ASPEN HEIGHTS SUBDIVISION

Zone Change Application

Tax Parcel: 258901-000

Jurisdiction:

Owner/Applicant:

Muffet Properties, LLC.
Attn: Win Muffet
P.O. Box 301
LaCenter, WA. 98629
(C): (503) 807-2139
(H): (360-263-3745
Email: winm@hi-schoolpharmacy.com

Prepared By:

2005 Broadway Street
Vancouver, WA 98663
Phone (360) 993-0911
Fax (360) 993-0912
staylor@sgaengineering.com

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(5 Paper Copies & Digital Submittal)

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 34700 NE North Fork Avenue

Legal Description #27 SEC 34 T5N R1EWM

Assessor's Serial Number 258901-000

Lot Size (square feet) 187,308 sq ft

Zoning/Comprehensive Plan Designation LDR 7.5

Existing Use of Site Existing home and outbuilding

Contact Information

APPLICANT:

Contact Name Win Muffet

Company _____

Phone 1-503-807-2139 **Email** winm@hi-schoolpharmacy.com

Complete Address P.O. Box 301 La Center, WA 98629

Signature _____
(Original Signature Required)

APPLICANT'S REPRESENATIVE:

Contact Name Scott Taylor

Company SGA Engineering, PLLC

Phone 360-993-0911 **Email** _____

Complete Address 2005 Broadway Vancouver, WA 98663

Signature _____
(Original Signature Required)

PROPERTY OWNER:

Contact Name Win Muffet

Company P.O. Box 301 La Center, WA 98629

Phone 1-503-807-2139 **Email** P.O. Box 301 La Center, WA 98629

Complete Address P.O. Box 301 La Center, WA 98629

Signature _____
(Original Signature Required)

Development Proposal

Project Name

Type(s) of Application Zone Change

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

Pre-Application Conference Date and File Number 2016-010-PAC

Description of Proposal The applicant proposes to rezone the 4.3 acre property from low density residential (LDR- 7.5) to medium density residential (MDR – 16), remove the Urban Holding Overlay in preparation of subdividing the property into 26 single family attached lots.

Office Use Only

File # _____ **Planner** _____

Received By _____ **Fees: $** _____

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

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

Notes _____

ASPEN HEIGHTS SUBDIVISION

ZONE CHANGE NARRATIVE

PROJECT IDENTIFICATION AND SITE CHARACTERISTICS

The Aspen Heights Subdivision proposes to subdivide parcel 258901-000, approximately 4.38 acres total, into 26 single-family attached lots. The parcel was annexed into the city limits of La Center in 2006. The net site area for the project is approximately 3.54 acres after public right-of-way dedications are subtracted. There is an existing home along with a detached garage on site which will be removed with the subdivision. The project will not be phased. All future lots will access public local access roads in the project. The parcel is currently zoned LDR-7.5 (low density residential). We are asking for a zone change to MDR-16. Property north and west of the project is under the Clark County jurisdiction. Single-family large lot residential homes zoned R1-6 are located to the West and the North. Single family residential subdivisions zoned LDR-7.5 are to the East and the South. Properties to the south and east of the project are within the city limits of La Center. An open space/park tract owned by La Center which provides a community trail system is located along the southern edge of the project which encompasses Bolen Creek.

ZONE CHANGE REQUEST

The site is currently zoned LDR-7.5 (Low Density Residential). We are requesting a zone change to MDR-16 (Medium Density Residential). This zone change request is running concurrently with the subdivision application and does not require a comprehensive plan change or annual review. An application for preliminary subdivision will be submitted as soon as the City allows.

ZONE CHANGE APPROVAL CRITERIA

G. Approval Criteria.(Copied from City Code for reference)

Zone changes may be approved only when all of the following are met:

1. Shall be consistent with all relevant statutory requirements under federal and state law.

2. Shall be consistent with all applicable goals and policies of the comprehensive plan or that a significant change in circumstances requires an amendment to the plan, text or map

3. Shall not result in a decrease in the level of service for capital facilities and services identified in the La Center Urban Area Capital Facilities Plan.

4. Shall be consistent with the population projections provided by the Washington State Office of Financial Management as allocated by Clark County.

5. Shall be in the public interest.

6. Shall meet any locational criteria for the proposed district as set forth in the comprehensive plan and municipal code

7. Shall demonstrate that conditions have substantially changed since the current zoning was applied to the property, if appropriate, and

ASPEN HEIGHTS SUBDIVISION

8. The proposed zoning district is allowed by the plan to zone matrix adopted by the city council.

9. There are adequate public facilities and services to serve the requested zone change.

ZONE CHANGE APPROVAL JUSTIFICATION

1. This zone change is consistent with all relevant statutory requirements under federal and state law. LDR-7.5 and MDR-16 are both residential districts under the jurisdiction of City of La Center. A change from LDR-7.5 to MDR-16 is allowed under the City of La Center Municipal Code. The state growth management act promotes the development of properties with public services and available utilities to urban densities.

2. The requested zone change is consistent with all applicable goals and policies of the comprehensive plan. We believe that the change in zoning will be a better fit with the surrounding developments in the immediate area and will give more options to potential home buyers wanting to live in La Center. It will also fill a much needed void of smaller and less expensive lots within the limits of the City of La Center,

3. This zone change does not result in a decrease in the level of service for capital facilities and services identified in the La Center Urban Area Capital Facilities Plan. Water, sewer, and other public facilities are adequate to serve this site. The addition of these lots will provide revenue to enhance existing public facilities for the benefit of the surrounding community. See the attached utility information which discusses available capacity.

4. This zone change is consistent with the population projected provided by the Washington State Office of Financial Management as allocated by City of La Center. According to the Washington State Office of Financial Management estimates, from 2010 to 2016 the City of La Center population has increased by 340. This small change is due to a lack of developable land and higher density zoning able to accommodate future growth within city limits.

   Currently, because of the recession, there is a lack of affordable and readily available housing. This development, along with others, will help stabilize housing costs and provide affordable housing in the future.

   The Cowlitz Indian Tribe is currently constructing a major casino adjacent to city limits. This and other future developments will drive the need for close affordable housing.

5. This zone change is in the public interest to create more home ownership opportunities and provide a tax base for the City of La Center to provide necessary public facilities to serve the surrounding community. Taxes generated by additional housing units will provide much needed revenue to enhance public services and provide a higher standard of living in La Center. This development will provide some much needed diversity of housing types which is a need stated by the community.

6. This zone change will meet locational criteria for the proposed district that is set forth in the comp plan and the municipal code. The intent of the comprehensive plan is to provide for responsible growth management of the surrounding area by providing housing, jobs, natural resources and public facilities to serve the general population. This zone change will provide much needed lower cost housing while providing a rich atmosphere for individuals to

engage in local commerce and community activities. With future schools slated for Bolen Road to the west additional housing on the north end of town is necessary. Access to the existing trail system along Bolen Creek provides recreational opportunities and pedestrian circulation. The existing sidewalk and roads provide pedestrian and bicycle circulation south into town. Shopping, entertainment, public transit and employment opportunities are all within walking distance to the south. With the historic development of the city center there are no locations closer to town where this same development could occur.

7. This zone change demonstrates that conditions have substantially changed since the current zoning was applied to the property. Increased commercial development at the City of La Center junction with I-5 will be generating hundreds of jobs and will create a need for affordable housing in La Center and its surrounding areas. Currently, there are few parcels that are zoned MDR-16 that can or will develop to provide this much needed affordable housing. Future annexations of property to the west of Aspen Heights could also provide some additional MDR-16 zoned property.

8. The proposed zoning district is allowed by the plan to zone matrix adopted by the city council. The change from LDR-7.5 to MDR-16 is allowed with a zone change under City of La Center code and the comprehensive plan. While both zones are residential in nature, MDR-16 will provide much needed housing at a lower cost to consumers.

9. There are adequate public facilities and services in the area to serve this requested zone change. Public sewer and water are currently located on-site or adjacent to the site. Existing roads and public services have the ability to serve the entire site and all adjacent parcels. The future road, West 19th Street, will provide cross circulation through this development and to future developments adjacent to the site. A traffic study completed by Kelly Engineering dated July 22, 2016 confirms that the current road system can adequately accommodate traffic from this development with 26 attached single-family homes. No additional off-site traffic control devices or roadway improvements were identified or to accommodate the development. Sight distance can be met on Aspen Avenue at the proposed West 19th Circle intersection. The traffic study by Kelly Engineering has been submitted with this zone change application for your review and reference.

<u>This narrative would also like to address specific portions of the City of La Center's Comprehensive Plan in detail to comply with the City of La Center's rezone requirements.</u>

1.1.1 Construct commercial, industrial, residential and other developments in a manner which generally fosters community identity and continuity, through the use of materials, architectural design, or other means consistent with La Center's heritage and character.

We have provided conceptual building elevations and photos of similar townhomes constructed in Clark County. These products are unique Craftsman/Urban NW designs utilizing tradition earth tones to blend in with the natural scenery. It is anticipated that these will be a valuable addition to the community and a desirable place to reside.

1.1.3 Plan for development within the city limits of La Center to occur in a logical manner which allows for orderly and efficient provisions of roads, sewer and water, and other services.

This project will extend frontage improvements along Aspen Avenue to the north which will provide safer pedestrian and vehicular travel within the community. It will also utilize and extend existing sewer and water to the north to provide for future development.

Existing sewer and water are adequate to serve the site.

Additionally, under 18.140.015, Location. (The city council, with the recommendation of the planning commission, generally, shall assign MDR-16 zoning districts in close proximity to collector or arterial roadways, current or proposed transit routes, near employment centers, and with good access to local public schools.) **This rezone meet these requirements. Aspen Avenue is a Rural Major Collector bordering the eastern boundary of the site which leads directly to downtown La Center. Employment districts are within acceptable walking distances for this project. Students will be bused from this location to local schools.**

1.1.5 Consider standards or guidelines to foster greater compatibility in cases where Adjacent uses differ. Standards might include beveling lot size, building scale, landscape buffers, or public trails or parks, and other effective means to create separation between uses.

Per 18.140.030(2) Beveling has been achieved for this project by creation of open space and trail tracts to isolate the project from the north, south and western parcels. Aspen Avenue provides a buffer from the neighboring parcels to the east. Open space and trails have been provided to create separation from existing residences and enhance livability within the City of La Center.

1.1.13 Zone changes within a Comprehensive Plan district, for example changing from low density to a higher density zone within an Urban Residential Plan District, shall be reviewed by the Planning Commission and City Council.

This application for a zone change will be reviewed by the Planning Commission and the City Council.

1.2.7 Provide a variety of housing products citywide and ensure that no single type of housing product, for example single family detached dwellings, comprises more than 75% of all housing stock overall. The city may accomplish this by allowing detached and attached housing and manufactured homes.

This project proposes 26 townhomes which will be a unique housing addition to the City of La Center. 97% of the housing in La Center is low density detached units. The goal of the Comprehensive Plan is to reduce this percentage to no more than 75%. By approving this zone change, this project will construct attached townhouses which are an alternative housing type to detached units.

3.1.1 Work to ensure that medium density housing accounts for 25% of new residential construction overall during the life of this Plan.

In 2015, approximately 97% of the housing units in La Center were low density detached units. This zone change will increase the number of medium density units and decrease the percentage of low density units to encourage a balanced housing inventory.

3.1.2
Encourage flexible land use regulations that allow for the creation of creative housing types which will meet the needs of an economically diverse population.

The estimated median La Center house value in 2015 was $339,800, higher than the Washington median house value of $268,400. This is due to a low number of higher density units available for purchase within city limits. In nearby Ridgefield, townhomes

are typically selling for $230,000 to $250,000. This rezone will provide much needed medium density units at a lower cost than traditional single- family detached units.

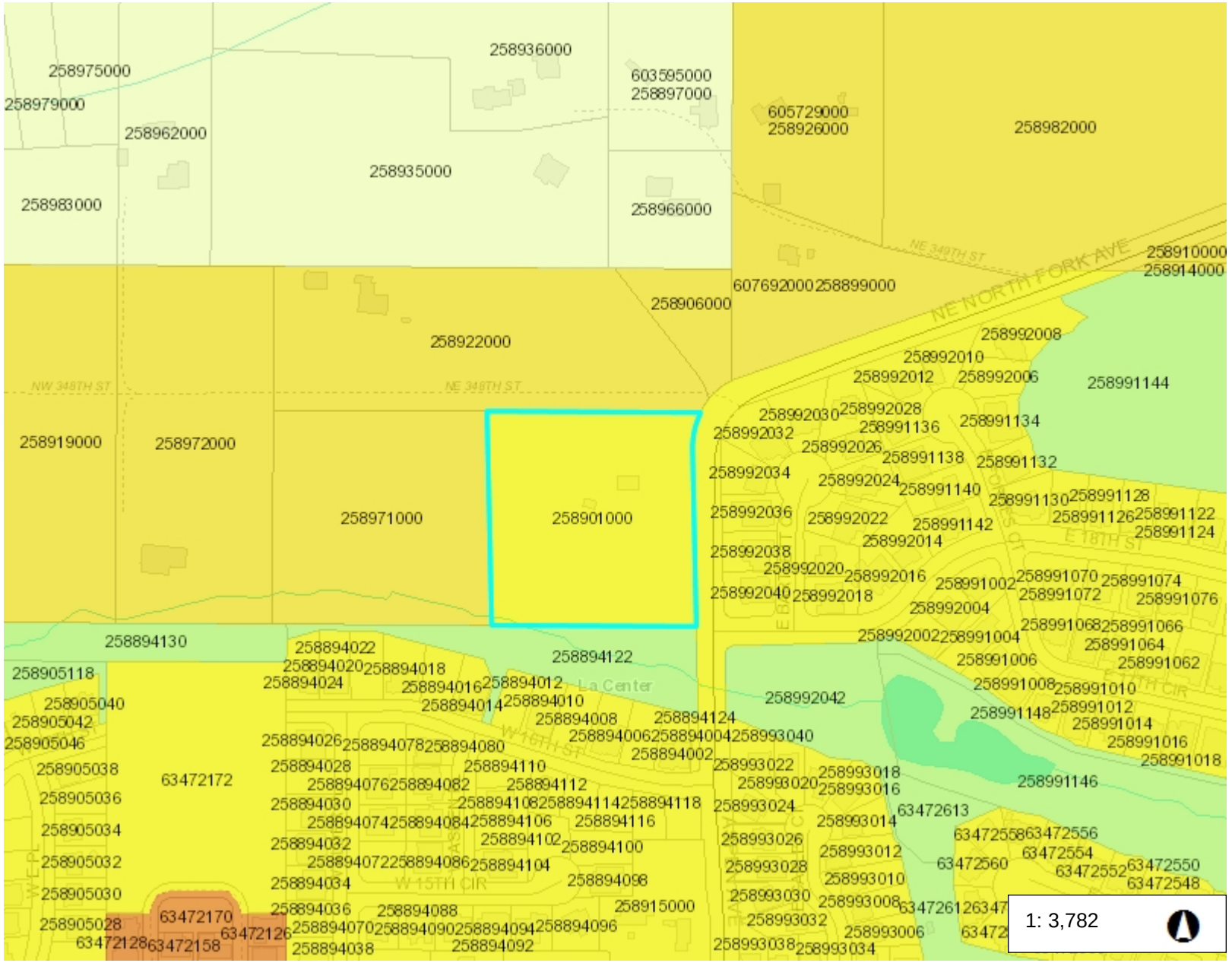
3.1.12 Encourage the blending of new and existing neighborhoods.

The design and architecture of the proposed townhomes will blend in with the existing surrounding neighborhoods and future development within the City of La Center. Open space, trails, and City owned property separate this development from adjacent parcels. This development is consistent with the underlying intent of the Comprehensive Plan to provide single-family residences.

SUMMARY

This zone change request can meet all the approval, justification and location criteria required by City of La Center based on the existing site constraints and city development patterns. If staff has any questions or needs any additional information please do not hesitate to contact Scott Taylor of SGA Engineering via email or by phone. Thank you for your time and consideration in this matter.

Map of The Proposed Amendment

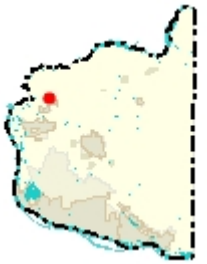


1: 3,782

630.3 0 315.14 630.3 Feet

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

This map was generated by Clark County's "MapsOnline" website. Clark County does not warrant the accuracy, reliability or timeliness of any information on this map, and shall not be held liable for losses caused by using this information.



Legend

Zoning

- Single-Family residential (R1-20, R
- Single-Family residential (R1-15, R
- Single-Family residential - 12 (R-12
- Single-Family residential (R1-10, R
- Single-Family residential (R1-7.5, R
- Single-Family residential (R1-6, R-6
- Single-Family residential (R1-5)
- Residential (R-12, R12)
- Residential (R-18, MF-18)
- Residential (R-22, AR-22)
- Residential (R-30)
- Residential (R-43)
- Office residential-15 (OR-15)
- Office residential-18 (OR-18)
- Office residential-22 (OR-22)
- Office residential-30 (OR-30)
- Office residential-43 (OR-43)
- Neighborhood commercial (NC, C1
- Community commercial (CC, C2, C
- General commercial (GC, CG)
- Mixed use (MX)
- Business park (BP, OFF)
- Light industrial (IL, ML, LI, IND, LI/E

Notes:

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

The State Environmental Policy Act (SEPA), Chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal if it can be done) and to help the agency decide whether an EIS is required.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

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.

Use of checklist for non-project proposals:

Complete the checklist for non-project proposals, even though questions may be answered "does not apply." In addition, complete the supplemental sheet for Non-project Actions (part D).

For non-project actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:
   Aspen Heights Subdivision

2. Name of applicant:
   Muffett Properties, LLC. Attn: Win Muffett

3. Address and phone number of applicant and contact person:
   P.O Box 301 LaCenter, WA 98629

   1-503-807-2139

4. Date checklist prepared:
   09/30/2016

5. Agency requesting checklist:
   City of LaCenter

6. Proposed timing or schedule (including phasing, if applicable):
   Spring of 2017

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.
   Geotechnical Study, Archaeological Pre-determination & Critical Areas Report

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.
   Zone change and Legal Lot Determination followed by a Subdivision Application

10. List any government approvals or permits that will be needed for your proposal, if known.
    City of LaCenter planning, engineering and construction approvals and permits

11. Give brief, complete description of your proposal, including 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.)

    The Aspen Heights Subdivision proposed to subdivide 4.3 acres into 26 single family attached lots with associated roads and urban infrastructure. A zone change application will be processed first for the subdivision to be allowed and approved.

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.

The Aspen Heights Subdivision includes parcel 258901-000. The site is located at 34700 NE North Fork Avenue (Aspen Ave.) in La Center, Clark County, WA

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)?

25%

c. What general types of soils are found on the site (the example, clay, sand, gravel, peat, and muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

GeB, HoC, HgD, OdB

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed.

Grading will occur on-site for infrastructure development and home construction. The quantities are unknown at this time. Approximately 50,000 CY of grading could occur on the site. Indicate source of fill.

Achieving a cut and fill is the goal of the site grading. On-site soils are suitable for structural fills if necessary. If off-site fill is necessary it will be sourced locally and be tested as necessary.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes, soil could erode due to exposure to rain during construction.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

35-40%

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Silt fence, inlet protection, mulching and seeding.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, and industrial wood smoke) during construction and when

the project is completed? If any, generally describe and give approximate quantities if known.
Construction equipment will emit exhaust. Air may get dusty during construction.

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

3. Water

a. Surface:

i. 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.
Wetlands exist on the site associated with Bolen Creek. A critical areas delineation report was prepared by Cascadia Ecological and is provided with this application.

ii. 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.
The stormwater facility may be as close as 150' from Bolen Creek.

iii. 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.
N/A, none proposed.

Indicate the source of fill material.
None

iv. Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.
None known at this time.

v. Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
No

vi. 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:

i. Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.
Groundwater will not be withdrawn. Detention and metered release is proposed for all the stormwater from this project. Wetponds or other approved BMP will be used to treat the contaminated runoff and then it will be metered release on-site to existing wetlands and along existing drainage pathways. Quantity varies with rainfall.

ii. 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 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, the on-site septic system will be removed with site construction.

c. Water runoff (including storm water):

i. 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?

The stormwater systems will be designed to collect, convey, treat and have metered release on-site to existing wetlands and existing drainage pathways adjacent to the site.

Will this water flow into other waters? If so, describe.

ii. Could waste materials enter ground or surface waters? If so, generally describe.

No waste materials should enter ground water or surface waters. Silt fence, erosion control, temp. sediment ponds and other precautions will be taken as required.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

The stormwater systems will be designed to collect, convey, treat and have metered release on-site to existing wetlands and existing drainage pathways adjacent to the site. Erosion control measures will be used during construction as well.

4. Plants

a. Check or circle 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

_____pasture

_____crop or grain

__X__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?

Grass, trees, and shrubs will be stripped for roadway and future building sites.

c. List threatened or endangered species known to be on or near the site.

None known.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Private residential landscaping will be added. Some mature trees may be retained within side and back yards of the new lots or in open space or park tracts where possible. Native and drought tolerant plants are proposed in the subdivisions landscape buffers and parks where possible.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

Birds: hawk, heron, eagle, songbirds, other:

Mammals: deer, bear, elk, beaver, other:

Fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.
None

c. Is the site part of a migration route? If so, explain.
The site is located within what is commonly referred to as the Pacific Flyway. The flyway stretches from Alaska to Mexico and from the Pacific Ocean to the Rocky Mountains

d. Proposed measures to preserve or enhance wildlife, if any:
Landscape plantings, rain garden plantings and opens space tracts will provide food and cover for small mammals, birds, insects, animals and soil organisms. Habitat buffer on-site to remain.

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.
Electricity or natural gas will be used to heat the homes and electricity for lighting. Solar may be used by future home owners/builders.

b. Would your project affect the potential use of solar energy by adjacent properties?
No

If so, generally describe.
N/A

c. What kinds of energy conservation features are included in the plans of this proposal?
Comply with state building and energy codes.

List other proposed measures to reduce or control energy impacts, if any:
Incorporate sustainable building design features and strategic placement of windows and openings. Utilize efficient building designs to maximize building materials and minimize waste. LED street lighting will be used to reduce energy consumption.

7. Environmental health

a. Are there any environmental health hazards, including exposure to toxic chemical, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. No

i. Describe special emergency services that might be required.
Fire, Police and Ambulance

ii. Proposed measures to reduce or control environmental health hazards, if any:
Public sewer and water will serve the subdivision.

b. Noise

i. What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
Existing traffic from Aspen Avenue

ii. 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.
7am – 7pm construction noise

iii. Proposed measures to reduce or control noise impacts, if any:
None

8. Land and shoreline use

a. What is the current use of the site and adjacent properties?
Existing home and garage on-site, rental property. Adjacent parcels are vacant or contain single-family homes. Large lots to the west & north, urban density development to west & south.

b. Has the site been used for agriculture? If so, describe.
No

c. Describe any structures on the site.
Existing home and garage

d. Will any structures be demolished? If so, what?
Yes, all existing structures will be demolished

e. What is the current zoning classification of the site?
LDR-7.5

f. What is the current comprehensive plan designation of the site?
Low Density Residential

g. If applicable, what is the current shoreline master program designation of the site?
N/A

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
Yes areas associated with Bolen Creek and it's buffers.

i. Approximately how many people would reside or work in the completed project?
26 Homes - So 50-75 people possibly.

j. Approximately how many people would the completed project displace?
1 existing renter.

k. Proposed measures to avoid or reduce displacement impacts, if any:
The rezone and development of 26 affordable houses in La Center where there are none.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
Review of project against existing public utilities, public infrastructure, comprehensive planning goals and growth goals for the City of La Center. Provided in the rezone narrative and development application package. Residential development is compatible here.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
26- middle income homes on individual lots. New home ownership opportunities.

c. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
1 Existing home and garage removed. Middle to Low income in current state.

d. Proposed measures to reduce or control housing impacts, if any:
The rezone and development of 26 affordable houses in La Center where there are none.

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?
35 feet (two story with roof), Wood, metal or fiber cement siding will likely be used.

b. What views in the immediate vicinity would be altered or obstructed?
Adjacent properties would see the new homes. Parcels to north are uphill and will see it as well.

c. Proposed measures to reduce or control aesthetic impacts, if any:
Provide building facade articulation. Vary roof pitches, roof lines and building colors.

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
None proposed.

b. Could light or glare from the finished project be a safety hazard or interfere with views?
None proposed. Street lights and residential lighting will be shielded and directed down.

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:
Street lights and residential lighting will be shielded and directed down.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?
Bolen Creek Trail System will be connected to with this project. It is located south of site.

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 recreational opportunities to be provided by the project or applicant, if any:
Pay park impact fees to the city for future public parks and existing park maintenance.

13. Historic and cultural preservation

a. Are there any places or objects listed on, or proposed for, national state, or local preservation registers known to be on or next to the site? If so, generally describe.
None known.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.
None known.

c. Proposed measures to reduce or control impacts, if any:
None

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.
Aspen Avenue (NE Northfork Avenue) is a public collector road providing access to the site. W. 19th Street will be constructed on-site, shown on plans.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
C-Tran has a reservation based connector service for La Center. The transit stop location is 1.3 miles south and east on 4th Street across from Holly Park.

c. How many parking spaces would the completed project have? How many would the project eliminate?
52-104 new garage/driveway stalls provided. 4 spaces removed.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).
Aspen Avenue is a public collector road providing access to the site and will receive frontage Improvements. W. 19th Street will be constructed on-site, public road.

e. Will the project 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? If known, when peak volumes would occur.

Proposed measures to reduce or control transportation impacts, if any.
Public road improvements will control transportation impacts. The projected ADT is 190 trips. 16 am peak trips and 19 pm peak trips will occur. Am peak is 7:15-8:15 am. Pm peak trips are between 4:15-5:15 pm.

15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
Yes, all public services will be required and are available to the site.

b. Proposed measures to reduce or control direct impacts on public services, if any.
Provide new utility main line extensions through the site and pay impact fees for schools, parks and transportation. Other taxes from home construction and future property taxes will help fund local emergency services.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.
All utilities are available at the site currently. The on-site septic system will be removed along with any wells on-site.

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.
All utilities are proposed for this project. Sewer, water and power lines will be extended through the site. Cable, gas and other dry utilities will be extended as well.

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: _____ Date: 9-30-16

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

The State Environmental Policy Act (SEPA), Chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal if it can be done) and to help the agency decide whether an EIS is required.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

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.

Use of checklist for non-project proposals:

Complete the checklist for non-project proposals, even though questions may be answered "does not apply." In addition, complete the supplemental sheet for Non-project Actions (part D).

For non-project actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:
   Aspen Heights Subdivision

2. Name of applicant:
   Muffett Properties, LLC. Attn: Win Muffett

3. Address and phone number of applicant and contact person:
   P.O Box 301 LaCenter, WA 98629

   1-503-807-2139

4. Date checklist prepared:
   09/30/2016

5. Agency requesting checklist:
   City of LaCenter

6. Proposed timing or schedule (including phasing, if applicable):
   Spring of 2017

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.
   Geotechnical Study, Archaeological Pre-determination & Critical Areas Report

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.
   Zone change and Legal Lot Determination followed by a Subdivision Application

10. List any government approvals or permits that will be needed for your proposal, if known.
    City of LaCenter planning, engineering and construction approvals and permits

11. Give brief, complete description of your proposal, including 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.)

    The Aspen Heights Subdivision proposed to subdivide 4.3 acres into 26 single family attached lots with associated roads and urban infrastructure. A zone change application will be processed first for the subdivision to be allowed and approved.

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.

The Aspen Heights Subdivision includes parcel 258901-000. The site is located at 34700 NE North Fork Avenue (Aspen Ave.) in La Center, Clark County, WA

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)?

25%

c. What general types of soils are found on the site (the example, clay, sand, gravel, peat, and muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

GeB, HoC, HgD, OdB

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed.

Grading will occur on-site for infrastructure development and home construction. The quantities are unknown at this time. Approximately 50,000 CY of grading could occur on the site. Indicate source of fill.

Achieving a cut and fill is the goal of the site grading. On-site soils are suitable for structural fills if necessary. If off-site fill is necessary it will be sourced locally and be tested as necessary.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes, soil could erode due to exposure to rain during construction.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

35-40%

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Silt fence, inlet protection, mulching and seeding.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, and industrial wood smoke) during construction and when

the project is completed? If any, generally describe and give approximate quantities if known.
Construction equipment will emit exhaust. Air may get dusty during construction.

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

3. Water

a. Surface:

i. 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.
Wetlands exist on the site associated with Bolen Creek. A critical areas delineation report was prepared by Cascadia Ecological and is provided with this application.

ii. 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.
The stormwater facility may be as close as 150' from Bolen Creek.

iii. 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.
N/A, none proposed.

Indicate the source of fill material.
None

iv. Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.
None known at this time.

v. Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
No

vi. 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:

i. Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.
Groundwater will not be withdrawn. Detention and metered release is proposed for all the stormwater from this project. Wetponds or other approved BMP will be used to treat the contaminated runoff and then it will be metered release on-site to existing wetlands and along existing drainage pathways. Quantity varies with rainfall.

ii. 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 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, the on-site septic system will be removed with site construction.

c. Water runoff (including storm water):

i. 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?

The stormwater systems will be designed to collect, convey, treat and have metered release on-site to existing wetlands and existing drainage pathways adjacent to the site.

Will this water flow into other waters? If so, describe.

ii. Could waste materials enter ground or surface waters? If so, generally describe.

No waste materials should enter ground water or surface waters. Silt fence, erosion control, temp. sediment ponds and other precautions will be taken as required.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

The stormwater systems will be designed to collect, convey, treat and have metered release on-site to existing wetlands and existing drainage pathways adjacent to the site. Erosion control measures will be used during construction as well.

4. Plants

a. Check or circle 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

_____pasture

_____crop or grain

__X__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?

Grass, trees, and shrubs will be stripped for roadway and future building sites.

c. List threatened or endangered species known to be on or near the site.

None known.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Private residential landscaping will be added. Some mature trees may be retained within side and back yards of the new lots or in open space or park tracts where possible. Native and drought tolerant plants are proposed in the subdivisions landscape buffers and parks where possible.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

Birds: hawk, heron, eagle, songbirds, other:

Mammals: deer, bear, elk, beaver, other:

Fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.
None

c. Is the site part of a migration route? If so, explain.
The site is located within what is commonly referred to as the Pacific Flyway. The flyway stretches from Alaska to Mexico and from the Pacific Ocean to the Rocky Mountains

d. Proposed measures to preserve or enhance wildlife, if any:
Landscape plantings, rain garden plantings and opens space tracts will provide food and cover for small mammals, birds, insects, animals and soil organisms. Habitat buffer on-site to remain.

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.
Electricity or natural gas will be used to heat the homes and electricity for lighting. Solar may be used by future home owners/builders.

b. Would your project affect the potential use of solar energy by adjacent properties?
No

If so, generally describe.
N/A

c. What kinds of energy conservation features are included in the plans of this proposal?
Comply with state building and energy codes.

List other proposed measures to reduce or control energy impacts, if any:
Incorporate sustainable building design features and strategic placement of windows and openings. Utilize efficient building designs to maximize building materials and minimize waste. LED street lighting will be used to reduce energy consumption.

7. Environmental health

a. Are there any environmental health hazards, including exposure to toxic chemical, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. No

i. Describe special emergency services that might be required.
Fire, Police and Ambulance

ii. Proposed measures to reduce or control environmental health hazards, if any:
Public sewer and water will serve the subdivision.

b. Noise

i. What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
Existing traffic from Aspen Avenue

ii. 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.
7am – 7pm construction noise

iii. Proposed measures to reduce or control noise impacts, if any:
None

8. Land and shoreline use

a. What is the current use of the site and adjacent properties?
Existing home and garage on-site, rental property. Adjacent parcels are vacant or contain single-family homes. Large lots to the west & north, urban density development to west & south.

b. Has the site been used for agriculture? If so, describe.
No

c. Describe any structures on the site.
Existing home and garage

d. Will any structures be demolished? If so, what?
Yes, all existing structures will be demolished

e. What is the current zoning classification of the site?
LDR-7.5

f. What is the current comprehensive plan designation of the site?
Low Density Residential

g. If applicable, what is the current shoreline master program designation of the site?
N/A

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
Yes areas associated with Bolen Creek and it's buffers.

i. Approximately how many people would reside or work in the completed project?
26 Homes - So 50-75 people possibly.

j. Approximately how many people would the completed project displace?
1 existing renter.

k. Proposed measures to avoid or reduce displacement impacts, if any:
The rezone and development of 26 affordable houses in La Center where there are none.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
Review of project against existing public utilities, public infrastructure, comprehensive planning goals and growth goals for the City of La Center. Provided in the rezone narrative and development application package. Residential development is compatible here.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
26- middle income homes on individual lots. New home ownership opportunities.

c. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
1 Existing home and garage removed. Middle to Low income in current state.

d. Proposed measures to reduce or control housing impacts, if any:
The rezone and development of 26 affordable houses in La Center where there are none.

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?
35 feet (two story with roof), Wood, metal or fiber cement siding will likely be used.

b. What views in the immediate vicinity would be altered or obstructed?
Adjacent properties would see the new homes. Parcels to north are uphill and will see it as well.

c. Proposed measures to reduce or control aesthetic impacts, if any:
Provide building facade articulation. Vary roof pitches, roof lines and building colors.

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
None proposed.

b. Could light or glare from the finished project be a safety hazard or interfere with views?
None proposed. Street lights and residential lighting will be shielded and directed down.

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:
Street lights and residential lighting will be shielded and directed down.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?
Bolen Creek Trail System will be connected to with this project. It is located south of site.

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 recreational opportunities to be provided by the project or applicant, if any:
Pay park impact fees to the city for future public parks and existing park maintenance.

13. Historic and cultural preservation

a. Are there any places or objects listed on, or proposed for, national state, or local preservation registers known to be on or next to the site? If so, generally describe.
None known.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.
None known.

c. Proposed measures to reduce or control impacts, if any:
None

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.
Aspen Avenue (NE Northfork Avenue) is a public collector road providing access to the site. W. 19th Street will be constructed on-site, shown on plans.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
C-Tran has a reservation based connector service for La Center. The transit stop location is 1.3 miles south and east on 4th Street across from Holly Park.

c. How many parking spaces would the completed project have? How many would the project eliminate?
52-104 new garage/driveway stalls provided. 4 spaces removed.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).
Aspen Avenue is a public collector road providing access to the site and will receive frontage Improvements. W. 19th Street will be constructed on-site, public road.

e. Will the project 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? If known, when peak volumes would occur.

Proposed measures to reduce or control transportation impacts, if any.
Public road improvements will control transportation impacts. The projected ADT is 190 trips. 16 am peak trips and 19 pm peak trips will occur. Am peak is 7:15-8:15 am. Pm peak trips are between 4:15-5:15 pm.

15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
Yes, all public services will be required and are available to the site.

b. Proposed measures to reduce or control direct impacts on public services, if any.
Provide new utility main line extensions through the site and pay impact fees for schools, parks and transportation. Other taxes from home construction and future property taxes will help fund local emergency services.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

All utilities are available at the site currently. The on-site septic system will be removed along with any wells on-site.

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.

All utilities are proposed for this project. Sewer, water and power lines will be extended through the site. Cable, gas and other dry utilities will be extended as well.

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: _____ Date: _____

5045800 D
RecFee - $73.00 Pages: 2 - SWINDELL SCOTT W
Clark County, WA 01/17/2014 03:58

When Recorded Return To:

Scott W. Swindell, Attorney at Law, P.C.
105 W. Evergreen Boulevard - Suite 200
P. O. Box 264
Vancouver, WA 98666-0264

Real Estate Excise Tax
Ch. 11 Rev. Laws 1951
EXEMPT
Affd.# 704572 Date 01/17/14
For Details of tax paid see
Affd.#
Doug Lasher
Clark County Treasurer
By
Deputy

STATUTORY QUIT CLAIM DEED

Grantor: Muffett, Winfield F.
Muffett, Terra L.
Grantee: Muffett Properties, LLC
Legal Description (abbreviated): #27 Sec 34 T5N R1EWM
Additional Legal Description on Page 2
Assessor's Parcel No.: 258901-000

FROM: **Winfield F. Muffett and Terra L. Muffett**, husband and wife ("Grantors")

TO: **Muffett Properties, LLC**, a Washington limited liability company ("Grantee")

For valuable consideration, in hand paid, Grantors hereby convey and quit claim to Grantee all of their right, title, and interest in and to the following described real property, situated in the County of Clark, State of Washington:

That portion of the Southwest quarter of Section 34, Township 5 North, Range 1 East of the Willamette Meridian, Clark County, Washington, described as follows:

The South 460 feet of the East 950 feet of the North 46.5 rods of said Southwest quarter.

Except the West half as conveyed to Charles D. Rerick Sr. and Mary Sue Rerick, husband and wife, by contract recorded under Auditor's File No. 9010260021.

Also except that portion lying within N.E. North Fork Avenue.

Also except that portion conveyed to JDL Development, Inc., a Washington corporation recorded July 7, 2000, under Auditor's File No. 3233222, records of Clark County, Washington.

Subject to all covenants, conditions, restrictions and easements of record, if any, affecting title, which may appear in the public record, including those shown on any recorded plat or survey.

DATED this 16th day of January, 2014.

Winfield F. Muffett

Terra L. Muffett

STATE OF WASHINGTON)
: ss.
County of Clark)

I certify that I know or have satisfactory evidence that Winfield F. Muffett and Terra L. Muffett, husband and wife, 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 the instrument.

DATED this 16th day of January, 2014.

NOTARY PUBLIC
STATE OF WASHINGTON
DAWN M. STEEL
MY COMMISSION EXPIRES
AUGUST 1, 2016

NOTARY PUBLIC FOR WASHINGTON
My appointment expires: 8-1-2016

THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 34, TOWNSHIP 5 NORTH RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, CLARK COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

THE SOUTH 460 FEET OF THE EAST 950 FEET OF THE NORTH 46.5 RODS OF SAID SOUTHWEST QUARTER.

EXCEPT THE WEST HALF AS CONVEYED TO CHARLES D. RERICK SR. AND MARY SUE RERICK, HUSBAND AND WIFE BY CONTRACT RECORDED UNDER AUDITOR'S FILE NO. 9010260021.

ALSO EXCEPT THAT PORTION LYING WITHIN N.E. NORTH FORK AVENUE.

ALSO EXCEPT THAT PORTION CONVEYED TO JDL DEVELOPMENT, INC., A WASHINGTON CORPORATION RECORDED JULY 7, 2000 UNDER AUDITOR'S FILE NO. 3233222, RECORDS OF CLARK COUNTY, WASHINGTON

Property Fact Sheet for Account 258901000

June 14, 2016

General Information

Property Account	258901000
Site Address	34700 NE NORTH FORK AVE, LA CENTER, 98629
Owner	MUFFETT PROPERTIES LLC
Mail Address	PO BOX 301 LA CENTER WA , 98629
Land Use	SFR UNIT NOT SHARING STRUCTURE WITH OTHER USES
Property Status	Active
Tax Status	Regular
1st Line Legal	#27 SEC 34 T5N R1EWM 4.30A
Area (approx.)	187,308 sq. ft. / 4.3 acres

Assessment (2015 Values for 2016 Taxes)

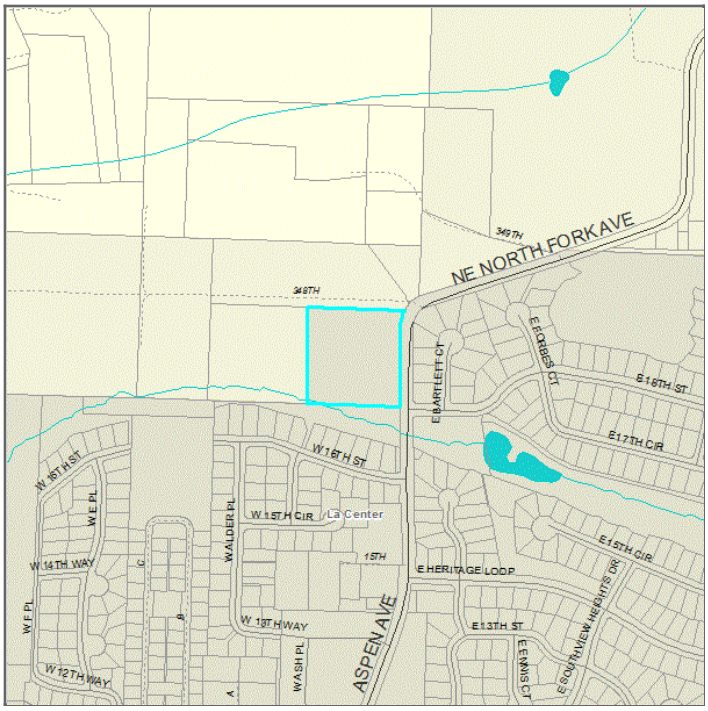
Land Value	$142,141.00
Building Value	$89,808.00
Total Property Value	$231,949.00
Total Taxable Value	$231,949.00

Most Recent Sale

Sale Date	01/16/2014
Document Type	D-QCD
Sale Number	704572
Sale Amount	$0.00

Administrative

Zoning Designation	Low Density Residential (LDR-7.5)
Zoning Overlay(s)	Urban Holding District (UH-10) - LAC
Comprehensive Plan	Urban Low Density Residential
Comp. Plan Overlay(s)	none
Census Tract	402.01
Jurisdiction	La Center
Fire District	Clark Co Fire
Park District	n/a
School District Elementary Middle School High School	La Center La Center La Center La Center
Sewer District	Rural/Resource
Water District	Clark Public Utilities
Neighborhood	n/a
Section-Township-Range	SW 1/4,S34,T5N,R1E
Urban Growth Area	LaCenter
C-Tran Benefit Area	Yes
School Impact Fee	La Center
Transportation Impact Fee	LaCenter
Transportation Analysis Zone	601
Waste Connections Garbage Collection Day	Tuesday
Last Street Sweeping	n/a
CPU Lighting Utility District	0
Burning Allowed	No
Wildland Urban Interface/Intermix	No



Wetlands and Soil Types

Wetland Class	No Mapping Indicators
Wetland Inventory	No Mapping Indicators
Flood Hazard Area	Outside Flood Area
Shoreline Designation	none
Soil Types / Class	Non-Hydric / HgD Non-Hydric / HoC
Critical Aquifer Recharge Area	Category 2 Recharge Areas
FEMA Map / FIRM Panel	53011C0206D
Watershed	East Fork Lewis River
Sub Watershed	East Fork Lewis (r.m. 00.00)

Geological Hazards

Slope Stability	Severe Erosion Hazard Area
Geological Hazard	Areas of Potential Instability
NEHRP Class	C D
Liquefaction	Very Low

Habitat and Cultural Resources

Priority Habitat	Riparian Habitat Conservation Area
Habitat Area Buffer	
Species Area Buffer	
Archaeological Probability	Low Low-Moderate Moderate Moderate-High
Archaeological Site Buffer	Yes
Historic Site	No Mapping Indicators

305 NW Pacific Highway1
La Center, Washington 98629
T/360.263.7665

PRE-APPLICATION CONFERENCE REPORT
Aspen Heights Subdivision (2016-010-PAC)
Meeting conducted on May 25, 2016 - 10:00 AM

PROJECT INFORMATION

Proposal: The applicant proposes to rezone the 4.3 acre property from low density residential (LDR-7.5) to medium density residential (MDR – 16), remove the Urban Holding Overlay and subdivide the property to develop 26 attached single family dwellings.

Location: The site is located west of NE North Fork Avenue and south of NE 348th Street. The parcel is identified as 34700 NE North Fork Avenue or alternatively as Assessor Parcel No. 258901-000, number 27 SW ¼ of Sec 34, T5N, R1E, WM.

Representative: Scott Taylor, SGA Engineering 2005 Broadway, Vancouver, WA 98663, (tel.) 360-993-0911, (fax) 360-993-0912, staylor@sgaengineering.com

Owners/Addresses: Win Muffett, P.O. Box 301 La Center, WA 98629, (tel.) 503-807-2139.

REVIEW

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.

Public Works and Engineering

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. LCMC 12.10.040.

In lieu of the completion of any required public improvements prior to approval of a final plat, short plat or the issuance of building permits, the director may accept a bond, in an amount and with surety and conditions satisfactory to him, or other secure method as the director may require, providing for and securing to the city of La Center the actual construction and installation of such improvements within a period specified by the director and specified in the bond or other agreement, and to be enforced by the director by appropriate legal and equitable remedies. In no case shall a bond be less than 110 percent of the cost to complete construction.

The developer shall be responsible for submitting a reproducible set of plans for all improvements showing all construction changes, locations of culverts, alignment and grade changes, added and deleted items, location of utilities, water valves, sewer connections, etc. The as-built plans shall be submitted prior to acceptance of any improvements for maintenance by the city. The as-built plans will be signed and stamped by a professional engineer registered in the state of Washington and meet the criteria set

forth in the city of La Center engineering standards. [Ord. 2009-10 § 1 (Exh. 1), 2009; Ord. VI-9-1 § 12, 1989.]

12.10.130 Public roads – Acceptance by city.

The city will accept roads for provisional maintenance upon the director's recommendation. Final acceptance will not be made for one year from the date of provisional acceptance and the owner and/or his contractor and the utilities must repair any failure within the one-year period at the expense of the owner, contractor or the utilities responsible; provided, prior to such acceptance, a bond in an amount and with surety acceptable to the director, or other secure method, may be required providing for and securing to the city of La Center the satisfactory performance and maintenance of the road improvements for a two-year period when, in the director's opinion, all specifications have not been fully met.

General roadway and right-of-way standards, including roadways, sidewalks, street lights, street trees and stormwater improvements apply. The project shall provide for the continuation or appropriate projection of W. 19th Street in the surrounding area and on adjacent parcels. LCMC 12.10.090.

The applicant shall provide full street improvements on interior streets according to the City of La Center Local Access standard ST-15. Aspen Avenue street improvements will be required per Rural Major Collector Standard Detail (Attached . The existing Right Way on Aspen Avenue appears to be 60-feet, according to the applicants plan. Sidewalk and curb and gutter need to be completed per the Neighborhood Access Standard on the west side of Aspen Avenue as part of the development.

Driveways must comply with maximum driveway width as shown on the city's standard detail.

A two-year maintenance bond is required.

Comments

The pedestrian trail from the subdivision to the existing trail adjacent to Bolen Creek shall have a 20-foot wide easement per section 2-06 of the City Engineering Standards.

The minimum Cul-de-Sac radius is 60-feet to Right of Way line and 44.5-feet to gutter flowline with a 5.5-foot wide sidewalk. The Cul-de-Sac radius on the plans is shown at 45-feet. A temporary Cul-de-Sac may be used, in lieu of the Cul-de-Sac; a hammer-head at the end of W. 19th Street may be a superior solution.

The applicant's plans show a 32-foot wide asphalt road for interior streets. The city Local Access standards require 32-foot wide to gutter flowline dimension and 30-foot pavement width for a 1-foot wide curb.

As part of the traffic study required for the development, the applicant will need to verify that the line of site of the proposed intersection on Aspen Avenue will meet line of site requirements for 85% speed, 25 mph minimum, of Aspen Avenue. The applicant shall verify that the intersection spacing between the proposed intersection and E. 18th Street will meet LCMC.

Grading & Erosion Control

A grading and erosion control permit is required as part of the subdivision plans. As part of the grading plans finished floor elevations need to be shown for the lots in addition to grading quantities, the plan shall show retaining walls necessary to grade the lots.

The City Erosion Control Standards require that any activity disturbance over 500 SF must comply with the City standards. A construction stormwater permit is required from the Department of Ecology and an SWPPP is required as part of the plan submittal to the City.

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. Connections shall be made at a manhole at the intersection of 18th Street and Aspen Avenue. Connection to the manhole, sewer main trench installation in Aspen Avenue shall be done per city details. LCMC 13.10.180. A minimum 8 inch diameter public main pipe will be installed between in Aspen Avenue to the point of connection at the city manhole. LCMC 13.10.190. A back water valve is required, if the lots are lower than the street, on each sewer connection from the lots and will be located at the property line within the applicants property. A cleanout is required at the property line. LCMC 13.10.110. *La Center Engineering Standards for Construction* are also applicable.

Calculations shall be submitted to determine design compliance of the sewer system within the development, the future upstream incoming influent and the adequacy of the downstream facilities shall be submitted for approval.

The existing conditions plan shows an existing septic system serving the house. The system needs to be abandoned or removed as necessary per Clark County Environmental Health permitting. Sanitary sewer shall be placed in the Right-of-Way.

Chapter 18.320 (Stormwater and Erosion Control)

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

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

Stormwater from pollution generating surfaces (impervious) shall be treated with rain gardens, bioswales, or other approved BMP's. The treatment must meet City of La Center standards and the 1992 Puget Sound Manual which requires compliance with the Water Pollution Control Act and the Water Resources Act. Use of on-site infiltration will require a Geotechnical Investigation and report by a licensed Geotechnical Engineer, showing site infiltration rates and high seasonal groundwater elevation to support infiltration. If underground infiltration is used, an Underground Injection Control permit will be required by the Department of Ecology and may be subject to the 2012 Western Washington Manual for treatment and disposal of stormwater.

Per LCMC 18.320.220, if infiltration is used for disposal of stormwater, the project must infiltrate the 100-year storm where local soil types and ground water conditions are suitable. Per the Puget Sound Manual, an emergency overflow above the 100-year storm event needs to be shown.

If infiltration of stormwater is not feasible for quality treatment and quantity disposal, stormwater runoff must be detained meeting the requirements of Chapter 18.320 LCMC and then discharged into the existing low point on the site. Clark County Soil Groups or USDA may be used to determine the hydrology of the site. Isopluvials shall be used to determine the design storm frequency (attached). Per the City Ordinance, a forested condition must be used for the pre-developed surface condition. The HEC-1 flood hydrograph package or HEC HMS may be used for hydrologic computation of site quantity control.

The collection system shall 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. Attached is the city rainfall intensity chart.

Per LCMC 14.10.140, a preliminary stormwater plan and preliminary stormwater report shall be submitted for review as part of the land use application. The stormwater report must also address stormwater how energy dissipation will be accomplished so that the downstream property is not impacted by stormwater.

Downspouts connections from dwellings and buildings must connect directly into the site stormwater system. Laterals from the storm main in the street must be shown to serve each lot. A Technical Information Report (TIR) is required along with the development plans for approval of the stormwater system.

Maintenance of Stormwater Facility

The stormwater facility shall be owned and maintained by a Home Owners Association (HOA). The city will not accept the maintenance responsibility. The HOA CC&Rs shall provide for ownership, funding, and maintenance of the stormwater facilities. Prior to Final Plat approval, the developer shall provide the city with an operations manual for city review and approval of 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. The final plat shall contain a note stating that has a right but not a duty to maintain the stormwater facilities in case of an emergency or public need and that the city has the right of third party enforcement to ensure adequate maintenance of stormwater facilities.

Prior to submittal of engineering plans, please work with the City Engineer regarding management of stormwater along Aspen Avenue surfaces and sidewalks.

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. Meters must be on the lots they serve. Water lines must be in the street. Please connect with Russel Knutson, CPU, rknutson@clarkpud.com. Provide proof that the on-site well was properly abandoned.

Street Lighting

Street light design and installation is reviewed and approved by CPU. LED street lighting is preferred and should be pursued by the applicant prior to development approval.

Building Comments

1. Identify the proposed setback for each lot.
2. Submit a geotechnical report analyzing the development design and for lot infill. The report should propose plat development conditions for the builders
3. The plat notes should stipulate amount of impervious/saturation development allowed (Maximum building lot coverage is 35% and maximum impervious surface area is 50%).
4. Plat conditions for individual lot build out should include provision of adequate foundation drainage, in particular on the high side of the each lot.
5. An investigation for anticipated retaining walls (either cast or key block or boulder) for individual lot protection from high side neighbor would be helpful in avoiding problems. If retaining walls are to

be constructed there needs to be design details in the plat conditions for the builder(s). Any required walls shall be installed and approved before final occupancy approval.

6. Provide detail for fencing along Aspen Avenue.
7. An adequate absorption/dissipater design should be included in the plat conditions for storm water that can't flow by gravity to the storm lateral.
8. Provide a plat note and detail for a concrete truck washout area which builders and contractors shall be required to use and maintain until final build out.

Fire Comments

Coordinate with Tim Dawdy, CCF&R regarding hydrant spacing and related fire flow and fire protections issues he might have. The new fire code goes into effect in June 2016. The fire and rescue service strongly encourages the installation of sprinklers in each unit; preferably an NFP-R system. The turnaround at the end of W. 19th W. must comply with IFC standards, a 45-foot radius from curb to curb. A hammer head combined with the utility tract at the end of W. 19th Street may be a better solution than the half cul-de-sac. Either turnaround must be identified as "Fire lane – No parking" signs.

Land Use

Legal Lot Determination:

If the property has been conveyed or encumbered since the 2005 annexation, please submit an application for legal lot determination.

Zone Change:

The subject property has an Urban Residential Comprehensive Plan designation and is zoned low density residential (LDR-7.5). The applicant proposes to change the zone from low density to medium density residential. The city will process the zone change as a Type IV legislative application. The city will require at least one public hearing at the Planning Commission and at least one public hearing before the City Council.

The city may not act upon the subdivision application until the zone change process concludes. The burden of proof for the zone change rests entirely on the applicant. A successful zone change depends upon a finding that the proposed zone change fully satisfies all of the approval criteria listed below and that the proposal is in the public interest.

The technically application for a zone change shall include the following materials consistent with LCMC 18.120.040(2):

a) A map of the proposed amendment area;
b) Proposed text amendment, if applicable;
c) A narrative describing the potential effects the proposal will have on public services, including:
    1. Streets,
    2. Schools,
    3. Parks, and
    4. Utilities;
d) An analysis of the potential cumulative effects of the proposal;
e) Materials required under LCMC 18.30.050; and
f) Other materials the city planner deems necessary:
    The application for zone change must contain:
    1. A preliminary plat of the proposed development;
    2. Elevations of the proposed buildings consistent with the design standards identified below;
    3. Details regarding the proposed trail length, location and design; and
    4. Demonstration the proposed development can meet the beveling standards in LCMC 18.140.030(2) included below.

A technically complete application for a zone change shall demonstrate consistency with all approval criteria in LCMC 18.120.050, including:

(1) All relevant statutory requirements under federal and state law;
(2) All applicable goals and policies of the comprehensive plan or that a significant change in circumstances requires an amendment to the plan, text or map *(At a minimum consider policies 1.1.1, 1.1.3, 1.1.5, 1.2.7, 1.1.13, 3.1.1, 3.1.2, and 3.1.12.)*;
(3) Shall not result in a decrease in the level-of-service for capital facilities and services identified in the La Center Urban Area Capital Facilities Plan;
(4) Shall be consistent with the population projections provided by the Washington State Office of Financial Management as allocated by Clark County;
(5) Shall be in the public interest;
(6) Shall meet any locational criteria for the proposed district as set forth in the comprehensive plan and municipal code;
(7) Shall demonstrate that conditions have substantially changed since the current zoning was applied to the property, if appropriate; and
(8) The proposed zoning district is allowed by the plan to zone matrix adopted by the City Council.

Chapter 18.140 Medium Density Residential Development

The applicant proposes to subdivide the property, after changing the zone from LDR-7.5 to MDR-16 and preliminarily plat the property into 26 single family attached units. All developments within the MDR-16 zoning district shall comply with the density and dimensional requirements of Table 18.140.030.

Standard	**Single Family Attached**	**Proposed**
Net Density[1]	8-14	
Minimum Project Area[5]	2.5 ac.	4.43
Minimum Lot Width	20 feet	27 feet
Minimum Lot Depth	60 feet	100 feet
Minimum Area	1,400 SF	2,700 SF
Maximum Area	N/A	
Maximum Lot Coverage	60%	
Maximum Height[6]	35 feet	
Setbacks[2]		
Minimum Front Setback[3]	10 feet	
Minimum Garage Setback from Public Street	18 feet	
Minimum Garage Setback from Alley	3 feet	
Minimum Side Setback	0 feet attached/4 feet nonattached	
Minimum Street Side Setback	10 feet	
Minimum Rear Setback	10 feet	

[1]In a phased project, each phase of the project shall meet the density requirements.
[2]Setbacks and building envelopes shall be identified for each lot on the face of the plat or binding site plan.
[3]Minimum front yard setback shall be 25 feet from arterial and collector streets.
[4]In a manufactured home subdivision the lot area and setback standards represent an average within the subdivision.
[5]The minimum project area requirements do not apply when legal lots in the RP zone develop multifamily housing.
[6]The maximum height of a dwelling is depicted in this table; the maximum height of a garage or accessory building is 20 feet.

(2) **Beveling.** New lots used for medium density residential purposes created adjacent to low density residential (LDR) districts shall employ a "beveling" technique at the perimeter of the project. New perimeter MDR-16 lots abutting LDR districts, not including public rights-of-way or dedicated public open space, shall be no less than 80 percent of the lot area of the minimum lot size of the abutting LDR district. Setbacks from the property lines of abutting LDR land shall be no less than 80 percent of the setback requirement of the abutting LDR district. For example, if the abutting property is zoned LDR-7.5, a 7,500-square-foot minimum lot size, the MDR-16 lots abutting the LDR district may not be less than 6,750 square feet. *(Low density zoning is north and south of the proposed project.)*

(3) Density Transfer. A project subject to the beveling requirement described in subsection (2) of this section may transfer density to interior lots, on an acre-per-acre basis, to achieve a density of no greater than 16 units per net acre. For example, if the cumulative area of all beveled perimeter lots is two acres, a maximum of two acres of interior lots may reach a density of 16 units per net acre. The balance of the non-beveled areas may not exceed the maximum density allowed for project type described in Table 18.140.030.

(4) Product Types. The city desires to foster an opportunity for the creation of a variety of MDR-16 housing products so as to promote housing affordability, architectural variety and unique neighborhood character. An MDR-16 project, proposed after December 31, 2015, which consists of five gross acres or more, including abutting lands under common ownership, may not include more than 75 percent of one housing type, i.e., multifamily, single-family attached or single-family detached. *(This standard does not apply to this project because it is less than 5 acres.)*

Design Requirements. *(These standards apply.)*
Single family attached projects shall satisfy the minimum design requirements in LCMC 18.140.040. .

(1) (a) MDR-16 projects shall create a unifying design theme for each cluster of units or less (a housing complex). The design theme can be created by the use of stone, wooden lap siding, or other natural material.
(b) MDR-16 projects shall avoid repetitive building massing and facade designs. Variety of scale and articulation is encouraged and can be accomplished by the use of design elements such as porches, balconies, bay windows, covered entries, and garages set back from the primary facade.
(c) MDR-16 projects shall avoid monotonous rooflines and shall employ devices such as various elevations, gables, dormers, and chimneys, etc.
(d) Where single-family attached units are paired, the review authority may require the paired units to share a common driveway.

(2) Active Open Space – Family Parks. *(These standards do not apply if the project is less than 35 units.)*
(b) Threshold and Minimum Size. Each MDR-16 project of 35 dwelling units or more shall provide one or more family parks, developed to city standards at a ratio of one-quarter acre per 35 dwelling units (0.25 ac: 35 du).

(3) Landscaping and Open Storage. *(These standards apply.)*
(a) Landscaping. On-site plantings, with individual character, are encouraged to provide multiple layers of plantings, including canopy trees, understory trees, shrubs and groundcover. Seasonal interest is encouraged to be enhanced through the use of blooming sequence, fragrance, fall color, and specimen plant materials. Introduction of other landscape architectural hardscape elements such as: use of natural stone, sculpture, water features, enhanced paving, accent lighting, site furnishings, recreational facilities, and the like are strongly encouraged. Preservation of environmentally constrained areas as natural areas and the restoration of buffer areas with native plant materials and recreational opportunities are priorities.

(b) All landscape plantings shall be irrigated with an automatic, underground irrigation system designed with water conservation in mind. Use of techniques, such as separate water zones based on soil type, sun exposure, and plant water requirements is encouraged. All required plant materials shall meet or exceed specifications established by the American Association of Nurserymen for nursery stock.
(c) At least 15 percent of the gross square footage of the project site must be landscaped.
(d) All setback areas shall be landscaped and maintained with live vegetation.
(e) Street trees, if required by the director of public works, shall be planted on all street frontages and within all median planting strips. In addition, street trees shall be placed a minimum of two feet from the curb as measured from the center of the tree to the planter side of the curb, unless otherwise specified by the city's public works director. Street trees shall be a minimum of two-inch caliper, fully branched, and staked at the time of planting. Minimum spacing shall be 30 feet on center of planter length. Trees selected for use as street trees shall be long-lived species possessing qualities suitable for an urban streetscape including branching characteristics, rooting characteristics, disease resistance, drought resistance and nonfruiting. Planter strips abutting a public street shall be planted with live vegetation and irrigated, unless if otherwise specified by the city's public works director.
(f) Only under the following conditions may freestanding walls, fences and hedges be permitted along public or private streets or sidewalks:
  (i) The maximum height of any wall, fence, or hedge shall be six feet so long as the fence height does not interfere with safe line of sight as determined by the city engineer.
  (ii) Barbed wire, razor wire, electric and other dangerous fences are prohibited.
(g) Open Storage. Open storage is prohibited. Trash and recycling containers located outside of a building shall be screened by a six-foot solid (100 percent opaque) fence or a combination of fence and vegetation.

(4) Parking. *(These standards apply.)*

Required parking shall be provided either on the same lot as the dwelling, or in shared parking areas located primarily to the rear of or beneath the units.

(a) Parking is encouraged to locate behind the dwelling unit with access from an alley. When an alley is provided, pedestrian access from the alley to the dwelling shall be provided for each lot.
(b) Each MDR-16 dwelling unit shall provide 1.75 off-street parking spaces per individual dwelling unit.

(LCMC 18.270.070(1) requires two (2) parking spaces per MDR unit. As a rule of code construction where there are conflicting standards the more restrictive shall apply. LCMC 18.10.100. Therefore, the city will require two parking spaces per unit.)

(5) Garages. *(These standards apply.)*

(a) Where the primary garage entrance faces a right-of-way, the garage must be set back a minimum of 18 feet from the right-of-way.
(b) No more than 40 percent of the total wall area of a housing complex facing a public right-of-way shall be dedicated to garage door space.
(c) Twenty-five percent of the garage wall area facing a public right-of-way shall contain windows or doors placed to create the impression of habitable residential space.
(d) In each cluster of single-family attached units, no more than 50 percent of the garages within the cluster may extend beyond the front plane of the primary facade of the dwelling unit.
(e) Garages that take vehicle access from an alley shall be set back a minimum of three feet from the alley right-of-way.
(f) Detached garages are allowed, provided they are accessed from an alley or driveway and do not exceed 18 feet in height.

(6) Pedestrian Access. *(These standards apply.)*
   (a) An on-site pedestrian circulation system that links public and private streets and the primary entrance(s) of all the structure(s) on the site shall be provided. Sidewalks or pedestrian ways must connect the required pedestrian system to existing pedestrian systems on adjoining developments if adequate safety and security can be maintained. Convenient delineated pedestrian access to transit stops shall be provided.
   (b) Public sidewalks shall be required and constructed according to the city's road standards.
   (c) Where the pedestrian system crosses driveways, parking areas and loading areas, it must be clearly identifiable, through the use of elevation changes, speed bumps, a different paving material, or other similar method approved by the reviewing authority. Striping may be permitted only in conjunction with at least one of the preceding methods.
   (d) Lighting for parking lots and pedestrian ways shall be provided to ensure personal safety and shall be shielded downward to prevent upward and off-site glare.
   (e) Lighting shall be integrated into the architectural character both in terms of illumination and fixtures. Lighting shall not produce glare or negatively impact off-site uses or traffic on adjacent streets. On-site lighting shall utilize cutoff fixtures designed to orient light downward and contribute toward a dark sky.

(7) Impact Fees. *(These standards apply.)*

School and park impact fees for attached housing shall be assessed at the multifamily rate while impact fees for detached housing shall be assessed at single-family rates.

Requirements of single-family attached housing. LCMC 18.140.050. *(These standards apply.)*

In addition to the requirements of LCMC 18.140.040, a single-family attached proposal shall meet the requirements of this section. Where a conflict exists between general and specific standards the director shall apply the more specific standard.

(1) Land divisions shall be reviewed according to Chapter 18.205 or 18.210 LCMC and Chapter 58.17 RCW. Building permits for attached developments may only be approved where fully consistent with the approved land division.
(2) Notations on the plat and/or covenants running with the land, approved by the city attorney, shall guarantee that required side setbacks shall be kept perpetually free of obstructions.
(3) Single-family attached housing shall not be permitted in housing clusters of greater than six units.
(4) Only one dwelling unit may occupy an individual lot. Each attached dwelling may occupy no more than one lot.
(5) No portion of a unit may occupy space above or below any other unit, except underground shared parking.
(6) Landscaping. Single-family attached development projects may satisfy the minimum landscaping requirement by:
   (a) Providing 200 square feet of enclosed private outdoor living area per bedroom for each individual dwelling unit, to be located in the rear or side yard of each individual lot; or
   (b) Providing 200 square feet of common indoor or outdoor recreation area per bedroom for each individual dwelling unit.

Chapter 18.190 Urban Holding District

The City may remove the Urban Holding 10 (UH-10) overlay concurrently with the approval of the Final Plat for development or as a separate Type II application and land use review not associated with subdivision approval. LCMC 18.190.060.

18.210 Subdivisions *(These standards apply.)*

Submittal Requirements (§§18.210.030): A completed application form and the following materials will be required, if applicable, prior to a determination of technical completeness (ten copies and an electronic version of all materials), please):

1. The information listed in LCMC 18.210.010(2); an environmental checklist is required for a technically complete application.
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, if the application was subject to pre-application review, 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.
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 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.
10. A wetlands delineation and assessment 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.
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.
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.
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*.

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

Subdivision Review Process: The City Hearing Examiner will conduct a public hearing on the proposed preliminary plat as soon as the zone change is effective.

All correspondence must be submitted to the La Center City Clerk. 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 Clerk finds the application technically complete, the Clerk shall mail a Notice of Application to you and adjacent property owners. The comment period shall remain open for a minimum of 14 days. The city will schedule a hearing within 78 days after the city finds the application to be technically complete. The city shall issue a staff report 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.

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, School 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;
- Title 18, Development Code;
- 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. The preliminary plat shall expire five years from the date of the Final Order.

Chapter 18.245 Supplementary Development Standards

The applicant did not include specific information regarding the fencing, hedging, solid waste, lighting, noise, and landscaping requirements regulated by Chapter 18.245. The subsequent application must address these specific issues.

Chapter 18.260 Variances

No variances have been requested.

Chapter 18.275 Sign Requirements

If proposed, monument signs must comply with this chapter.

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. This may be accommodated with a note on the plat requiring each lot to provide two off-street parking spaces. Parking spaces within garages, carports and driveways serve to meet this requirement.

Chapter 18.300 Critical Areas

Clark County GIS indicates the presence of a stream and priority habitat buffer along the southern boundary of the site and a potential landslide hazard area immediately south of 348th Street.

The applicant's 2005 Environmental Site Assessment discusses the Bolen Creek tributary on-site and states that Clark County requires a 150-foot buffer (p 4). The riparian buffer will be evaluated against La Center standards. The report also states that Clark County GIS does not reveal the presence of presumed or potential salmonids use of Bolen Creek. The Department of Natural Resources FPARS site identifies the Bolen Creek tributary as fish bearing.

The recommended riparian buffer for a Type F stream is 200 feet from the OHWM. *Table 18.300.090(2)(f) – Riparian Areas.* The city does not allow platting of lots in wetland and riparian critical areas or their buffers.

Riparian Buffers

A minimum setback of 15 feet from the buffer shall be required for construction of any impervious surface(s) greater than 120 square feet of base coverage from the head or toe of a slope where the overall slope is greater than 35 percent. Clearing, grading, and filling within 15 feet of the buffer setback shall be allowed only when the applicant can demonstrate that native vegetation within the buffer will not be damaged. The additional impervious surface setback from the toe and head of a slope may be waived if the applicant demonstrates, by credible evidence, that the proposed impervious surface will not significantly affect the stability of the slope.

The edge of the buffer area shall be clearly staked, flagged, and fenced prior to and through completion of construction. The buffer boundary markers shall be clearly visible, durable, and permanently affixed to the ground. See, LCMC 18.300.090(2)(g)(1) and (ii).

Private improvements in critical areas are not permitted. Pervious trails and public facilities and services may be placed in critical areas and buffers. LCMC 18.300.050. The city will not recommend approval of platting lots in critical areas or critical area buffers.

Buffer Reduction.

The city may allow the reduction of Np and Ns stream buffers by no more than 50 percent of the required buffer width if the area proposed for buffer reduction. LCMC 18.300.090(2)(l). The city does not have any provisions for reducing buffers on Type F streams. The city will consider buffering reduction of a Type F stream if the request is supported by written statements from state agencies responsible for oversight of riparian areas and wetlands that the proposed buffer reduction is consistent with Best Available Science. Thereafter, the city may reduce the buffer by no more than 50% if the applicant demonstrates the buffer:

(i) Is currently adversely impacted by development such as roads, parking areas, buildings, or public facilities; or
(ii) Has primarily nonnative vegetation, such as grass pasture; and
(iii) The proposed reduction will not significantly reduce the water quality and habitat functions of the buffer;

When buffer reduction is allowed, the applicant shall provide the city with a vegetative buffer enhancement plan consistent with LCMC 18.300.090(2)(m) for review and approval.

If the city allows riparian buffer reduction, stormwater facilities are not permitted in the remainder buffers reduced by operation of the buffer reduction provision. LCMC 18.300.090(2)(l)(v).

Geo-technical
The city will require a geo-technical evaluation specific to potential landslide hazard area. The city will require a critical area report, prepared by a qualified professional, relating to the stream priority species area and buffer. LCMC 18.300.050. As part of the Geotechnical Report, the city will require pavement and base roadway structural section recommendation.

Chapter 18.310 (Environmental Policy)

The project review application must include a SEPA checklist and appropriate processing fees. The city will review the SEPA checklist and application materials and will make a threshold determination. 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. An archeological predetermination is required.

Application Fees

Land Use Fees

Based upon the information provided to date, we estimate that the land use application fees will include:

- Zone Change ($2,125),
- Critical Area review ($340),
- Legal Lot Determination ($425 + $75/lot),
- Preliminary subdivision plat ($3,400 +$125/lot),
- Site Plan Review ($1,275 + $85/Sq. Ft.),
- SEPA ($170 x 3), and
- Variances – **if requested** - (ranges from $425-$2,125/variance request).

The applicant is responsible for payment of fees related to development/engineering review costs as contained in La Center Resolution No. 13-372. The city requires an applicant pay actual costs of outside professional services including engineering, legal, and planning.

Impact Fees

Impact fees are assessed and collected against each lot at time of building permit.

Engineering Fees

ENGINEERING	
Engineering Final Plat, Site Plan or any other final development action	Cost recovery [2]
Right of Way permit	$40 + $40 for pavement disturbance
Stormwater review	$150
Traffic Study review	$500 [2]
Transportation / ROW review	$100
Copy of *La Center Engineering Standards for Construction*	$75 for hardcopy; $10 for CD, free with email address
Construction Engineering Plan Review & Construction Inspection	5% of actual engineering cost estimate for construction

[1] Fees proposed are base application fees. The City may reserve the right to charge actual costs for project review including: planning, engineering, legal, peer review and administrative costs directly related to the project review.

[2] Cost recovery (requires a reimbursement agreement); actual cost of staff, consultants, and/or hearing examiner plus 10%. This fee is applicable as part of a land use action or development review (i.e.: traffic study, preliminary/final plat review).

Aspen Heights Zone Change and Preliminary MDR-plat
Pre-Application Conference - May 26, 2016 - Conference Attendees

Name	Address	Phone	Email
Greg Thornton Mayor of La Center	305 NW Pacific Highway La Center, WA 98629		gthornton@ci.lacenter.wa.us
Jeff Sarvis, Public Works Director	305 NW Pacific Highway La Center, WA 98629	360-263-7661	jsarvis@ci.lacenter.wa.us
Tony Cooper, P.E., City Engineer	305 NW Pacific Highway La Center, WA 98629	360-263-2889	acooper@ci.lacenter.wa.us
Naomi Hansen Permit Technician	305 NW Pacific Highway La Center, WA 98629	360-263-7665	nhansen@ci.lacenter.wa.us
Eric Eisemann Planning Consultant	215 W 4th St., #201 Vancouver, WA 98662	360-750-0038	e.eisemann@e2landuse.com
Win Muffett Owner	PO Box 301 La Center, WA	360-263-3745	
Scott Taylor SGA Engineering	2005 Broadway Vancouver, WA 98663	360-993-0911	staylor@sgaengineering.com
Eric Golemo SGA Engineering	2005 Broadway Vancouver, WA 98663	360-993-0911	egolemo@sgaengineering.com
Russ Knutson, Clark Public Utilities	8600 NE 117th Ave Vancouver, WA 98668	360-992-8552	rknutson@clarkpud.com
Tim Dawdy Clark Fire & Rescue	911 NE 65th Ave. Ridgefield, WA 98642	(360) 887-4609	tim.dawdy@clarkfr.org
Doug Boff Planning Commission			

2016-021
2016-72

Clark Public Utilities
Customer-owned, customer-focused

REQUEST FOR UTILITY REVIEW – WATER AVAILABILITY

Clark Public Utilities - Water
P. O. Box 8900 (8600 N.E. 117 Ave) Vancouver, WA 98668
TEL (360) 992-8022 FAX (360) 992-8027

APPLICANT INFORMATION

DATE: 4/19/2016

NAME SGA Engineering
ADDRESS 2005 Broadway
CITY Vancouver STATE WA ZIP 98663
TELEPHONE 360-993-0911 FAX
EMAIL lharker@sgaengineering.com

Preferred means of notification: ☐ Mail ☐ Phone ☐ FAX ☒ Email
Proposed type of development: ☐ Short Plat ☒ Subdivision ☐ Apartment ☐ Commercial
Number of Lots/Units: 26

Property Location

Tax Lot/Serial Acct. No 258901000
SEC 34 TWP 5 RANGE 1 1/4 SW
Property Address 34700 NE North Fork Ave (or nearest cross street)
Property Size Ac Required Fire Flow GPM

PLEASE SUBMIT PLAT MAP WITH REQUEST

GENERAL CONDITIONS FOR SERVICE (CPU Staff Only)

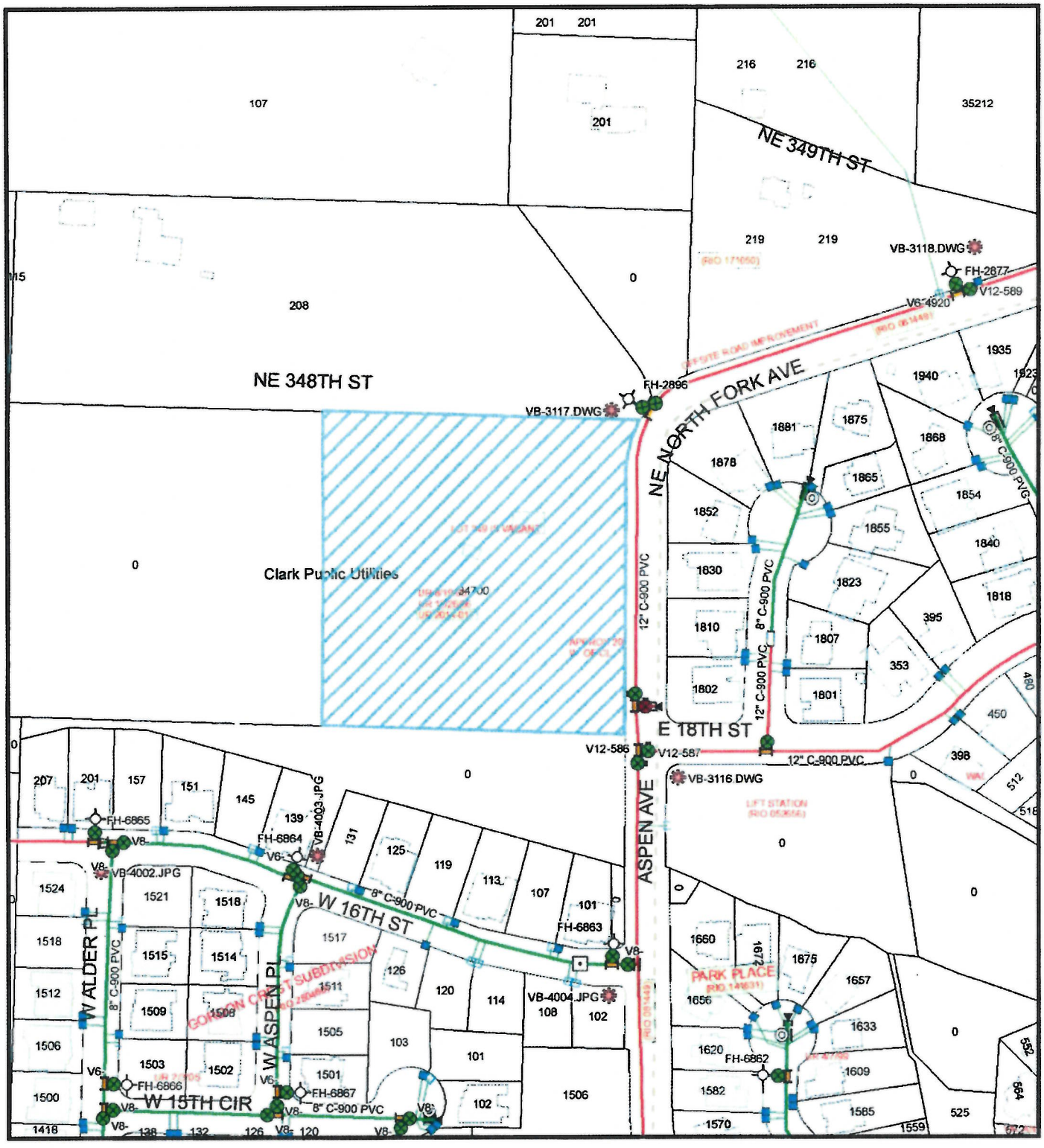
Connect to the existing 12" water main and extend a 12" water main in NE 348th Street along the project frontage. Construct minimum 8" water mains within all the proposed subdivision roads. Extend both water mains to the west property boundary for future extension. Install fire hydrants where required by the Fire Marshall/Fire District. Available fire flow in North Fork Avenue's water main will provide a minimum fire flow of 2,000 gpm @ 20 psi. Static water pressure varies from 78 to 103 psi, depending on property elevation and reservoir level.

☒ 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 RA Russ Knutson, PE DATE 4/26/16

Revised 10/9/12 rk RA 11/1/14



Legend

Unknown	8"	Butterfly, Closed	Air Release	Cross	Reservoir	Fire Flow At 20psi	
2"	10"	Butterfly, Open	Check	Tee	Booster Pumping Station	Not Tested	
3"	12"	Gate, Closed	Double Check	Cap and Thrust Block	Satellite Well	1 - 499	
4"	14"	Gate, Open	Blow Off	Reducer	Production Well	500 - 999	
6"	16"	Abandoned Valve	Pressure Regulating Valve	Coupling		1000 - 1499	
Water Service		Water Meter	Valve Book	Tapping Sleeve		1500 - 7981	

1 inch = 200 feet

N

Clark Public Utilities
Customer owned. Customer focused.

OPERATIONS MAP

Printed on: 4/26/2016 Printed by: RussK

MAP NUMBER
5134

Sam Moss

From: Anthony Cooper [acooper@ci.lacenter.wa.us]
Sent: Tuesday, November 1, 2016 11:31 AM
To: smoss@SGAengineering.com
Cc: e.eisemann@e2landuse.com
Subject: Capacity of existing sewer system in Aspen Avenue
Attachments: Existing Sewer basin map and flow calculations for Aspen Avenue.pdf

Sam:

Attached is a schematic sewer basin map and preliminary flow calculations for the basin downstream of the sewer system in Aspen Avenue.

I did some preliminary calculations of the capacity of the existing sewer system in Aspen Avenue with an additional 26 ERU's proposed for the development at 34000 NE North Fork Avenue.
It appears that the downstream existing dower system, from manhole E77, has enough capacity to serve an addition 26 ERU's from this Aspen Heights development.

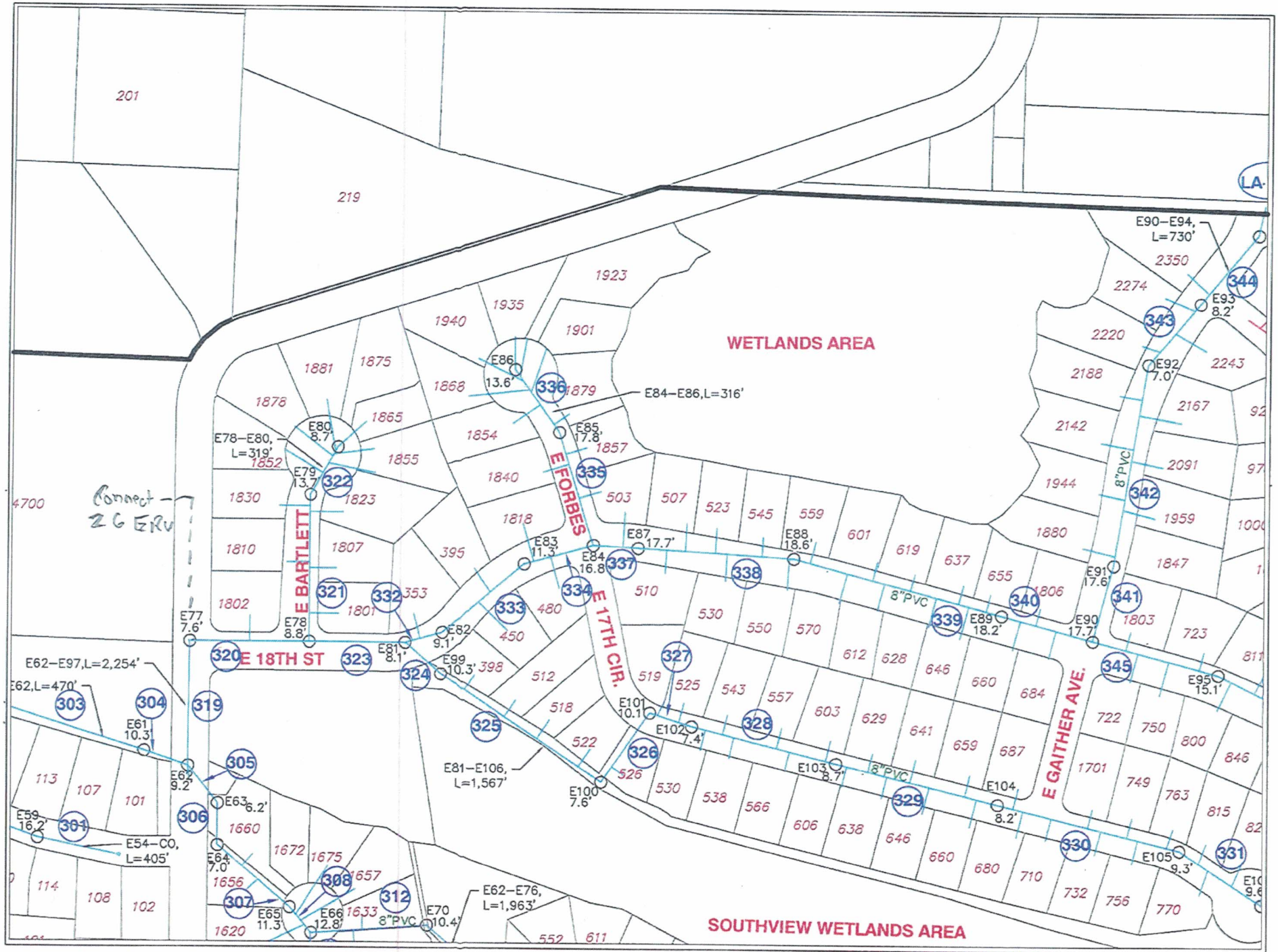
The location of the additional 26 ERU's is shown connection to manhole E77. This is assuming no more than 26 ERU's or 26 residential homes will be added to this existing sewer system.

The developer will need to verify the elevations of the existing sewer system and submit sewer basin calculations supporting the sewer flow added from the property and verifying the capacity of the downstream storm system per La Center Engineering Standards.
The developer may need to extend the proposed site sewer system to the west end of the property to serve future development west.

Please let me know if you have questions.

Thanks

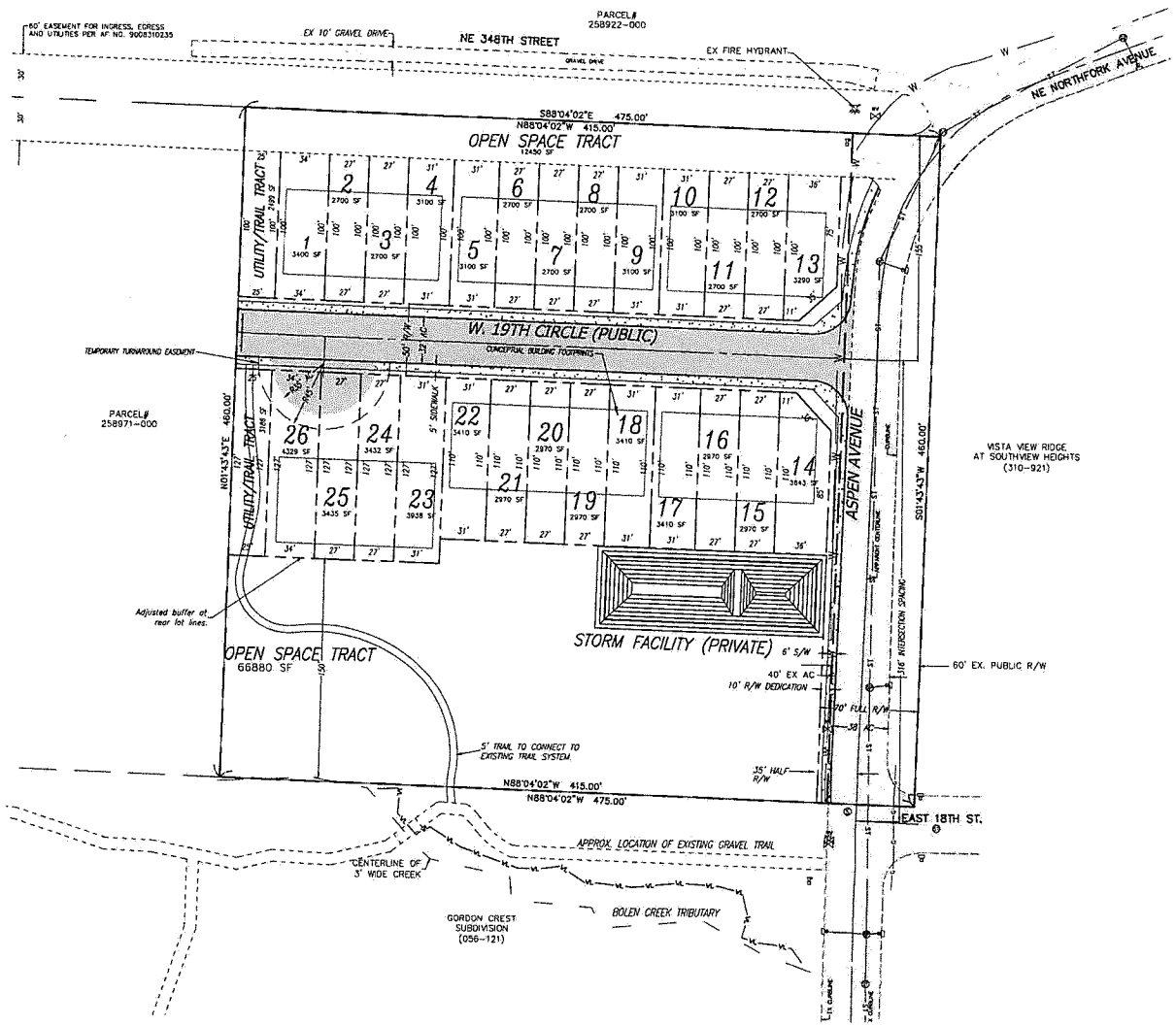
Tony Cooper, P.E.
City of La Center
City Engineer
Ph. 360-263 2889
Fax 360-263 7666
acooper@ci.lacenter.wa.us


WETLANDS AREA
SOUTHVIEW WETLANDS AREA
E 18TH ST
E BARTLETT
E FORBES
E 17TH CIR.
E GAITHER AVE.
8"PVC
E62–E97, L=2,254'
E62, L=470'
E54–CO, L=405'
E78–E80, L=319'
E84–E86, L=316'
E90–E94, L=730'
E81–E106, L=1,567'
E62–E76, L=1,963'
Connect – 2 G ERU
LA CENTER SANITARY SEWER SYSTEM - 2012
A8
DWG NO.
1" = 200'
SCALE

GRAVITY				TRIBUTARY				EXISTING																
BRANCH E			CONTRIBUTING	TOTAL	PERSONS	PEAK	CONTRIBUTING FLOW	FLOW W/OUT PEAK	PEAK FLOW	PIPE	PIPE												CAPACITY	CAPACITY	
pipe num.	UPSTRE AM MH	DOWNST REAM MH	ERU	ERU	HOUSAND	FACTOR	(GPD)	(MGD)	(MGD)	LENGTH	DIAMETE (INCHES)	Hyd. Radiu (FT)	IE. UP	IE. DOWN	slope	man. (N)	velocity (FPS)	pipe area (SF)	capacity (CFS)	CAPACITY (MGD)	REMAINING (MGD)	USED (%)		
ln-20	E-1	A-1	11	704	1,901	3.6	209088	0.2091	0.7533	169.00	18	0.375	59.2	55.49	0.022	0.013	8.83	1.77	15.63	10.10	9.35	7.5		
ln-77	E-5	E-1	122	693	1,871	3.6	205821	0.2058	0.7425	239.23	18	0.375	71.66	59.2	0.052	0.013	13.60	1.77	24.07	15.56	14.81	4.8	CR	
ln-76	E-7	E-5	149	571	1,542	3.7	169587	0.1696	0.6225	276.83	18	0.375	90.49	71.66	0.068	0.013	15.54	1.77	27.51	17.78	17.15	3.5	CR	
ln-12	E-8	E-7	4	15	0.041	4.3	4455	0.0045	0.0193	295.00	8	0.167	97.01	90.49	0.022	0.013	5.16	0.35	1.80	1.17	1.15	1.7		
ln-11	E-9	E-8	6	11	0.030	4.4	3267	0.0033	0.0142	245.00	8	0.167	108.28	97.01	0.046	0.013	7.44	0.35	2.60	1.68	1.67	0.8		
ln-10	E-10	E-9	5	5	0.014	4.4	1485	0.0015	0.0065	240.00	8	0.167	125.08	108.28	0.070	0.013	9.18	0.35	3.21	2.07	2.07	0.3		
ln-75	E-12	E-7	9	407	1,099	3.8	120879	0.1209	0.4561	224.16	8	0.167	103.94	90.49	0.060	0.013	8.50	0.35	2.97	1.92	1.46	23.7		
ln-74	E-14	E-12	23	398	1,075	3.8	118206	0.1182	0.4468	262.02	8	0.167	120	103.94	0.061	0.013	8.59	0.35	3.00	1.94	1.49	23.0		
ln-73	E-20	E-14	4	375	1,013	3.8	111375	0.1114	0.4228	338.36	8	0.167	143.45	120	0.069	0.013	9.14	0.35	3.19	2.06	1.64	20.5		
ln-72	E-21	E-20	12	371	1,002	3.8	110187	0.1102	0.4187	201.48	8	0.167	152.48	143.45	0.045	0.013	7.35	0.35	2.57	1.66	1.24	25.2		
ln-71	E-23	E-21	1	359	0.969	3.8	106623	0.1066	0.4061	205.47	8	0.167	156.18	152.47	0.018	0.013	4.66	0.35	1.63	1.05	0.65	38.5		
ln-70	E-24	E-23	2	358	0.967	3.8	106326	0.1063	0.4050	184.84	8	0.167	159.06	156.18	0.016	0.013	4.33	0.35	1.51	0.98	0.57	41.4		
ln-69	E-25	E-24	67	356	0.961	3.8	105732	0.1057	0.4029	117.44	8	0.167	163.18	159.06	0.035	0.013	6.50	0.35	2.27	1.47	1.07	27.4		
ln-269	E-31	E-25	0	289	0.780	3.9	85833	0.0858	0.3319	196.06	8	0.167	165.98	164.01	0.010	0.013	3.48	0.35	1.22	0.79	0.45	42.2		
ln-270	E-32	E-31	1	289	0.780	3.9	85833	0.0858	0.3319	207.36	8	0.167	168.05	166.18	0.009	0.013	3.30	0.35	1.15	0.74	0.41	44.6		
ln-271	E-33	E-32	1	288	0.778	3.9	85536	0.0855	0.3308	42.83	8	0.167	169.05	168.4	0.015	0.013	4.28	0.35	1.49	0.97	0.64	34.2		
ln-272	E-34	E-33	24	287	0.775	3.9	85239	0.0852	0.3298	102.78	8	0.167	170.63	169.14	0.014	0.013	4.18	0.35	1.46	0.94	0.61	34.9		
ln-273	E-39	E-34	3	263	0.710	3.9	78111	0.0781	0.3039	158.66	8	0.167	173.22	170.78	0.015	0.013	4.30	0.35	1.50	0.97	0.67	31.3		
ln-274	E-40	E-39	3	260	0.702	3.9	77220	0.0772	0.3007	103.19	8	0.167	174.61	173.36	0.012	0.013	3.82	0.35	1.34	0.86	0.56	34.8		
ln-275	E-41	E-40	2	257	0.694	3.9	76329	0.0763	0.2974	227.18	8	0.167	197.96	174.75	0.102	0.013	11.10	0.35	3.88	2.51	2.21	11.9		
ln-276	E-42	E-41	3	255	0.689	3.9	75735	0.0757	0.2953	295.38	8	0.167	221.22	198.08	0.078	0.013	9.72	0.35	3.40	2.19	1.90	13.5		
ln-277	E-43	E-42	4	252	0.680	3.9	74844	0.0748	0.2920	295.2	10	0.208	222.67	221.43	0.004	0.013	2.61	0.55	1.43	0.92	0.63	31.7		
ln-278	E-44	E-43	12	248	0.670	3.9	73656	0.0737	0.2877	312.13	10	0.208	224.24	222.28	0.006	0.013	3.19	0.55	1.74	1.13	0.84	25.5		
ln-287	E-47	E-44	4	236	0.637	3.9	70092	0.0701	0.2745	177.13	10	0.208	225.12	224.24	0.005	0.013	2.84	0.55	1.55	1.00	0.73	27.4		
ln-288	E-48	E-47	1	232	0.626	3.9	68904	0.0689	0.2702	195	10	0.208	225.61	225.38	0.002	0.013	1.89	0.55	1.03	0.67	0.40	40.6		
ln-289	E-49	E-48	1	231	0.624	3.9	68607	0.0686	0.2691	300	10	0.208	227.43	225.79	0.005	0.013	2.98	0.55	1.63	1.05	0.78	25.6		
ln-290	E-50	E-49	11	230	0.621	3.9	68310	0.0683	0.2680	110	10	0.208	228.21	227.74	0.004	0.013	2.63	0.55	1.44	0.93	0.66	28.8		
ln-293	E-53	E-50	2	219	0.591	3.9	65043	0.0650	0.2560	125	10	0.208	228.73	228.28	0.004	0.013	2.42	0.55	1.32	0.85	0.60	30.0		
ln-294	E-54	E-53	29	217	0.586	3.9	64449	0.0644	0.2538	181	10	0.208	229.45	228.8	0.004	0.013	2.41	0.55	1.32	0.85	0.60	29.8		
ln-302	E-60	E-54	0	188	0.508	4.0	55836	0.0558	0.2217	178	10	0.208	230.51	229.71	0.004	0.013	2.70	0.55	1.47	0.95	0.73	23.3		
ln-303	E-61	E-60	0	188	0.508	4.0	55836	0.0558	0.2217	385	10	0.208	232.41	230.6	0.005	0.013	2.75	0.55	1.51	0.97	0.75	22.7		
ln-304	E-62	E-61	57	188	0.508	4.0	55836	0.0558	0.2217	75	10	0.208	233.65	232.45	0.016	0.013	5.10	0.55	2.78	1.80	1.58	12.3		
ln-319	E-77	E-62	26	131	0.354	4.0	38907	0.0389	0.1575	192	8	0.167	234.09	233.28	0.004	0.013	2.25	0.35	0.79	0.51	0.35	30.9		
ln-320	E-78	E-77	12	105	0.284	4.1	31185	0.0312	0.1275	188	8	0.167	236.46	234.33	0.011	0.013	3.69	0.35	1.29	0.83	0.71	15.3		
ln-323	E-81	E-78	34	93	0.251	4.1	27621	0.0276	0.1135	147	8	0.167	243.46	236.58	0.047	0.013	7.51	0.35	2.62	1.70	1.58	6.7		
ln-332	E-82	E-81	1	59	0.159	4.2	17523	0.0175	0.0733	72	8	0.167	249.27	243.63	0.078	0.013	9.72	0.35	3.40	2.19	2.12	3.3		
ln-333	E-83	E-82	2	58	0.157	4.2	17226	0.0172	0.0721	179	8	0.167	265.96	249.31	0.093	0.013	10.59	0.35	3.70	2.39	2.32	3.0		
ln-334	E-84	E-83	12	56	0.151	4.2	16632	0.0166	0.0697	115	8	0.167	267.64	267.17	0.004	0.013	2.22	0.35	0.78	0.50	0.43	13.9		
ln-337	E-87	E-84	1	44	0.119	4.2	13068	0.0131	0.0552	74	8	0.167	268.19	267.86	0.004	0.013	2.32	0.35	0.81	0.52	0.47	10.5		
ln-338	E-88	E-87	6	43	0.116	4.2	12771	0.0128	0.0540	298	8	0.167	269.97	268.33	0.006	0.013	2.58	0.35	0.90	0.58	0.53	9.3		
ln-339	E-89	E-88	8	37	0.100	4.2	10989	0.0110	0.0466	297	8	0.167	271.64	270.04	0.005	0.013	2.55	0.35	0.89	0.58	0.53	8.1		
ln-340	E-90	E-89	17	29	0.078	4.3	8613	0.0086	0.0368	157	8	0.167	272.64	271.87	0.005	0.013	2.43	0.35	0.85	0.55	0.51	6.7		
ln-341	E-91	E-90	0	12	0.032	4.3	3564	0.0036	0.0155	130	8	0.167	285.31	272.69	0.097	0.013	10.82	0.35	3.78	2.44	2.43	0.6		
ln-342	E-92	E-91	8	12	0.032	4.3	3564	0.0036	0.0155	339	8	0.167	340.65	285.39	0.163	0.013	14.01	0.35	4.90	3.17	3.15	0.5		
ln-343	E-93	E-92	3	4	0.011	4.4	1188	0.0012	0.0052	133	8	0.167	359.38	340.9	0.139	0.013	12.94	0.35	4.52	2.92	2.92	0.2		
ln-344	E-94	E-93	1	1	0.003	4.5	297	0.0003	0.0013	130	8	0.167	376.85	359.59	0.287	0.013	18.58	0.35	6.50	4.20	4.20	0.0		

From MH E-26 on Pacific Highway to plant changing the yellow ERU box will adjust flows and capacity down this line, changing pink pipe size will change flows and capacity for each segment.

GRAVITY				TRIBUTARY				EXISTING																
BRANCH E			CONTRIBUTING	TOTAL	PERSONS	PEAK	CONTRIBUTING FLOW	FLOW W/OUT PEAK	PEAK FLOW	PIPE	PIPE												CFS	MGD	CAPACITY	CAPACITY	
pipe num.	UPSTRE AM MH	DOWNST REAM MH	ERU	ERU	HOUSAND	FACTOR	(GPD)	(MGD)	(MGD)	LENGTH	DIAMETE	Hyd. Radiu	IE. UP	IE. DOWN	slope	man. (N)	velocity	pipe area	capacity	CAPACITY	REMAINING	USED(%)		
ln-20	E-1	A-1	11	1100	2,970	3.4	326700	0.3267	1.1258	169.00	18	0.375	59.2	55.49	0.022	0.013	8.83	1.77	15.63	10.10	8.97	11.1		
ln-77	E-5	E-1	122	1089	2,940	3.4	323433	0.3234	1.1158	239.23	18	0.375	71.66	59.2	0.052	0.013	13.60	1.77	24.07	15.56	14.44	7.2	CR	
ln-76	E-7	E-5	149	967	2,611	3.5	287199	0.2872	1.0032	276.83	18	0.375	90.49	71.66	0.068	0.013	15.54	1.77	27.51	17.78	16.77	5.6	CR	
ln-12	E-8	E-7	4	15	0.041	4.3	4455	0.0045	0.0193	295.00	8	0.167	97.01	90.49	0.022	0.013	5.16	0.35	1.80	1.17	1.15	1.7		
ln-11	E-9	E-8	6	11	0.030	4.4	3267	0.0033	0.0142	245.00	8	0.167	108.28	97.01	0.046	0.013	7.44	0.35	2.60	1.68	1.67	0.8		
ln-10	E-10	E-9	5	5	0.014	4.4	1485	0.0015	0.0065	240.00	8	0.167	125.08	108.28	0.070	0.013	9.18	0.35	3.21	2.07	2.07	0.3		
ln-75	E-12	E-7	9	803	2,168	3.6	238491	0.2385	0.8486	224.16	8	0.167	103.94	90.49	0.060	0.013	8.50	0.35	2.97	1.92	1.07	44.2		
ln-74	E-14	E-12	23	794	2,144	3.6	235818	0.2358	0.8400	262.02	8	0.167	120	103.94	0.061	0.013	8.59	0.35	3.00	1.94	1.10	43.3		
ln-73	E-20	E-14	4	771	2,082	3.6	228987	0.2290	0.8180	338.36	8	0.167	143.45	120	0.069	0.013	9.14	0.35	3.19	2.06	1.25	39.6		
ln-72	E-21	E-20	12	767	2,071	3.6	227799	0.2278	0.8141	201.48	8	0.167	152.48	143.45	0.045	0.013	7.35	0.35	2.57	1.66	0.85	49.0		
ln-71	E-23	E-21	1	755	2,039	3.6	224235	0.2242	0.8026	205.47	8	0.167	156.18	152.47	0.018	0.013	4.66	0.35	1.63	1.05	0.25	76.2		
ln-70	E-24	E-23	2	754	2,036	3.6	223938	0.2239	0.8016	184.84	8	0.167	159.06	156.18	0.016	0.013	4.33	0.35	1.51	0.98	0.18	81.9		
ln-69	E-25	E-24	67	752	2,030	3.6	223344	0.2233	0.7997	117.44	8	0.167	163.18	159.06	0.035	0.013	6.50	0.35	2.27	1.47	0.67	54.5		
ln-269	E-31	E-25	263	685	1,850	3.9	203445	0.2034	0.3039	196.06	8	0.167	165.98	164.01	0.010	0.013	3.48	0.35	1.22	0.79	0.48	38.7		



BEING A PORTION OF THE SOUTHWEST QUARTER OF SECTION 34, TOWNSHIP 5 NORTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN CLARK COUNTY, WASHINGTON

PRELIMINARY APPLICATION SUBMITTAL

OCTOBER 2016

PROPERTY OWNER/PROPERTY OWNER:

MUFFET PROPERTIES LLC.
P.O. BOX 301
LA CENTER, WA 98629
PH: 503-807-2139
EM: winm@hi-schoolpharmacy.com

PARCEL # & PROPERTY ADDRESS:

258901-000 34700 NE NORTH FORK AVENUE (ASPEN AVENUE)

CONTACT PERSON:

SGA ENGINEERING, PLLC
ATTN: ERIC COLEMO & SCOTT TAYLOR
2005 BROADWAY STREET
VANCOUVER, WA 98663
PH: 360.993.0911
FX: 360.993.0912
EM: ECOLEMO@SGAENGINEERING.COM & STAYLOR@SGAENGINEERING.COM

EXISTING SITE INFORMATION:

EXISTING PARCEL NUMBER	258901-000		
CURRENT USE	ONE EXISTING SINGLE-FAMILY RESIDENCE WITH A DETACHED GARAGE.		
ZONING DESIGNATION	CURRENTLY LDR-7.5; MDR-16 (AFTER ZONE CHANGE)		
GROSS SITE AREA	4.38	ACRES	190,900 S.F.
TRANSIT ROUTES	THERE ARE NO PUBLIC TRANSIT ROUTES IN THIS AREA		
EXISTING WATER AND SEWER	SEWER SERVICE WILL BE PROVIDED BY CITY OF LACENTER, PUBLIC WATER SERVICE WILL BE PROVIDED BY CLARK PUBLIC UTILITIES. ONE SEPTIC SYSTEM IS KNOWN TO DISTS ON SITE. ONE WELL IS KNOWN TO EXIST ON-SITE.		

ENVIRONMENTAL CONDITIONS

THE SITE IS KNOWN TO CONTAIN SOME SIGNIFICANT ENVIRONMENTAL CONDITIONS LISTED IN THE APPLICATION CHECKLIST. THE SITE IS LOCATED IN THE EAST FORK LEWIS RIVER WATERSHED. THE SITE IS MAPPED AS HAVING A MODERATE PROBABILITY FOR ARCHAEOLOGICAL

EXISTING CONDITIONS DISCLAIMER

THE EXISTING CONDITIONS SHOWN ON THIS PLAN WERE OBTAINED FROM INFORMATION PROVIDED BY EXISTING SURVEYS AND PUBLIC RECORD AVAILABLE THROUGH CLARK COUNTY GIS MAPPING AND DOCUMENTS. SGA ENGINEERING, PLLC DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION TOPOGRAPHIC SURVEY PROVIDED BY MINISTER & GLAESER SURVEYING.

PROPOSED SITE INFORMATION

PROPOSED USE

SINGLE-FAMILY ATTACHED RESIDENTIAL (26 LOT) SUBDIVISION

DEVELOPMENT STANDARDS

MINIMUM AVERAGE LOT AREA	1,400 SF MINIMUM AVERAGE LOT AREA ALLOWED 3,367 SF AVERAGE LOT SIZE PROPOSED
AVERAGE MINIMUM LOT WIDTH	20' ALLOWED / 27' PROPOSED
AVERAGE MINIMUM LOT DEPTH	60' ALLOWED / 75' PROPOSED
FRONT YARD SETBACK	10' TO HOME, 18' TO GARAGE
STREET SIDE YARD SETBACK	10' MIN.
INTERIOR SIDE YARD SETBACK	5' MIN.
REAR YARD SETBACK	10' MIN.
MAXIMUM LOT COVERAGE	60%
MAXIMUM BUILDING HEIGHT	35'

UTILITY PROVIDERS

SEWER	CITY OF LA CENTER
WATER	CLARK PUBLIC UTILITIES
ELECTRICAL	CLARK PUBLIC UTILITIES
STORMWATER MANAGEMENT	CITY OF LA CENTER STANDARDS
TREATMENT	STORMWATER IS PROPOSED TO BE TREATED USING BIO-RETENTION FACILITIES, BIOSWALES WETPONDS OR OTHER APPROVED BMP'S.
DISPOSAL	STORMWATER WILL BE DETAINED AND RELEASED AT OR BELOW PRE-DEVELOPED RATES TO THE EXISTING DRAINAGE PATHS.

PROPOSED SITE AREA SUMMARY	ACRES	S.F.
GROSS SITE AREA	4.38	190900
PUBLIC RIGHT-OF-WAY DEDICATED	0.84	36487
NET SITE AREA (GROSS AREA - PUBLIC RIGHT-OF-WAY)	3.54	154413
OPEN SPACE TRACT W/ STORMWATER	1.54	66880
AVERAGE LOT AREA	0.08	3367

SGA ENGINEERING & DESIGN
CIVIL ENGINEERING -- LAND PLANNING
DEVELOPMENT SERVICES
LANDSCAPE ARCHITECTURE

2005 BROADWAY
VANCOUVER, WA 98663
PHONE (360)993-0911
FAX (360)993-0912

PRELIMINARY PLAT

ASPEN HEIGHTS SUBDIVISION

CITY OF LA CENTER WASHINGTON

PRELIMINARY

REVISIONS

DESIGNED BY:	SAT, SEM
DRAWN BY:	SAT, SEM
CHECKED BY:	SEM, JTM
SCALE:	AS SHOWN

JOB NUMBER	SHEET
0502	1 of 1

SANITARY SEWER GENERAL NOTES:

1. ALL MATERIALS, WORKMANSHIP AND INSTALLATION OF SANITARY SEWERS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE "CITY OF LA CENTER STANDARDS" AND THE LATEST EDITION OF THE "WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION", HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS", PREPARED BY THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, EXCEPT AS NOTED HEREIN OR ON THE STANDARD PLANS.

2. ALL SANITARY SEWER CONSTRUCTION IS SUBJECT TO INSPECTION, AND APPROVAL, PRIOR TO COVER BY THE CITY OF LA CENTER. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR BEGINNING OF THE CONSTRUCTION.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION AND TO NOTIFY THE ENGINEER OF ANY POTENTIAL CONFLICTS. THE CONTRACTOR SHALL DIG TEST HOLES OVER ALL EXISTING UTILITIES PRIOR TO CONSTUCTION TO DETERMINE THEIR EXACT LOCATION. CALL 1-800-424-5555, (NORTHWEST UTILITY NOTIFICATION CENTER), FOR MARK-UP OF EXISTING UTILITIES, A MINIMUM OF 2 WORKING DAYS PRIOR TO START OF CONSTRUCTION.

4. ALL PIPE AND FITTINGS SHALL CONFORM TO LCMC 13.10.150 AND THE FOLLOWING:

   A. POLYVINYLCHLORIDE (PVC) SEWER PIPE 15" DIAMETER OR LESS SHALL CONFORM TO ASTM D3034, SDR 35. PVC PIPE 18" DIAMETER AND LARGER SHALL CONFORM TO ASTM F 679. ALL PVC PIPE SHALL HAVE AN INTEGRAL BELL GASKETED JOINT WITH ELASTOMERIC GASKET AND SHALL BE FURNISHED IN 12-1/2 FOOT LAYING LENGTHS.

   B. DUCTILE IRON (DI) PIPE SHALL CONFORM TO ANSI A21.51 OR AWWA C-151, WITH PUSH-ON JOINTS, UNLESS OTHERWISE NOTED.

5. MANHOLES, CLEANOUTS, SERVICE LATERAL CONNECTIONS, TRENCH EXCAVATION, PIPE BEDDING AND STREET RESTORATION, AND APPURTENANCES SHALL CONFORM TO THE DETAILS SHOWN ON THE STANDARD PLANS. ALL OTHER CONSTRUCTION SHALL CONFORM TO THE LATEST STANDARD DETAILS CONTAINED IN THE WSDOT "STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION".

6. ALL SANITARY MANHOLES INSTALLED WITHIN AN EASEMENT OR OUTSIDE THE CITY RIGHT-OF-WAY SHALL HAVE LOCKING LID COVERS AND EXTEND ONE FOOT (1') ABOVE GRADE.

7. THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FOR WORK WITHIN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SUBMIT AN APPROVED TRAFFIC CONTROL PLAN. INSIDE THE CITY THIS PLAN SHALL BE APPROVED BY THE CITY OF LA CENTER PUBLIC WORKS DIRECTOR OR DESIGNEE AND OUTSIDE THE CITY IT SHALL BE APPROVED BY THE CLARK COUNTY TRAFFIC ENGINEER (360-397-2446). APPROVAL SHALL BE OBTAINED PRIOR TO BEGINNING CONSTRUCTION.

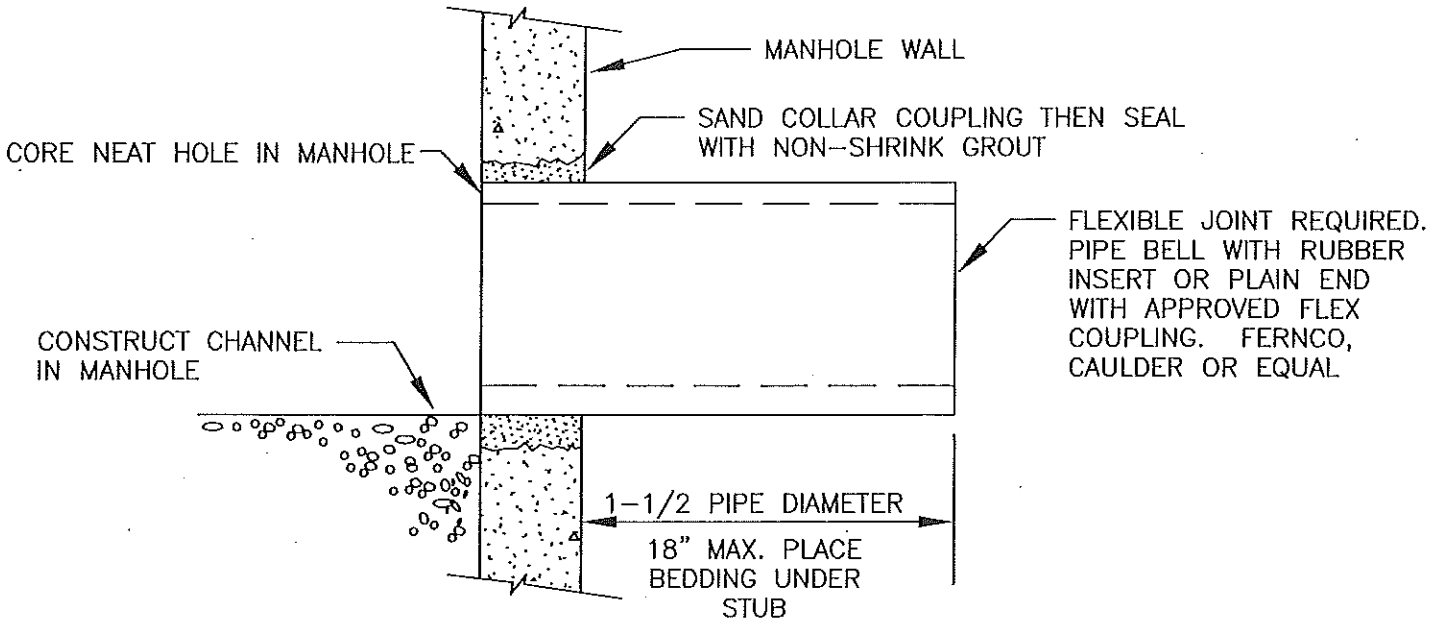
8. ALL PIPES SHALL BE PLUGGED AT THE END OF EACH WORKING DAY.

9. ALL TRENCHES SHALL BE FILLED AND COMPACTED UP TIGHT AT THE END OF EACH WORKING DAY.

10. A CLEANOUT OR MANHOLE IS REQUIRED AT THE END OF ALL LINES.

11. PRE-PAVEMENT AS-BUILTS ARE REQUIRED.

GENERAL SANITARY SEWER NOTES						PLAN #
CITY OF LA CENTER	CITY OF LA CENTER APPROVED Brent Stinger, PE 7/23/09 CITY ENGINEER DATE	REVISIONS:	DATE:	DRAWN:	DESIGNED:	SS-1



FOUR TYPES OF CONNECTIONS APPROVED:

1. CONCRETE PIPE, GROUTED WITH NON-SHRINK GROUT.
2. APPROVED EXPANSION TYPE RUBBER BOOT; KOR-N-SEAL OR SEALTITE, (NO FLEX JOINT REQUIRED).
3. GPK PVC EPOXY-SAND COATED MANHOLE ADAPTOR, GROUTED WITH NON-SHRINK GROUT.
4. JOHN MANSVILLE GASKETED SLEEVE TRANSITE COUPLING - CLASS 100, GROUTED WITH NON-SHRINK GROUT AND SEALED WITH NON-HARDENING NEOPRENE, SILCONE OR BUTYL RUBBER WATERPROOF CAULK NEXT TO GASKET - BOTH SIDES OF MANHOLE.

NOTES:

1. CENTER STUB OR SLEEVE IN HOLE W/2" GROUTED SPACE ALL AROUND. CORE HOLE 4" LARGER THAN O.D. OF STUB OR SLEEVE.
2. STANDARD GROUT WILL NOT BE ACCEPTED AS A SUBSITUTE FOR NON-SHRINK GROUT. NON-SHRINK GROUT SHALL BE FIVE STAR, SIKA 212, EUCO N-5 OR AS APPROVED.
3. STUB-OUTS INSTALLED FOR FUTURE EXTENSION ARE TO BE PLUGGED AT BOTH ENDS AND MARKED.

MANHOLE CONNECTION DETAILS

PLAN #

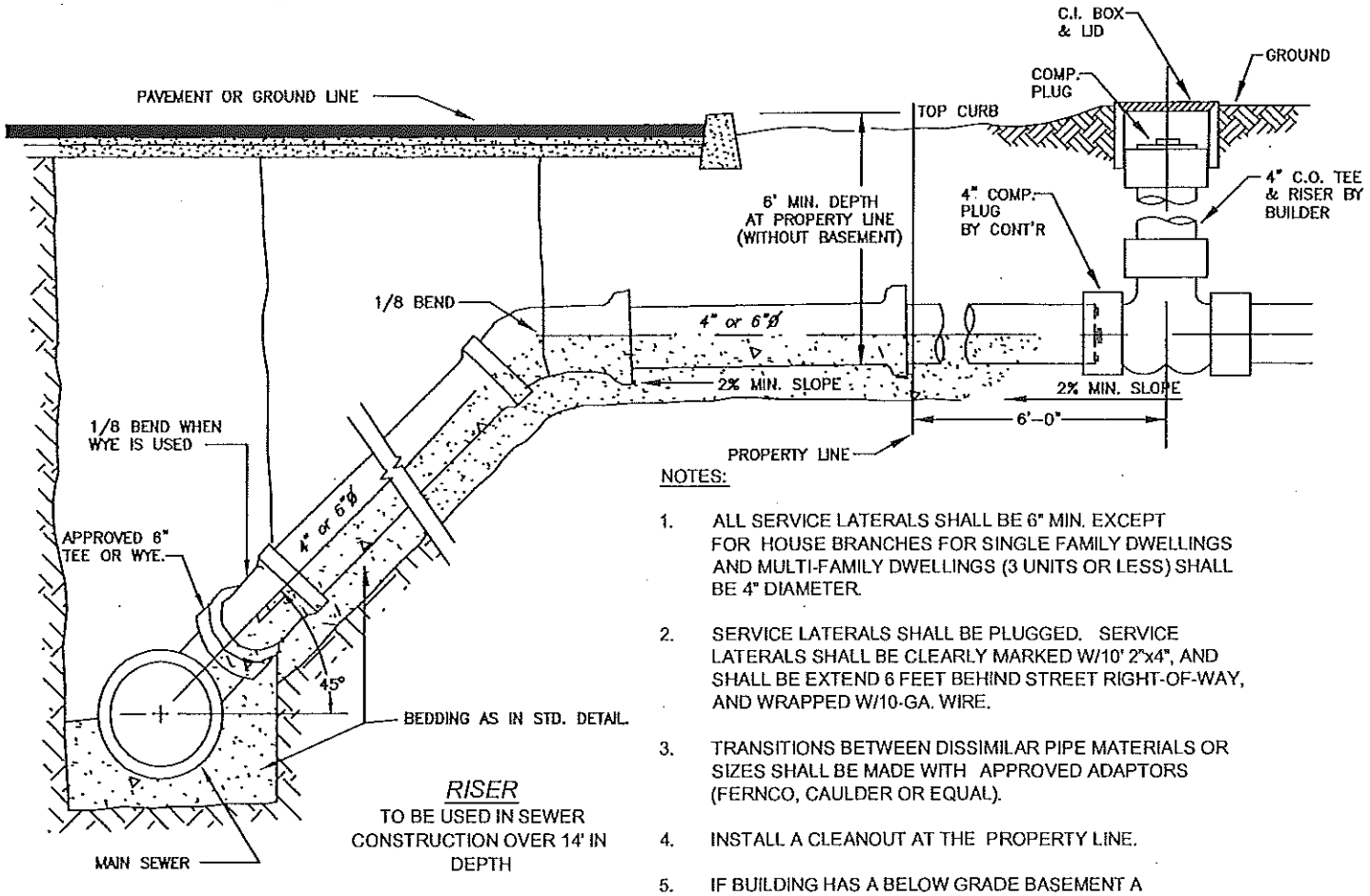
CITY OF LA CENTER APPROVED

Brent Stepp, PE 7/23/09

CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:

SS-9

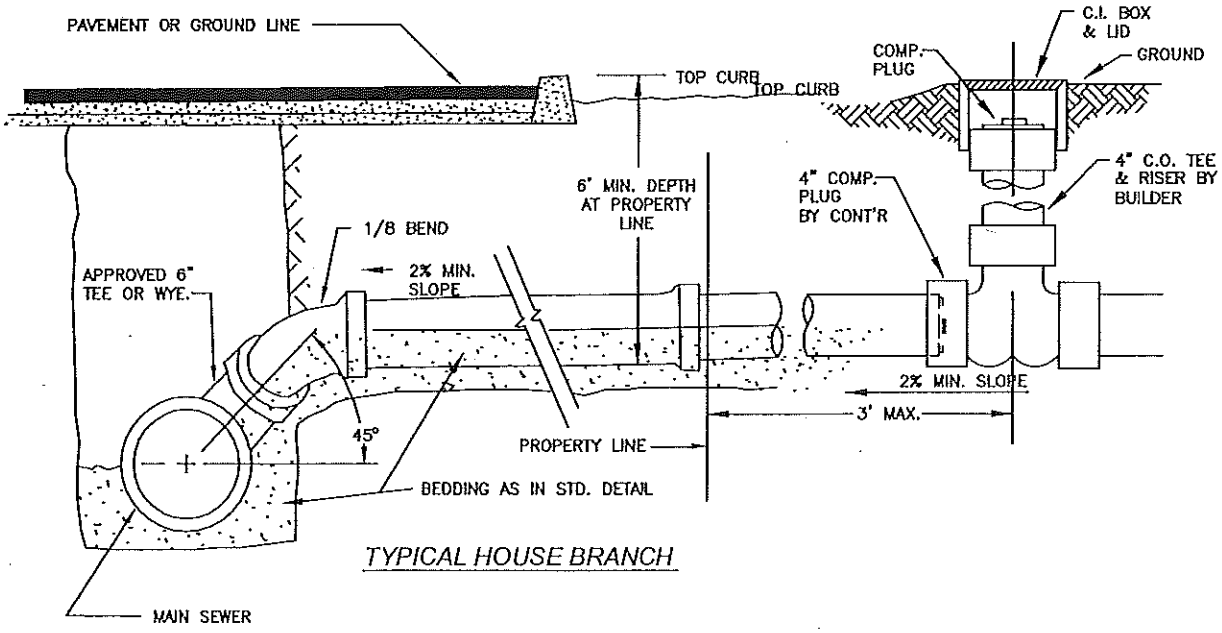


RISER

TO BE USED IN SEWER CONSTRUCTION OVER 14' IN DEPTH

NOTES:

1. ALL SERVICE LATERALS SHALL BE 6" MIN. EXCEPT FOR HOUSE BRANCHES FOR SINGLE FAMILY DWELLINGS AND MULTI-FAMILY DWELLINGS (3 UNITS OR LESS) SHALL BE 4" DIAMETER.
2. SERVICE LATERALS SHALL BE PLUGGED. SERVICE LATERALS SHALL BE CLEARLY MARKED W/10' 2"x4", AND SHALL BE EXTEND 6 FEET BEHIND STREET RIGHT-OF-WAY, AND WRAPPED W/10-GA. WIRE.
3. TRANSITIONS BETWEEN DISSIMILAR PIPE MATERIALS OR SIZES SHALL BE MADE WITH APPROVED ADAPTORS (FERNCO, CAULDER OR EQUAL).
4. INSTALL A CLEANOUT AT THE PROPERTY LINE.
5. IF BUILDING HAS A BELOW GRADE BASEMENT A BACKWATER VALVE ON THE LATERAL IS REQUIRED TO PREVENT REVERSE FLOW.



TYPICAL HOUSE BRANCH

TYPICAL LATERAL CONNECTION

PLAN #

CITY OF LA CENTER APPROVED

Bert Stupp, PE 7/23/09

CITY ENGINEER DATE

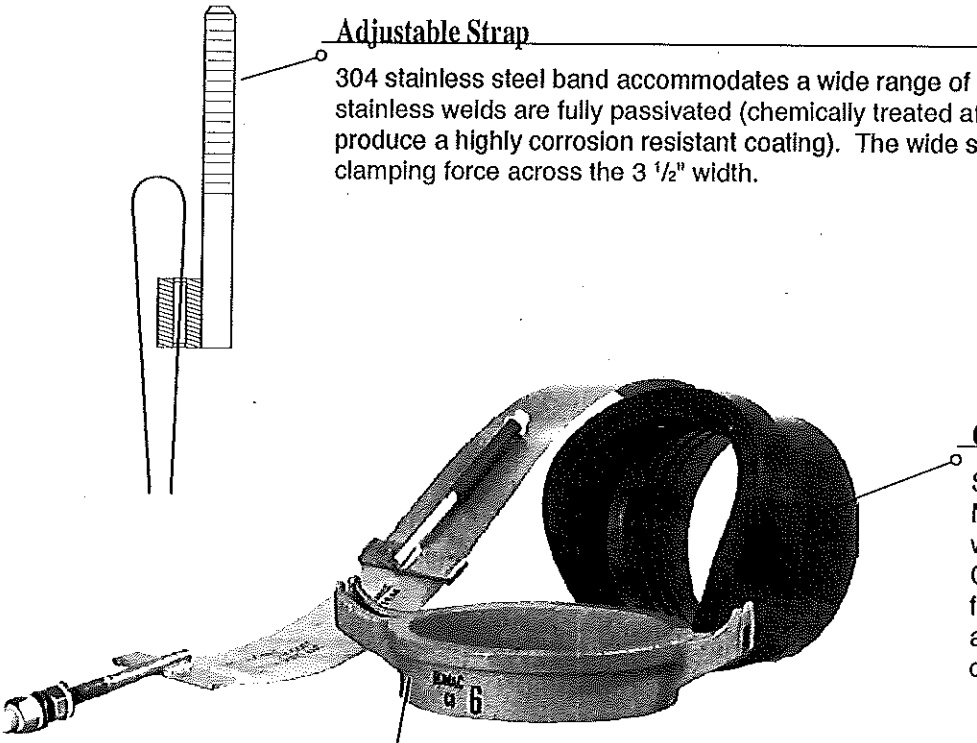
REVISIONS:	DATE:	DRAWN:	DESIGNED:

SS-2

ROMAC INDUSTRIES, INC.
1-800-426-9341
www.romac.com

MADE IN U.S.A

Detail Specifications for Romac "CB"™ Sewer Saddles



Adjustable Strap

304 stainless steel band accommodates a wide range of pipe sizes. The stainless welds are fully passivated (chemically treated after welding to produce a highly corrosion resistant coating). The wide strap distributes the clamping force across the 3 ½" width.

Gasket

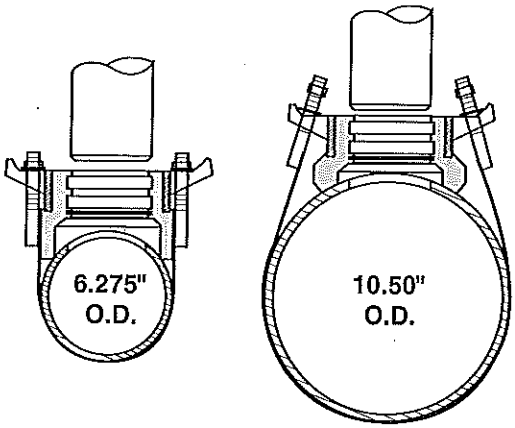
SBR per ASTM D 2000 MBA 710, compounded for water and sewer service. Gaskets are especially formulated with antioxidant/ antiozonant agent to increase shelf life.

Saddle Casting

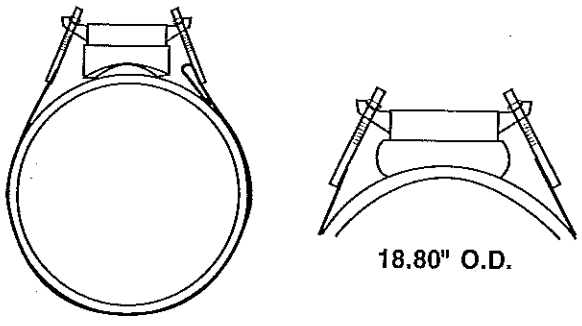
Ductile iron per ASTM 536, Grade 65-45-12. Protected with a yellow corrosion-resistant paint.

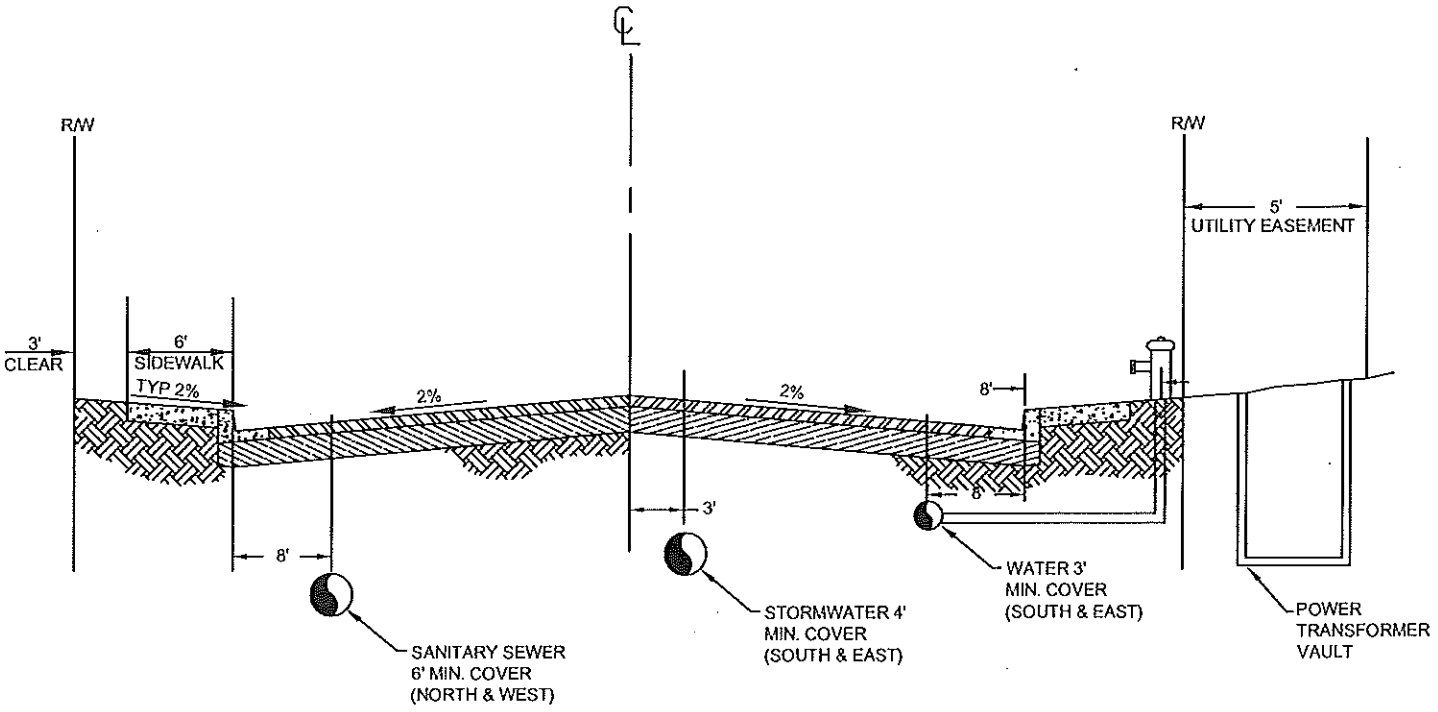
[1] **Passivated:** chemically treated after welding to produce a highly corrosion resistant coating.

Same saddle conforming to different outside diameters.



Saddle conforming to pipe.





NOTE:

1. THE PUBLIC WORKS DIRECTOR MAY REQUIRE INSTALLATION OF SANITARY SEWER AT A DEPTH GREATER THAN 6 FEET
2. MODIFICATION TO THIS STANDARD IS SUBJECT TO THE CITY ENGINEER REVIEW AND APPROVAL

TYPICAL UTILITY LOCATION

PLAN #

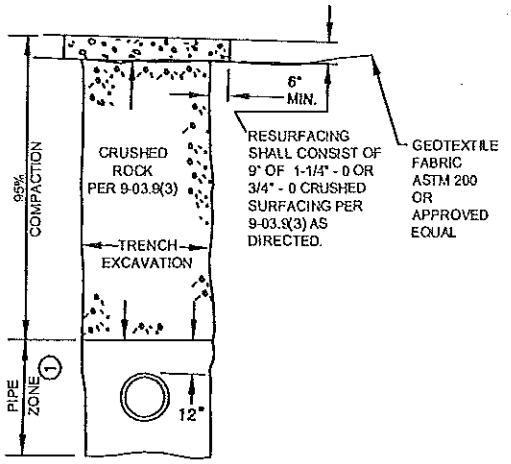
CITY OF LA CENTER APPROVED

Bart Stapp, PE 10/4/10

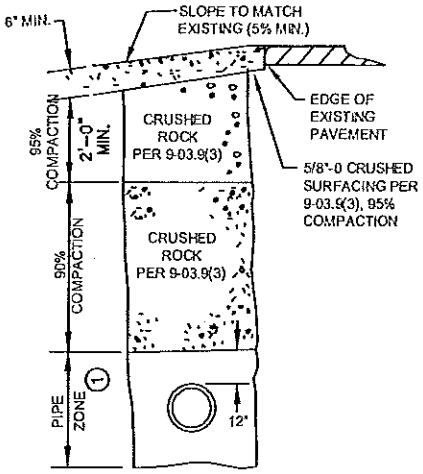
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	10/4/10	BES	BES

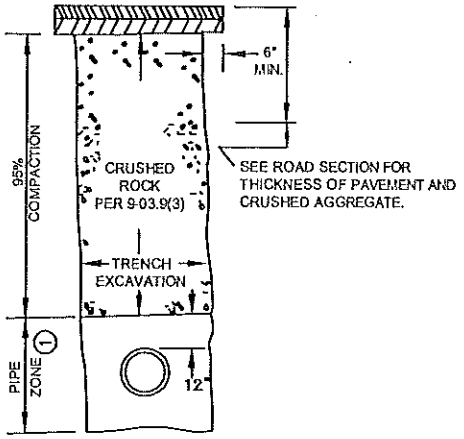
SS-3



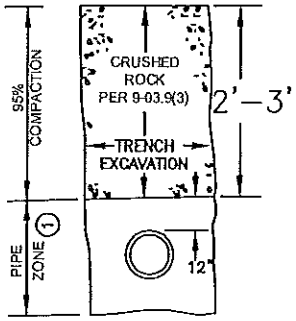
TRAVELED UNIMPROVED STREET



ROADWAY SHOULDER



PUBLIC STREET



UNTRAVELED EASEMENT

NOTES:

1. FOR PIPE ZONE BEDDING, BACKFILL AND COMPACTION REQUIREMENTS, SEE SS-5.
2. COMPACTION PERCENTAGES REFER TO RELATIVE DRY DENSITY AS DETERMINED ACCORDING TO STANDARD SPECIFICATIONS SECTION 2-03.3(14)D.
3. CONTRACTOR MAY USE UP TO 2-1/2" OF 5/8" - 0 OR 3/4" - 0 CRUSHED AGGREGATE IN LIEU OF 1-1/4" - 0 BASE ROCK UNDER SURFACING FOR LEVELING COURSE.
4. ALL EXISTING PAVED SURFACES SHALL BE SAW CUT A MINIMUM OF 6" OUTSIDE OF EDGE OF TRENCH TO PROVIDE A NEAT STRAIGHT EDGE.
5. THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TACK COAT SHALL BE APPLIED. A JOINT SEALER SHALL BE APPLIED AND SHALL CONFORM TO WSDOT STANDARD SPECIFICATIONS, (9-04). ALL JOINTS WILL BE SEALED AND SANDED.
6. ALL BACKFILL SHALL BE MECHANICALLY COMPACTED IN LIFTS WHICH IN NO CASE EXCEED 12" LOOSE.

TYPICAL TRENCH BACKFILL

PLAN #

CITY OF LA CENTER APPROVED

Brent Stipp, PE 7/23/09
CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:

SS-4

50 200

STA 17+54.00 (28.0' RT ASPEN)
INSTALL:
(1) STD FIRE HYDRANT ASSEMBLY (SEE STD. CPU DETAIL SHEET)
(1) THRUST BLOCK

STA 17+54.00 (20.6' LT ASPEN)
WET TAP EXISTING 12" WATER MAIN AND INSTALL:
(1) 12"x6" (PVC C-900) STAINLESS STEEL TAPPING SLEEVE
(1) 6" TAPPING GATE VALVE FLGxMJ W/MEGA LUG RESTRAINTS
(1) VALVE BOX
(1) THRUST BLOCK

STA 18+29.84 (20.0' LT)
INSTALL COMB. CURB INLET
T/C=239.97

STA 17+44.59 (20.0' RT)
INSTALL COMB. CURB INLET
T/C=241.44

STA 18+29.84 (8.4' RT)
INSTALL STM MH "BB-1"

101

9A

97

STA 17+32.27 (20.0' LT)
INSTALL COMB. CURB INLET
T/C=241.90

REGRADE AND PAVE EXTG. DRIVEWAY APPROACH AS REQUIRED

+00.00 (8.9' RT ASPEN AVE.)
STM MH "AA-2"

STA 17+32.27 (10.5' RT ASPEN AVE.)
INSTALL STM MH "AA-1"

EXTG. 24" CULVERT

STA 19+00.00 (SEE SHEET 4)

C/L-C/L INTX
STA 19+04.43 ASPEN AVE.=
STA 0+00.00 E. 18th ST.

'20"W

ASPEN AVENUE

N01°16'34"E

RE-LOCATE FENCE TO 2' BEHIND SIDEWALK

EXISTING SANITARY PUMP STATION

STA 15+00.00 (20' LT & RT)
INSTALL COMB. CURB INLETS
T/C=260.88

PT STA 13+86.31

60' R.O.W.

20' PAVED HALF-WIDTH

5' CURB & SIDEWALK

EXISTING WATER SERVICE TO BE EXTENDED AS DIRECTED BY THE CPU INSPECTOR.

SOUTHVIEW HEIGHTS PHASE 9

PROPOSED STORMWATER FACILITY (SEE SHEET 6)

EXTG. GRAVEL PATH

WETLAND

PC STA 17+36.14

PT STA 17+68.86

Δ=01°52'29"
R=1000.00'
AL=32.72

EXISTING SEPTIC FIELD FILTRATION SWALE

EXISTING SIDEWALK

MATCH LINE

60' R.O.W.

N89°24'13"W

E. 18th ST.

RELOCATE EXISTING COMB. CURB INLETS IF NECESSARY

SOUTHVIEW HEIGHTS PHASE 9

EXISTING FIRE HYDRANT

SEE E 18TH ST. PROFILE ON SHEET 5

STA 17+93.90 (8.8' RT)+,-
INSTALL 24" X 12" N-12 SADDLE TEE
CONNECT 12" STORM LINE TO EXTG. 24" CULVERT

STA 18+29.84 (20.0' RT ASPEN AVE.)
INSTALL COMB. CURB INLET
T/C=239.97

-10.33 %

620' VC (CONTINUED TO SHEET 4)

290

CLIENT:

NEWCASTLE INVESTMENTS LLC
8308 NE 69th ST
VANCOUVER, WA 98662
(360) 892-4414

PLAN & PROFILE FOR:
SOUTHVIEW HEIGHTS
OFFSITE ROAD IMPROVEMENTS

LAND SURVEYORS
ENGINEERS
360-695-1385
503-289-9936
ING INC. 1111 BROADWAY, VANCOUVER, WA 98660

RCE MAIN

EXTG. 12" WATER MAIN

4' MIN. COVER AS DESIGNED (NOT FIELD VERIFIED)

STA 15+00.00 (8.9' RT ASPEN)
INSTALL STM MH "AA-2"
RIM=260.60
IE=253.74

L=232'
12" ADS N-12
SL=0.0670

STA 16+86.06 (20.0' RT-ASPEN)
C/L 30' DRIVEWAY APRON
T/C=244.16

STA 16+57.0+/-
SAN FORCE MAIN/STM LINE CROSSING
DEPTH NOT FIELD VERIFIED

EXTG. 12" WATER MAIN

STA 17+27.88 (20.0' RT-ASPEN)
C/L 20' DRIVEWAY APRON
T/C=242.08

STA 17+32.27 (10.5' RT ASPEN)
INSTALL STM MH "AA-1"
RIM=241.59
IE=238.20

STA 17+67 +- (20.0' LT-ASPEN)
C/L 15' DRIVEWAY APRON
T/C=240.77

STA 17+21.4 (1.4' LT ASPEN AVE)
EXTG. SAN MH
EXTG. RIM ELEV=241.23
ADS TO F.G. RIM=242.22
RIM=241.23
8" IE IN (N)=233.33
8" IE OUT(E)=232.16

STA 18+29.84 LOW POINT
T/C=239.97

12" ADS N-12
L=36'
SL=0.0050

12" ADS N-12
L=170' SL=0.016

EXTG. 8" PVC SAN LINE

STA 18+29.84 (8.4' RT ASPEN AVE)
INSTALL STM MH "BB-1"
RIM=239.66
IE=235.98

STA 18+60.09 (20.0' RT ASPEN AVE)
BCR T/C=240.15 C/L=240.05

STA 17+93.90 (8.8' RT-ASPEN AVE.)
EXTG. 24" CULVERT
CONNECT 12" PIPE
WITH 24" X 12" N-12 SADDLE TEE
(SEE DETAIL ON SHEET 7)
12" IE=235.8+,-
24" EXTG. IE=235.0+,-

STA 19+00.00 MATCH LINE (SEE SHEET 4)

270 265 260 255 250 245 240 235 230

3+50 14+00 14+50 15+00 15+50 16+00 16+50 17+00 17+50 18+00 18+50 19+00

E

BPLT: /hsp2/4600/4670/4672.e.offsite1.bplt

EXPIRES 3/22/02
01/22/02

CHANGES / REVISIONS

DESCRIPTION

DESIGNED: MDC
DRAWN: JLH
CHECKED: PAT
DATE MAY 2000
SCALE: H: 1" = 50'
V:

SOUTHVIEW HEIGHTS

JOB NO. 4672

SHEET

3 of 8

Scale 1" = 50'

0 25 50 100 150 200

EXISTING FIRE HYDRANT

EXISTING GRAVEL DRIVE

STA 22+88.52 (2.9' RT ASPEN)
INSTALL STM MH "BB-3"

STA 23+89.72 (3.0' LT ASPEN
INSTALL STM MH "BB-4"

PAVE DRIVEWAY APRON O
DEMOLISHED ROADWAY

MAINTAIN EXISTING ROADSIDE DITCH

STA 22+88.52 (20.0' RT ASPEN)
INSTALL COMB. CURB INLET
T/C=280.42

STA 22+00.10 (10.0' LT - ASPEN)
END TAPER

DEMO EXISTING ROAD

MAINTAIN EXTG. ROADSIDE DITCH

CONSTRUCT 4' ASPHALT RAMP TO TRANSITION TOP OF CURB TO STREET ELEVATION

STA 19+50.10 (20.0' LT - ASPEN)
END CURB & GUTTER CONSTRUCTION
T/C=242.80 BEGIN TAPER

EXISTING 12" PVC WATER MAIN

ASPEN AVENUE

REMOVE EXTG. CURB RETURNS

MATCH LINE STA 19+00.00 (SEE SHEET 9)

STA 19+11.34 (8.3' LT)
EXTG. SAN MH

C/L-C/L INTX
STA 19+04.43 ASPEN AVE=
STA 0+00.00 E. 18th ST

STA 20+00.00 (6.3' RT SPEN)
INSTALL STM MH "BB-2"

STA 20+00.00 (20.0' RT ASPEN)
INSTALL COMB. CURB INLET
T/G=245.84

RE-LOCATE EXTG. C.O.I. IF NECESSARY

SEE E. 18th ST. PROFILE ON SHEET 5

E. 18th ST.

RE-LOCATE EXTG. MAIL AND PAPER BOXES. COORDINATE WITH POST OFFICE AND PROPERTY OWNERS.

60' R.O.W. 30' PAVED 5' CURB & SIDEWALK

Δ=67°41'37"
R=175.00
AL=206.76

PC STA 22+59.24

10' SLOPE EASEMENT (TYP.)

SOUTHVIEW ESTATES PHASE

352 353 354 355 356 351 350

STA 21+75 (CROWN SECTION)
STA 22+75 (FULL 2% SECTION)
STA 23+25 (FULL 4% SECTION)
STA 24+00 (FULL 4% SECTION)
STA 24+50 (FULL 2% SECTION)
STA 25+50

+6%
+4%
+2%
TRANSITION
SUPERELEVATED ROAD-SECTION

STA 19+00.00 MATCH LINE (SEE SHEET 3)

C/L-C/L INTX STA 19+04.43 ASPEN AVE.=
STA 0+00.00 E. 18th ST C/L=241.00

STA 19+50.10 (20.0' RT ASPEN AVE.)=
ECR C/L=242.80 T/C=242.90
END CURB CONSTRUCTION (LEFT)

19+11.34 (8.3' LT)
G. SAN MH
UST RIM ELEV. TO F.G.

12" ADS N-12
L=170' SL=0.0180

STA 20+00.00 (6.3' RT ASPEN)
INSTALL STM MH "BB-2"
RIM=245.61
IE=238.72

EXISTING 12" PVC
WATER LINE

12" ADS N-12
L=288' SL=0.1240

STA 21+75.00 ASPEN AVE
BEGIN SUPERELEVATED ROAD SECTION
(SEE TABLE ABOVE) C/L=264.01 T/

STA 22+88.52 (2.9' RT ASPEN)
INSTALL STM MH "BB-3"
RIM=280.66
IE=274.42

12" ADS N-12
L=100' SL=0.1500

EXTG. GRADE
AT CENTERLINE

PROPOSED GRADE
AT CENTERLINE

STA 25+50.00 ASPEN AVE
END SUPERELEVATED ROAD SE
C/L=317.65 T/C=317.75

EXIST. 12" PVC WATER LINE

12" ADS N-12
L=137'

STA 25+26.99 (3.0' LT N. FOR
INSTALL STM MH "BB-5"
RIM=314.82
IE=309.15

12" ADS N-12
L=100' SL=0.150

STA 23+89.72 (3.0' LT ASPEN)
INSTALL STM MH "BB-4"
RIM=295.83
IE=289.42

235 240 245 250 255 260 265 270 275 280

19+00 19+50 20+00 20+50 21+00 21+50 22+00 22+50 23+00 23+50 24+00 24+50 25+00 25+50 26+00 26+

235 240 245 250 255 260 265 270 275 280 285 290 295 300 305 310 315 320 325 330

TRANSPORTATION IMPACT STUDY

FOR

ASPEN HEIGHTS SUBDIVISION

NE NORTH FORK AVENUE AT NE 348TH STREET

CITY OF LA CENTER, WASHINGTON

7/22/16

PREPARED BY

KELLY ENGINEERING

July 2016

TRANSPORTATION IMPACT STUDY

Aspen Heights Subdivision

City of La Center, Washington

July 22, 2016

Prepared for:

Muffet Properties, LLC
Attn: Win Muffet
P.O. Box 301
La Center, WA 98629

Prepared by:

David Kelly, Kathryn King
Kelly Engineering
316 E. Fourth Plain, Suite A-4
Vancouver, WA 98663
Phone: 360-433-7530
e-mail: Kellyengineer@comcast.net

Table of Contents

TRANSPORTATION IMPACT STUDY

ASPEN HEIGHTS SUBDIVISION

July 22, 2016

INTRODUCTION

A transportation impact study for 26 attached single-family residential homes was conducted to determine the potential traffic related impacts of the development to the surrounding road system. The study for the Aspen Heights subdivision was based on discussions with representatives from the City of La Center.

The site is located west of Aspen Avenue and south of NE 348th Street in the City of La Center. The parcel is identified as 34700 NE North Fork Avenue or alternatively as Assessor Parcel No. 258901-000, number 27 SW ¼ of Sec 34, T5N, R1E, WM. Currently one home with a detached garage and barn is on the site. The structures will be removed with the planned development. Homes on the future lots are tentatively scheduled for construction in 2017.

The parcel is currently zoned LDR-7.5 (low density residential) and a zone change is planned to MDR-16. The project is also requesting a lifting of the Urban Holding overlay from the parcel with the subdivision application.

Land uses in the vicinity of the site consist of single-family homes on large lots. An open space/park tract owned by the City of La Center which provides a community trail system is located along the southern edge of the project. A vicinity map, aerial photograph and pre-application plat are shown in Figures 1a, 1b and 1c.

Roadway Characteristics

The site will have access onto Aspen Avenue through a public street to be designated W. 19th Circle. All lots will take access internally from W. 19th Circle.

Aspen Avenue is a 40 foot wide two lane paved roadway along the eastern edge of the property. Sidewalks are on the east side of the street. The posted speed limit is 25 mph. An advisory speed limit sign of 15 mph is located to the northeast of the site where NE North Fork Avenue transitions to Aspen Avenue. The advisory speed limit sign is for southbound traffic. Aspen Avenue is classified as a minor collector.

The E 10th Street/Aspen Avenue intersection is controlled by stop signs on all approaches. The remaining study area intersections are controlled by stop signs on the minor street approaches. Future plans by the City of La Center are to construct a roundabout at the W 4th Street/Pacific Highway intersection. The project s funded and construction is scheduled for 2016. The lane configurations for the intersections are shown in Figure 2.

Traffic Volumes

The traffic counts in this report were conducted from 7:00 to 9:00 am and 4:00 to 6:00 pm during July 2016. The AM peak hour occurred between approximately 7:15 and 8:15 am and the PM peak hour occurred between approximately 4:15 and 5:15 pm at the study area intersections. The peak hour at the intersections is the one hour time period when traffic on the adjacent streets is the highest and congestion is most likely to occur. The existing traffic volumes are shown in Figure 3. The raw traffic count data is shown in Appendix A.

Trip Generation/Distribution

The Aspen Heights subdivision will generate approximately 190 *new* trips per day, ITE Trip Generation Manual, 9th edition. A trip is a one directional vehicle movement. Sixteen new trips will occur during the AM peak hour and 19 new trips will occur during the PM peak hour. Credits were given for the existing home to be removed. The trip generation rates are shown in Table 1.

Table 1
Site Traffic Generation

Land Use	ITE code	Trip Generation	Units	Trips/ Day	Trips/ AM Peak	Trips/ PM Peak
Proposed Single-Family Attached	230	Ln(T) = 0.87 Ln(X) +2.46 – Day * Ln(T) = 0.80 Ln(X) + 0.26 - AM peak hr. * Ln(T) = 0.82 Ln(X) + 0.32 - PM peak hr. *	26	200	17 (in-3, out-14)	20 (in-13, out-7)
Existing Single-Family Detached	210	9.52/d.u. - Day 0.75/d.u. - AM peak hr. 1.00/d.u. - PM peak hr.	1	10	1 (in-0, out-1)	1 (in-1, out-0)
Overall Planned Development				**190**	**16 (in-3, out-13)**	**19 (in-12, out-7)**

* ITE fitted curve equations used for trip generation rates

The directional distribution of traffic generated by the development was assigned to the study area intersections. The distribution was based on the existing traffic volumes. The site traffic distribution and assignment diagrams are shown in Figures 5a and 5b.

Year 2018 Traffic Volumes

The year 2018 traffic volumes at the study area intersections included a two percent per year compounded growth factor over the existing traffic volumes. The growth factor of two percent was based on discussions with staff from the City of La Center and previous traffic studies conducted in the area. The growth factor was included to provide an analysis of the intersections for build-out of the planned development, forecast year 2018 traffic conditions.

Peak Hour Traffic Operations

The scope of the transportation impact study was based on discussions with staff from the City of La Center. Based on the discussions an analysis was conducted at the following intersections during the weekday AM and PM peak hours:

(1) Aspen Avenue & site access.
(2) Aspen Avenue & E 10th Street.
(3) Aspen Avenue & E 4th Street.
(4) Pacific Highway & W 4th Street.

The study area intersections were analyzed to determine existing, year 2018 without project and year 2018 with project conditions. The analysis of the W 4th Street & Pacific Highway intersection for the year 2018 traffic conditions assumed the roundabout is built. The year 2018 traffic volumes without and with the project are shown in Figures 4 and 6.

The intersection operational analysis was conducted using the procedures in the 2010 Highway Capacity Manual. These procedures describe the operation of an intersection in terms of its level of service (LOS). The LOS criteria ranges from "A", which indicates little, if any, delay to "F", which indicates that vehicles experience very long delays. The LOS criteria with the corresponding delay in seconds per vehicle and capacity analysis summary are shown in Tables 2 and 3 on page 4.

Table 2
Level of Service Criteria

Level of Service (LOS)	A	B	C	D	E	F
Unsignalized intersections						
Average Delay (seconds per vehicle)	≤10	>10 - 15	>15 - 25	>25 - 35	>35 - 50	>50

Table 3
Capacity Analysis Summary

	AM Peak Hour		PM Peak Hour	
	LOS	Delay	LOS	Delay
Aspen Avenue & site access				
Existing	n/a		n/a	
Year 2018 w/o Project	n/a		n/a	
Year 2018 with Project	A	8.5	A	8.4
Aspen Avenue & E 10th Street.				
Existing	A	7.4	A	7.8
Year 2018 w/o Project	A	7.5	A	7.8
Year 2018 with Project	A	7.5	A	7.9
Aspen Avenue & E 4th Street				
Existing	B	10.9	B	13.4
Year 2018 w/o Project	B	11.0	B	13.8
Year 2018 with Project	B	11.0	B	14.0
Pacific Highway & W 4th Street				
Existing	C	19.9	B	13.7
Year 2018 w/o Project *	A	6.0	A	2.9
Year 2018 with Project *	A	6.1	A	3.0

Delay = Delay in seconds/vehicle
* Assumption made that roundabout is built

Based on the findings of this transportation impact study the intersections will operate at LOS A or B with build-out of the Aspen Heights subdivision during the weekday AM and PM peak hours. The computer printouts are included in Appendix B.

Turn Lanes

The requirement for additional turn lanes was evaluated at the study area intersections as based on guidelines in the Washington State Design Manual. Based on the findings additional turn lanes are not necessary. An exclusive left and right turn lane for southbound traffic and a left turn lane for eastbound traffic is available at the Aspen Avenue/E 4th Street intersection. An exclusive non-yielding right turn lane is also available at the Pacific Highway/E 4th Street intersection for northbound traffic.

Pedestrian & Bicycle Considerations

Low pedestrian and no bicycle activities were observed along the site frontage of Aspen Avenue and at the E 18th Street/Aspen Avenue intersection. A marked crosswalk with advance warning signs is available at E 18th Street for pedestrians crossing Aspen Avenue.

Transit Considerations

The site is not served by public transit service.

School Considerations

Elementary and middle school students will attend La Center elementary and middle school. High school students will attend La Center High School. School bus service will be provided for all students.

Offset Intersections

East 18th Street is located approximately 320 feet, centerline-to-centerline south of the future access to the Aspen Heights subdivision. This intersection spacing is more than sufficient to ensure that no turning conflicts will occur between vehicles entering or leaving E 18th Street or the site access. Field observations during the AM and PM peak hours verified that almost all traffic entering or leaving E 18th Street traveled to and from the south on Aspen Avenue.

Sight Distance

Sight distance was measured at the location of the future site access onto Aspen Avenue. The measured corner sight distance was 255 feet when looking towards the north and over 600 feet when looking towards the south. A distance of 250 feet is required as based on the posted speed limit of 25 mph on Aspen Avenue and the guidelines of the City of La Center. Therefore, the sight distance requirement is met.

The sight distance measurements were based on a 3.5 foot high driver's line of sight located 15 feet back from the outside edge of the travel lane on Aspen Avenue. The object height was assumed to be at a height of 3.5 feet

Transportation Improvements

Several transportation improvement projects are identified in the City of La Center's Six Year Transportation Program. The projects all have a phase start year for construction of 2016. These projects include the following:

1. The construction of a roundabout at 4th Street and Pacific Highway. A drawing showing the roundabout is included in Appendix D. The roundabout will be constructed to meet LOS standards and pedestrian and traffic safety.
2. An asphalt overlay on Pacific Highway from 5th Street to the end of the existing sidewalk west of West E Avenue.
3. 5th Street and Aspen Avenue realignment. The project would realign 1 block of E 5th Street to make a four way intersection with Aspen and West 5th Avenue.

Collision Data

Collision data was obtained from the Washington State Department of Transportation, WSDOT for the five year time period between January 1, 2011 and available 2016. Based on the data the calculated collision rates at the study area intersections are below the threshold of 1.0 accidents per million entering vehicles (MEV) that usually identifies an intersection with a high accident rate. No accidents have been reported along the site frontage of Aspen Avenue. The collision data is shown in Table 4 on page 7 and Appendix C.

Table 4
Collision Data

Intersection	Number of Collisions	Collision Type					Rate *
		Angle	Rear End	Turning Movement	Fixed Object	Other	
Aspen Avenue/ E 10th Street	0						
Aspen Avenue/ E 4th Street	1		1				0.07
Pacific Highway/ W 4th Street.	8	6	1			1	0.45

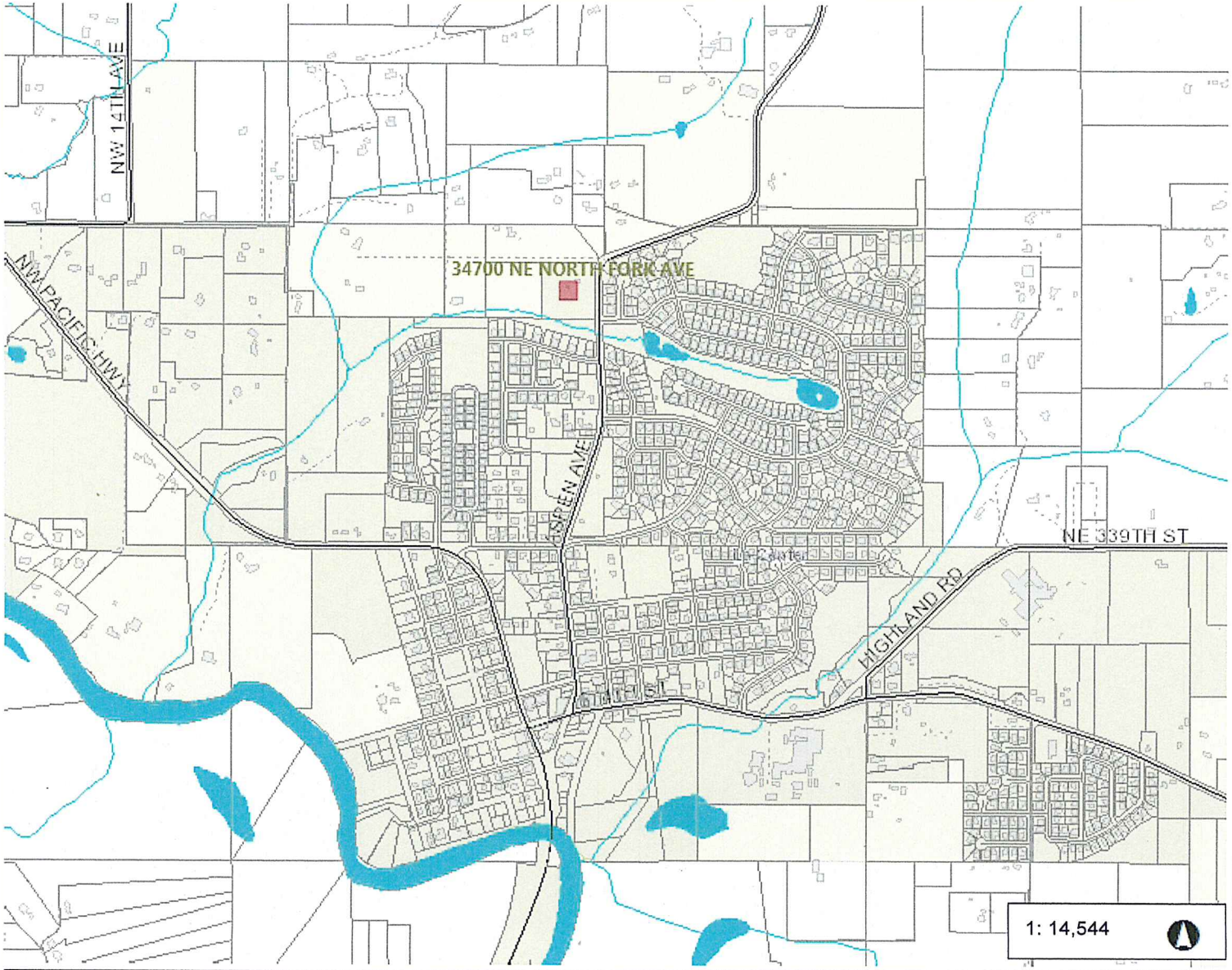
* Accident rate per million entering vehicles (MEV)

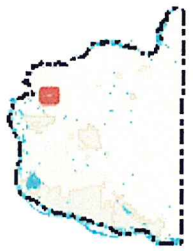
CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of this transportation impact study the surrounding road system can adequately accommodate traffic from the Aspen Heights subdivision. No additional off-site traffic control devices or roadway improvements were identified to accommodate the development.

Adequate sight distance should be maintained at the site access onto Aspen Avenue. Obstructions by signs, vegetation, parked cars or other objects should not be allowed.

Aspen Heights Subdivision





Legend

- Building Footprints
- Taxlots
- Cities Boundaries
- Urban Growth Boundaries

Notes:

1: 14,544

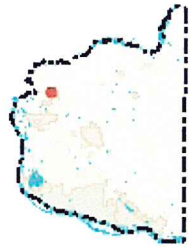
2,424.0 0 1,211.99 2,424.0 Feet

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

This map was generated by Clark County's "MapsOnline" website. Clark County does not warrant the accuracy, reliability or timeliness of any information on this map, and shall not be held liable for losses caused by using this information.

FIGURE 1a

Aspen Heights Subdivision



Legend

- Building Footprints
- Taxlots
- Roads
- ImageOrtho
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3
- Cities Boundaries
- Urban Growth Boundaries

Notes:

606.0 0 303.00 606.0 Feet

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

FIGURE 1b

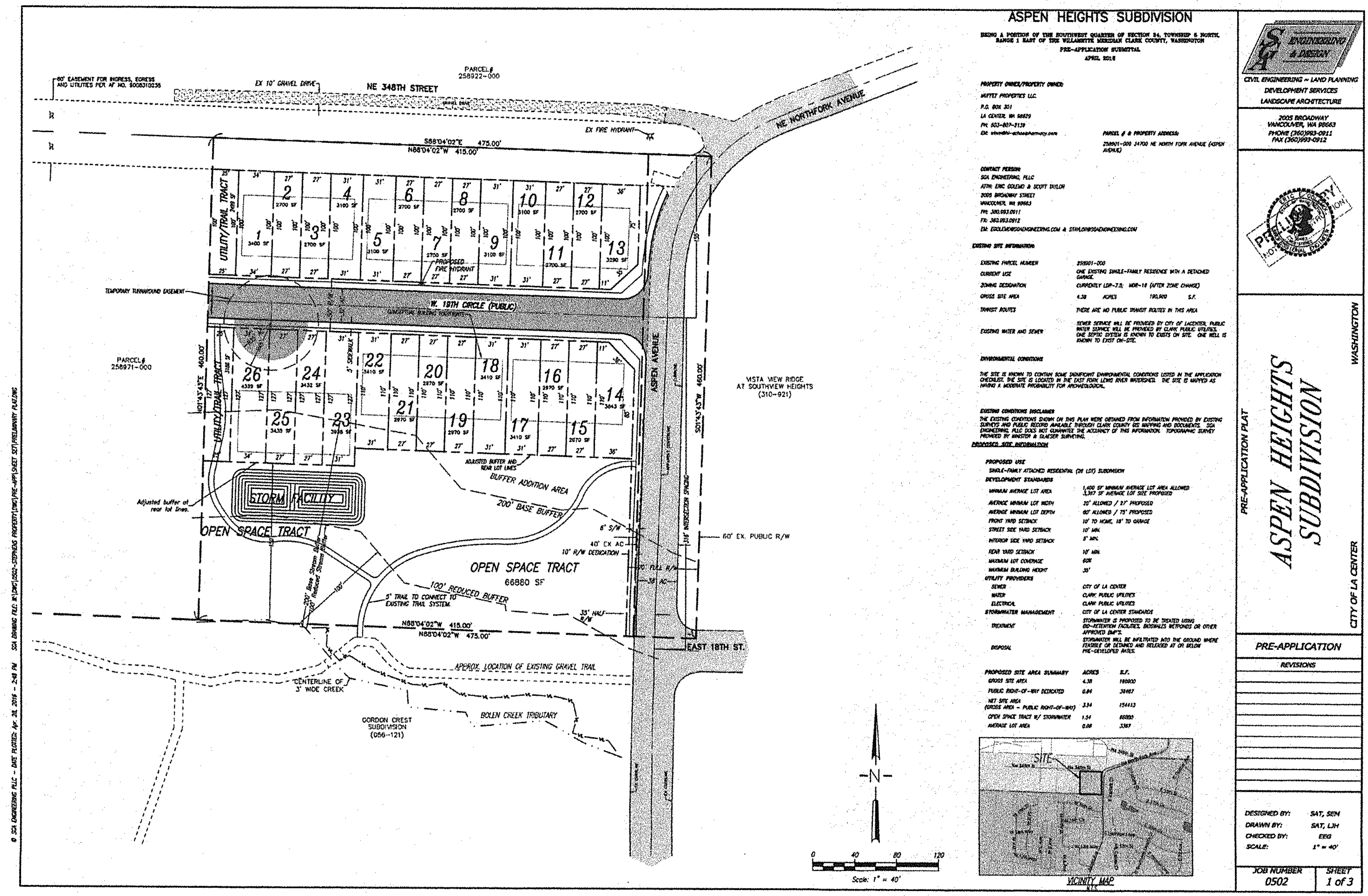
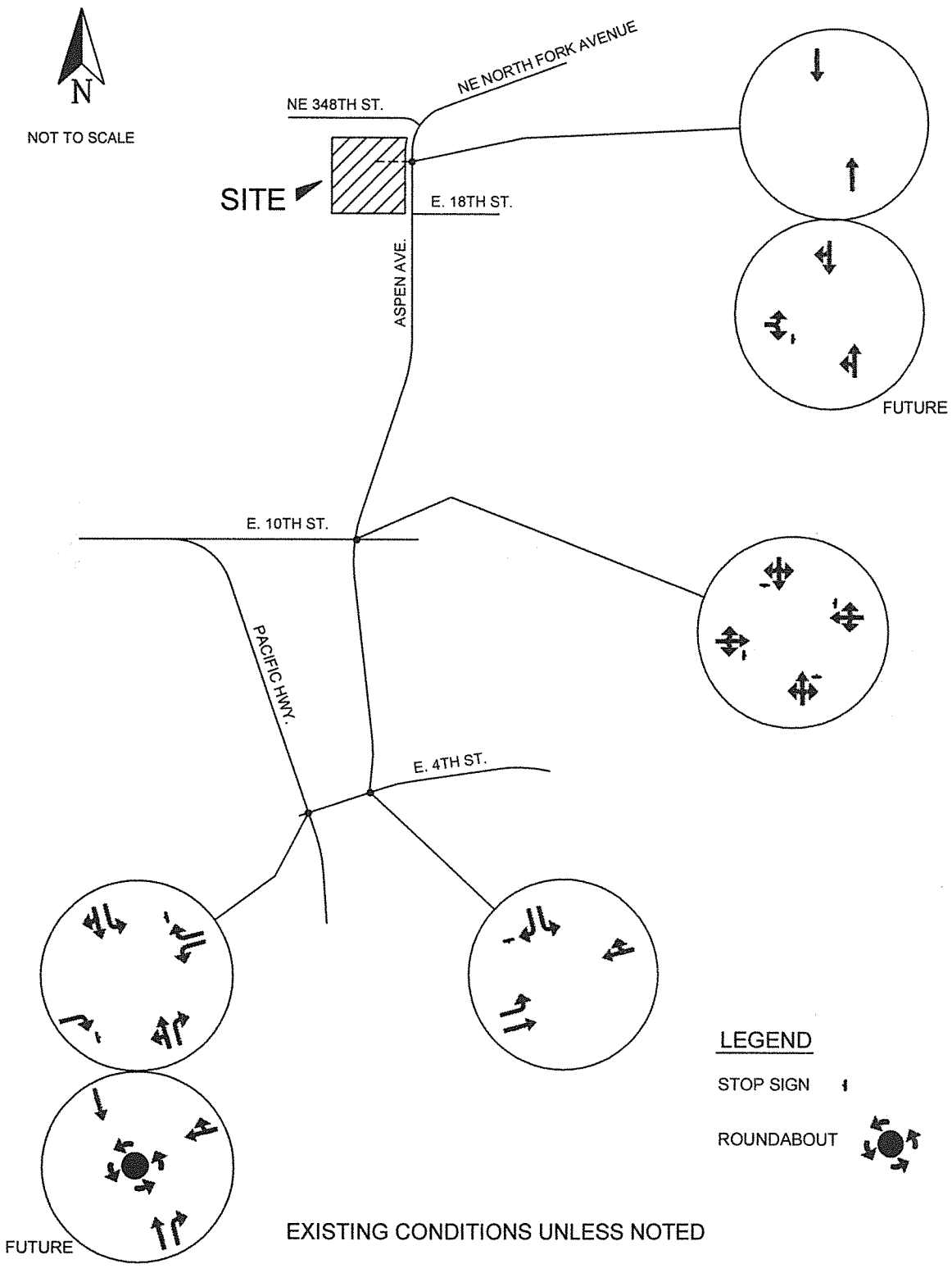

ASPEN HEIGHTS SUBDIVISION
PRE-APPLICATION SUBMITTAL
APRIL 2016
NE 348TH STREET
NE NORTHFORK AVENUE
ASPEN AVENUE
W. 19TH CIRCLE (PUBLIC)
EAST 18TH ST.
PARCEL# 258922-000
PARCEL# 258971-000
VISTA VIEW RIDGE AT SOUTHVIEW HEIGHTS (310-921)
GORDON CREST SUBDIVISION (056-121)
UTILITY/TRAIL TRACT
STORM FACILITY
OPEN SPACE TRACT
OPEN SPACE TRACT 66860 SF
BUFFER ADDITION AREA
200' BASE BUFFER
100' REDUCED BUFFER
BOLEN CREEK TRIBUTARY
APPROX. LOCATION OF EXISTING GRAVEL TRAIL
CENTERLINE OF 3' WIDE CREEK
EX FIRE HYDRANT
60' EX. PUBLIC R/W
S88°04'02"E 475.00'
N88°04'02"W 415.00'
N88°04'02"W 475.00'
S01°43'43"W 460.00'
N01°43'43"E 460.00'
Scale: 1" = 40'
VICINITY MAP
CIVIL ENGINEERING ~ LAND PLANNING
DEVELOPMENT SERVICES
LANDSCAPE ARCHITECTURE
2005 BROADWAY
VANCOUVER, WA 98663
PHONE (360)993-0911
FAX (360)993-0912
PRE-APPLICATION PLAT
ASPEN HEIGHTS SUBDIVISION
CITY OF LA CENTER
WASHINGTON
PRE-APPLICATION
REVISIONS
DESIGNED BY: SAT, SEM
DRAWN BY: SAT, LJH
CHECKED BY: EEG
SCALE: 1" = 40'
JOB NUMBER 0502
SHEET 1 of 3

FIGURE 1c



ASPEN HEIGHTS SUBDIVISION

FIGURE 2
LANE CONFIGURATIONS

KELLY ENGINEERING
316 E. Fourth Plain, A-4, Vancouver, WA 98663
Phone: 360-433-7530

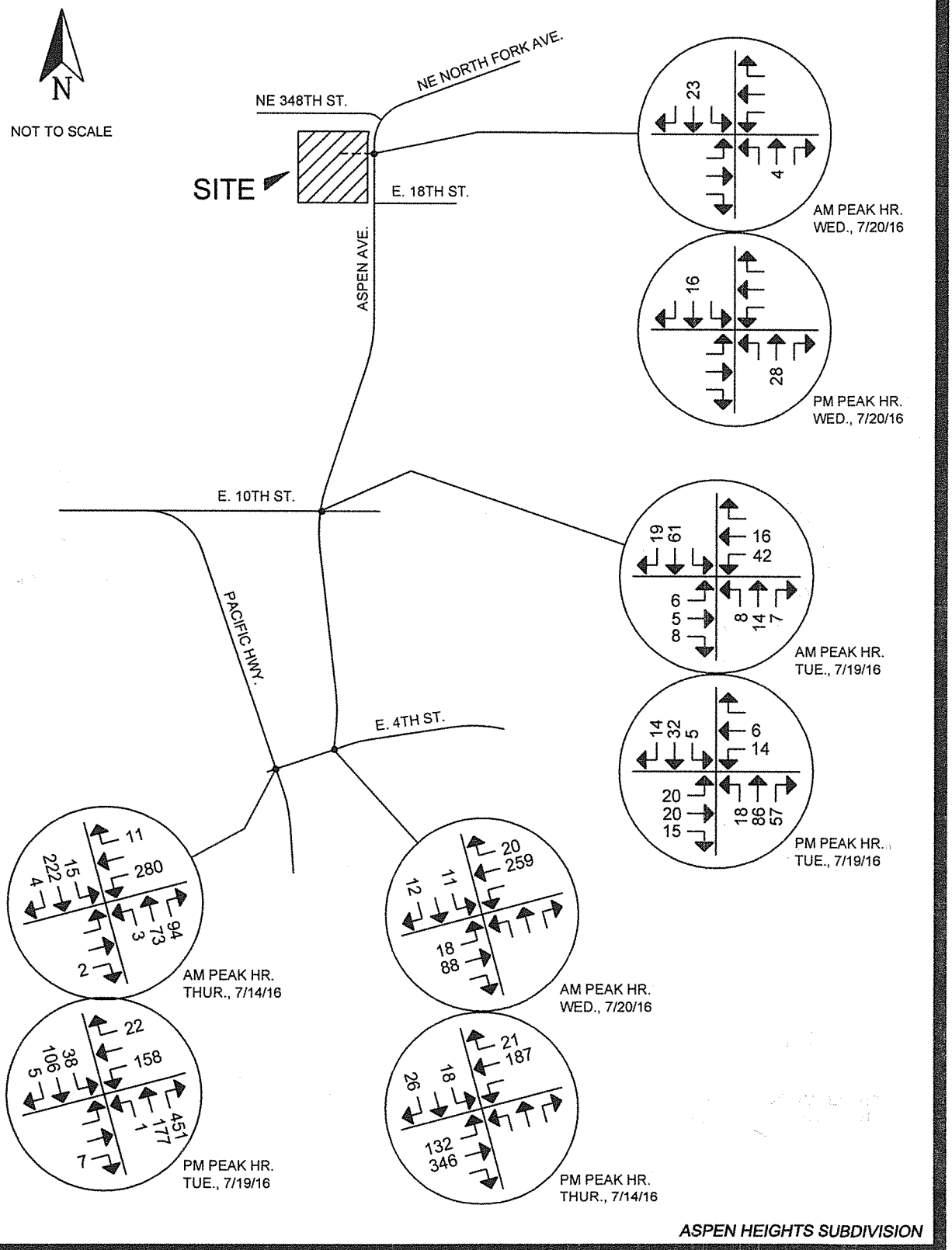


FIGURE 3
EXISTING TRAFFIC VOLUMES

KELLY ENGINEERING
316 E. Fourth Plain, A-4, Vancouver, WA 98663
Phone: 360-433-7530

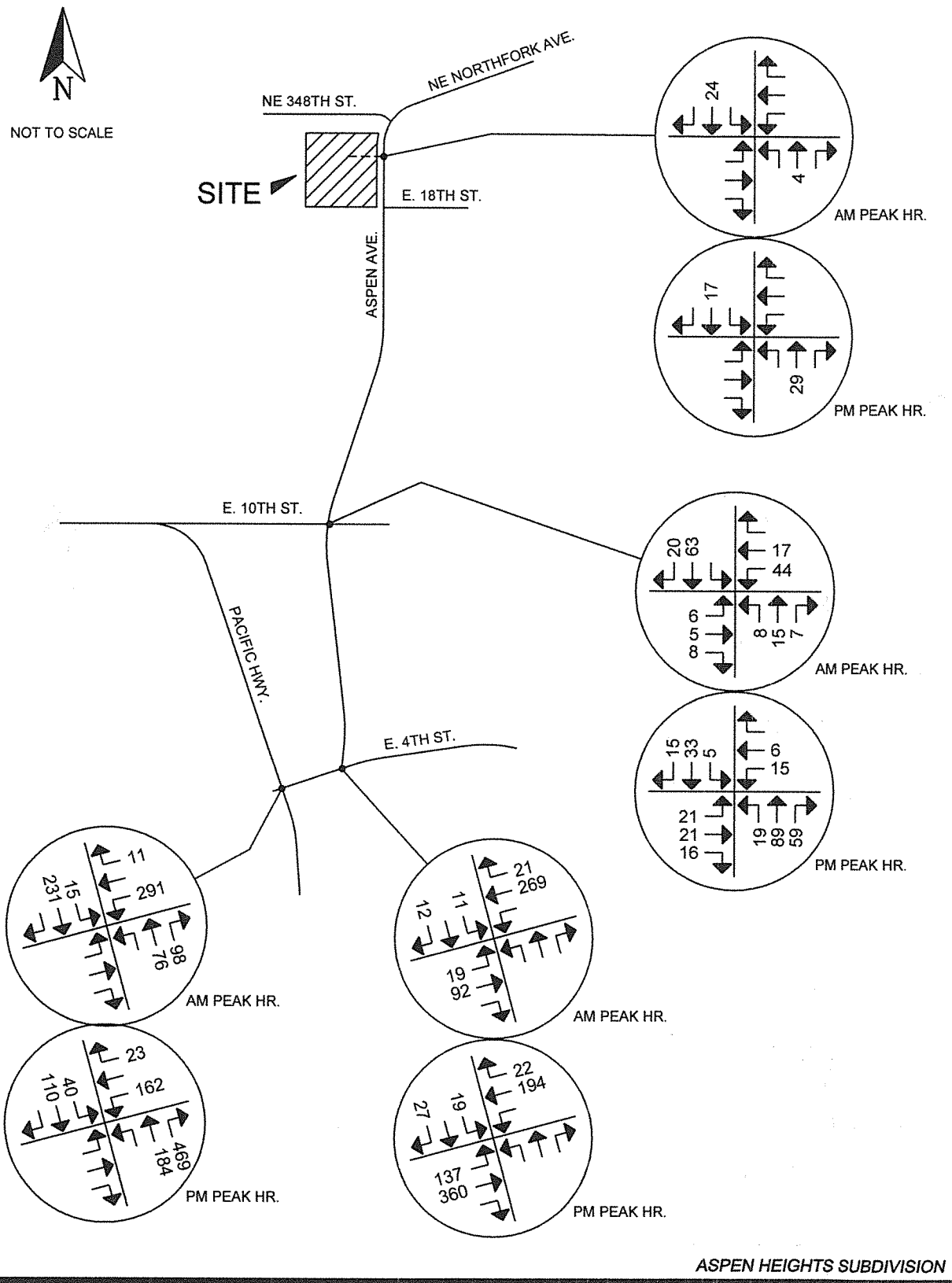
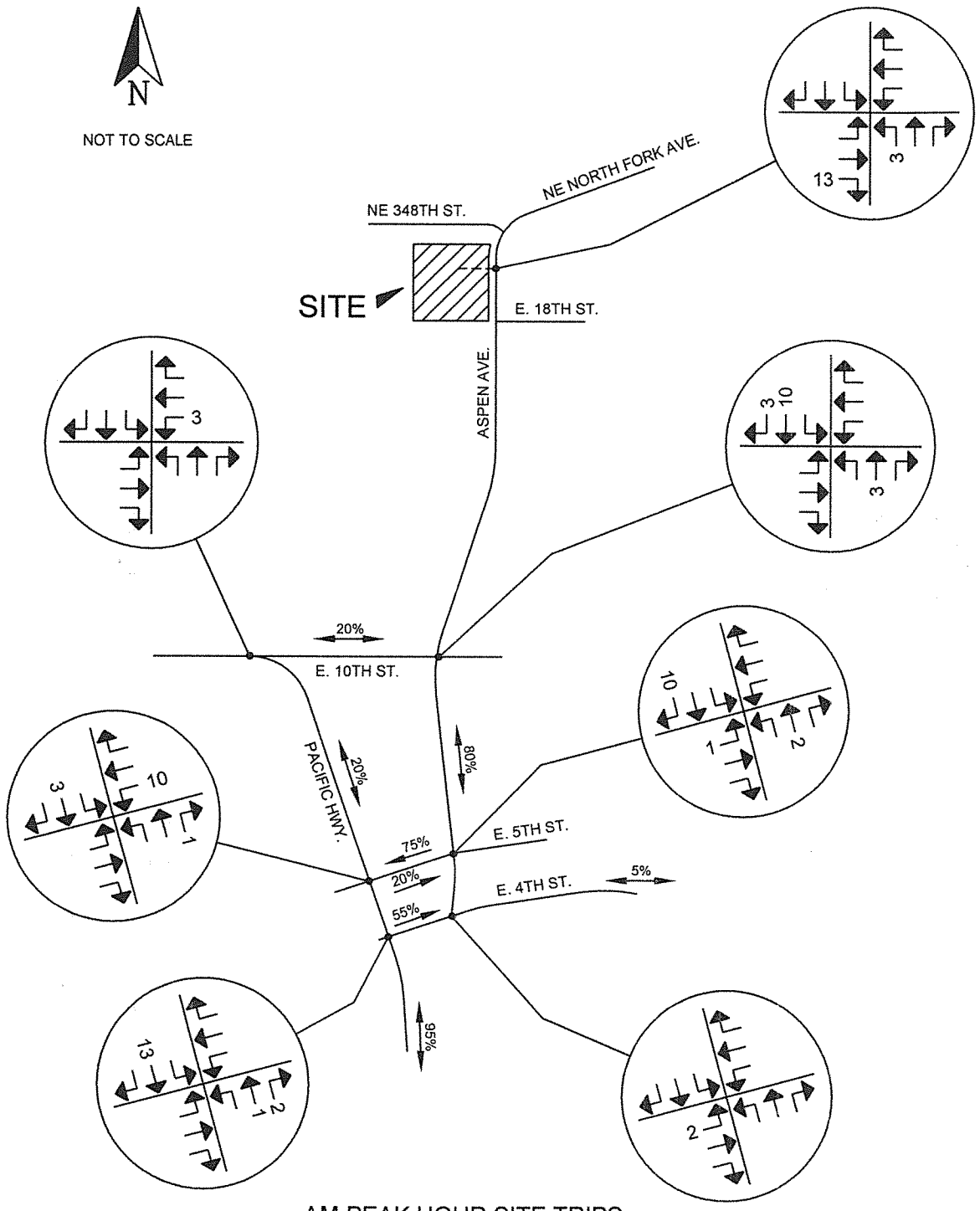


FIGURE 4
YEAR 2018 TRAFFIC VOLUMES
W/O PROJECT

KELLY ENGINEERING
316 E. Fourth Plain, A-4, Vancouver, WA 98663
Phone: 360-433-7530

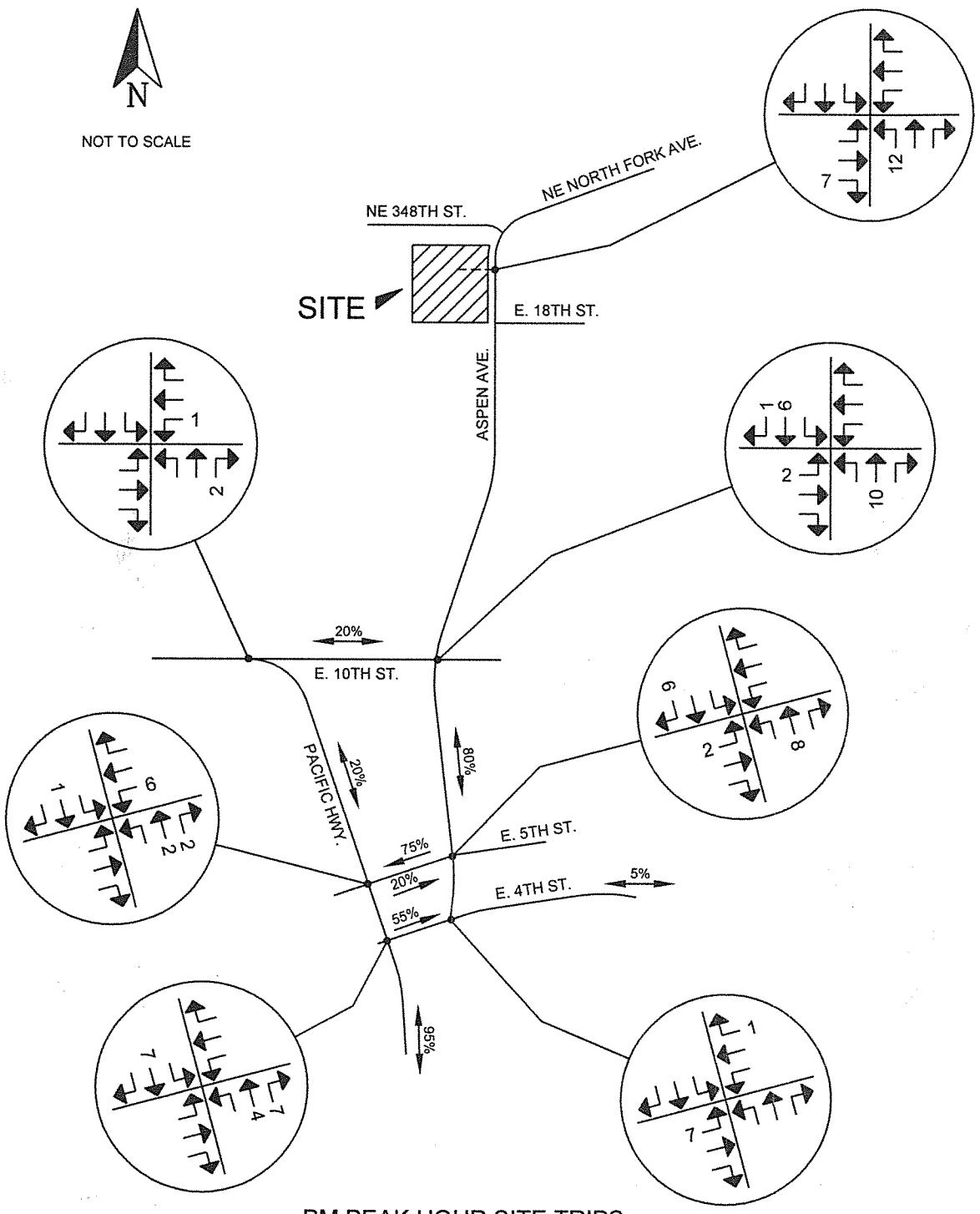


AM PEAK HOUR SITE TRIPS:
IN-3, OUT-13

ASPEN HEIGHTS SUBDIVISION

FIGURE 5a
SITE TRAFFIC DISTRIBUTION/ ASSIGNMENT/AM PEAK HOUR

KELLY ENGINEERING
316 E. Fourth Plain, A-4, Vancouver, WA 98663
Phone: 360-433-7530



PM PEAK HOUR SITE TRIPS:
IN-12, OUT-7

ASPEN HEIGHTS SUBDIVISION

FIGURE 5b
SITE TRAFFIC DISTRIBUTION/ ASSIGNMENT/PM PEAK HOUR

KELLY ENGINEERING
316 E. Fourth Plain, A-4, Vancouver, WA 98663
Phone: 360-433-7530

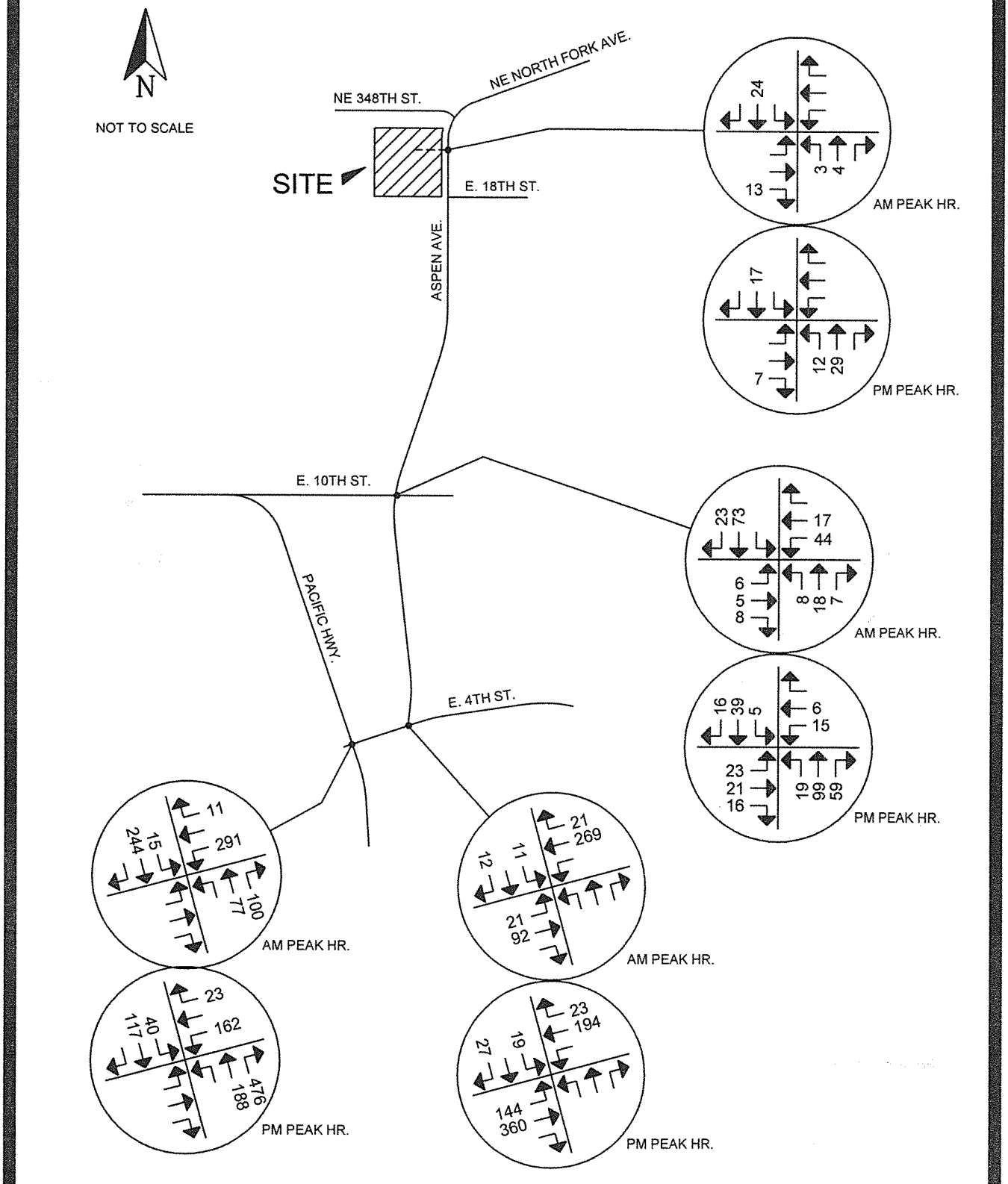


FIGURE 6
YEAR 2018 TRAFFIC VOLUMES WITH PROJECT

KELLY ENGINEERING
316 E. Fourth Plain, A-4, Vancouver, WA 98663
Phone: 360-433-7530

APPENDIX A
RAW TRAFFIC COUNT DATA

INTERSECTION TURN MOVEMENT SURVEY
W 4TH STREET & PACIFIC HIGHWAY

DATE OF COUNT: 7/14/16, 07:00-09:00
DAY OF WEEK: THUR.
WEATHER: SUNNY
COUNTER: KAK

Time Period From – To	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
07:00-07:05	1	23	0	19	0	0	0	3	7	0	0	1	54
07:05-07:10	**2**	**18**	**0**	**24**	**0**	**1**	**0**	**3**	**12**	**0**	**0**	**0**	**60**
07:10-07:15	**1**	**11**	**0**	**17**	**0**	**0**	**0**	**4**	**7**	**0**	**0**	**0**	**40**
07:15-07:20	**2**	**25**	**0**	**27**	**0**	**1**	**0**	**9**	**7**	**0**	**0**	**0**	**71**
07:20-07:25	**0**	**24**	**1**	**27**	**0**	**0**	**0**	**5**	**7**	**0**	**0**	**0**	**64**
07:25-07:30	**2**	**26**	**0**	**28**	**0**	**3**	**0**	**7**	**9**	**0**	**0**	**0**	**75**
07:30-07:35	**0**	**19**	**0**	**22**	**0**	**0**	**0**	**4**	**5**	**0**	**0**	**0**	**50**
07:35-07:40	**0**	**19**	**0**	**26**	**0**	**2**	**0**	**5**	**4**	**0**	**0**	**0**	**56**
07:40-07:45	**0**	**14**	**0**	**22**	**0**	**0**	**2**	**13**	**5**	**0**	**0**	**0**	**56**
07:45-07:50	**0**	**13**	**0**	**21**	**0**	**1**	**0**	**9**	**9**	**0**	**0**	**2**	**55**
07:50-07:55	**3**	**20**	**1**	**20**	**0**	**1**	**1**	**8**	**11**	**0**	**0**	**0**	**65**
07:55-08:00	**2**	**15**	**2**	**21**	**0**	**1**	**0**	**5**	**12**	**0**	**0**	**0**	**58**
08:00-08:05	**3**	**18**	**0**	**25**	**0**	**1**	**0**	**1**	**6**	**0**	**0**	**0**	**54**
08:05-08:10	3	21	0	21	0	1	0	6	6	0	0	0	58
08:10-08:15	1	12	1	16	0	1	0	1	8	0	0	1	41
08:15-08:20	0	20	0	13	0	4	0	6	7	0	0	1	51
08:20-08:25	5	15	0	16	0	3	0	2	9	0	0	0	50
08:25-08:30	1	18	0	16	0	5	0	6	11	0	0	0	57
08:30-08:35	0	22	0	22	0	5	0	3	7	0	0	0	59
08:35-08:40	4	13	0	20	0	2	0	3	8	0	0	0	50
08:40-08:45	0	16	0	19	0	3	0	4	6	0	0	0	48
08:45-08:50	2	13	1	18	0	1	0	2	5	0	0	1	43
08:50-08:55	1	11	0	22	0	2	1	5	8	0	0	0	38
08:55-09:00	3	10	0	19	0	0	0	7	7	0	0	0	46
Peak Hour Total	**15**	**222**	**4**	**280**	**0**	**11**	**3**	**73**	**94**	**0**	**0**	**2**	**704**
% Trucks	0	0	0	1	0	0	0	0	0	0	0	0	
Peds	0	0	0	0	1	0	0	3	0	0	1	0	
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	

PEAK HOUR: 07:05-08:05

PHF Intersection: 0.84

KELLY ENGINEERING

INTERSECTION TURN MOVEMENT SURVEY
W 4TH STREET & PACIFIC HIGHWAY

DATE OF COUNT: 7/19/16, 16:00-18:00
DAY OF WEEK: TUE.
WEATHER: SUNNY
COUNTER: KAK

Time Period From – To	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
16:00-16:05	3	9	0	11	0	2	0	7	30	0	0	0	62
16:05-16:10	0	9	2	9	0	2	0	9	29	0	0	0	60
16:10-16:15	2	7	0	12	0	0	0	10	28	0	0	0	59
16:15-16:20	5	8	0	14	0	6	0	11	33	0	0	0	77
16:20-16:25	3	9	1	14	0	3	0	6	26	0	0	1	63
16:25-16:30	1	8	0	14	0	4	0	9	41	0	0	0	77
16:30-16:35	0	7	0	19	0	1	0	20	31	0	0	0	78
16:35-16:40	2	11	0	18	0	1	0	15	34	0	0	0	81
16:40-16:45	0	9	0	7	0	0	0	8	34	0	0	1	59
16:45-16:50	**5**	**11**	**0**	**13**	**0**	**2**	**0**	**14**	**32**	**0**	**0**	**0**	**77**
16:50-16:55	**5**	**10**	**3**	**13**	**0**	**2**	**0**	**15**	**38**	**0**	**0**	**1**	**87**
16:55-17:00	**1**	**12**	**0**	**10**	**0**	**3**	**0**	**14**	**32**	**0**	**0**	**1**	**73**
17:00-17:05	**2**	**9**	**0**	**22**	**0**	**3**	**0**	**13**	**39**	**0**	**0**	**0**	**88**
17:05-17:10	**5**	**9**	**0**	**10**	**0**	**1**	**0**	**10**	**29**	**0**	**0**	**0**	**64**
17:10-17:15	**0**	**9**	**0**	**14**	**0**	**1**	**0**	**15**	**39**	**0**	**0**	**1**	**79**
17:15-17:20	**5**	**11**	**0**	**10**	**0**	**0**	**0**	**13**	**46**	**0**	**0**	**2**	**87**
17:20-17:25	**4**	**6**	**2**	**6**	**0**	**0**	**0**	**15**	**44**	**0**	**0**	**0**	**77**
17:25-17:30	**2**	**6**	**0**	**15**	**0**	**1**	**0**	**16**	**40**	**0**	**0**	**0**	**80**
17:30-17:35	**4**	**6**	**0**	**13**	**0**	**7**	**1**	**21**	**35**	**0**	**0**	**1**	**88**
17:35-17:40	**4**	**11**	**0**	**16**	**0**	**1**	**0**	**14**	**36**	**0**	**0**	**0**	**82**
17:40-17:45	**1**	**6**	**0**	**16**	**0**	**1**	**0**	**17**	**41**	**0**	**0**	**1**	**83**
17:45-17:50	2	7	2	12	0	0	0	10	29	0	0	0	62
17:50-17:55	1	8	0	19	0	2	0	9	33	0	0	0	72
17:55-18:00	3	6	0	8	0	3	0	11	30	0	0	0	61
Peak Hour Total	**38**	**106**	**5**	**158**	**0**	**22**	**1**	**177**	**451**	**0**	**0**	**7**	**965**
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	
Peds	0	5	0	0	4	0	0	1	0	0	6	0	
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	

PEAK HOUR: 16:45-17:45

PHF Intersection: 0.95

KELLY ENGINEERING

INTERSECTION TURN MOVEMENT SURVEY
E 4TH STREET & ASPEN AVENUE

DATE OF COUNT: 7/20/16, 07:00-09:00
DAY OF WEEK: WED.
WEATHER: SUNNY
COUNTER: DSK

Time Period From – To	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
07:00-07:05	0	0	0	0	22	0	0	0	0	3	6	0	31
07:05-07:10	0	0	0	0	22	1	0	0	0	2	7	0	32
07:10-07:15	0	0	2	0	25	0	0	0	0	0	2	0	29
07:15-07:20	0	0	0	0	22	0	0	0	0	2	6	0	30
07:20-07:25	**0**	**0**	**0**	**0**	**30**	**1**	**0**	**0**	**0**	**1**	**5**	**0**	**37**
07:25-07:30	**0**	**0**	**0**	**0**	**21**	**1**	**0**	**0**	**0**	**2**	**5**	**0**	**29**
07:30-07:35	**1**	**0**	**1**	**0**	**20**	**0**	**0**	**0**	**0**	**4**	**8**	**0**	**34**
07:35-07:40	**0**	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**0**	**2**	**7**	**0**	**30**
07:40-07:45	**2**	**0**	**3**	**0**	**21**	**1**	**0**	**0**	**0**	**2**	**4**	**0**	**33**
07:45-07:50	**4**	**0**	**2**	**0**	**33**	**5**	**0**	**0**	**0**	**0**	**10**	**0**	**54**
07:50-07:55	**1**	**0**	**1**	**0**	**23**	**2**	**0**	**0**	**0**	**0**	**8**	**0**	**35**
07:55-08:00	**2**	**0**	**1**	**0**	**9**	**2**	**0**	**0**	**0**	**2**	**9**	**0**	**25**
08:00-08:05	**0**	**0**	**0**	**0**	**18**	**2**	**0**	**0**	**0**	**2**	**13**	**0**	**35**
08:05-08:10	**1**	**0**	**3**	**0**	**15**	**4**	**0**	**0**	**0**	**1**	**9**	**0**	**33**
08:10-08:15	**0**	**0**	**0**	**0**	**24**	**2**	**0**	**0**	**0**	**0**	**6**	**0**	**32**
08:15-08:20	**0**	**0**	**1**	**0**	**24**	**0**	**0**	**0**	**0**	**2**	**4**	**0**	**31**
08:20-08:25	1	0	0	0	16	1	0	0	0	2	3	0	23
08:25-08:30	1	0	1	0	15	2	0	0	0	4	6	0	29
08:30-08:35	3	0	3	0	14	2	0	0	0	3	5	0	30
08:35-08:40	2	0	0	0	16	1	0	0	0	2	7	0	28
08:40-08:45	0	0	0	0	13	0	0	0	0	1	6	0	20
08:45-08:50	2	0	2	0	10	1	0	0	0	2	5	0	22
08:50-08:55	1	0	0	0	11	2	0	0	0	1	7	0	22
08:55-09:00	2	0	0	0	8	1	0	0	0	3	7	0	21
Peak Hour Total	**11**	**0**	**12**	**0**	**259**	**20**	**0**	**0**	**0**	**18**	**88**	**0**	**408**
% Trucks	0	0	0	0	0	0	0	0	0	0	3	0	
Peds	0	0	0	0	2	0	0	0	0	0	2	0	
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	

PEAK HOUR: 07:20-08:20

PHF Intersection: 0.84

KELLY ENGINEERING

INTERSECTION TURN MOVEMENT SURVEY
E 4TH STREET & ASPEN AVENUE

DATE OF COUNT: 7/14/16, 16:00-18:00
DAY OF WEEK: THUR.
WEATHER: SUNNY
COUNTER: KAK

Time Period From – To	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
16:00-16:05	3	0	0	0	23	2	0	0	0	12	21	0	61
16:05-16:10	0	0	2	0	19	3	0	0	0	8	17	0	49
16:10-16:15	2	0	3	0	16	0	0	0	0	9	31	0	61
16:15-16:20	0	0	4	0	16	3	0	0	0	12	18	0	53
16:20-16:25	2	0	0	0	21	3	0	0	0	7	20	0	53
16:25-16:30	1	0	2	0	17	2	0	0	0	6	35	0	63
16:30-16:35	0	0	1	0	22	3	0	0	0	11	24	0	61
16:35-16:40	0	0	1	0	12	3	0	0	0	8	25	0	49
16:40-16:45	2	0	0	0	11	1	0	0	0	10	34	0	58
16:45-16:50	**1**	**0**	**1**	**0**	**14**	**2**	**0**	**0**	**0**	**6**	**23**	**0**	**47**
16:50-16:55	**1**	**0**	**2**	**0**	**16**	**1**	**0**	**0**	**0**	**11**	**36**	**0**	**67**
16:55-17:00	**1**	**0**	**1**	**0**	**13**	**3**	**0**	**0**	**0**	**8**	**24**	**0**	**50**
17:00-17:05	**2**	**0**	**2**	**0**	**11**	**4**	**0**	**0**	**0**	**7**	**30**	**0**	**56**
17:05-17:10	**4**	**0**	**1**	**0**	**16**	**2**	**0**	**0**	**0**	**11**	**28**	**0**	**62**
17:10-17:15	**4**	**0**	**2**	**0**	**20**	**1**	**0**	**0**	**0**	**12**	**26**	**0**	**65**
17:15-17:20	**0**	**0**	**4**	**0**	**19**	**1**	**0**	**0**	**0**	**13**	**29**	**0**	**66**
17:20-17:25	**2**	**0**	**3**	**0**	**13**	**1**	**0**	**0**	**0**	**14**	**28**	**0**	**61**
17:25-17:30	**0**	**0**	**1**	**0**	**12**	**1**	**0**	**0**	**0**	**9**	**31**	**0**	**54**
17:30-17:35	**2**	**0**	**3**	**0**	**17**	**1**	**0**	**0**	**0**	**11**	**39**	**0**	**73**
17:35-17:40	**0**	**0**	**2**	**0**	**17**	**2**	**0**	**0**	**0**	**17**	**32**	**0**	**70**
17:40-17:45	**1**	**0**	**4**	**0**	**19**	**2**	**0**	**0**	**0**	**13**	**20**	**0**	**59**
17:45-17:50	0	0	2	0	13	0	0	0	0	6	24	0	45
17:50-17:55	1	0	1	0	12	2	0	0	0	9	21	0	46
17:55-18:00	0	0	0	0	11	1	0	0	0	8	28	0	48
Peak Hour Total	**18**	**0**	**26**	**0**	**187**	**21**	**0**	**0**	**0**	**132**	**346**	**0**	**730**
% Trucks	0	0	0	0	0	0	0	0	0	0	1	0	
Peds	0	0	0	0	3	0	0	0	0	0	5	0	
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	

PEAK HOUR: 16:45-17:45

PHF Intersection: 0.90

KELLY ENGINEERING

INTERSECTION TURN MOVEMENT SURVEY
E 10TH STREET & ASPEN AVENUE

DATE OF COUNT: 7/19/16, 07:00-09:00
DAY OF WEEK: TUE.
WEATHER: SUNNY
COUNTER: KAK

Time Period From – To	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
07:00-07:05	**0**	**6**	**0**	**3**	**1**	**0**	**1**	**2**	**1**	**0**	**0**	**1**	**15**
07:05-07:10	**0**	**2**	**1**	**5**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**12**
07:10-07:15	**0**	**6**	**2**	**6**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**17**
07:15-07:20	**0**	**4**	**3**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**15**
07:20-07:25	**0**	**6**	**2**	**2**	**0**	**0**	**1**	**2**	**1**	**0**	**1**	**1**	**16**
07:25-07:30	**0**	**2**	**2**	**4**	**0**	**0**	**1**	**0**	**2**	**0**	**1**	**1**	**13**
07:30-07:35	**0**	**7**	**3**	**3**	**2**	**0**	**0**	**2**	**1**	**2**	**0**	**0**	**20**
07:35-07:40	**0**	**6**	**1**	**2**	**2**	**0**	**2**	**0**	**1**	**0**	**0**	**1**	**15**
07:40-07:45	**0**	**3**	**0**	**4**	**3**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**12**
07:45-07:50	**0**	**6**	**1**	**2**	**1**	**0**	**1**	**1**	**0**	**3**	**2**	**1**	**18**
07:50-07:55	**0**	**3**	**2**	**3**	**1**	**0**	**0**	**2**	**1**	**1**	**1**	**0**	**14**
07:55-08:00	**0**	**10**	**2**	**3**	**1**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**19**
08:00-08:05	0	1	2	1	1	0	0	2	0	1	0	1	9
08:05-08:10	0	4	2	1	2	0	2	0	0	0	1	2	14
08:10-08:15	0	4	0	5	0	0	2	1	1	0	1	0	14
08:15-08:20	0	4	2	0	1	0	1	1	1	1	0	0	11
08:20-08:25	0	2	2	3	1	0	0	0	0	0	0	0	8
08:25-08:30	0	4	1	0	1	0	1	1	2	0	0	0	10
08:30-08:35	0	3	1	2	1	0	0	1	1	0	0	0	9
08:35-08:40	1	4	0	1	3	0	2	1	1	1	0	3	17
08:40-08:45	0	2	0	2	2	0	2	0	0	0	0	2	10
08:45-08:50	0	3	2	0	1	0	0	0	2	0	1	0	9
08:50-08:55	0	3	0	2	0	0	2	2	0	0	0	0	9
08:55-09:00	1	5	1	2	2	0	0	0	2	0	0	1	14
Peak Hour Total	**0**	**61**	**19**	**42**	**16**	**0**	**8**	**14**	**7**	**6**	**5**	**8**	**186**
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	
Peds	0	2	0	0	1	0	0	2	0	0	2	0	
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	

PEAK HOUR: 07:00-08:00

PHF Intersection: 0.91

KELLY ENGINEERING

INTERSECTION TURN MOVEMENT SURVEY
E 10TH STREET & ASPEN AVENUE

DATE OF COUNT: 7/19/16, 16:00-18:00
DAY OF WEEK: TUE.
WEATHER: SUNNY
COUNTER: DSK

Time Period From – To	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
16:00-16:05	0	2	0	1	2	0	1	4	3	1	0	1	15
16:05-16:10	0	3	2	0	0	0	0	5	2	1	1	0	14
16:10-16:15	0	2	1	0	2	0	1	4	2	0	2	0	14
16:15-16:20	**0**	**3**	**2**	**1**	**3**	**0**	**0**	**10**	**4**	**1**	**1**	**0**	**25**
16:20-16:25	**0**	**3**	**0**	**2**	**1**	**0**	**1**	**7**	**5**	**0**	**0**	**2**	**21**
16:25-16:30	**0**	**7**	**2**	**1**	**0**	**0**	**2**	**5**	**9**	**2**	**0**	**1**	**29**
16:30-16:35	**0**	**1**	**0**	**2**	**0**	**0**	**3**	**11**	**2**	**3**	**2**	**0**	**24**
16:35-16:40	**0**	**3**	**1**	**1**	**0**	**0**	**3**	**6**	**4**	**1**	**3**	**5**	**27**
16:40-16:45	**0**	**2**	**0**	**2**	**0**	**0**	**0**	**11**	**7**	**1**	**1**	**1**	**25**
16:45-16:50	**0**	**5**	**2**	**2**	**0**	**0**	**2**	**6**	**1**	**2**	**3**	**2**	**25**
16:50-16:55	**2**	**1**	**1**	**1**	**0**	**0**	**2**	**7**	**7**	**4**	**3**	**1**	**29**
16:55-17:00	**1**	**3**	**2**	**0**	**0**	**0**	**1**	**7**	**4**	**0**	**0**	**0**	**18**
17:00-17:05	**0**	**2**	**2**	**1**	**1**	**0**	**2**	**4**	**6**	**2**	**3**	**1**	**24**
17:05-17:10	**2**	**2**	**1**	**1**	**0**	**0**	**2**	**2**	**3**	**2**	**3**	**1**	**19**
17:10-17:15	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**10**	**5**	**2**	**1**	**1**	**21**
17:15-17:20	0	3	0	1	0	0	2	3	3	0	2	1	15
17:20-17:25	1	3	2	0	2	0	2	10	1	3	0	0	24
17:25-17:30	0	4	1	1	0	0	2	11	1	2	0	0	22
17:30-17:35	0	6	1	2	0	0	2	3	4	3	2	3	26
17:35-17:40	0	4	1	1	0	0	2	5	7	0	5	2	27
17:40-17:45	1	3	2	0	1	0	1	4	5	1	2	1	21
17:45-17:50	0	2	2	2	0	1	0	6	1	2	0	0	16
17:50-17:55	0	3	1	0	0	0	2	4	2	3	2	2	19
17:55-18:00	0	3	0	2	0	0	0	3	3	0	1	0	12
Peak Hour Total	**5**	**32**	**14**	**14**	**6**	**0**	**18**	**86**	**57**	**20**	**20**	**15**	**287**
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	
Peds	0	3	0	0	0	0	0	0	0	0	0	0	
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	

PEAK HOUR: 16:15-17:15

PHF Intersection: 0.90

KELLY ENGINEERING

ROADWAY SEGMENT MOVEMENT SURVEY
SITE ACCESS & ASPEN AVENUE

DATE OF COUNT: 7/20/16, 07:00-09:00
DAY OF WEEK: WED.
WEATHER: SUNNY
COUNTER: KAK

Time Period From – To	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
07:00-07:05	0	2	0	0	0	0	0	0	0	0	0	0	2
07:05-07:10	0	1	0	0	0	0	0	0	0	0	0	0	1
07:10-07:15	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**
07:15-07:20	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
07:20-07:25	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
07:25-07:30	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
07:30-07:35	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**
07:35-07:40	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**
07:40-07:45	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**
07:45-07:50	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
07:50-07:55	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
07:55-08:00	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
08:00-08:05	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
08:05-08:10	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**
08:10-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15-08:20	0	0	0	0	0	0	0	0	0	0	0	0	0
08:20-08:25	0	1	0	0	0	0	0	1	0	0	0	0	2
08:25-08:30	0	1	0	0	0	0	0	0	0	0	0	0	1
08:30-08:35	0	1	0	0	0	0	0	0	0	0	0	0	1
08:35-08:40	0	1	0	0	0	0	0	0	0	0	0	0	1
08:40-08:45	0	0	0	0	0	0	0	1	0	0	0	0	1
08:45-08:50	0	0	0	0	0	0	0	0	0	0	0	0	0
08:50-08:55	0	2	0	0	0	0	0	0	0	0	0	0	2
08:55-09:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Total	**0**	**23**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**27**
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	
Peds	0	0	0	0	0	0	0	0	0	0	0	0	
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	

PEAK HOUR: 07:10-08:10

KELLY ENGINEERING

ROADWAY SEGMENT MOVEMENT SURVEY
SITE ACCESS & ASPEN AVENUE

DATE OF COUNT: 7/20/16, 16:00-18:00
DAY OF WEEK: WED.
WEATHER: SUNNY
COUNTER: DSK

Time Period From – To	FROM NORTH			FROM EAST			FROM SOUTH			FROM WEST			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
16:00-16:05	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**4**
16:05-16:10	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**4**
16:10-16:15	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**6**
16:15-16:20	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**4**
16:20-16:25	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**
16:25-16:30	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**
16:30-16:35	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**
16:35-16:40	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**5**
16:40-16:45	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**4**
16:45-16:50	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**4**
16:50-16:55	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**
16:55-17:00	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**3**
17:00-17:05	0	1	0	0	0	0	0	0	0	0	0	0	1
17:05-17:10	0	1	0	0	0	0	0	2	0	0	0	0	3
17:10-17:15	0	1	0	0	0	0	0	1	0	0	0	0	2
17:15-17:20	0	1	0	0	0	0	0	2	0	0	0	0	3
17:20-17:25	0	2	0	0	0	0	0	1	0	0	0	0	3
17:25-17:30	0	2	0	0	0	0	0	3	0	0	0	0	5
17:30-17:35	0	1	0	0	0	0	0	2	0	0	0	0	3
17:35-17:40	0	2	0	0	0	0	0	1	0	0	0	0	3
17:40-17:45	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45-17:50	0	0	0	0	0	0	0	1	0	0	0	0	2
17:50-17:55	0	2	0	0	0	0	0	2	0	0	0	0	4
17:55-18:00	0	1	0	0	0	0	0	0	0	0	0	0	1
Peak Hour Total	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**0**	**0**	**0**	**44**
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	
Peds	0	0	0	0	0	0	0	0	0	0	0	0	
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	

PEAK HOUR: 16:00-17:00

KELLY ENGINEERING

APPENDIX B
LEVEL OF SERVICE COMPUTER PRINTOUTS

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DSK*	Intersection	*Aspen Ave. & site access*
Agency/Co.	*Kelly Engineering*	Jurisdiction	*City of La Center*
Date Performed	*7/21/2016*	Analysis Year	*2018*
Analysis Time Period	*AM Peak Hour*		

Project Description	*Year 2018 with Project*
East/West Street:	*site access*
North/South Street:	*Aspen Ave.*
Intersection Orientation:	*North-South*
Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*3*	*4*			*24*	*0*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*3*	*4*	*0*	*0*	*26*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*		*13*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*14*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (veh/h)	*3*						*14*	
C (m) (veh/h)	*1601*						*1056*	
v/c	*0.00*						*0.01*	
95% queue length	*0.01*						*0.04*	
Control Delay (s/veh)	*7.3*						*8.5*	
LOS	*A*						*A*	
Approach Delay (s/veh)	--	--					*8.5*	
Approach LOS	--	--					*A*	

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DSK*	Intersection	*Aspen Ave. & site access*
Agency/Co.	*Kelly Engineering*	Jurisdiction	*City of La Center*
Date Performed	*7/21/2016*	Analysis Year	*2018*
Analysis Time Period	*PM Peak Hour*		

Project Description	*Year 2018 with Project*
East/West Street:	*site access*
North/South Street:	*Aspen Ave.*
Intersection Orientation:	*North-South*
Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*12*	*29*			*17*	*0*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*13*	*32*	*0*	*0*	*18*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*		*7*			
Peak-Hour Factor, PHF	*0.90*	*1.00*	*0.90*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*7*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (veh/h)	*13*						*7*	
C (m) (veh/h)	*1612*						*1066*	
v/c	*0.01*						*0.01*	
95% queue length	*0.02*						*0.02*	
Control Delay (s/veh)	*7.3*						*8.4*	
LOS	*A*						*A*	
Approach Delay (s/veh)	--	--				*8.4*		
Approach LOS	--	--				*A*		

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*DSK*
Agency/Co.	*Kelly Engineering*
Date Performed	*7/21/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*10th St. & Aspen Ave.*
Jurisdiction	*City of La Center*
Analysis Year	*2016*

Project ID *Existing*

East/West Street: *10th St.* | North/South Street: *Aspen Ave.*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*6*	*5*	*8*	*42*	*16*	*0*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*8*	*14*	*7*	*0*	*61*	*19*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*LTR*		*LTR*		*LTR*		*LTR*	
PHF	*0.91*		*0.91*		*0.91*		*0.91*	
Flow Rate (veh/h)	*19*		*63*		*30*		*87*	
% Heavy Vehicles	*0*		*0*		*0*		*0*	
No. Lanes	*1*		*1*		*1*		*1*	
Geometry Group	*1*		*1*		*1*		*1*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
Prop. Left-Turns	*0.3*		*0.7*		*0.3*		*0.0*	
Prop. Right-Turns	*0.4*		*0.0*		*0.2*		*0.2*	
Prop. Heavy Vehicle	*0.0*		*0.0*		*0.0*		*0.0*	
hLT-adj	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*-0.2*		*0.1*		*-0.1*		*-0.1*	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value (s)	*3.20*		*3.20*		*3.20*		*3.20*	
x, initial	*0.02*		*0.06*		*0.03*		*0.08*	
hd, final value (s)	*4.03*		*4.31*		*4.08*		*3.98*	
x, final value	*0.02*		*0.08*		*0.03*		*0.10*	
Move-up time, m (s)	*2.0*		*2.0*		*2.0*		*2.0*	
Service Time, t_s (s)	*2.0*		*2.3*		*2.1*		*2.0*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*269*		*313*		*280*		*337*	
Delay (s/veh)	*7.11*		*7.67*		*7.23*		*7.40*	
LOS	*A*		*A*		*A*		*A*	
Approach: Delay (s/veh)	*7.11*		*7.67*		*7.23*		*7.40*	
LOS	*A*		*A*		*A*		*A*	
Intersection Delay (s/veh)	*7.43*							
Intersection LOS	*A*							

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Generated: 7/21/2016 4:02 PM

ALL-WAY STOP CONTROL ANALYSIS

General Information		Site Information	
Analyst	*DSK*	Intersection	*10th St. & Aspen Ave.*
Agency/Co.	*Kelly Engineering*	Jurisdiction	*City of La Center*
Date Performed	*7/21/2016*	Analysis Year	*2018*
Analysis Time Period	*AM Peak Hour*		

Project ID *Year 2018 w/o Project*

East/West Street: *10th St.* North/South Street: *Aspen Ave.*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*6*	*5*	*8*	*44*	*17*	*0*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*8*	*15*	*7*	*0*	*63*	*20*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*LTR*		*LTR*		*LTR*		*LTR*	
PHF	*0.91*		*0.91*		*0.91*		*0.91*	
Flow Rate (veh/h)	*19*		*66*		*31*		*90*	
% Heavy Vehicles	*0*		*0*		*0*		*0*	
No. Lanes	*1*		*1*		*1*		*1*	
Geometry Group	*1*		*1*		*1*		*1*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
Prop. Left-Turns	*0.3*		*0.7*		*0.3*		*0.0*	
Prop. Right-Turns	*0.4*		*0.0*		*0.2*		*0.2*	
Prop. Heavy Vehicle	*0.0*		*0.0*		*0.0*		*0.0*	
hLT-adj	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*-0.2*		*0.1*		*-0.1*		*-0.1*	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value (s)	*3.20*		*3.20*		*3.20*		*3.20*	
x, initial	*0.02*		*0.06*		*0.03*		*0.08*	
hd, final value (s)	*4.04*		*4.32*		*4.10*		*3.98*	
x, final value	*0.02*		*0.08*		*0.04*		*0.10*	
Move-up time, m (s)	*2.0*		*2.0*		*2.0*		*2.0*	
Service Time, t_s (s)	*2.0*		*2.3*		*2.1*		*2.0*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*269*		*316*		*281*		*340*	
Delay (s/veh)	*7.13*		*7.70*		*7.25*		*7.42*	
LOS	*A*		*A*		*A*		*A*	
Approach: Delay (s/veh)	*7.13*		*7.70*		*7.25*		*7.42*	
LOS	*A*		*A*		*A*		*A*	
Intersection Delay (s/veh)	*7.46*							
Intersection LOS	*A*							

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Generated: 7/21/2016 4:03 PM

ALL-WAY STOP CONTROL ANALYSIS

General Information		Site Information	
Analyst	*DSK*	Intersection	*10th St. & Aspen Ave.*
Agency/Co.	*Kelly Engineering*	Jurisdiction	*City of La Center*
Date Performed	*7/21/2016*	Analysis Year	*2018*
Analysis Time Period	*AM Peak Hour*		

Project ID *Year 2018 with Project*

East/West Street: *10th St.* | North/South Street: *Aspen Ave.*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*6*	*5*	*8*	*44*	*17*	*0*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*8*	*18*	*7*	*0*	*73*	*23*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*LTR*		*LTR*		*LTR*		*LTR*	
PHF	*0.91*		*0.91*		*0.91*		*0.91*	
Flow Rate (veh/h)	*19*		*66*		*34*		*105*	
% Heavy Vehicles	*0*		*0*		*0*		*0*	
No. Lanes	*1*		*1*		*1*		*1*	
Geometry Group	*1*		*1*		*1*		*1*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
Prop. Left-Turns	*0.3*		*0.7*		*0.2*		*0.0*	
Prop. Right-Turns	*0.4*		*0.0*		*0.2*		*0.2*	
Prop. Heavy Vehicle	*0.0*		*0.0*		*0.0*		*0.0*	
hLT-adj	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*-0.2*		*0.1*		*-0.1*		*-0.1*	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value (s)	*3.20*		*3.20*		*3.20*		*3.20*	
x, initial	*0.02*		*0.06*		*0.03*		*0.09*	
hd, final value (s)	*4.08*		*4.36*		*4.12*		*3.99*	
x, final value	*0.02*		*0.08*		*0.04*		*0.12*	
Move-up time, m (s)	*2.0*		*2.0*		*2.0*		*2.0*	
Service Time, t_s (s)	*2.1*		*2.4*		*2.1*		*2.0*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*269*		*316*		*284*		*355*	
Delay (s/veh)	*7.17*		*7.74*		*7.29*		*7.51*	
LOS	*A*		*A*		*A*		*A*	
Approach: Delay (s/veh)	*7.17*		*7.74*		*7.29*		*7.51*	
LOS	*A*		*A*		*A*		*A*	
Intersection Delay (s/veh)	*7.52*							
Intersection LOS	*A*							

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ALL-WAY STOP CONTROL ANALYSIS

General Information		Site Information	
Analyst	*DSK*	Intersection	*10th St. & Aspen Ave.*
Agency/Co.	*Kelly Engineering*	Jurisdiction	*City of La Center*
Date Performed	*7/21/2016*	Analysis Year	*2016*
Analysis Time Period	*PM Peak Hour*		

Project ID *Existing*

East/West Street: *10th St.* | North/South Street: *Aspen Ave.*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*20*	*20*	*15*	*14*	*6*	*0*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*18*	*86*	*57*	*5*	*32*	*14*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*LTR*		*LTR*		*LTR*		*LTR*	
PHF	*0.90*		*0.90*		*0.90*		*0.90*	
Flow Rate (veh/h)	*60*		*21*		*178*		*55*	
% Heavy Vehicles	*0*		*0*		*0*		*0*	
No. Lanes	*1*		*1*		*1*		*1*	
Geometry Group	*1*		*1*		*1*		*1*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
Prop. Left-Turns	*0.4*		*0.7*		*0.1*		*0.1*	
Prop. Right-Turns	*0.3*		*0.0*		*0.4*		*0.3*	
Prop. Heavy Vehicle	*0.0*		*0.0*		*0.0*		*0.0*	
hLT-adj	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*-0.1*		*0.1*		*-0.2*		*-0.1*	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value (s)	*3.20*		*3.20*		*3.20*		*3.20*	
x, initial	*0.05*		*0.02*		*0.16*		*0.05*	
hd, final value (s)	*4.33*		*4.60*		*3.95*		*4.11*	
x, final value	*0.07*		*0.03*		*0.20*		*0.06*	
Move-up time, m (s)	*2.0*		*2.0*		*2.0*		*2.0*	
Service Time, t_s (s)	*2.3*		*2.6*		*2.0*		*2.1*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*310*		*271*		*428*		*305*	
Delay (s/veh)	*7.67*		*7.73*		*7.91*		*7.39*	
LOS	*A*		*A*		*A*		*A*	
Approach: Delay (s/veh)	*7.67*		*7.73*		*7.91*		*7.39*	
LOS	*A*		*A*		*A*		*A*	
Intersection Delay (s/veh)	*7.76*							
Intersection LOS	*A*							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*DSK*
Agency/Co.	*Kelly Engineering*
Date Performed	*7/21/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*10th St. & Aspen Ave.*
Jurisdiction	*City of La Center*
Analysis Year	*2018*

Project ID *Year 2018 w/o Project*

East/West Street: *10th St.* | North/South Street: *Aspen Ave.*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	21	21	16	15	6	0
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	19	89	59	5	33	15
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.90		0.90		0.90		0.90	
Flow Rate (veh/h)	63		22		184		57	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
Prop. Left-Turns	0.4		0.7		0.1		0.1	
Prop. Right-Turns	0.3		0.0		0.4		0.3	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		0.1		-0.2		-0.2	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.06		0.02		0.16		0.05	
hd, final value (s)	4.35		4.63		3.97		4.13	
x, final value	0.08		0.03		0.20		0.07	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.3		2.6		2.0		2.1	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	313		272		434		307	
Delay (s/veh)	7.71		7.76		7.97		7.41	
LOS	A		A		A		A	
Approach: Delay (s/veh)	7.71		7.76		7.97		7.41	
LOS	A		A		A		A	
Intersection Delay (s/veh)	7.81							
Intersection LOS	A							

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	*DSK*
Agency/Co.	*Kelly Engineering*
Date Performed	*7/21/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*10th St. & Aspen Ave.*
Jurisdiction	*City of La Center*
Analysis Year	*2018*

Project ID *Year 2018 with Project*

East/West Street: *10th St.* | North/South Street: *Aspen Ave.*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*23*	*21*	*16*	*15*	*6*	*0*
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	*19*	*99*	*59*	*5*	*39*	*16*
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	*LTR*		*LTR*		*LTR*		*LTR*	
PHF	*0.90*		*0.90*		*0.90*		*0.90*	
Flow Rate (veh/h)	*65*		*22*		*196*		*65*	
% Heavy Vehicles	*0*		*0*		*0*		*0*	
No. Lanes	*1*		*1*		*1*		*1*	
Geometry Group	*1*		*1*		*1*		*1*	
Duration, T	*0.25*							

Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
Prop. Left-Turns	*0.4*		*0.7*		*0.1*		*0.1*	
Prop. Right-Turns	*0.3*		*0.0*		*0.3*		*0.3*	
Prop. Heavy Vehicle	*0.0*		*0.0*		*0.0*		*0.0*	
hLT-adj	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*
hRT-adj	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*	*-0.6*
hHV-adj	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*	*1.7*
hadj, computed	*-0.1*		*0.1*		*-0.2*		*-0.1*	

Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
hd, initial value (s)	*3.20*		*3.20*		*3.20*		*3.20*	
x, initial	*0.06*		*0.02*		*0.17*		*0.06*	
hd, final value (s)	*4.40*		*4.68*		*4.00*		*4.16*	
x, final value	*0.08*		*0.03*		*0.22*		*0.08*	
Move-up time, m (s)	*2.0*		*2.0*		*2.0*		*2.0*	
Service Time, t_s (s)	*2.4*		*2.7*		*2.0*		*2.2*	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	*315*		*272*		*446*		*315*	
Delay (s/veh)	*7.78*		*7.82*		*8.10*		*7.49*	
LOS	*A*		*A*		*A*		*A*	
Approach: Delay (s/veh)	*7.78*		*7.82*		*8.10*		*7.49*	
LOS	*A*		*A*		*A*		*A*	
Intersection Delay (s/veh)	*7.91*							
Intersection LOS	*A*							

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DSK*	Intersection	*4th St. & Aspen Ave.*
Agency/Co.	*Kelly Engineering*	Jurisdiction	*City of La Center*
Date Performed	*7/21/2016*	Analysis Year	*2016*
Analysis Time Period	*AM Peak Hour*		

Project Description *Existing*	
East/West Street: *4th St.*	North/South Street: *Aspen Ave.*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*18*	*88*			*259*	*20*
Peak-Hour Factor, PHF	*0.84*	*0.84*	*1.00*	*1.00*	*0.84*	*0.84*
Hourly Flow Rate, HFR (veh/h)	*21*	*104*	*0*	*0*	*308*	*23*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*0*	*1*	*0*
Configuration	*L*	*T*				*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*11*		*12*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.84*	*1.00*	*0.84*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*13*	*0*	*14*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*21*					*13*		*14*
C (m) (veh/h)	*1240*					*550*		*725*
v/c	*0.02*					*0.02*		*0.02*
95% queue length	*0.05*					*0.07*		*0.06*
Control Delay (s/veh)	*8.0*					*11.7*		*10.1*
LOS	*A*					*B*		*B*
Approach Delay (s/veh)	--	--				*10.9*		
Approach LOS	--	--				*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DSK*	Intersection	*4th St. & Aspen Ave.*
Agency/Co.	*Kelly Engineering*	Jurisdiction	*City of La Center*
Date Performed	*7/21/2016*	Analysis Year	*2018*
Analysis Time Period	*AM Peak Hour*		

Project Description	*Year 2018 w/o Project*
East/West Street:	*4th St.*
North/South Street:	*Aspen Ave.*
Intersection Orientation:	*East-West*
Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*19*	*92*			*269*	*21*
Peak-Hour Factor, PHF	*0.84*	*0.84*	*1.00*	*1.00*	*0.84*	*0.84*
Hourly Flow Rate, HFR (veh/h)	*22*	*109*	*0*	*0*	*320*	*25*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*0*	*1*	*0*
Configuration	*L*	*T*				*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*11*		*12*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.84*	*1.00*	*0.84*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*13*	*0*	*14*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*22*					*13*		*14*
C (m) (veh/h)	*1225*					*535*		*714*
v/c	*0.02*					*0.02*		*0.02*
95% queue length	*0.05*					*0.07*		*0.06*
Control Delay (s/veh)	*8.0*					*11.9*		*10.1*
LOS	*A*					*B*		*B*
Approach Delay (s/veh)	--	--				*11.0*		
Approach LOS	--	--				*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DSK*	Intersection	*4th St. & Aspen Ave.*
Agency/Co.	*Kelly Engineering*	Jurisdiction	*City of La Center*
Date Performed	*7/21/2016*	Analysis Year	*2018*
Analysis Time Period	*AM Peak Hour*		

Project Description	*Year 2018 with Project*
East/West Street: *4th St.*	North/South Street: *Aspen Ave.*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*21*	*92*			*269*	*21*
Peak-Hour Factor, PHF	*0.84*	*0.84*	*1.00*	*1.00*	*0.84*	*0.84*
Hourly Flow Rate, HFR (veh/h)	*25*	*109*	*0*	*0*	*320*	*25*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*0*	*1*	*0*
Configuration	*L*	*T*				*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*11*		*12*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.84*	*1.00*	*0.84*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*13*	*0*	*14*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*25*					*13*		*14*
C (m) (veh/h)	*1225*					*529*		*714*
v/c	*0.02*					*0.02*		*0.02*
95% queue length	*0.06*					*0.08*		*0.06*
Control Delay (s/veh)	*8.0*					*12.0*		*10.1*
LOS	*A*					*B*		*B*
Approach Delay (s/veh)	--	--				*11.0*		
Approach LOS	--	--				*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DSK*	Intersection	*4th St. & Aspen Ave.*
Agency/Co.	*Kelly Engineering*	Jurisdiction	*City of La Center*
Date Performed	*7/21/2016*	Analysis Year	*2016*
Analysis Time Period	*PM Peak Hour*		

Project Description *Existing*	
East/West Street: *4th St.*	North/South Street: *Aspen Ave.*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*132*	*346*			*187*	*21*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*146*	*384*	*0*	*0*	*207*	*23*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*0*	*1*	*0*
Configuration	*L*	*T*				*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*18*		*26*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*20*	*0*	*28*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*146*					*20*		*28*
C (m) (veh/h)	*1350*					*280*		*827*
v/c	*0.11*					*0.07*		*0.03*
95% queue length	*0.36*					*0.23*		*0.11*
Control Delay (s/veh)	*8.0*					*18.8*		*9.5*
LOS	*A*					*C*		*A*
Approach Delay (s/veh)	--	--				*13.4*		
Approach LOS	--	--				*B*		

HCS+™ Version 5.6

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DSK*	Intersection	*4th St. & Aspen Ave.*
Agency/Co.	*Kelly Engineering*	Jurisdiction	*City of La Center*
Date Performed	*7/21/2016*	Analysis Year	*2018*
Analysis Time Period	*PM Peak Hour*		

Project Description	*Year 2018 w/o Project*
East/West Street:	*4th St.*
North/South Street:	*Aspen Ave.*
Intersection Orientation:	*East-West*
Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*137*	*360*			*194*	*22*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*152*	*400*	*0*	*0*	*215*	*24*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*0*	*1*	*0*
Configuration	*L*	*T*				*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*19*		*27*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*21*	*0*	*30*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*152*					*21*		*30*
C (m) (veh/h)	*1340*					*265*		*817*
v/c	*0.11*					*0.08*		*0.04*
95% queue length	*0.38*					*0.26*		*0.11*
Control Delay (s/veh)	*8.0*					*19.8*		*9.6*
LOS	*A*					*C*		*A*
Approach Delay (s/veh)	--	--				*13.8*		
Approach LOS	--	--				*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DSK*	Intersection	*4th St. & Aspen Ave.*
Agency/Co.	*Kelly Engineering*	Jurisdiction	*City of La Center*
Date Performed	*7/21/2016*	Analysis Year	*2018*
Analysis Time Period	*PM Peak Hour*		
Project Description	*Year 2018 with Project*		
East/West Street:	*4th St.*	North/South Street:	*Aspen Ave.*
Intersection Orientation:	*East-West*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*144*	*360*			*194*	*23*
Peak-Hour Factor, PHF	*0.90*	*0.90*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*160*	*400*	*0*	*0*	*215*	*25*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*0*	*1*	*0*
Configuration	*L*	*T*				*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*19*		*27*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*21*	*0*	*30*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*					*L*		*R*
v (veh/h)	*160*					*21*		*30*
C (m) (veh/h)	*1339*					*257*		*816*
v/c	*0.12*					*0.08*		*0.04*
95% queue length	*0.41*					*0.26*		*0.11*
Control Delay (s/veh)	*8.1*					*20.3*		*9.6*
LOS	*A*					*C*		*A*
Approach Delay (s/veh)	--	--				*14.0*		
Approach LOS	--	--				*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DSK*	Intersection	*Pacific Hwy. & 4th St.*
Agency/Co.	*Kelly Engineering*	Jurisdiction	*City of La Center*
Date Performed	*7/21/2016*	Analysis Year	*2016*
Analysis Time Period	*AM Peak Hour*		

Project Description *Existing*	
East/West Street: *4th St.*	North/South Street: *Pacific Ave.*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*3*	*73*	*94*	*15*	*222*	*4*
Peak-Hour Factor, PHF	*0.84*	*0.84*	*0.84*	*0.84*	*0.84*	*0.84*
Hourly Flow Rate, HFR (veh/h)	*3*	*86*	*111*	*17*	*264*	*4*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*1*	*1*	*0*
Configuration	*LT*		*R*	*L*		*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)			*2*	*280*		*11*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*0.84*	*0.84*	*1.00*	*0.84*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*2*	*333*	*0*	*13*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*1*	*1*	*0*	*1*
Configuration			*R*	*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*L*	*L*		*R*			*R*
v (veh/h)	*3*	*17*	*333*		*13*			*2*
C (m) (veh/h)	*1307*	*1388*	*562*		*978*			*778*
v/c	*0.00*	*0.01*	*0.59*		*0.01*			*0.00*
95% queue length	*0.01*	*0.04*	*3.85*		*0.04*			*0.01*
Control Delay (s/veh)	*7.8*	*7.6*	*20.3*		*8.7*			*9.6*
LOS	*A*	*A*	*C*		*A*			*A*
Approach Delay (s/veh)	--	--	*19.9*			*9.6*		
Approach LOS	--	--	*C*			*A*		

ROUNDABOUT REPORT

General Information		Site Information	
Analyst	DSK	Intersection	Pacific Hwy. & 4th St.
Agency or Co.	Kelly Engineering	E/W Street Name	4th St.
Date Performed	7/21/2016	N/S Street Name	Pacific Hwy.
Time Period	AM Peak Hour	Analysis Year	2018
Peak Hour Factor	0.92	Project ID	Year 2018 w/o Project

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	0	0		0	0	0		0	1	0		0	1	0	
Lane Assignment							LR				TR				LT	
Right-Turn Bypass	None				None				Non-Yielding				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h				0	291		11	0		76	98	0	15	231		0
Heavy Veh. Adj. (f_{HV}), %	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pedestrians Crossing	1				1				3				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929
Follow-Up Headway (sec)	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	589			83			16			319		
Exiting Flow (V_{ex}), pc/h	16			0			96			573		
Entry Flow (V_e), pc/h					332			83	108		270	
Entry Volume veh/h					329			82	107		267	

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		0			1040			1112			821	
Capacity (c), veh/h		0			1029			1100			813	
v/c Ratio (X)					0.32			0.07			0.33	

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh					6.7			3.9	0.0		8.2	
Lane LOS		F			A			A			A	
Lane 95% Queue					1.4			0.2			1.4	
Approach Delay, s/veh				6.73			1.70			8.23		
Approach LOS, s/veh				A			A			A		
Intersection Delay, s/veh	6.03											
Intersection LOS	A											

ROUNDABOUT REPORT

General Information		Site Information	
Analyst	DSK	Intersection	Pacific Hwy. & 4th St.
Agency or Co.	Kelly Engineering	E/W Street Name	4th St.
Date Performed	7/21/2016	N/S Street Name	Pacific Hwy.
Time Period	AM Peak Hour	Analysis Year	2018
Peak Hour Factor	0.92	Project ID	Year 2018 with Project

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	0	0		0	0	0		0	1	0		0	1	0	
Lane Assignment							LR				TR				LT	
Right-Turn Bypass	None				None				Non-Yielding				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h				0	291		11	0		77	100	0	15	244		0
Heavy Veh. Adj. (f_{HV}), %	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pedestrians Crossing	1				1				3				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929
Follow-Up Headway (sec)	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	603			85			16			319		
Exiting Flow (V_{ex}), pc/h	16			0			97			587		
Entry Flow (V_e), pc/h					332			85	110		284	
Entry Volume veh/h					329			84	109		281	

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		0			1038			1112			821	
Capacity (c), veh/h		0			1028			1100			813	
v/c Ratio (X)					0.32			0.08			0.35	

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh					6.7			3.9	0.0		8.5	
Lane LOS		F			A			A			A	
Lane 95% Queue					1.4			0.2			1.6	
Approach Delay, s/veh				6.74			1.71			8.48		
Approach LOS, s/veh				A			A			A		
Intersection Delay, s/veh	6.14											
Intersection LOS	A											

 HCS 2010™ 6.50 Roundabouts Generated: 7/21/2016 5:10 PM

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DSK*	Intersection	*Pacific Hwy. & 4th St.*
Agency/Co.	*Kelly Engineering*	Jurisdiction	*City of La Center*
Date Performed	*7/21/2016*	Analysis Year	*2016*
Analysis Time Period	*PM Peak Hour*		

Project Description *Existing*	
East/West Street: *4th St.*	North/South Street: *Pacific Ave.*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*1*	*177*	*451*	*38*	*106*	*5*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*1*	*186*	*474*	*40*	*111*	*5*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*1*	*1*	*0*
Configuration	*LT*		*R*	*L*		*TR*
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)			*7*	*158*		*22*
Peak-Hour Factor, PHF	*1.00*	*1.00*	*0.95*	*0.95*	*1.00*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*7*	*166*	*0*	*23*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*1*	*1*	*0*	*1*
Configuration			*R*	*L*		*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*	*L*	*L*		*R*			*R*
v (veh/h)	*1*	*40*	*166*		*23*			*7*
C (m) (veh/h)	*1485*	*938*	*554*		*861*			*944*
v/c	*0.00*	*0.04*	*0.30*		*0.03*			*0.01*
95% queue length	*0.00*	*0.13*	*1.25*		*0.08*			*0.02*
Control Delay (s/veh)	*7.4*	*9.0*	*14.3*		*9.3*			*8.8*
LOS	*A*	*A*	*B*		*A*			*A*
Approach Delay (s/veh)	--	--	*13.7*			*8.8*		
Approach LOS	--	--	*B*			*A*		

ROUNDABOUT REPORT

General Information		Site Information	
Analyst	DSK	Intersection	Pacific Hwy. & 4th St.
Agency or Co.	Kelly Engineering	E/W Street Name	4th St.
Date Performed	7/21/2016	N/S Street Name	Pacific Hwy.
Time Period	PM Peak Hour	Analysis Year	2018
Peak Hour Factor	0.92	Project ID	Year 2018 w/o Project

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	0	0		0	0	0		0	1	0		0	1	0	
Lane Assignment							LR				TR				LT	
Right-Turn Bypass	None				None				Non-Yielding				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h				0	162		23	0		184	469	0	40	110		0
Heavy Veh. Adj. (f_{HV}), %	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pedestrians Crossing	1				1				3				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929
Follow-Up Headway (sec)	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	343			202			44			178		
Exiting Flow (V_{ex}), pc/h	44			0			227			299		
Entry Flow (V_e), pc/h					203			202	515		165	
Entry Volume veh/h					201			200	510		163	

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		0			923			1081			946	
Capacity (c), veh/h		0			914			1070			937	
v/c Ratio (X)					0.22			0.19			0.17	

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh					6.1			5.1	0.0		5.5	
Lane LOS		F			A			A			A	
Lane 95% Queue					0.8			0.7			0.6	
Approach Delay, s/veh				6.15			1.43			5.52		
Approach LOS, s/veh				A			A			A		
Intersection Delay, s/veh	2.93											
Intersection LOS	A											

ROUNDABOUT REPORT

General Information		Site Information	
Analyst	DSK	Intersection	Pacific Hwy. & 4th St.
Agency or Co.	Kelly Engineering	E/W Street Name	4th St.
Date Performed	7/21/2016	N/S Street Name	Pacific Hwy.
Time Period	PM Peak Hour	Analysis Year	2018
Peak Hour Factor	0.92	Project ID	Year 2018 with Project

Project Description:

Volume Adjustment and Site Characteristics

	EB				WB				NB				SB			
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U
Number of Lanes (N)	0	0	0		0	0	0		0	1	0		0	1	0	
Lane Assignment							LR				TR				LT	
Right-Turn Bypass	None				None				Non-Yielding				None			
Conflicting Lanes	1				1				1				1			
Volume (V), veh/h				0	162		23	0		188	476	0	40	117		0
Heavy Veh. Adj. (f_{HV}), %	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pedestrians Crossing	1				1				3				0			

Critical and Follow-Up Headway Adjustment

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (sec)	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929	5.1929
Follow-Up Headway (sec)	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858	3.1858

Flow Computations

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Circulating Flow (V_c), pc/h	350			206			44			178		
Exiting Flow (V_{ex}), pc/h	44			0			232			306		
Entry Flow (V_e), pc/h					203			206	523		172	
Entry Volume veh/h					201			204	518		170	

Capacity and v/c Ratios

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Capacity (c_{PCE}), pc/h		0			919			1081			946	
Capacity (c), veh/h		0			910			1070			937	
v/c Ratio (X)					0.22			0.19			0.18	

Delay and Level of Service

	EB			WB			NB			SB		
	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh					6.2			5.1	0.0		5.6	
Lane LOS		F			A			A			A	
Lane 95% Queue					0.8			0.7			0.7	
Approach Delay, s/veh				6.18			1.44			5.60		
Approach LOS, s/veh				A			A			A		
Intersection Delay, s/veh	2.96											
Intersection LOS	A											

APPENDIX C
COLLISION DATA

Washington State Department of Transportation

Transportation Data and GIS Office
7345 Linderson Way Sw, Fl 1
Tumwater, WA 98501

360-570-2464 / Fax 360-570-2449
TTY: 1-800-833-6388
www.wsdot.wa.gov

July 22, 2016

David Kelly
Kelly Engineering
316 E Fourth Plain A-4
Vancouver WA 98663

Dear Mr. Kelly:

In accordance with the Public Records Act, RCW 42.56, this letter acknowledges receipt of your request for records dated July 13, 2016 (Request Number PDR-16-2179).

We have prepared a history of officer reported crashes that occurred *at* or *in the vicinity of* the following intersections and road segment in the City of La Center for the period of 1/1/2011 – *available 2016*.

- Aspen Ave @ 4th St
- Aspen Ave @ 10th St / Southview Heights Dr – *No Reported Crashes*
- Pacific Hwy / La Center Rd @ 4th St
- Aspen Ave / N Fork Ave from 18th St to 400 feet north of the intersection of 18th St & Aspen Ave

Federal law 23 United States Code Section 409 governs use of the data you requested. Under this law, data maintained for purposes of evaluating potential highway safety enhancements:

"*. . . shall not be 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.*" [Emphasis added.]

The Washington State Department of Transportation (WSDOT) is releasing this data to you with the understanding that you will not use this data contrary to the restrictions in Section 409, which means you will not use this data in discovery or as evidence at trial in any action for damages against the WSDOT, the State of Washington, or any other jurisdiction involved in the locations mentioned in the data. If you should attempt to use this data in an action for damages against WSDOT, the State of Washington, or any other jurisdiction involved in the locations mentioned in the data, these entities expressly reserve the right, under Section 409, to object to the use of the data, including any opinions drawn from the data.

With this package, your request for records is complete and closed.

If you have any further questions you may contact me at 360-570-2464.

Sincerely,

Julie Brown

Julie Brown
Transportation Planning Technician 3
Transportation Data and GIS Office

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of* THE FOLLOWING INTERSECTIONS & ROAD SEGMENT IN THE CITY OF LA CENTER

ASPEN AVE @ 4th ST

ASPEN AVE @ 10th ST / SOUTHVIEW HEIGHTS DR - *No Reported Crashes*

PACIFIC HWY / LA CENTER RD @ 4th ST

ASPEN AVE / N FORK AVE FROM 18th ST TO 400 FEET NORTH OF THE INTERSECTION OF 18th ST & ASPEN AVE - *No Reported Crashes*

1/1/2011 - *available 2016*

UNDER 23 UNITED STATES CODE – SECTION 409, THIS DATA CANNOT BE USED IN DISCOVERY OR AS EVIDENCE AT TRIAL IN ANY ACTION FOR DAMAGES AGAINST THE WSDOT, OR ANY JURISDICTIONS INVOLVED IN THE DATA

JURISDICTION	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILE POST	A / B	REPORT NUMBER	DATE	TIME
City Street	ASPEN AVE	300	W 4TH ST							E379622	11/29/2014	22:50
City Street	E 4TH ST	100		109	F	E	ASPEN AVE			2427349	8/18/2011	18:19
City Street	NW LACENTER RD		NW PACIFIC HWY							E182173	7/16/2012	16:57
City Street	NW PACIFIC HWY	400	W 4TH ST							E358151	9/12/2014	7:45
City Street	NW PACIFIC HWY	400	W 4TH ST							E367326	10/18/2014	20:00
City Street	NW PACIFIC HWY	400	W 4TH ST							E402273	2/20/2015	19:44
City Street	NW PACIFIC HWY	400	W 4TH ST							E457917	9/2/2015	6:50
City Street	NW PACIFIC HWY	400	W 4TH ST							E525948	3/17/2016	15:45
City Street	W 4TH ST	200	ASPEN AVE							E390572	12/20/2014	11:30
City Street	W 4TH ST	200	NW PACIFIC HWY							2427295	7/18/2012	7:25
City Street	W 4TH ST	200	NW PACIFIC HWY							E230384	3/1/2013	8:02
City Street	W 4TH ST	300	NW PACIFIC HWY							E464806	9/25/2015	8:10
City Street	W 4TH ST	300		100	F	W	NW PACIFIC HWY			E202632	10/16/2012	12:11

MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# PEDAL	VEHICLE 1 TYPE	VEHICLE 2 TYPE
Serious Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	
No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car
Evident Injury	1	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb
No Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb
Possible Injury	1	0	2	0	0	Passenger Car	Passenger Car
Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb
Evident Injury	2	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb
No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car
No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car
No Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb
Possible Injury	2	0	2	0	0	Passenger Car	Passenger Car
No Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car
No Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb

JUNCTION RELATIONSHIP	ROADWAY SURFACE CONDITIONS	LIGHTING CONDITIONS	FIRST COLLISION TYPE / OBJECT STRUCK
At Intersection and Not Related	Dry	Dark-Street Lights On	Building
Not at Intersection and Not Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end
Not at Intersection and Not Related	Dry	Daylight	From opposite direction - both going straight - sideswipe
At Intersection and Related	Dry	Daylight	Entering at angle
At Intersection and Related	Dry	Dark-Street Lights On	Entering at angle
At Intersection and Related	Dry	Dark-Street Lights On	From opposite direction - one left turn - one straight
At Intersection and Related	Wet	Daylight	Entering at angle
At Intersection and Related	Dry	Daylight	Entering at angle
At Intersection and Not Related	Wet	Daylight	From same direction - both going straight - one stopped - rear-end
At Intersection and Related	Dry	Daylight	From same direction - both going straight - one stopped - rear-end
At Intersection and Related	Wet	Daylight	Entering at angle
At Intersection and Related	Wet	Daylight	Entering at angle
Not at Intersection and Not Related	Wet	Daylight	One car leaving parked position

VEH 1 ACTION	VEH 2 ACTION	MV DRIVER CONT CIRC 1 (UNIT 1)	MV DRIVER CONT CIRC 1 (UNIT 2)
Going Straight Ahead		Under Influence of Alcohol	
Going Straight Ahead	Stopped for Traffic	Follow Too Closely	None
Going Straight Ahead	Going Straight Ahead	Driver Adjusting Audio or Entertainment System	None
Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	Driver Not Distracted
Stopped at Signal or Stop Sign	Making Right Turn	None	Under Influence of Alcohol
Going Straight Ahead	Making Left Turn	None	Did Not Grant RW to Vehicle
Going Straight Ahead	Making Left Turn	None	Did Not Grant RW to Vehicle
Making Left Turn	Going Straight Ahead	Improper Turn	None
Stopped for Traffic	Going Straight Ahead	None	Inattention
Stopped at Signal or Stop Sign	Going Straight Ahead	None	Inattention
Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None
Making Left Turn	Going Straight Ahead	Did Not Grant RW to Vehicle	None
Backing	Going Straight Ahead	Did Not Grant RW to Vehicle	None

VEH 1 COMP DIR FROM	VEH 1 COMP DIR TO	VEH 2 COMP DIR FROM	VEH 2 COMP DIR TO	IMPACT LOCATION (Effective for City, County & Misc 1/1/2010; SR's indefinite)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
North	South			Past the Outside Shoulder of Primary Trafficway	1,087,277.58	200,515.89
East	West	East	Vehicle Stopped	Lane of Primary Trafficway	1,087,384.57	200,534.13
South	North	North	South	Lane of Primary Trafficway	1,087,108.63	199,600.90
East	South	South	North	Lane of Primary Trafficway	1,086,930.86	200,420.01
Vehicle Stopped	Vehicle Stopped	South	East	Intersecting Trafficway	1,086,930.86	200,420.01
North	South	South	West	Lane of Primary Trafficway	1,086,930.86	200,420.01
South	North	East	South	Lane of Primary Trafficway	1,086,930.87	200,420.01
East	South	South	North	Lane of Primary Trafficway	1,086,930.87	200,420.01
Vehicle Stopped	Vehicle Stopped	East	West	Lane of Primary Trafficway	1,087,277.58	200,515.89
East	Vehicle Stopped	East	West	Lane of Primary Trafficway	1,086,930.85	200,420.01
East	South	South	North	Lane of Primary Trafficway	1,086,930.85	200,420.01
East	South	South	North	Intersecting Trafficway	1,086,930.87	200,420.01
Northeast	Vehicle Backing	North	South	Lane of Primary Trafficway	1,086,832.88	200,401.71

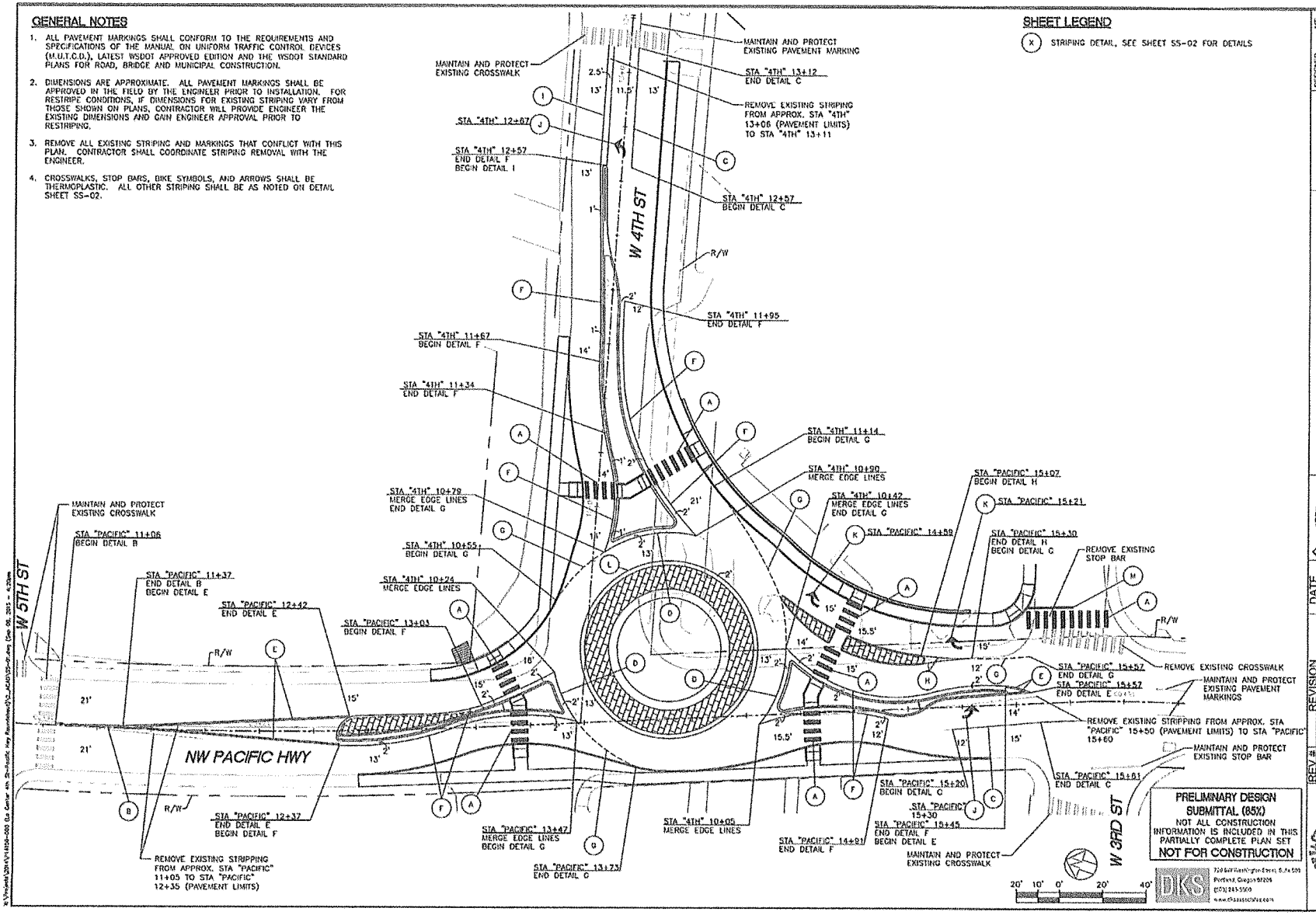
APPENDIX D
FUTURE ROUNDABOUT

GENERAL NOTES

1. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), LATEST WSDOT APPROVED EDITION AND THE WSDOT STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.
2. DIMENSIONS ARE APPROXIMATE. ALL PAVEMENT MARKINGS SHALL BE APPROVED IN THE FIELD BY THE ENGINEER PRIOR TO INSTALLATION. FOR RESTRIPE CONDITIONS, IF DIMENSIONS FOR EXISTING STRIPING VARY FROM THOSE SHOWN ON PLANS, CONTRACTOR WILL PROVIDE ENGINEER THE EXISTING DIMENSIONS AND GAIN ENGINEER APPROVAL PRIOR TO RESTRIPING.
3. REMOVE ALL EXISTING STRIPING AND MARKINGS THAT CONFLICT WITH THIS PLAN. CONTRACTOR SHALL COORDINATE STRIPING REMOVAL WITH THE ENGINEER.
4. CROSSWALKS, STOP BARS, BIKE SYMBOLS, AND ARROWS SHALL BE THERMOPLASTIC. ALL OTHER STRIPING SHALL BE AS NOTED ON DETAIL SHEET SS-02.

SHEET LEGEND

(X) STRIPING DETAIL, SEE SHEET SS-02 FOR DETAILS



PRELIMINARY DESIGN SUBMITTAL (85%)
NOT ALL CONSTRUCTION INFORMATION IS INCLUDED IN THIS PARTIALLY COMPLETE PLAN SET
NOT FOR CONSTRUCTION

DKS
720 SW Washington Street, Suite 500
Portland, Oregon 97205
(503) 243-3500
www.dksassociates.com

DESIGNED MTL
DRAWN PDH
CITY PROJECT #
HDR
CHK'D
DATE AUGUST 2015
DWG SS-01
SHEET OF X

CALL 48 HOURS BEFORE YOU DIG 1-800-424-5555

NW PACIFIC HWY & E 4TH ST. ROUNDABOUT PROJECT

STRIPING PLAN

REV #	REVISION	DATE

CITY OF LA CENTER

APPENDIX E
REFERENCES

References

1. Trip Generation Manual, 9th Edition, 2012, Institute of Transportation Engineers.

2. Highway Capacity Manual, 2000 and 2010, Transportation Research Board, National Research Council.

3. Discussions with staff from the City of La Center.

4. Sunrise Terrace Traffic Impact Study, Lancaster Engineering, 321 SW 4th Ave., Suite 400, Portland, OR 97204.

LA CENTER School District
725 Highland Road/PO Box 1840
La Center, WA 98629

Samuel Moss
SGA Engineering
360-993-0911
smoss@sgaengineering.com

November 1, 2016

Dear Mr. Moss,

I received your request on October 31, 2016 regarding enrollment, capacity and busing information for La Center School District. Our district offers busing for all of our students through a co-op with KWRL. Their operating office is located in Woodland, WA.

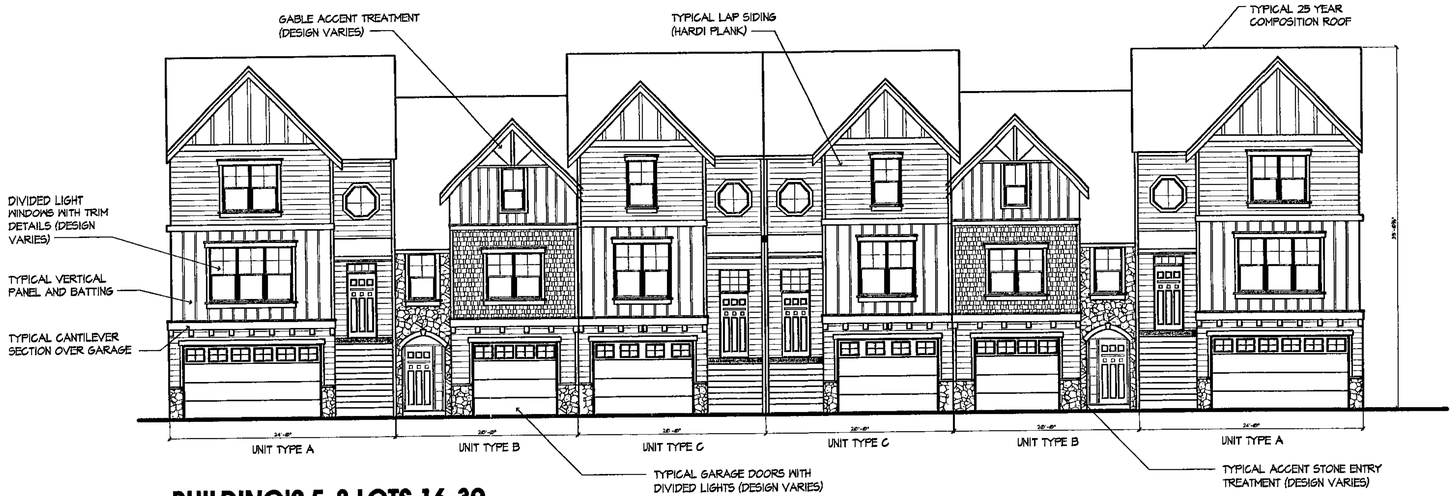
Our school district has three schools, an elementary, middle and high school. All three schools are over capacity.

Our current enrollment numbers are:
Elementary School-736
Middle School-387
High School-564

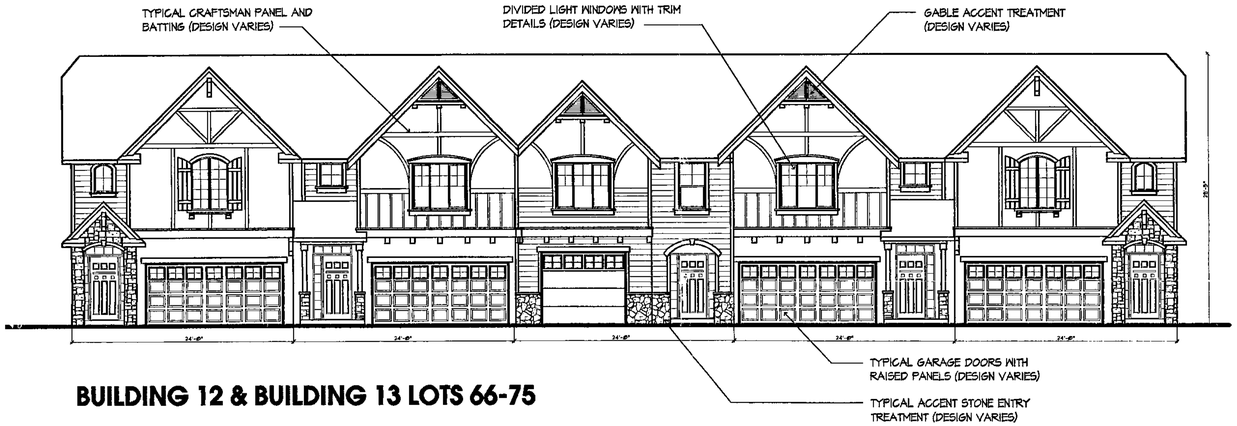
If you have any questions or need any other information, please feel free to contact me at 360-263-2131.

Thank you,

Dave Holmes
Superintendent
La Center School District



BUILDING'S 5-8 LOTS 16-39



BUILDING 12 & BUILDING 13 LOTS 66-75

BUILDING 14 LOTS 61-65


1935