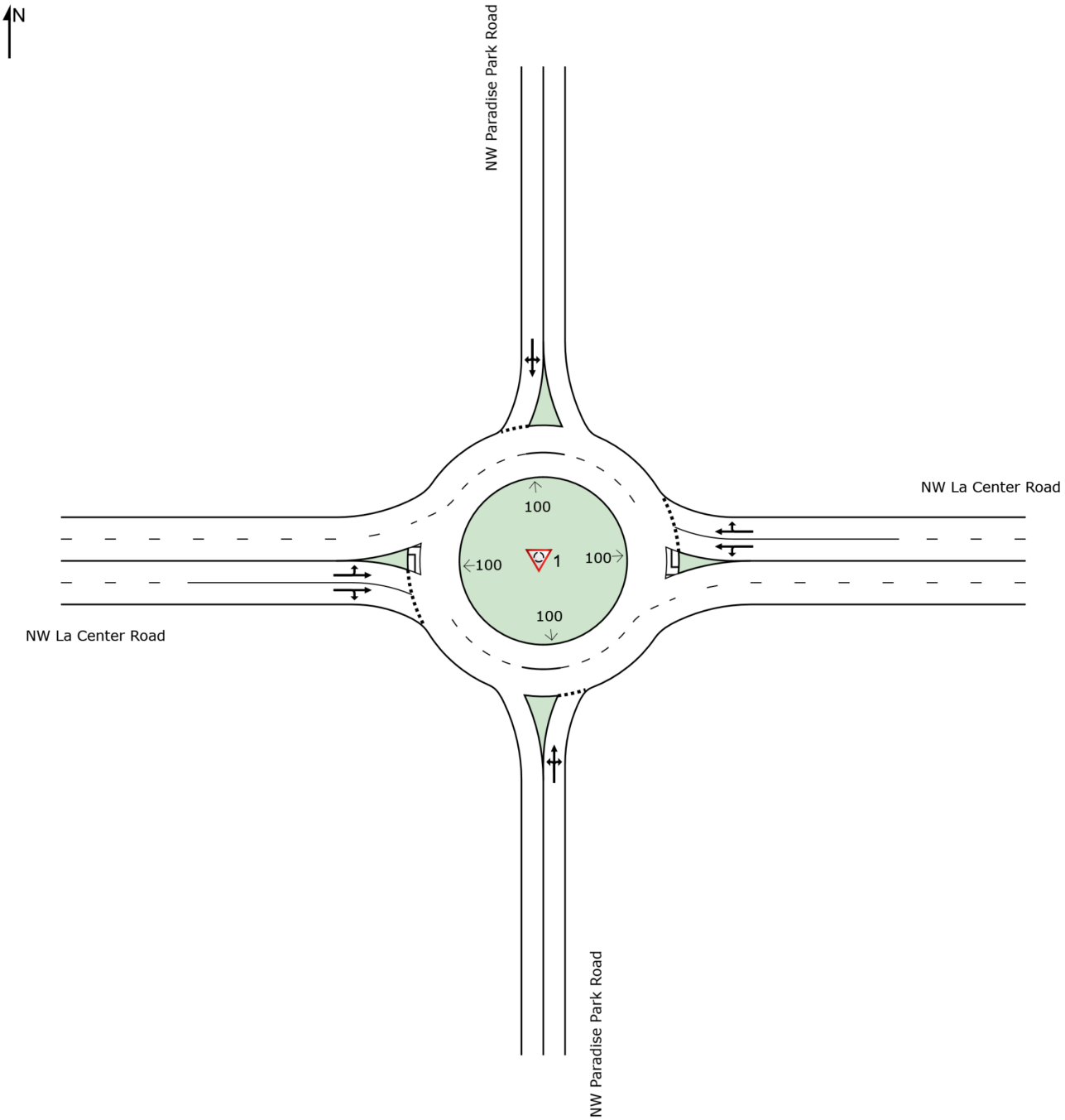
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	735	-	-	1400	-
HCM Lane V/C Ratio	0.012	-	-	-	-
HCM Control Delay (s)	10	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

SITE LAYOUT

Site: 1 [Int. 1 - AM (Site Folder: General)]

NW Paradise Park Road at NW La Center Road
Site Category: 2024 Mitigated Conditions - AM Peak Hour
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 1 [Int. 1 - AM (Site Folder: General)]

NW Paradise Park Road at NW La Center Road
Site Category: 2024 Mitigated Conditions - AM Peak Hour
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NW Paradise Park Road														
3	L2	16	41.7	18	41.7	0.039	6.6	LOS A	0.1	3.1	0.50	0.41	0.50	29.3
8	T1	1	41.7	1	41.7	0.039	6.6	LOS A	0.1	3.1	0.50	0.41	0.50	29.5
18	R2	3	41.7	3	41.7	0.039	6.6	LOS A	0.1	3.1	0.50	0.41	0.50	28.6
Approach		20	41.7	22	41.7	0.039	6.6	LOS A	0.1	3.1	0.50	0.41	0.50	29.2
East: NW La Center Road														
1	L2	3	3.6	3	3.6	0.435	7.6	LOS A	2.5	64.0	0.41	0.27	0.41	31.2
6	T1	904	3.6	1016	3.6	0.435	7.6	LOS A	2.5	64.0	0.41	0.27	0.41	31.0
16	R2	5	3.6	6	3.6	0.435	7.6	LOS A	2.5	64.0	0.41	0.27	0.41	30.1
Approach		912	3.6	1025	3.6	0.435	7.6	LOS A	2.5	64.0	0.41	0.27	0.41	31.0
North: NW Paradise Park Road														
7	L2	20	39.2	22	39.2	0.229	12.6	LOS B	0.6	18.8	0.64	0.64	0.64	28.2
4	T1	2	39.2	2	39.2	0.229	12.6	LOS B	0.6	18.8	0.64	0.64	0.64	28.3
14	R2	61	39.2	69	39.2	0.229	12.6	LOS B	0.6	18.8	0.64	0.64	0.64	27.4
Approach		83	39.2	93	39.2	0.229	12.6	LOS B	0.6	18.8	0.64	0.64	0.64	27.6
West: NW La Center Road														
5	L2	111	11.8	125	11.8	0.228	4.9	LOS A	1.0	26.7	0.14	0.05	0.14	31.2
2	T1	371	11.8	417	11.8	0.228	4.9	LOS A	1.0	26.7	0.14	0.05	0.14	31.7
12	R2	16	11.8	18	11.8	0.228	4.9	LOS A	1.0	26.7	0.14	0.05	0.14	31.1
Approach		498	11.8	560	11.8	0.228	4.9	LOS A	1.0	26.7	0.14	0.05	0.14	31.6
All Vehicles		1513	8.8	1700	8.8	0.435	7.0	LOS A	2.5	64.0	0.34	0.22	0.34	31.0

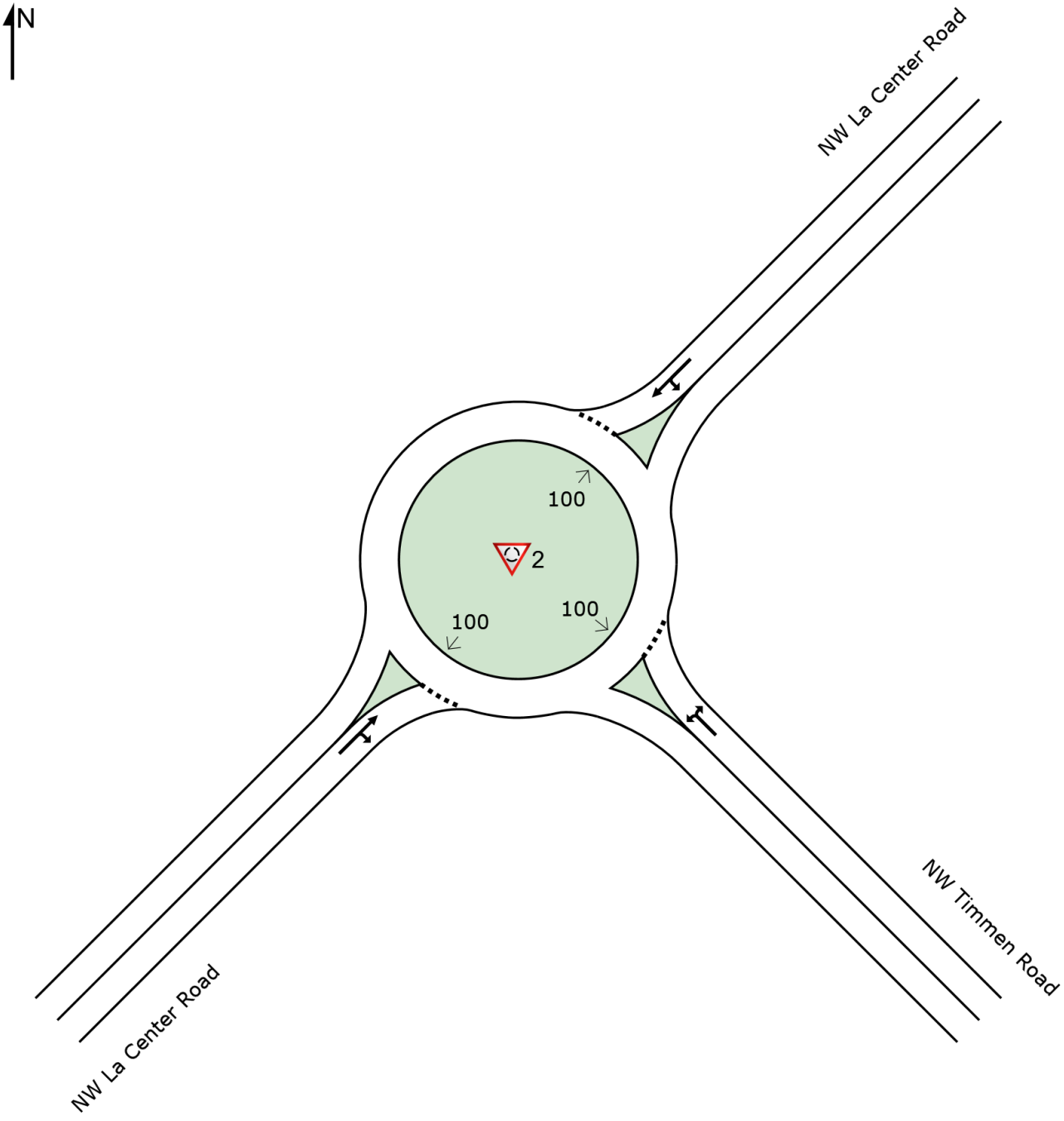
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 2 [Int. 2 - AM (Site Folder: General)]

NW Timmen Road at NW La Center Road
Site Category: 2024 Mitigated Conditions - AM Peak Hour
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 2 [Int. 2 - AM (Site Folder: General)]

NW Timmen Road at NW La Center Road
Site Category: 2024 Mitigated Conditions - AM Peak Hour
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
SouthEast: NW Timmen Road														
3x	L2	23	2.0	25	2.0	0.109	5.1	LOS A	0.5	11.5	0.49	0.40	0.49	36.1
18x	R2	65	2.0	71	2.0	0.109	5.1	LOS A	0.5	11.5	0.49	0.40	0.49	35.3
Approach		88	2.0	97	2.0	0.109	5.1	LOS A	0.5	11.5	0.49	0.40	0.49	35.5
NorthEast: NW La Center Road														
1x	L2	77	1.2	85	1.2	0.785	15.7	LOS B	13.3	335.2	0.41	0.14	0.41	31.9
6x	T1	872	1.2	958	1.2	0.785	15.7	LOS B	13.3	335.2	0.41	0.14	0.41	33.5
Approach		949	1.2	1043	1.2	0.785	15.7	LOS B	13.3	335.2	0.41	0.14	0.41	33.4
SouthWest: NW La Center Road														
2x	T1	373	0.9	410	0.9	0.340	6.0	LOS A	2.0	50.9	0.29	0.15	0.29	39.5
12x	R2	15	0.9	16	0.9	0.340	6.0	LOS A	2.0	50.9	0.29	0.15	0.29	35.9
Approach		388	0.9	426	0.9	0.340	6.0	LOS A	2.0	50.9	0.29	0.15	0.29	39.3
All Vehicles		1425	1.2	1566	1.2	0.785	12.4	LOS B	13.3	335.2	0.38	0.16	0.38	35.0

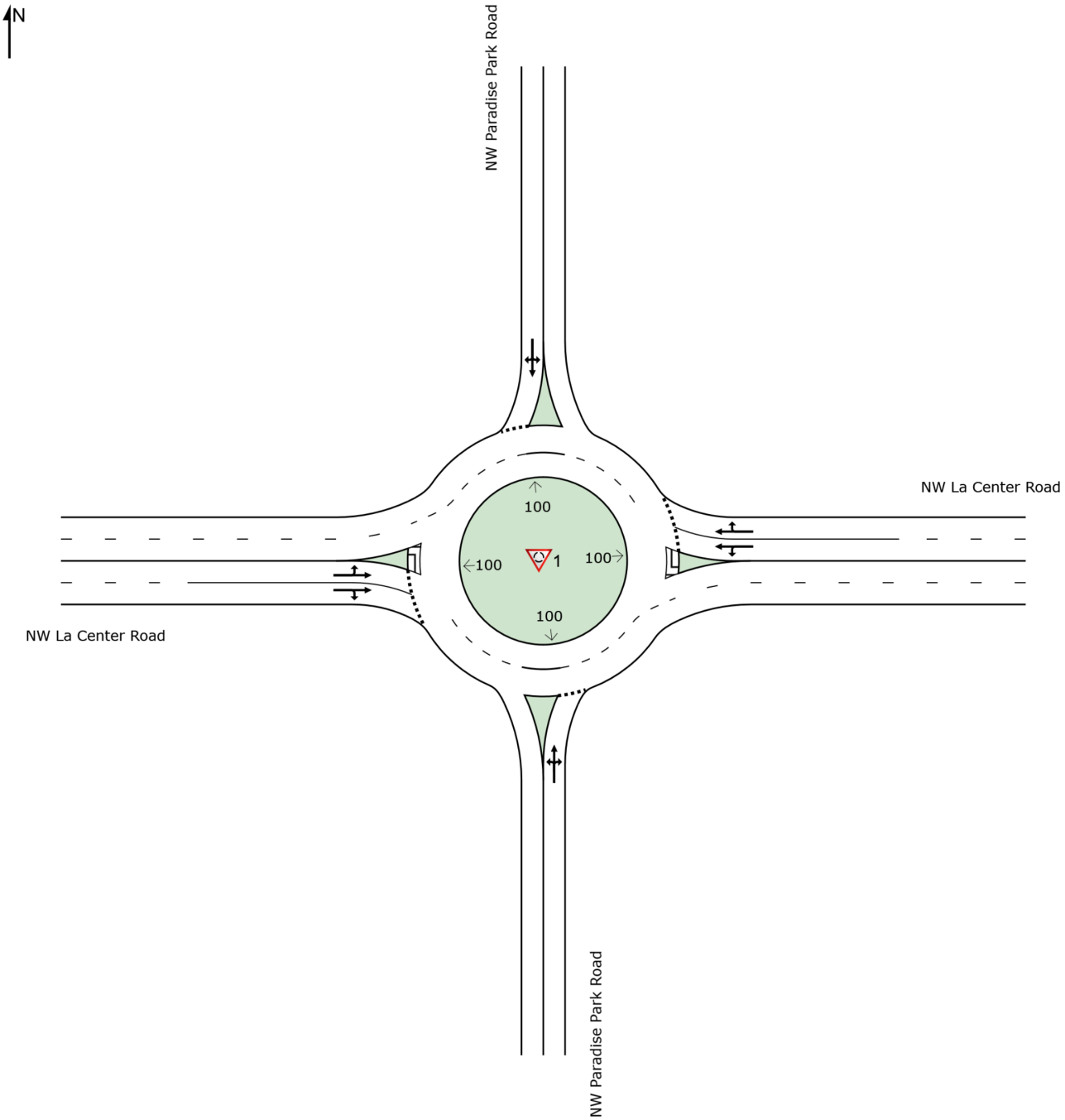
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 1 [Int. 1 - PM (Site Folder: General)]

NW Paradise Park Road at NW La Center Road
Site Category: 2024 Mitigated Conditions - PM Peak Hour
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 1 [Int. 1 - PM (Site Folder: General)]

NW Paradise Park Road at NW La Center Road
Site Category: 2024 Mitigated Conditions - PM Peak Hour
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NW Paradise Park Road														
3	L2	15	0.0	16	0.0	0.041	7.2	LOS A	0.1	3.4	0.63	0.63	0.63	29.8
8	T1	1	0.0	1	0.0	0.041	7.2	LOS A	0.1	3.4	0.63	0.63	0.63	29.6
18	R2	5	0.0	5	0.0	0.041	7.2	LOS A	0.1	3.4	0.63	0.63	0.63	28.8
Approach		21	0.0	22	0.0	0.041	7.2	LOS A	0.1	3.4	0.63	0.63	0.63	29.6
East: NW La Center Road														
1	L2	1	3.6	1	3.6	0.254	5.1	LOS A	1.2	30.9	0.26	0.14	0.26	32.3
6	T1	583	3.6	620	3.6	0.254	5.1	LOS A	1.2	30.9	0.26	0.14	0.26	32.1
16	R2	10	3.6	11	3.6	0.254	5.1	LOS A	1.2	30.9	0.26	0.14	0.26	31.1
Approach		594	3.6	632	3.6	0.254	5.1	LOS A	1.2	30.9	0.26	0.14	0.26	32.1
North: NW Paradise Park Road														
7	L2	18	11.1	19	11.1	0.077	5.7	LOS A	0.2	6.7	0.51	0.46	0.51	31.0
4	T1	2	11.1	2	11.1	0.077	5.7	LOS A	0.2	6.7	0.51	0.46	0.51	30.9
14	R2	33	11.1	35	11.1	0.077	5.7	LOS A	0.2	6.7	0.51	0.46	0.51	30.0
Approach		53	11.1	56	11.1	0.077	5.7	LOS A	0.2	6.7	0.51	0.46	0.51	30.3
West: NW La Center Road														
5	L2	82	2.1	87	2.1	0.406	6.5	LOS A	2.5	63.6	0.14	0.04	0.14	31.4
2	T1	947	2.1	1007	2.1	0.406	6.5	LOS A	2.5	63.6	0.14	0.04	0.14	31.3
12	R2	9	2.1	10	2.1	0.406	6.5	LOS A	2.5	63.6	0.14	0.04	0.14	30.6
Approach		1038	2.1	1104	2.1	0.406	6.5	LOS A	2.5	63.6	0.14	0.04	0.14	31.3
All Vehicles		1706	2.9	1815	2.9	0.406	6.0	LOS A	2.5	63.6	0.20	0.10	0.20	31.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
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Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 2 [Int. 2 - PM (Site Folder: General)]

NW Timmen Road at NW La Center Road
Site Category: 2024 Mitigated Conditions - PM Peak Hour
Roundabout

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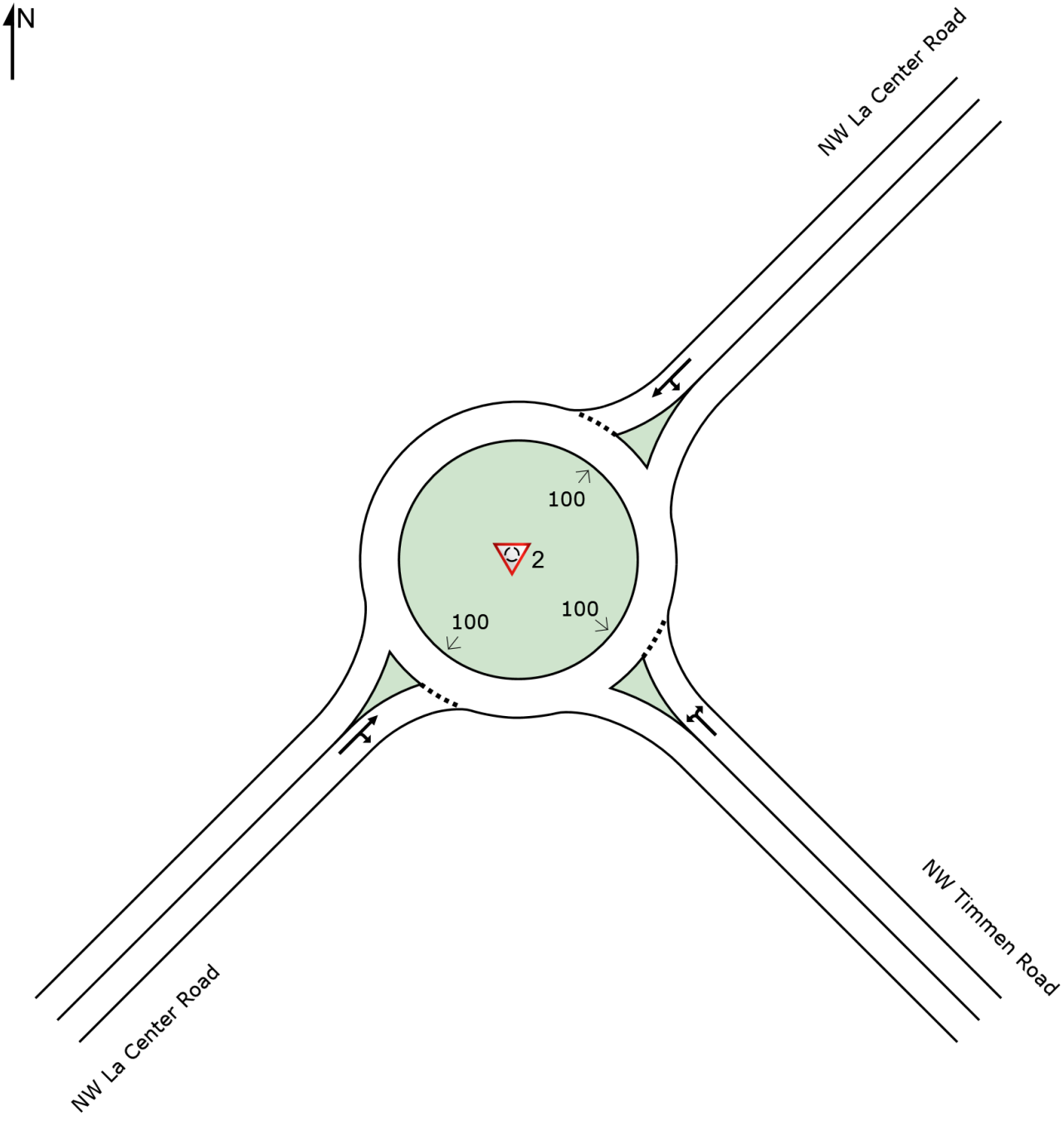

MOVEMENT SUMMARY

Site: 2 [Int. 2 - PM (Site Folder: General)]

NW Timmen Road at NW La Center Road
Site Category: 2024 Mitigated Conditions - PM Peak Hour
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
SouthEast: NW Timmen Road														
3x	L2	29	2.2	31	2.2	0.406	14.5	LOS B	1.9	49.0	0.75	0.83	1.02	31.6
18x	R2	154	2.2	166	2.2	0.406	14.5	LOS B	1.9	49.0	0.75	0.83	1.02	31.0
Approach		183	2.2	197	2.2	0.406	14.5	LOS B	1.9	49.0	0.75	0.83	1.02	31.1
NorthEast: NW La Center Road														
1x	L2	74	0.0	80	0.0	0.501	7.9	LOS A	4.1	101.8	0.22	0.08	0.22	35.7
6x	T1	549	0.0	590	0.0	0.501	7.9	LOS A	4.1	101.8	0.22	0.08	0.22	37.9
Approach		623	0.0	670	0.0	0.501	7.9	LOS A	4.1	101.8	0.22	0.08	0.22	37.7
SouthWest: NW La Center Road														
2x	T1	935	0.0	1005	0.0	0.810	17.6	LOS B	13.2	331.1	0.76	0.40	0.76	33.0
12x	R2	23	0.0	25	0.0	0.810	17.6	LOS B	13.2	331.1	0.76	0.40	0.76	30.4
Approach		958	0.0	1030	0.0	0.810	17.6	LOS B	13.2	331.1	0.76	0.40	0.76	32.9
All Vehicles		1764	0.2	1897	0.2	0.810	13.8	LOS B	13.2	331.1	0.57	0.33	0.60	34.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Exhibit A.18

www.arborscapetreecare.com
11113 NE 95th street
Vancouver Wa 98662
866-944-8733 office
360-326-1789 fax
ARBORSCAPETREECARE@gmail.com
OR CCB# 173431
WA# ARBORLI062Q8

Location: Valley View
2219 NE 339th St.
La Center WA

Arborist Report Site visit conducted: August 25, 2022

This site is currently a rural property used for farming with barns and residential structures on site. The trees on this site are mature landscape and fruit trees. Minimal tree maintenance has been done in the past. There are dead branches in the larger trees and fungal issues that have not been addressed.
No trees will be preserved on this site and all will be removed for the proposed construction.
The proposed development will require grade changes, building roads, trenching for utilities and digging foundations. All of these activities will impact the critical root zone of the existing trees.
The proposed development will be densely populated. Safety is of the highest priority in this residential development and the removal of the large mature trees will alleviate the possibility of hazardous or compromised mature trees falling on people or property. For these reasons we are requesting that all of the trees be removed and new trees planted in safe locations for the future residents.
Sheet P-2 of the drawings will show the location and tree inventory for this site.

Tree Preservation Plan:
No existing trees will be preserved. No neighboring trees will be affected by this development.
Timeline: Planting of new trees shall be done after construction has been completed and cleanup of construction debris has been removed.

Protection: Protect root systems from smothering: there will be no storage of construction materials or driving or parking of vehicles within the protected critical root zone of the newly planted trees.
Protect all plant growth, including root systems of tree and plants from the dumping of refuse or chemically injurious material or liquids. Also protect from continual puddling or running water
Do not install an impervious or hard surface within the root zone.

Maintenance: New trees will require watering and protection from lawn mowing equipment. During the first year apply water to keep the soil and mulch moist but not soggy. In dry weather, water generously every other day. Irrigation systems generally do not provide deep watering of young trees. Hand watering is preferred.
Avoid planting during the summer. Trees should be planted from November to April.

Staff Arborist:
Channah Buttrell - ISA Certified Arborist PN-8266A
Arborscape Ltd Inc.
11113 NE 95th Street
Vancouver WA 98662

Contact Person:
Kathleen Buttrell
360-944-5124
arborscapetreecare@gmail.com

Tree Inventory:

TREE NO.	DBH IN.	SPECIES	ACTION	NOTES	HEALTH and REMOVAL REASON
T-1	10	Maple	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-2	10	Maple	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-3	6	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-4	8	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-5	6	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-6	8	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-7	8	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-8	10	Maple	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-9	10	Maple	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-10	10	Maple	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-11	10	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-12	8	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-13	10	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-14	10	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-15	10	Linden	REMOVE	NE Corner	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING

T-16	10	Hornbeam	REMOVE	NE Corner	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-17	10	Hornbeam	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-18	10	Linden	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-19	6	Linden	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-20	6	Linden	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-21	10	Linden	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-22	8	Maple	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-23	8	Maple	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-24	8	Maple	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-25	8	Maple	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-26	6	Hawthorn	REMOVE	Along Fence	HEALTH AVERAGE - MULTI STEMMED, WILD VOLUNTEER ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-27	6	Hawthorn	REMOVE	Along Fence	HEALTH AVERAGE - MULTI STEMMED, WILD VOLUNTEER ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-28	58	Norway Maple	REMOVE	North Property line	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-29	54	Norway Maple	REMOVE	North Property line	HEALTH AVERAGE - NUISANCE PLANT LIST ,ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-30	50	Norway Maple	REMOVE	North Property line	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-31	26	Walnut	REMOVE	North Property line	HEALTH AVERAGE - NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-32	10	Hawthorn	REMOVE	Along Fence	HEALTH AVERAGE - MULTI STEMMED, WILD VOLUNTEER ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-33	10	Hawthorn	REMOVE	Along Fence	HEALTH AVERAGE - MULTI STEMMED, WILD VOLUNTEER ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-34	10	Hawthorn	REMOVE	Along Fence	HEALTH AVERAGE - MULTI STEMMED, WILD VOLUNTEER ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-35	26	Blue Spruce	REMOVE	Yard	HEALTH POOR - CANKER DISEASE PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-36	12	Pear	REMOVE	Field	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-37	28	Apple	REMOVE	field	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION

T-38	16	Pine	REMOVE	Yard	HEALTH AVERAGE, NO PREVIOUS MAINTENANCE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-39	32	Catalpa	REMOVE	Yard	HEALTH AVERAGE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-40	32	Catalpa	REMOVE	Yard	HEALTH AVERAGE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-41	14	Fir	REMOVE	Yard	HEALTH AVERAGE, NO PREVIOUS MAINTENANCE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-42	16	Fir	REMOVE	Yard	HEALTH AVERAGE, NO PREVIOUS MAINTENANCE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-43	40	Sequoia	REMOVE	Yard	HEALTH AVERAGE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-44	12	English Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-45	12	English Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-46	12	Dogwood	REMOVE	Corner of Storage Shed	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-47	16	Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-48	16	Apple	REMOVE	Yard	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-49	22	Apple	REMOVE	Yard	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-50	10	Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-51	15	Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-52	34	Apple	REMOVE	Shed	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-53	8	Apple	REMOVE	Yard	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-54	18	Pine	REMOVE	Yard	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-55	18	English Holly	REMOVE	Driveway West Side	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-56	20	English Holly	REMOVE	Driveway West Side	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-57	8	Dogwood	REMOVE	Driveway West Side	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION

T-58	8	Smoketree	REMOVE	Driveway West Side	HEALTH AVERAGE - ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-59	12	Japanese Maple	REMOVE	Driveway east side	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-60	12	Cherry	REMOVE	Barn east side	HEALTH AVERAGE - ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-61	16	Fir	REMOVE	Barn North side	HEALTH AVERAGE - MATURE TREE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-62	34	Walnut	REMOVE	East Field	HEALTH AVERAGE - MATURE TREE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-63	38	Walnut	REMOVE	East Field	HEALTH AVERAGE - MATURE TREE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-64	38	Walnut	REMOVE	East Field	HEALTH AVERAGE - MATURE TREE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-65	8	Magnolia clump	REMOVE	Yard	HEALTH AVERAGE - ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-66	18	English Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-67	8	English Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-68	28	Hemlock	REMOVE	Yard	HEALTH AVERAGE - MATURE TREE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-69	10	Maple	REMOVE	Yard	HEALTH AVERAGE - ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-70	24	Maple	REMOVE	Yard	HEALTH AVERAGE - MATURE TREE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION

www.arborscapetreecare.com
11113 NE 95th street
Vancouver Wa 98662
866-944-8733 office
360-326-1789 fax
ARBORSCAPETREECARE@gmail.com
OR CCB# 173431
WA# ARBORLI062Q8

December 15, 2022

Location: Valley View
2219 NE 339th St.
La Center WA

Supplemental Arborist Report Addressing Comments in the 30-Day Comment Letter

La Center planning staff have identified 3 existing trees on this site for potential preservation: T 43 (40" DBH Sequoia) , T 58 (8" DBH Smoke Tree), T 61 (16" DBH Doug Fir)

40" Sequoia - This tree cannot be preserved. The proximity to creating the roadway and other construction activities on this property, which includes grade changes, trenching for the foundation and curbs, and equipment use causing soil compaction will damage the critical root zone of this tree. Also stand-alone large trees are susceptible to wind damage in strong wind storms with targets for damage including the people and property very close to this tree.

8" Smoke Tree –This tree cannot be preserved. This tree will be sandwiched between lots 5 and 6. The current layout will have a grade change of 5' that will impact the critical root zone of this tree. The proximity to the construction activity on these properties, which includes grade changes, trenching for the foundations, and equipment use causing soil compaction will damage the critical root zone of this tree.

16" Doug Fir – This tree cannot be preserved. It is located in the future driveway/parking pad/turnaround for the future home that will be located on this proposed lot 21. Additionally, the proximity to the construction activity on this property, which includes grade changes, trenching for the foundation, and equipment use causing soil compaction will damage the critical root zone of this tree. Also stand-alone Douglas Fir trees are susceptible to wind damage and uprooting in strong wind storms. It is also very hard to remove a large tree in the backyard of a subdivision once the homes are built. Targets for damage would be lots 20, 25 and 26.

Staff Arborist: Channah Buttrell - ISA Certified Arborist PN-8266A
Arborscape Ltd Inc.
11113 NE 95th Street
Vancouver WA 98662

Contact Person: Kathleen Buttrell
360-944-5124
arborscapetreecare@gmail.com

Exhibit A.19

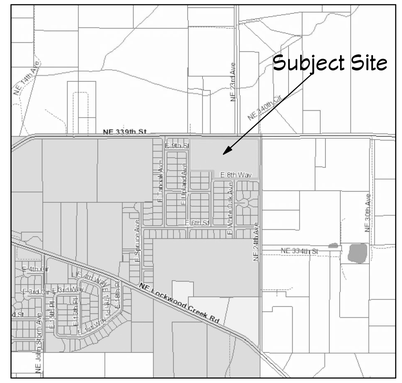
Valley View

A Subdivision In The
NE ¼ of Section 02, T4N R1E *WM*
County Parcel #s: ***209062000***
Site Address: **2219 NE 339th Street**
La Center, WA 98629
Site Area: **376,358+/- *SF (8.64+/- acres)***
Site Zoning: ***LDR-7.5***

TREE INVENTORY LIST FROM ARBORIST REPORT
PREPARED BY ARBORSCAPE:

TREE NO.	DBH IN.	SPECIES	ACTION	NOTES	HEALTH and REMOVAL REASON
T-1	10	Maple	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-2	10	Maple	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-3	6	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-4	8	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-5	6	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-6	8	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-7	8	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-8	10	Maple	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-9	10	Maple	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-10	10	Maple	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-11	10	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-12	8	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-13	10	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-14	10	Linden	REMOVE	East Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-15	10	Linden	REMOVE	NE Corner	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-16	10	Hornbeam	REMOVE	NE Corner	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-17	10	Hornbeam	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-18	10	Linden	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-19	6	Linden	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-20	6	Linden	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-21	10	Linden	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-22	8	Maple	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-23	8	Maple	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-24	8	Maple	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-25	8	Maple	REMOVE	North Property line	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-26	6	Hawthorn	REMOVE	Along Fence	HEALTH AVERAGE - MULTI STEMMED, WILD VOLUNTEER ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-27	6	Hawthorn	REMOVE	Along Fence	HEALTH AVERAGE - MULTI STEMMED, WILD VOLUNTEER ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-28	58	Norway Maple	REMOVE	North Property line	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-29	54	Norway Maple	REMOVE	North Property line	HEALTH AVERAGE - NUISANCE PLANT LIST ,ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-30	50	Norway Maple	REMOVE	North Property line	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-31	26	Walnut	REMOVE	North Property line	HEALTH AVERAGE - NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-32	10	Hawthorn	REMOVE	Along Fence	HEALTH AVERAGE - MULTI STEMMED, WILD VOLUNTEER ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-33	10	Hawthorn	REMOVE	Along Fence	HEALTH AVERAGE - MULTI STEMMED, WILD VOLUNTEER ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-34	10	Hawthorn	REMOVE	Along Fence	HEALTH AVERAGE - MULTI STEMMED, WILD VOLUNTEER ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-35	26	Blue Spruce	REMOVE	Yard	HEALTH POOR - CANKER DISEASE PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-36	12	Pear	REMOVE	Field	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-37	28	Apple	REMOVE	field	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-38	16	Pine	REMOVE	Yard	HEALTH AVERAGE, NO PREVIOUS MAINTENANCE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-39	32	Catalpa	REMOVE	Yard	HEALTH AVERAGE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-40	32	Catalpa	REMOVE	Yard	HEALTH AVERAGE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-41	14	Fir	REMOVE	Yard	HEALTH AVERAGE, NO PREVIOUS MAINTENANCE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-42	16	Fir	REMOVE	Yard	HEALTH AVERAGE, NO PREVIOUS MAINTENANCE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-43	40	Sequoia	REMOVE	Yard	HEALTH AVERAGE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-44	12	English Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-45	12	English Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-46	12	Dogwood	REMOVE	Corner of Storage Shed	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-47	16	Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-48	16	Apple	REMOVE	Yard	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-49	22	Apple	REMOVE	Yard	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-50	10	Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-51	15	Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-52	34	Apple	REMOVE	Shed	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-53	8	Apple	REMOVE	Yard	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-54	18	Pine	REMOVE	Yard	HEALTH AVERAGE - NO MAINTENANCE IN THE PAST, ROOTZONE WILL BE IMPACTED BY GRADING
T-55	18	English Holly	REMOVE	Driveway West Side	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-56	20	English Holly	REMOVE	Driveway West Side	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-57	8	Dogwood	REMOVE	Driveway West Side	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-58	8	Smoketree	REMOVE	Driveway West Side	HEALTH AVERAGE - ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-59	12	Japanese Maple	REMOVE	Driveway east side	HEALTH POOR - FUNGAL PATHOGENS PRESENT, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-60	12	Cherry	REMOVE	Barn east side	HEALTH AVERAGE - ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-61	16	Fir	REMOVE	Barn North side	HEALTH AVERAGE - MATURE TREE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-62	34	Walnut	REMOVE	East Field	HEALTH AVERAGE - MATURE TREE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-63	38	Walnut	REMOVE	East Field	HEALTH AVERAGE - MATURE TREE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-64	38	Walnut	REMOVE	East Field	HEALTH AVERAGE - MATURE TREE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-65	8	Magnolia clump	REMOVE	Yard	HEALTH AVERAGE - ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-66	18	English Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-67	8	English Holly	REMOVE	Yard	HEALTH AVERAGE - NUISANCE PLANT LIST, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-68	28	Hemlock	REMOVE	Yard	HEALTH AVERAGE - MATURE TREE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-69	10	Maple	REMOVE	Yard	HEALTH AVERAGE - ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION
T-70	24	Maple	REMOVE	Yard	HEALTH AVERAGE - MATURE TREE, NO PREVIOUS MAINTENANCE, LARGE ROOT ZONE, ROOT ZONE WILL BE IMPACTED BY GRADING AND CONSTRUCTION

VICINITY MAP



STREET TREE PLAN NOTES:

1. Proposed street trees are shown on the preliminary plat at 30' intervals.
2. Final location of street trees on all "Local Access" roads may differ at building permit based on driveway and utility locations.
3. All proposed trees shall be from LCMC Table 18.340.040(2) Native Plant List.
4. All new trees shall meet the minium standard sizes as prescribed in LCMC 18.350.050(1).
5. Total street trees proposed equals 147.

MITIGATION FOR TREE REMOVAL PLAN NOTES:

1. Development of the property will require extensive grading. This in conjunction with proposed storm water facility areas and street layout, it is presumed that all existing trees will be removed.
2. Per this Tree Survey Map and Tree Inventory List prepared by Arborscape, 33 trees with a trunk diameter greater than 10" will be removed.
3. Mitigation of the removal of these trees is accomplished through the proposed Street Trees listed above. 147 street trees are proposed.
4. All new trees shall meet the minium standard sizes as prescribed in LCMC 18.350.050(1).
5. Refer to Arborist Report prepared by Arborscape submitted with this application for more information.

N

0 40 80

CURRENT OWNER:
The Chicken Ranch, LLC
PO Box 128
La Center, Washington 98629
503-348-1134
sandyperrott888@hotmail.com

#	DATE	REVISION TABLE REVISED BY	NOTES

Valley View
A Subdivision In The
NE ¼ of Section 02, T4N R1E WM
County Parcel #s: *209062000*
Site Address: **2219 NE 339th Street**
La Center, WA 98629

Tree Survey Map & Inventory
Tree Removal Plan
With Proposed Grading
& Building Envelopes

APPLICANT:
KDEV, LLC
MASON WOLFE
740 S 35TH AVENUE
RIDGEFIELD WASHINGTON 98642
360-471-4035
mason@wolfepm.com

APPLICANT'S REPRESENTATIVE:
Wolfe Project Management, LLC
Mason Wolfe
2401 W Main Street, Suite 210
Battle Ground, Washington 98604
360-907-9588
mason@wolfepm.com

DATE:
10/27/2022

SCALE:
1" = 40'

SHEET:
P-2

Exhibit A.20

APPLIED
ARCHAEOLOGICAL
RESEARCH, INC.
Cultural Resource Management and Historic Preservation

4001 NE Halsey Street, Suite 3
Portland, OR 97232
Phone (503) 281-9451

December 16, 2022

Ethan Spoo
City of La Center Planning Consultant
ethan.spoo@wsp.com

Re: Mitigation Strategy for the Anderson Pioneer Homestead, Valley View Subdivision Development Project, La Center, WA

Dear Mr. Spoo:

In response to your letter dated December 8, 2022, and to the phone conversation we had this morning, Applied Archaeological Research, Inc. (AAR) proposes a mitigation strategy for the Valley View Subdivision development project. As outlined in this letter, AAR's strategy would mitigate project-related impacts to the Anderson Pioneer Homestead and no further cultural resource work would be required.

In brief, eleven buildings at 2219 NE 339th Street in La Center, WA, would be removed as part of the redevelopment project. These buildings comprise the Anderson Pioneer Homestead and are eligible for inclusion in the National Register of Historic Places (NRHP), as recommended in an earlier study (Taber and Finley 2022) and as determined by the Washington Department of Archaeology and Historic Preservation (DAHP).

AAR's proposed mitigation strategy has two elements: (1) the preparation of supplemental information regarding the historical significance of the pioneer homestead and (2) public dissemination of this information. It would supplement the initial Reconnaissance-level recording of the homestead and would meet the state's requirements for Intensive-level documentation.

Specifically, AAR will conduct research to identify:

- historical images of the Anderson Pioneer Homestead;
- any architect or builder associated with the homestead buildings; and
- additional information regarding the history of the Anderson family or their agricultural operation.

At a minimum, research would be conducted at the La Center Historical Museum and the Clark County Historical Museum but may also include materials obtained from other reputable archives related to the history of Washington.

The results of this supplemental research will be added to the existing entries for the Anderson Pioneer Homestead in the WISAARD online database (https://wisaard.dahp.wa.gov), the primary archive of historic properties maintained by Washington DAHP. Information about historic buildings in this database is freely accessible to the public.

This work would be conducted by me, assisted by AAR staff historians under my direct technical supervision. As AAR's Architectural Historian for the last 23 years, I meet the Secretary of the Interior's Historic Preservation Professional Qualification Standards.

Expectations

While other project stakeholders may provide comments or recommendations related to this mitigation, it is **not** expected that these parties would require retention of any of the Anderson Pioneer Homestead buildings.

AAR expects that the research project **would not** interrupt the overall project implementation schedule.

AAR expects that **no** further cultural resource investigation would be required for this project.

Closure

We here at AAR look forward to working with you on this project. Please contact me if I can provide additional information or answer any questions.

Sincerely,

Aimee A. Finley, M.S.
Architectural Historian
aimee.a.finley@gmail.com
503-333-6622

Exhibit B.1

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background

1. Name of proposed project, if applicable: **Valley View**

2. Name of applicant: **Summerplace Homes, Inc.**

3. Address and phone number of applicant and contact person:

12401 SE 2nd Circle, Suite A, Vancouver WA 98684 / (360)-253-1488 / Shawn Macfarlane.

4. Date checklist prepared: **September 19, 2022.**

5. Agency requesting checklist: **City of La Center.**

6. Proposed timing or schedule (including phasing, if applicable): **Subdivision construction Start May, 2023. Home construction start estimated late 2023, early 2024 and continuing through 2025.**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. **No.**

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. **There are no environmentally sensitive areas or features on the site or within 100' of the site that affect the site. Site is surrounded on 4 sides by public roads. Refer to Technical Memorandum completed by Cascadia Ecological Services submitted with application.**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. **No.**

10. List any government approvals or permits that will be needed for your proposal, if known.
City of La Center Preliminary Plat, Final Engineering and Final Plat approvals. City of La Center building Permits.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)
Subdivide 8.64 acres into 34 single family residential lots.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.
2219 NE 339th Street, La Center WA 98629. From NE Lockwood Creed Road, head north on NE 24th Avenue to site.

B. Environmental Elements

1. *Earth*

a. General description of the site:

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

b. What is the steepest slope on the site (approximate percent slope)? **10%.**

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Silty Clay; Sandy Silt, Clay. No commercial agricultural land.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. No.

City Note: The site contains NEHRP class "D" soils for ground shaking amplification.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. All cut and embankment is proposed to be excavated onsite with no expected import or export. Expected to cut and embankment an area roughly 8 acres with an estimate volume of 15,700 cy of cut and 17,500 cy of embankment.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes, during large rain events, some erosion could occur during clearing & construction activities.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? Approximately 64%.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

A full erosion control plan will be prepared by civil engineer and approved by City of La Center that all contractors shall comply with.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. Some emissions from equipment during construction. Some emissions from automotive vehicles after completion.

City Note: Construction activities may produce dust.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. No.

c. Proposed measures to reduce or control emissions or other impacts to air, if any: None proposed.

City Note: The applicant will be conditioned with SEPA mitigation measures to prohibit idling of construction equipment and be required to shut off the equipment while not in use. They will also be conditioned to apply BMPs to reduce dust during construction.

3. Water

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. No.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. No.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. N/A

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. No.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. No.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. No.

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. No.

City Note: There is an existing well on site that the applicant will be required to be decommissioned prior to construction of the site.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. None.

City Note: There is an existing septic system on site that the applicant will be required to be decommissioned prior to construction of the site.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. Project runoff will be collected, treated, detained and meter released as allowed by code.

City Note: Source of stormwater runoff will be from impervious surface including homes, driveways, sidewalks, and roads.

2) Could waste materials enter ground or surface waters? If so, generally describe. No.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. No.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any: None necessary.

*4. **Plants***

a. Check the types of vegetation found on the site:

X deciduous tree: alder, maple, aspen, other
X evergreen tree: fir, cedar, pine, other
X shrubs
X grass
X pasture
___ crop or grain
___ Orchards, vineyards or other permanent crops.
___ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
___ water plants: water lily, eelgrass, milfoil, other
___ other types of vegetation

b. What kind and amount of vegetation will be removed or altered?
Most trees and shrubs removed.

c. List threatened and endangered species known to be on or near the site.
None known. **City Note: According to the US Fish & Wildlife IPaC database, threatened species potentially affected are the Colombian White-tailed deer, yellow-billed cuckoo, bull trout, golden paintbrush, and Nelson's checker-mallow. However, there are no critical habitats at this location.**

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: New homeowners will landscape their yards.

City Note: Street trees are proposed to mitigate for existing trees to be removed on site.

e. List all noxious weeds and invasive species known to be on or near the site.
None known. **City Note: The provided critical areas report by Cascadia Ecological Services, Inc. indicates Canada thistle (*cirsium arvense*) has been identified on site. This is a listed invasive specie.**

5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Songbirds, swallows, coyote, deer.

Examples include:

birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other _____

b. List any threatened and endangered species known to be on or near the site. None known.

c. Is the site part of a migration route? If so, explain. Yes. Pacific Flyway.

d. Proposed measures to preserve or enhance wildlife, if any:
New homeowners will landscape their yards.
City Note: Street trees are proposed.

e. List any invasive animal species known to be on or near the site. None known.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. Electric and possibly natural gas will be used for general household uses.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
New homes will use latest common practice energy conservation features.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. No.
City Note: There is potential exposure to contaminated soils as this site has been historically farmed. Also, there is a temporary risk of automotive spill from construction equipment while the site is being developed.

1) Describe any known or possible contamination at the site from present or past uses.

None known.

City Note: Previous historic use of the site was a chicken farm, which poses potential for soil contamination.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity. None known.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

None.

City Note: Short-term use and parking of construction equipment will occur.

4) Describe special emergency services that might be required. None.

5) Proposed measures to reduce or control environmental health hazards, if any: None necessary.

City Note: The applicant will be required to provide a spill prevention control and countermeasures plan for any hazardous spills on site from automotive fluids during construction of the site.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? None.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. Long Term: Some new vehicular noise permanently. Short Term: Some construction and construction equipment noise during site development and new home construction.

3) Proposed measures to reduce or control noise impacts, if any: None necessary.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

All residential single family detached housing with barns and pasture. Proposal will not affect any other existing uses.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? No.

City Note: The project site was a former chicken farm. The entire site would be converted from a working farm to single-family residential.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how: No. **City Note: The project site is adjacent to properties with working farms, but isn't expected to affect the operation of these farms.**

c. Describe any structures on the site. Residential home, shops, a barn, sheds/accessory buildings.

d. Will any structures be demolished? If so, what? All structures will be removed.

City Note: Existing structures are eligible to be NRHP registered.

e. What is the current zoning classification of the site? Low Density Residential, specifically LDR-7.5.

f. What is the current comprehensive plan designation of the site? **Residential Urban Low.**

g. If applicable, what is the current shoreline master program designation of the site? **None, N/A.**

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. **No.**

i. Approximately how many people would reside or work in the completed project?
Approximately 85 would reside.

j. Approximately how many people would the completed project displace? **None.**

k. Proposed measures to avoid or reduce displacement impacts, if any: **None necessary.**

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: **The proposal will comply with all City and State regulations/codes.**

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any: **None, N/A.**

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. **34 new homes for middle to upper income buyers.**

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. **None.**

c. Proposed measures to reduce or control housing impacts, if any: **None proposed.**

City Note: The applicant is subject to pay traffic, parks, and schools impact fees.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? **2 story maximum from road, with some daylight basements in addition. Exterior materials undetermined at present.**

b. What views in the immediate vicinity would be altered or obstructed? **None.**

City Note: The site includes a home and several barns and outbuildings. However, a large portion is undeveloped. Developing this site will reduce views and sight-lines in the immediate vicinity.

c. Proposed measures to reduce or control aesthetic impacts, if any: **None proposed.**

City Note: The applicant is subject to City landscaping requirements, including street trees to reduce aesthetic impacts.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? **Some new vehicular headlights during travel to and from site permanently.**

b. Could light or glare from the finished project be a safety hazard or interfere with views? **No.**

c. What existing off-site sources of light or glare may affect your proposal? **None known.**

d. Proposed measures to reduce or control light and glare impacts, if any: **None necessary.**

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?
Sternwheeler Park. Public schools. Other unknown parks.

b. Would the proposed project displace any existing recreational uses? If so, describe. **No.**

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: **None necessary.**

City Note: The applicant is subject to parks impact fees upon final approvals.

13. Historic and cultural preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers ? If so, specifically describe. **Yes, refer to archaeological report prepared by Applied Archaeological Research Inc. submitted with this application for more details.**

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. **None known.**

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

An archaeological survey was performed and submitted to the Washington Sate Department of Cultural and Historic Resources.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

None proposed besides City and State required civil construction plan note and final plat note about findings per City and State codes. And allow/permitted mitigation for building removal.

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

Site is served by NE 24th Avenue, NE 8th Way, NE Vine Maple Avenue, NE 339th Street and NE Upland Avenue.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? **Not served directly. Nearest stop unknown at time of application.**

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? **Parking along interior streets and in driveways and garages of new homes. None eliminated.**

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). Improvements to several public properties, refer to preliminary plat for details.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. No.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? Approximately 310 average daily trips. Peak volumes typically occur 7-8am and and 5-6pm. Unknown % of trucks. Just those for typical daily deliveries and garbage/recycle services.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. No.

h. Proposed measures to reduce or control transportation impacts, if any: None proposed.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

Yes. Slight increase in all services.

b. Proposed measures to reduce or control direct impacts on public services, if any.

Builder will pay all required impact fees.

16. Utilities

a. Circle utilities currently available at the site:
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. Clark PUD for water and electricity. NW Natural Gas for natural gas. City of La Center for sanitary sewer. Waste Management for garbage and recycling. Trenching will be required to install all services.

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: .....

Name of signee ...Mason Wolfe.....

Position and Agency/Organization ...Planner, Wolfe Project Management, LLC.....

Date Submitted: ...9-19-2022.....

D. Supplemental sheet for nonproject actions

(**IT IS NOT NECESSARY** to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed measures to protect such resources or to avoid or reduce impacts are:

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

   Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

   Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

STATE ENVIRONMENTAL POLICY ACT (SEPA) MITIGATED DETERMINATION OF NON-SIGNIFICANCE

Valley View Subdivision Type III Preliminary Plat, SEPA, Critical Areas Permit, Legal Lot Determination, and Tree Cutting Permit (File # 2022-034-SUB/SEPA/CAR/LLD/TRE)

Description of proposal: The applicant proposes to subdivide the 8.64-acre site located at 2219 Northeast 339th Street (Parcel 209062000) into 34 lots for single-family detached residences. A public road system would serve the development connecting to Northeast 339th Street and Northeast 24th Avenue. The site will also be served by multiple existing street stubs from the Heritage Country Estates development from the west and south including East 9th Street, East Upland Avenue, East Vine Maple Avenue, and East White Oak Avenue. Lots within the development would range in size from 7,500 square feet to 9,082 square feet. The request also includes a critical areas permit for geologically hazardous areas ("Site Class D" for ground shaking amplification).

SEPA Determination: NOTICE IS HEREBY GIVEN that the City makes the following findings and conclusions based upon a review of the environmental checklist; other information on file with the City of La Center and other public agencies; and the policies, and regulations designated by the City as a basis for the exercise of substantive authority under the Washington State Environmental Policy ACT (SEPA) pursuant to Chapter 43.21C WAC. Based on a review of the code, the City of La Center hereby issues a **Mitigated Determination of Non-Significance (MDNS)** for this proposal pursuant to WAC 197-11-350 and the La Center Municipal Code (LCMC 18.310). An Environmental Impact Statement is not required under RCW 43.21c.031(1).

A combined notice of application and public comment period was held under the optional MDNS procedures specified in WAC 197-11-355. This MDNS is hereby final and there is no further opportunity for comment.

Application: Valley View Subdivision Type III Preliminary Plat, Critical Areas Permit, SEPA, legal lot determination, and tree cutting permit (File # 2022-034-SUB/SEPA/CAR/LLD/TRE)

Application date: September 26, 2022

Technically Complete: November 2, 2022

Proponent: Representative: Mason Wolfe, Wolfe Project Management, LLC, 2401 West Main Street, Suite 210, Battle Ground, WA 98604.

Applicant: Mason Wolfe, KDev, LLC, 740 South 85th Avenue, Ridgefield, WA 98642.

Property owner: Sandra Perrott, The Chicken Ranch, LLC, P.O. Box 128, La Center ,WA 98629.

Location of proposal: 2219 Northeast 339th Street, La Center, WA 98629 (Parcel No. 209062000).

Public Hearing: A public hearing is scheduled for January 5, 2023, at 5:30 p.m. at La Center City Hall, 210 East 4th Street, La Center, WA 98629.

Existing Environmental Documents relied upon: The State Environmental Policy Act (SEPA) requires that a review of the potential environmental impacts be conducted. City staff reviewed the proposal for compliance with applicable state requirements and city codes.

The following environmental documents were relied upon in the City's issuance of a mitigated determination of non-significance: SEPA Environmental Checklist dated, September 19, 2022; Narrative (Wolfe Project Management, LLC, October 2022 and supplemental December 15, 2022); Preliminary Technical Information Report (The Wolfe Groupe, LLC, July 2022); Geotechnical Site Investigation (True North Geotechnical Services, August 8, 2022);

Traffic Analysis Report (Lancaster Mobley, September 20, 2022); Clark County Archaeological Predetermination Survey for the Valley View Subdivision (June 20, 2022); Critical Areas Report (Cascadia Ecological Services, Inc, June 30, 2022); Arborist Report (Arborscape Ltd., Inc., August 25, 2022 and December 15, 2022); Tree Survey Map and Inventory (Arborscape Ltd., Inc. and Minster-Glaeser Surveying, Inc., October 27, 2022 and November 15, 2022), Mitigation Strategy for the Anderson Pioneer Homestead (Applied Archaeological Research, Inc., December 16, 2022), and Valley View Subdivision Plans (The Wolfe Groupe, LLC and Minster-Glaeser Surveying, Inc).
Statement of Determination: As lead agency under the State Environmental Policy Act (SEPA) rules [Chapter 197-11, Washington Administrative Code] the City of La Center must determine if there are potential significant adverse environmental impacts associated with this proposal. The options include the following:

- Determination of Significance – (DS) The impact cannot be mitigated and therefore requires the preparation of an Environmental Impact Statement (EIS).
- Mitigated Determination of Nonsignificance – (MDNS) The impact can be mitigated through conditions of approval, or;
- Determination of Nonsignificance – (DNS) The impacts can be addressed by applying the city codes.

Approval Standards/Applicable Laws: The following standards will apply to the application: 18.30 Procedures; 18.130 Low Density Residential; 18.200 General Provisions; 18.210 Subdivision Provisions; 18.225 Legal Lot Determinations; 18.230 Monumentation, Survey, and Drafting Standards; 18.240 Mitigation of Adverse Impacts; 18.245 Supplementary Development Standards; 18.280 Off-Street Parking and Loading Requirements; 18.282 Outdoor Lighting; 18.300 Critical Areas; 18.310 Environmental Policy; 18.320 Stormwater and Erosion Control; 18.340 Native Plant List; 18.350 Tree Protection; and 18.360 Archaeological Resource Protection.

Mitigation Measures: The applicant will be required to comply with all applicable approval standards and laws in addition to the following project-specific mitigation measures:

- General: The applicant shall abide by the requirements in the comment letter from the Washington Department of Ecology dated November 30, 2022.
- Earth: The applicant must comply with the design recommendations of the geotechnical site investigation by True Geotechnical Services dated August 8, 2022.
- Air: The applicant is required to apply best management practices to reduce dust during construction
- Air: Construction equipment shall not be permitted to idle and is required to be shut off while not in use.
- Water: The applicant shall decommission the existing private well prior to ground disturbance in accordance with Clark County and State of Washington requirements and must provide evidence of the approval and decommissioning in accordance with agency requirements.
- Water: The applicant must use approved erosion control best management practices during construction in compliance with LCMC 18.320 and the final approved stormwater technical information report.
- Plants: The applicant shall provide mitigation required by LCMC 18.350 for all trees on-site of 10 inches diameter at breast height (dbh) or greater as inventoried by Arborscape Ltd, Inc dated October 27, 2022. All proposed street trees are to be planted thirty feet apart at center or as approved by the Public Works Director to accommodate driveways, utilities, and other required improvements.
- Environmental Health: The applicant shall complete a phase 1 environmental site assessment prior to ground disturbance to document any potential contamination and implement any recommendations of this report.
- Environmental Health: The applicant shall comply with approved construction hours as required by the City of La Center.
- Environmental Health. The applicant shall decommission the existing septic system prior to construction in accordance with Clark County requirements.
- Light and Glare: The applicant shall comply with the requirements of LCMC 18.282 (Outdoor Lighting).
- Recreation: The applicant is required to pay park impact fees prior to issuance of building permits.
- Historic and cultural preservation: Existing buildings on the site are 45 years of age or older and meet registration requirements for listing on the National Register of Historic Places (NRHP). The applicant shall complete an additional assessment of these buildings by an architectural historian assessing impacts and potential mitigations for these buildings as recommended by the Clark County Archaeological Predetermination Survey for the Valley View Subdivision (June 20, 2022). A preliminary assessment and mitigation strategy is provided by Applied Archaeological Research, Inc. and dated December 16, 2022.

This assessment and mitigation strategy shall be completed prior to final engineering approval. Should the forthcoming assessment by an architectural historian or concurrent review of the assessment by a qualified professional determine that one or more of the buildings should be preserved, the City may, but is not obligated, to require that the applicant apply for and receive approval of a post decision review application of the preliminary plat approval that redesigns the site to accommodate the buildings to be preserved. If building preservation is determined to by appropriate by the City and a qualified professional, the City will amend this SEPA MDNS and reissue it for notice and determination.

- Historic and cultural preservation: In the event any archaeological or historic materials are encountered during project activity, work in the immediate area (initially allowing for a 100' buffer; this number may vary by circumstance) must stop and the following actions taken:
    - Implement reasonable measures to protect the discovery site, including any appropriate stabilization or covering;
    - Take reasonable steps to ensure confidentiality of the discovery site; and,
    - Take reasonable steps to restrict access to the site of discovery.

  The applicant shall notify the concerned Tribes and all appropriate county, city, state, and federal agencies, including the Washington Department of Archaeology and Historic Preservation and the City of La Center. The agencies and Tribe(s) will discuss possible measures to remove or avoid cultural material and will reach an agreement with the applicant regarding actions to be taken and disposition of material. If human remains are uncovered, appropriate law enforcement agencies shall be notified first, and the above steps followed. If the remains are determined to be Native, consultation with the affected Tribes will take place in order to mitigate the final disposition of said remains.

  See the Revised Code of Washington, Chapter 27.53, "Archaeological Sites and Resources," for applicable state laws and statutes. See also Washington State Executive Order 05-05, "Archaeological and Cultural Resources." Additional state and federal law(s) may also apply.

  Copies of the above inadvertent discovery language shall be retained on-site while project activity is underway.

Contact	Information
Cowlitz Indian Tribe, Nathan Reynolds, Interim Cultural Resources Manager	Phone: 360-575-6226; email: nreynolds@cowlitz.org
City of La Center, Bryan Kast, Public Works Director	Phone: 360-263-2889; email: bkast@ci.lacenter.wa.us
Office of the Clark County Medical Examiner (for human remains)	Phone: 564-397-8405; email: medical.examiner@clark.wa.gov
Washington DAHP, Dr. Allison Brooks, Ph.D, Director	Phone: 360-586-3066; email: Allyson.Brooks@dahp.wa.gov

- Transportation: The applicant shall comply with the recommendations of the Traffic Analysis Report (Lancaster Mobley, September 20, 2022).
- Transportation: The applicant is required to pay transportation impact fees prior to issuance of building permits.
- Utilities: The applicant is required to pay sewer system development charges prior to issuance of building permits.

Date: December 21, 2022 **Signature:** 

Issued: December 21, 2022

Valley View Subdivision Type III Preliminary Plat, Variance, SEPA, Critical Areas Permit, Legal Lot Determination, and Tree Cutting Permit (File # 2022-034-SUB/SEPA/CAR/LLD/TRE)

Date Published: December 21, 2022

Attached is a Mitigated Determination of Non-Significance (MDNS) and associated environmental checklist issued pursuant to the State Environmental Policy Act (SEPA) rules (WAC 197-11). The City (lead agency) completed evaluation of the environmental checklist as required by WAC 197-11. The City issued a SEPA MDNS under the optional DNS procedures in WAC 197-11-355. There is no additional comment period for this determination.

Please address any correspondence to: Jessica Nash, Permit Technician
ATTN: SEPA COMMENTS – Lockwood Meadows Subdivision
210 East 4th Street
La Center, WA 98629

DISTRIBUTION:

Federal Agencies:
National Marine Fisheries, PRD Division (Mail)
Forest Service, US Department of Agriculture, WA (Email)
US Army Corps of Engineers, Regulatory Functions Branch (Mail)

Native American Interests:
Confederated Tribes of the Grande Ronde (Mail)
Cowlitz Tribe, Natural Resources Department (Mail).
Yakama Nation (Email)

State Agencies:
Dept of Ecology (Email)
Dept of Health, Office of Drinking Water (Email)
Dept of Commerce (Email)
Dept of Fish & Wildlife, Region 5 (Email)
Dept of Natural Resources, SEPA Center (Email)
Dept of Transportation, Environmental Services (Email)
Dept of Transportation, SW Region (Email)
Department of Archaeology & Historic Preservation (Email)
Washington Parks & Recreation Commission (Email)

Local Agencies:
Clark County, Dept of Community Development (Email)
Clark County, Dept of Health (Email)
Clark County, Dept of Parks & Recreation (Mail)
Clark County, Dept of Public Works (Email)
Clark County Sheriff (Email)
Clark County Fire and Rescue (Email)
City of Vancouver, Dept of Parks & Recreation (Email)
City of Vancouver
City of Camas, Community Development (Email)
Town of Yacolt (Email)
City of Ridgefield (Email)
La Center Community Library (Mail)
La Center Police Department (Email)

School Districts:	La Center (WA) School District (Mail)
Special Purpose Agencies:	Clark Public Utilities (Email) Columbia River Economic Development Council (Email) Lower Columbia Fish Recovery Board (Email) C-TRAN (Email) Southwest Clean Air Agency (Email) Southwest Washington Regional Transportation Council (Email) Council Clark Regional Wastewater District (Email) Vancouver Wildlife League (Mail) NW Natural (Mail) TDS Telecom (Mail) CenturyLink (Email) Washington State Department of Corrections (Email)

APPLIED
ARCHAEOLOGICAL
RESEARCH, INC.
Cultural Resource Management and Historic Preservation

4001 NE Halsey Street, Suite 3
Portland, OR 97232
Phone (503) 281-9451

December 16, 2022

Ethan Spoo
City of La Center Planning Consultant
ethan.spoo@wsp.com

Re: Mitigation Strategy for the Anderson Pioneer Homestead, Valley View Subdivision Development Project, La Center, WA

Dear Mr. Spoo:

In response to your letter dated December 8, 2022, and to the phone conversation we had this morning, Applied Archaeological Research, Inc. (AAR) proposes a mitigation strategy for the Valley View Subdivision development project. As outlined in this letter, AAR's strategy would mitigate project-related impacts to the Anderson Pioneer Homestead and no further cultural resource work would be required.

In brief, eleven buildings at 2219 NE 339th Street in La Center, WA, would be removed as part of the redevelopment project. These buildings comprise the Anderson Pioneer Homestead and are eligible for inclusion in the National Register of Historic Places (NRHP), as recommended in an earlier study (Taber and Finley 2022) and as determined by the Washington Department of Archaeology and Historic Preservation (DAHP).

AAR's proposed mitigation strategy has two elements: (1) the preparation of supplemental information regarding the historical significance of the pioneer homestead and (2) public dissemination of this information. It would supplement the initial Reconnaissance-level recording of the homestead and would meet the state's requirements for Intensive-level documentation.

Specifically, AAR will conduct research to identify:

- historical images of the Anderson Pioneer Homestead;
- any architect or builder associated with the homestead buildings; and
- additional information regarding the history of the Anderson family or their agricultural operation.

At a minimum, research would be conducted at the La Center Historical Museum and the Clark County Historical Museum but may also include materials obtained from other reputable archives related to the history of Washington.

The results of this supplemental research will be added to the existing entries for the Anderson Pioneer Homestead in the WISAARD online database (https://wisaard.dahp.wa.gov), the primary archive of historic properties maintained by Washington DAHP. Information about historic buildings in this database is freely accessible to the public.

This work would be conducted by me, assisted by AAR staff historians under my direct technical supervision. As AAR's Architectural Historian for the last 23 years, I meet the Secretary of the Interior's Historic Preservation Professional Qualification Standards.

Expectations

While other project stakeholders may provide comments or recommendations related to this mitigation, it is **not** expected that these parties would require retention of any of the Anderson Pioneer Homestead buildings.

AAR expects that the research project **would not** interrupt the overall project implementation schedule.

AAR expects that **no** further cultural resource investigation would be required for this project.

Closure

We here at AAR look forward to working with you on this project. Please contact me if I can provide additional information or answer any questions.

Sincerely,

Aimee A. Finley, M.S.
Architectural Historian
aimee.a.finley@gmail.com
503-333-6622

Exhibit B.2

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Southwest Region Office
PO Box 47775, Olympia, WA 98504-7775 • 360-407-6300

November 30, 2022

Jessica Nash, Permit Technician
City of La Center
Department of Community Development
210 E 4th Street
La Center, WA 98629

Dear Peyton Murphy:

Thank you for the opportunity to comment on the optional determination of nonsignificance for the Valley View Subdivision Project (2022-034-SUB-SEPA-LLD-TRE-CAR) located at 2219 Northeast 339th Street as proposed by Mason Wolfe. The Department of Ecology (Ecology) reviewed the environmental checklist and has the following comment(s):

SOLID WASTE MANAGEMENT: Derek Rockett (360) 407-6287

The applicant proposes to demolish an existing structure(s). In addition to any required asbestos abatement procedures, the applicant should ensure that any other potentially dangerous or hazardous materials present are removed prior to demolition. It is important that these materials and wastes are removed and appropriately managed prior to demolition. It is equally important that demolition debris is also safely managed, especially if it contains painted wood or concrete, treated wood, or other possibly dangerous materials. Please review the "Dangerous Waste Rules for Demolition, Construction, and Renovation Wastes," on Ecology's website at: Construction & Demolition Guidance. All removed debris resulting from this project must be disposed of at an approved site. All grading and filling of land must utilize only clean fill. All other materials may be considered solid waste and permit approval may be required from your local jurisdictional health department prior to filling. Contact the local jurisdictional health department for proper management of these materials.

WATER QUALITY/WATERSHED RESOURCES UNIT:
Brian Johnson (360) 624-5741

Erosion control measures must be in place prior to any clearing, grading, or construction. These control measures must be effective to prevent stormwater runoff from carrying soil

and other pollutants into surface water or stormdrains that lead to waters of the state. Sand, silt, clay particles, and soil will damage aquatic habitat and are considered to be pollutants.

Any discharge of sediment-laden runoff or other pollutants to waters of the state is in violation of Chapter 90.48 RCW, Water Pollution Control, and WAC 173-201A, Water Quality Standards for Surface Waters of the State of Washington, and is subject to enforcement action.

Construction Stormwater General Permit:
The following construction activities require coverage under the Construction Stormwater General Permit:

1. Clearing, grading and/or excavation that results in the disturbance of one or more acres **and** discharges stormwater to surface waters of the State; and
2. Clearing, grading and/or excavation on sites smaller than one acre that are part of a larger common plan of development or sale, if the common plan of development or sale will ultimately disturb one acre or more **and** discharge stormwater to surface waters of the State.
    a) This includes forest practices (including, but not limited to, class IV conversions) that are part of a construction activity that will result in the disturbance of one or more acres, **and** discharge to surface waters of the State; and
3. Any size construction activity discharging stormwater to waters of the State that Ecology:
    a) Determines to be a significant contributor of pollutants to waters of the State of Washington.
    b) Reasonably expects to cause a violation of any water quality standard.

If there are known soil/ground water contaminants present on-site, additional information (including, but not limited to: temporary erosion and sediment control plans; stormwater pollution prevention plan; list of known contaminants with concentrations and depths found; a site map depicting the sample location(s); and additional studies/reports regarding contaminant(s)) will be required to be submitted. For additional information on contaminated construction sites, please contact Evan Wood at evan.wood@ecy.wa.gov, or by phone at (360) 706-4599.

Additionally, sites that discharge to segments of waterbodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, or phosphorous, or to waterbodies covered by a TMDL may need to meet additional sampling and record keeping requirements. See condition S8 of the Construction Stormwater General Permit for a description of these requirements. To see if your site discharges to a TMDL or 303(d)-listed waterbody, use Ecology's Water Quality Atlas at: https://fortress.wa.gov/ecy/waterqualityatlas/StartPage.aspx.

The applicant may apply online or obtain an application from Ecology's website at: http://www.ecy.wa.gov/programs/wq/stormwater/construction/ - Application. Construction

site operators must apply for a permit at least 60 days prior to discharging stormwater from construction activities and must submit it on or before the date of the first public notice.

Ecology's comments are based upon information provided by the lead agency. As such, they may not constitute an exhaustive list of the various authorizations that must be obtained or legal requirements that must be fulfilled in order to carry out the proposed action.

If you have any questions or would like to respond to these comments, please contact the appropriate reviewing staff listed above.

Department of Ecology
Southwest Regional Office

(GMP:202205752)

cc: Derek Rockett, SWM
Brian Johnson, WQ

Exhibit C.1

Valley View Subdivision
Preliminary Plat, Variance, Critical Areas Permit, Tree Cutting Permit, Legal Lot Determination, and SEPA
Type III
Technical Completeness Review
La Center City Hall

Site Address: 2219 Northeast 339th Street, La Center, WA 98629

Parcel: 209062000

Legal Description: A portion of Lot 1, Short Plat 3-905; NE 1/4 of Section 2, T4N, R1E WM

Project Description:
The applicant is proposing a 34-lot subdivision on the approximate 8.64-acre site. Lot sizes would range from 7,500 square feet to 9,082 square feet. The property is located at the southwest corner of Northeast 339th Street and Northeast 24th Avenue and the eastern La Center City limits. The site is zoned LDR-7.5 and the comprehensive plan designation for the site is Urban Low Density Residential (UL). Access to the property would be from public street entrances from Northeast 339th Street and Northeast 24th Avenue. The site will also be served by multiple existing street stubs in the Heritage Country Estates development from the west and south including East 9th Street, East Upland Avenue, East Vine Maple Avenue, and East White Oak Avenue.

Date: November 2, 2022

Applicant's Representative:

Contact: Mason Wolfe
Wolfe Project Management, LLC
2410 West Main Street, Suite 210
Battle Ground, WA 98604
mason@wolfepm.com

The City's planning consultant (WSP USA Inc.) and engineering staff reviewed application materials for the proposed Type III Preliminary Plat Review. We are writing to notify you that the application is deemed **Complete** as documented below.

Planning Comments

The pre-application conference notes (2021-014-PAC) contain a list of required submittal items based on LCMC 18.30.050, 18.30.150, and 18.210.

- *The information listed in LCMC 18.210.010(2), provided an environmental checklist is required for a technically complete application unless categorically exempt.*

    - Status: **Complete.** The applicant provided a signed and completed SEPA Environmental checklist.
- *An application form with original signatures by the applicant and property owners. If there is more than one property owner, separate application forms and signatures are required.*
    - Status: **Complete**. The applicant provided a signed application form, along with an owner authorization, and a list of reviews required with the application.
- *Proof of ownership document, such as copies of deeds and/or a policy of satisfactory commitment for title insurance.*
    - Status: **Complete.** The applicant provided a copy of the statutory warranty deed for the property confirming ownership by The Chicken Ranch, LLC.
- *A legal description of the site.*
    - Status: **Complete.** The legal description is contained on the application form and an extended legal description is contained on the deed.
- *Site Plan. At a scale of no more than one inch equals 200 feet with north arrow, date, graphic scale, existing and proposed lots, tracts, easements, rights-of-way and structures on the site, and existing lots, tracts, easements, rights-of-way and structures abutting the site; provided, information about off-site structures and other features may be approximate if such information is not in the public record. The applicant shall provide one copy of the plan reduced to fit on an eight-and-one-half-inch by 11-inch page. Principal features of the plan shall be dimensioned.*
    - Status: **Complete**. The applicant provided preliminary plat plans including a site plan (with north arrow, date, graphic scale, lots, tracts, and rights-of-way), an existing conditions plan with a tree inventory and survey, and a preliminary erosion control and grading plan. The plans are 1" = 40' (1" = 50' for preliminary erosion control and grading plan) and can be reduced to fit on an 8.5" x 11" sheet.
    - Tree mitigation plan: A tree mitigation plan was provided in accordance with LCMC 18.350 on the preliminary plans. The applicant indicates in the narrative and preliminary plans that all trees are to be removed on site and to be mitigated with the proposed street trees and would meet the native species requirements of LCMC 18.340.
    - Tree survey and inventory: A tree survey and inventory was provided by a certified arborist or landscape architect that includes the health condition and reason for removal of each tree.
    - Tree protection plan: The applicant provided plans showing existing trees with proposed site improvements as required by LCMC 18.350.060. All trees are proposed to be removed and replaced with street trees.
    - Tree removal criteria: The applicant has demonstrated how they are meeting the tree removal criteria in LCMC 18.350.080.
- *A copy of the pre-application conference summary*
    - Status: **Complete.**
- *A written description of how the proposed preliminary plat does or can comply with each applicable approval criterion for the preliminary plat, and basic facts and other substantial evidence that support the description.*
    - Status: **Complete.** The applicant provided a Project Narrative discussing compliance with selected standards.

    - The applicant provided additional information to indicate compliance with LCMC 18.210.040(3) for the two proposed flag lots on the site.
- *Names and addresses of owners of land within a radius of 300 feet:*
    - Status: **Complete.** The applicant provided mailing labels for properties within 300 feet of the subject site.
- *Applications associated with the preliminary plat, such as exceptions, adjustments or variances to dimensional requirements of the base or overlay zones or for modifications to the road standards in Chapter 12.10 LCMC that are required to approve the preliminary plat application as proposed.*
    - Status: **Complete.**
    - The applicant's geotechnical report indicates that the site is classified as Site Class D for ground shaking amplification which is a geologic hazard critical area under the City's critical areas ordinance (LCMC 18.300.090[4]). The application form notes that the applicant is applying for critical areas permit for geologic hazards and the permit fee has been paid.
- *A wetlands delineation report **OR** letter from a certified wetland biologist stating that there are no wetlands/stream resources onsite.*
    - Status: **Complete**. The applicant submitted a letter from Cascadia Ecological Services, Inc. The report has determined that the mapped wetland resource is a roadside ditch along Northeast 339th Street with no observed indictors of wetlands, and therefore is not a critical area per LCMC 18.300.090(5)(d).
- *A geotechnical study is required if the site will contain substantial fill and contains seismic hazards.*
    - Status: **Complete.** The applicant provided a geotechnical report addressing site soil stability for proposed improvements.
- *Preliminary grading, erosion control and drainage plans, which may be a single plan, consistent with applicable provisions of Chapter 18.320 LCMC.*
    - Status: **Complete.** The provided preliminary erosion control and grading plan show proposed grading and erosion control. The applicant also provided a separate preliminary Technical Information Report (TIR), which discusses storm water and drainage. The conclusions section of the provided geotechnical report also discusses drainage, grading, and erosion control.
- *Evidence that potable water will be provided to each lot from a public water system, and that each lot will be connected to public sewer.*
    - Status: **Complete.** The applicant's preliminary plat and utility plan shows public water and sewer throughout the site. The applicant has also provided a request for utility review for water availability from Clark Public Utilities (CPU), which indicates there is sufficient water capacity and connection for the project.
- *A phasing plan, if proposed.*
    - Status: **Not applicable.**
- *An archeological predetermination*
    - Status: **Complete.** The applicant has provided an archaeological predetermination report.
- *A traffic study.*
    - Status: **Complete.** The applicant provided a Transportation Impact Study.

- *A signed Agreement to Pay Outside Professional Review Expenses Related to Land Use Application. (Provided during the meeting.)*
    - Status: Complete.
- *Topographic Map*
    - Status: Complete. The applicant's existing conditions plan provides existing topographic information.

Public Works and Engineering Comments

Public Works and Engineering do not have any comments at this time.

Signed: Bryan Kast Date: 11/2/22

Bryan Kast, P.E, Public Works Director

Signed: Anthony Ray Cooper Date: 11/2/22

Tony Cooper, P.E, City Engineer