



AGENDA

MILWAUKIE PLANNING COMMISSION Tuesday, November 22, 2016, 6:30 PM

**MILWAUKIE CITY HALL
10722 SE MAIN STREET**

- 1.0 Call to Order - Procedural Matters**
- 2.0 Planning Commission Minutes** – No Minutes for review
- 3.0 Information Items**
- 4.0 Audience Participation** – This is an opportunity for the public to comment on any item not on the agenda
- 5.0 Public Hearings** – No public hearings scheduled
 - 5.1 Summary: Bridge City Church professional use offices
Applicant/Owner: Bridge City Community Church
Address: 2816 SE Harrison St.
File: CU-2016-004
Staff: Mary Heberling
 - 5.2 Summary: King Rd. Subdivision
Applicant/Owner: Mission Homes NW, LLC
Address: 5126 SE King Rd.
File: S-2016-001
Staff: Vera Kolas
 - 5.3 Summary: Harmony Road Mini Storage
Applicant/Owner: Han Thygeson
Address: 5945 & 5965 SE Harmony Rd.
File: CU-2016-001
Staff: Brett Kelter
- 6.0 Worksession Items**
- 7.0 Planning Department Other Business/Updates**
- 8.0 Planning Commission Committee Updates and Discussion Items** – This is an opportunity for comment or discussion for items not on the agenda.
- 9.0 Forecast for Future Meetings:**
 - December 13, 2016 1. Housekeeping Code Amendments

Milwaukie Planning Commission Statement

The Planning Commission serves as an advisory body to, and a resource for, the City Council in land use matters. In this capacity, the mission of the Planning Commission is to articulate the Community's values and commitment to socially and environmentally responsible uses of its resources as reflected in the Comprehensive Plan

1. **PROCEDURAL MATTERS.** If you wish to speak at this meeting, please fill out a yellow card and give to planning staff. Please turn off all personal communication devices during meeting. For background information on agenda items, call the Planning Department at 503-786-7600 or email planning@milwaukieoregon.gov. Thank You.
2. **PLANNING COMMISSION MINUTES.** Approved PC Minutes can be found on the City website at www.milwaukieoregon.gov
3. **CITY COUNCIL MINUTES** City Council Minutes can be found on the City website at www.milwaukieoregon.gov.
4. **FORECAST FOR FUTURE MEETING.** These items are tentatively scheduled, but may be rescheduled prior to the meeting date. Please contact staff with any questions you may have.
5. **TIME LIMIT POLICY.** The Commission intends to end each meeting by 10:00pm. The Planning Commission will pause discussion of agenda items at 9:45pm to discuss whether to continue the agenda item to a future date or finish the agenda item.

Public Hearing Procedure

Those who wish to testify should come to the front podium, state his or her name and address for the record, and remain at the podium until the Chairperson has asked if there are any questions from the Commissioners.

1. **STAFF REPORT.** Each hearing starts with a brief review of the staff report by staff. The report lists the criteria for the land use action being considered, as well as a recommended decision with reasons for that recommendation.
2. **CORRESPONDENCE.** Staff will report any verbal or written correspondence that has been received since the Commission was presented with its meeting packet.
3. **APPLICANT'S PRESENTATION.**
4. **PUBLIC TESTIMONY IN SUPPORT.** Testimony from those in favor of the application.
5. **NEUTRAL PUBLIC TESTIMONY.** Comments or questions from interested persons who are neither in favor of nor opposed to the application.
6. **PUBLIC TESTIMONY IN OPPOSITION.** Testimony from those in opposition to the application.
7. **QUESTIONS FROM COMMISSIONERS.** The commission will have the opportunity to ask for clarification from staff, the applicant, or those who have already testified.
8. **REBUTTAL TESTIMONY FROM APPLICANT.** After all public testimony, the commission will take rebuttal testimony from the applicant.
9. **CLOSING OF PUBLIC HEARING.** The Chairperson will close the public portion of the hearing. The Commission will then enter into deliberation. From this point in the hearing the Commission will not receive any additional testimony from the audience, but may ask questions of anyone who has testified.
10. **COMMISSION DISCUSSION AND ACTION.** It is the Commission's intention to make a decision this evening on each issue on the agenda. Planning Commission decisions may be appealed to the City Council. If you wish to appeal a decision, please contact the Planning Department for information on the procedures and fees involved.
11. **MEETING CONTINUANCE.** Prior to the close of the first public hearing, *any person* may request an opportunity to present additional information at another time. If there is such a request, the Planning Commission will either continue the public hearing to a date certain, or leave the record open for at least seven days for additional written evidence, argument, or testimony. The Planning Commission may ask the applicant to consider granting an extension of the 120-day time period for making a decision if a delay in making a decision could impact the ability of the City to take final action on the application, including resolution of all local appeals.

The City of Milwaukie will make reasonable accommodation for people with disabilities. Please notify us no less than five (5) business days prior to the meeting.

Milwaukie Planning Commission:

Shane Abma, Chair
Scott Barbur, Vice Chair
Shannah Anderson
Adam Argo
Greg Hemer
Vacant
Vacant

Planning Department Staff:

Denny Egner, Planning Director
David Levitan, Senior Planner
Brett Kelter, Associate Planner
Vera Kolias, Associate Planner
Mary Heberling, Assistant Planner
Alicia Martin, Administrative Specialist II
Avery Pickard, Administrative Specialist II



MILWAUKIE

Dogwood City of the West

To: Planning Commission

Through: Dennis Egner, Planning Director

From: Mary Heberling, Assistant Planner

Date: November 2, 2016, for November 22, 2016, Public Hearing

Subject: **File:** CU-2016-004
Applicant: Marc Schelske, Bridge City Community Church
Address: 2816 SE Harrison St.
Legal Description (Map & Tax Lot): 11E36BA03000
NDA: Historic Milwaukie

ACTION REQUESTED

Approve application CU-2016-004 and adopt the recommended Findings and Conditions of Approval found in Attachments 1 and 2. This action would allow for the conversion of three pastoral offices into professional office space at the Bridge City Church.

BACKGROUND INFORMATION

A. Site and Vicinity

The site is located at 2816 SE Harrison St. The site contains a church with pastoral office space, a day care, and an after-school youth program. They also have a small parking lot in the back of the building.

The surrounding area consists of single family homes (to the south of the property), an office building (to the west of the building), a funeral home (to the east of the building) and apartment buildings (to the northwest of the building). There is an existing TriMet bus stop on the neighborhood corner as well.

B. Zoning Designation

Medium and High Density Residential Zones: R-2

C. Comprehensive Plan Designation

High Density (HD)

D. Land Use History

- **1/28/2009:** CSU-08-04 Minor Modification of a Community Service Use, Approved with Conditions for a sign.
- **9/10/2002:** CSO-02-06 Minor Modification Community Service Overlay, Approved for an after-school youth program.
- **06/09/1992:** CSO-91-03 Community Service Overlay, Approved for a day care facility.

E. Proposal

The applicant is seeking land use approvals for the conversion of three pastoral offices into professional office spaces available to rent out. The proposal includes the following:

The applicant's narrative and supporting documentation is included a in the report as Attachment 3 (distributed to the Planning Commission in advance of the hearing).

KEY ISSUES**Analysis**

Staff has identified the following key issues for the Planning Commission's deliberation. Aspects of the proposal not listed below are addressed in the Findings (see Attachment 1) and generally require less analysis and discretion by the Commission.

A. Will the conversion of the pastoral offices to professional offices impact traffic in the surrounding area?

The applicant states that three years ago they had 3 full time staff and 3 part time staff, 4 of whom came into the office daily. Currently, there is only 1 staff person who comes into the office 2 days during the week. With approval of this application for professional office spaces, the number of persons in the building on a daily basis would only increase by 3. The applicant states that the professionals interested in renting space in their building largely work on the phone and the computer. They do not have customers who would come to visit the office. The traffic that would be generated from the rental of these office spaces would be no more than the traffic impacts generated when the church staff occupied the offices.

CONCLUSIONS

A. Staff recommendation to the Planning Commission is as follows:

1. Approve the Conditional Use application for Bridge City Community. This will result in the ability for the applicant to rent out three offices for professional use during normal business days and hours.
2. Adopt the attached Findings and Approval.

CODE AUTHORITY AND DECISION-MAKING PROCESS

The proposal is subject to the following provisions of the Milwaukie Municipal Code (MMC).

- MMC 19.1006 – Type III Review
- MMC 19.302 – Medium and High Density Residential Zones
- MMC 19.905 – Conditional Uses

This application is subject to Type III review, which requires the Planning Commission to consider whether the applicant has demonstrated compliance with the code sections shown above. In Type III reviews, the Commission assesses the application against review criteria and development standards and evaluates testimony and evidence received at the public hearing.

The Commission has 3 decision-making options as follows:

- A. Approve the application upon finding that all approval criteria have been met.
- B. Deny the application upon finding that it does not meet approval criteria.
- C. Continue the hearing.

The final decision on these applications, which includes any appeals to the City Council, must be made by January 28, 2017, in accordance with the Oregon Revised Statutes and the Milwaukie Zoning Ordinance. The applicant can waive the time period in which the application must be decided.

COMMENTS

Notice of the proposed changes was given to the following agencies and persons: City of Milwaukie Community Development Division (Planning Department, Engineering Department, and Building Department), Historic Milwaukie Neighborhood District Association (NDA), Clackamas Fire District, Clackamas County, Metro, and TriMet. The following is a summary of the comments received by the City. See Attachment 4 for further details.

- **Grant O'Connell, Planner II, TriMet:** "Thank you for the opportunity to review this conditional use proposal. TriMet has no comment on the proposal."
- **Matt Amos, Fire Inspector, Clackamas County Fire District:** "I was able to review the proposal for 2816 SE Harrison St. At this time Clackamas Fire has no access or water supply comments."
- **Samantha Vandagriff, Building Official, City of Milwaukie:** "All uses within the rented office space will need to conform to the uses as determined by the definition in the

[building] code of 'Traditional Office Space', or the uses will need to be separated from the main space by a 2 hour separation both vertical and horizontal."

Staff Response: The applicant needs to meet building code requirements for the uses proposed.

ATTACHMENTS

Attachments are provided as indicated by the checked boxes. All material is available for viewing upon request.

	Early PC Mailing	PC Packet	Public Copies	E- Packet
1. Recommended Findings in Support of Approval	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2. Applicant's Narrative and Supporting Documentation dated 09/09/2016.				
a. Narrative	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Site Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c. Pre-application conference report and notes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Key:

Early PC Mailing = paper materials provided to Planning Commission at the time of public notice 20 days prior to the hearing.

PC Packet = paper materials provided to Planning Commission 7 days prior to the hearing.

Public Copies = paper copies of the packet available for review at City facilities and at the Planning Commission meeting.

E-Packet = packet materials available online at <http://www.milwaukieoregon.gov/planning/planning-commission-162>.

**Recommended Findings in Support of Approval
File #CU-2016-004, Bridge City Community Church**

Sections of the Milwaukie Municipal Code not addressed in these findings are found to be inapplicable to the decision on this application.

1. The applicant, Bridge City Community Church, has applied for approval to convert three pastoral offices into professional offices at 2816 SE Harrison St. This site is in the R2 Zone. The land use application file number is CU-2016-004.
2. The applicant is proposing to convert three pastoral offices into professional office spaces to be rented out at a temporary capacity. The applicant states the purpose of this proposal is part of their plan to return financial sustainability, but have no plans to be a property management company. They plan to only rent out these offices only for the short term to re-build the core of their church community. The site is currently a religious institution that has a Community Service Use designation.
3. The proposal is subject to the following provisions of the Milwaukie Municipal Code (MMC):
 - MMC 19.1006 – Type III Review
 - MMC 19.302 – Medium and High Density Residential Zones
 - MMC 19.905 – Conditional Uses
4. The application has been processed and public notice provided in accordance with MMC Section 19.1006 Type III Review. A public hearing was held on November 22, 2016, as required by law.
5. MMC 19.1006 – Type III Review
 - a. The application has been processed in accordance with MMC Section 19.1004 Type III Review, with a decision by the Planning Commission.
6. 19.302 – Medium and High Density Residential Zones
 - a. MMC 19.302.2 Allowed Uses in Medium and High Density Residential Zone
 - (1) Under Commercial Uses, Office is considered a Conditional Use in the R-2 zone.

The applicant has applied for a conditional use permit to convert the pastoral offices into professional offices for rent. The standard is met.
7. 19.905 – Conditional Uses
 - a. MMC 19.905.4.A establishes criteria for approving a new conditional use.
 - (1) MMC 19.905.4.A.1 states the proposed conditional use show that the characteristics of the lot are suitable for the proposed use considering size, shape, location, topography, existing improvements, and natural features.

The church building has 8 office spaces that have been in use as administrative offices for pastors and support staff. The proposed office rental does not change any rooms' designation, nor require any alteration to existing use. Currently 2 of these offices are used by the church, 1 is used by the day care, 1 is used by a volunteer in the church for a private ministry project, and the applicant is proposing rent all of the remaining 3. The size, shape, location, topography, and

existing improvements of the property are all suitable for this use, as they have been used in this manner since the building was built.

The Planning Commission finds that this standard is met.

- (2) MMC 19.905.4.A.2 states that the operating and physical characteristics of the proposed use will be reasonably compatible with, and have minimal impact on, nearby uses.

Nearby uses include single family homes (to the south of the property, an office building (to the west of the building), a funeral home (to the east of the building) and apartment buildings (to the northwest of the building.) The proposed 3 professional offices are expected to not generate any traffic over what was generated when the offices were used by the church. Given that there is no expected additional impact, the use is reasonably compatible with nearby uses.

The Planning Commission finds that this standard is met.

- (3) MMC 19.905.4.A.3 states that all identified impacts will be mitigated to the extent practicable.

The applicant states that three years ago they had three full-time staff and three part-time staff, four of whom came into the office daily. The staff parking lot in the back was usually full. With the reduction of staff due to financial reasons for the applicant, this impact has been dramatically reduced. The applicant expects the traffic impact with the new rented offices will no greater than when they had more full and part-time staff. The intended renters of the offices do not require customer visits. They largely work on the phone and the computer with no customer visits to the office. The trips per week with these additional tenants will no more than three years ago.

The Planning Commission finds that this standard is met.

- (4) MMC 19.905.4.A.4 states the proposed use will not have unmitigated nuisance impacts, such as from noise, odor, and/or vibrations, greater than usually generated by uses allowed outright at the proposed location.

The applicant states that there would be no nuisance impacts since the proposed standard office use would not generate any special noise, odor, vibration or other distractions to the community.

The Planning Commission finds that this standard is met.

- (5) MMC 19.905.4.A.5 states the proposed use will comply with all applicable development standards and requirements of the base zone, any overlay zones or special areas, and the standards in Section 19.905.

The zoning for the property is R-2. Office uses are considered a conditional use with approval required. The applicant has applied for a conditional use for this use. The property also has a Community Service Use (CSU) designation that has given approval as a church, as well as, a day care, a church book store, and an after-school youth program. No overlay zones and standards apply.

The Planning Commission finds that this standard is met.

- (6) MMC 19.905.4.A.6 states the proposed use is consistent with applicable Comprehensive Plan policies related to the proposed use.

The comprehensive plan designation for both the property and the area is High Density, with the predominant intended use of high density residential development. It does not have any policy language regarding commercial office use in the high density residential zone.

The Planning Commission finds that this standard is met.

- (7) MMC 19.905.4.A.7 states adequate public transportation facilities and public utilities will be available to serve the proposed use prior to occupancy pursuant to Chapter 19.700.

- (a) MMC 19.702 Applicability states the types of development that require MMC 19.700.

MMC 19.702.1.E lists types of development as modification or expansion of an existing structure or a change or intensification in use that result in any one of the following: A new dwelling unit, any increase in gross floor area, any projected increase in vehicle trips, as determined by the Engineering Director.

A new dwelling unit is not proposed nor any increase in gross floor area. The application was reviewed by the Engineering department and found no issues or increase in vehicle trips.

The Planning Commission finds that MMC 19.700 does not apply to this application.



PLANNING DEPARTMENT
6101 SE Johnson Creek Blvd
Milwaukie OR 97206

PHONE: 503-786-7630
FAX: 503-774-8236
E-MAIL: planning@milwaukieoregon.gov

Application for Land Use Action

Master File #: CU-2016-004

Review type*: ☐ I ☐ II ☒ III ☐ IV ☐ V

☐ CHECK ALL APPLICATION TYPES THAT APPLY:

- ☐ Amendment to Maps and/or Ordinances:
 - ☐ Comprehensive Plan Text Amendment
 - ☐ Comprehensive Plan Map Amendment
 - ☐ Zoning Text Amendment
 - ☐ Zoning Map Amendment
- ☐ Code Interpretation
- ☐ Community Service Use
- ☒ Conditional Use
- ☐ Development Review
- ☐ Director Determination
- ☐ Downtown Design Review
- ☐ Extension to Expiring Approval
- ☐ Historic Resource:
 - ☐ Alteration
 - ☐ Demolition
 - ☐ Status Designation
 - ☐ Status Deletion

- ☐ Land Division:
 - ☐ Final Plat
 - ☐ Lot Consolidation
 - ☐ Partition
 - ☐ Property Line Adjustment
 - ☐ Replat
 - ☐ Subdivision
- ☐ Miscellaneous:
 - ☐ Barbed Wire Fencing
 - ☐ Modification to Existing Approval
 - ☐ Natural Resource Review
 - ☐ Nonconforming Use Alteration
- ☐ Parking:
 - ☐ Quantity Determination
 - ☐ Quantity Modification
 - ☐ Shared Parking
 - ☐ Structured Parking
- ☐ Planned Development
- ☐ Preliminary Circulation Plan

- ☐ Residential Dwelling:
 - ☐ Accessory Dwelling Unit
 - ☐ Duplex
 - ☐ Manufactured Dwelling Park
 - ☐ Temporary Dwelling Unit
- ☐ Sign Review
- ☐ Transportation Facilities Review
- ☐ Variance:
 - ☐ Building Height Variance
 - ☐ Use Exception
 - ☐ Variance
- ☐ Willamette Greenway Review
- ☐ Other: _____

Use separate application forms for:

- Annexation and/or Boundary Change
- Compensation for Reduction in Property Value (Measure 37)
- Daily Display Sign
- Appeal

(601-16-
000070 PLNG)

RESPONSIBLE PARTIES:

APPLICANT (owner or other eligible applicant—see reverse): BRIDGE CITY COMMUNITY CHURCH

Mailing address: 2816 SE HARRISON ST. Zip: 97222

Phone(s): 503-794-1696 E-mail: schelske@bridgecity.org

APPLICANT'S REPRESENTATIVE (if different than above): MARC SCHELSKE

Mailing address: SAME Zip: _____

Phone(s): 503-810-5889 E-mail: schelske@bridgecity.org

SITE INFORMATION:

Address: 2816 SE HARRISON ST. Map & Tax Lot(s): 11E36BA03000

Comprehensive Plan Designation: _____ Zoning: R2 Size of property: ~20,000 SF

PROPOSAL (describe briefly):

Permission to rent 3 pastoral offices to professionals for use during
normal work hours in a temporary capacity.

SIGNATURE:

ATTEST: I am the property owner or I am eligible to initiate this application per Milwaukie Municipal Code (MMC) Subsection 19.1001.6.A. If required, I have attached written authorization to submit this application. To the best of my knowledge, the information provided within this application package is complete and accurate.

Submitted by: MARC SCHELSKE

Date: 8-7-2016

IMPORTANT INFORMATION ON REVERSE SIDE

WHO IS ELIGIBLE TO SUBMIT A LAND USE APPLICATION (excerpted from MMC Subsection 19.1001.6.A):

Type I, II, III, and IV applications may be initiated by the property owner or contract purchaser of the subject property, any person authorized in writing to represent the property owner or contract purchaser, and any agency that has statutory rights of eminent domain for projects they have the authority to construct.

Type V applications may be initiated by any individual.

PREAPPLICATION CONFERENCE:

A preapplication conference may be required or desirable prior to submitting this application. Please discuss with Planning staff.

REVIEW TYPES:

This application will be processed per the assigned review type, as described in the following sections of the Milwaukee Municipal Code:

- Type I: Section 19.1004
- Type II: Section 19.1005
- Type III: Section 19.1006
- Type IV: Section 19.1007
- Type V: Section 19.1008

THIS SECTION FOR OFFICE USE ONLY:

FILE TYPE	FILE NUMBER	FEE AMOUNT*	PERCENT DISCOUNT	DISCOUNT TYPE	DEPOSIT AMOUNT	DATE STAMP
Master file	CN-2016-004	\$ 500.-			\$	RECEIVED SEP 09 2016 CITY OF MILWAUKIE PLANNING DEPARTMENT
Concurrent application files		\$			\$	
		\$			\$	
		\$			\$	
		\$			\$	
SUBTOTALS		\$			\$	
TOTAL AMOUNT RECEIVED: \$			RECEIPT #:			RCD BY:

Associated application file #s (appeals, modifications, previous approvals, etc.):

Neighborhood District Association(s):

Notes:

Fee discount per City Manager.

*After discount (if any)



PLANNING DEPARTMENT
6101 SE Johnson Creek Blvd
Milwaukie OR 97206

PHONE: 503-786-7630
FAX: 503-774-8236
E-MAIL: planning@milwaukieoregon.gov

For all Land Use Applications
(except Annexations and Development Review)

Submittal Requirements

All land use applications must be accompanied by a signed copy of this form (see reverse for signature block) and the information listed below. The information submitted must be sufficiently detailed and specific to the proposal to allow for adequate review. Failure to submit this information may result in the application being deemed incomplete per the Milwaukie Municipal Code (MMC) and Oregon Revised Statutes.

Contact Milwaukie Planning staff at 503-786-7630 or planning@milwaukieoregon.gov for assistance with Milwaukie's land use application requirements.

1. **All required land use application forms and fees**, including any deposits. \$300-
Applications without the required application forms and fees will not be accepted.
2. **Proof of ownership or eligibility to initiate application** per MMC Subsection 19.1001.6.A.
Where written authorization is required, applications without written authorization will not be accepted.
3. **Detailed and comprehensive description** of all existing and proposed uses and structures, including a summary of all information contained in any site plans.
Depending upon the development being proposed, the description may need to include both a written and graphic component such as elevation drawings, 3-D models, photo simulations, etc. Where subjective aspects of the height and mass of the proposed development will be evaluated at a public hearing, temporary on-site "story pole" installations, and photographic representations thereof, may be required at the time of application submittal or prior to the public hearing.
4. **Detailed statement** that demonstrates how the proposal meets all applicable application-specific approval criteria (check with staff) and all applicable development standards (listed below):
 - a. **Base zone standards** in Chapter 19.300.
 - b. **Overlay zone standards** in Chapter 19.400.
 - c. **Supplementary development regulations** in Chapter 19.500.
 - d. **Off-street parking and loading standards and requirements** in Chapter 19.600.
 - e. **Public facility standards and requirements**, including any required street improvements, in Chapter 19.700.
5. **Site plan(s), preliminary plat, or final plat** as appropriate.
See Site Plan, Preliminary Plat, and Final Plat Requirements for guidance.
6. **Copy of valid preapplication conference report**, when a conference was required.

APPLICATION PREPARATION REQUIREMENTS:

- Five hard copies of all application materials are required at the time of submittal (unless submitted electronically). Staff will determine how many additional hard copies are required, if any, once the application has been reviewed for completeness.
- All hard copy application materials larger than 8½ x 11 in. must be folded and be able to fit into a 10- x 13-in. or 12- x 16-in. mailing envelope.
- All hard copy application materials must be collated, including large format plans or graphics.

ADDITIONAL INFORMATION:

- Neighborhood District Associations (NDAs) and their associated Land Use Committees (LUCs) are important parts of Milwaukie's land use process. The City will provide a review copy of your application to the LUC for the subject property. They may contact you or you may wish to contact them. Applicants are strongly encouraged to present their proposal to all applicable NDAs prior to the submittal of a land use application and, where presented, to submit minutes from all such meetings. NDA information: <http://www.milwaukieoregon.gov/communityservices/neighborhoods-program>.
- Submittal of a full or partial electronic copy of all application materials is strongly encouraged.

As the authorized applicant I, (print name) MARC SCHELSKE, attest that all required application materials have been submitted in accordance with City of Milwaukie requirements. I understand that any omission of required items or lack of sufficient detail may constitute grounds for a determination that the application is incomplete per MMC Subsection 19.1003.3 and Oregon Revised Statutes 227.178. I understand that review of the application may be delayed if it is deemed incomplete.

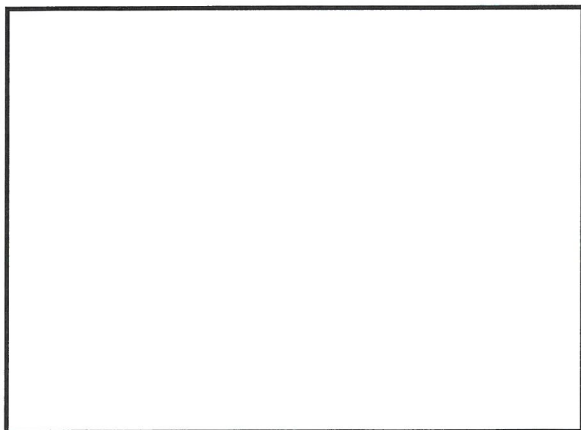
Furthermore, I understand that, if the application triggers the City's sign-posting requirements, I will be required to post signs on the site for a specified period of time. I also understand that I will be required to provide the City with an affidavit of posting prior to issuance of any decision on this application.

Applicant Signature: 

Date: 8-7-2016

Official Use Only

Date Received (date stamp below):



**Land Use Application
Bridge City Community Church
Type III Conditional Use Application**

- 1. All application forms attached.**
- 2. Proof of ownership or eligibility to initiate application.**

Marc Schelske is the pastor and an elder of Bridge City Community Church, authorized by the Elder Team to submit our application for this land use change.

3. Detailed & Comprehensive Description.

In the past two years Bridge City Community Church has undergone a massive financial re-structuring, partly due to the changing economy, partly due to a couple very supportive families retiring and moving away. In order to stabilize our budget and remain viable, we had to cut our operating budget by almost 50%, which included laying off 3 staff members, as well cutting many other expenses.

Part of our plan to return to financial sustainability has been to rent out 3 office spaces in our building that were formerly administrative offices used by pastoral staff. These offices are a small fraction of the buildings space. The building is approximately 22,000 SF. The 3 offices in question are approximately 720 SF in total, or 3.2% of the building's total space.

Because we want to have the impact on the building and the neighborhood be as small as possible, we've intentionally targeted professionals with very low-traffic administrative office needs. These are professionals who work at a desk, using a phone and a computer, and who have little to no on-site client interaction. The goal was to simply replace the previous use (Pastors, coming into the building to work in their offices) with 3 tenants doing similar work whose rent could help us stabilize our budget in a short-term 3-5 year period.

By renting these offices out, we are able to bring in the necessary income to help bridge the gap in our income, so that we can cover the costs of managing and maintaining the building, while allowing our church the time needed to re-stabilize so that we can remain a positive contribution to our Milwaukie neighborhood.

We have no plans for being a property management company; Our plan is a temporary one, to rent out these offices only for the short term as we re-build the core of our church community. We're not doing this to make a profit. The rent rate for the offices (\$375-400/month) is below market rate and meant to simply cover the costs of keeping the building functioning and in good shape, during this low financial time for the church.

The impact to the building and neighborhood is very low. Three years ago we had 3 full time staff and 3 part time staff, 4 of whom came into the office daily. Now we only have 2 part-time staff who use offices only for a few hours a week. Bringing in 3 office renters will still be below the normal traffic the church has exhibited for the past ten years. As we

regain our footing, and are again able to hire additional staff, we would let the office renters go, so that the offices would be available for our own pastoral team members.

There will be no construction or modification to the building for this plan.

Floor plans indicating the location and size of the offices in question are attached.

4. Detailed statement regarding meeting all applicable approval criteria and development standards

- a) **Base Zone Standards.** The zoning for this property is R-2. Because we are a church, this property already has a CSU approval as a church, with already existing approvals for a day care (operating), a church book store (not operating) and an after-school youth program (operating.) Office uses in the R-2 zone are conditional uses, with approval required.
- b) **Off-street parking and loading standards.** The property has a small parking lot on the drive-through alley behind the building, as well as a full off-site parking lot directly across Harrison Street. These two lots provide approximately 80 parking spaces. This amount of parking meets all requirements. Church use requires minimum of 1 space per 4 seats. Our worship center seating capacity is 174, requiring 44 spaces. The Day Care use requires a minimum of 2 spaces per 1000 SF of floor area. The Day Care rents approximately 4000 SF of the building (the street level of the classroom building) for their use. This requires 8 spaces. General Office use requires a minimum of 2 spaces per 1000 SF of floor area. We are renting 720 SF of office space, requiring less than 2 spaces. If all uses were to use their parking simultaneously, that would require a minimum of 54 spaces, considerably less than the 80 spaces available.
- c) **Approval Criteria: Suitability of Lot.** The church building has 8 spaces that are designated as offices that have been in use as administrative offices for pastors. The proposed office rental does not change any rooms designation, nor require any alteration to existing use. Currently 2 of these offices are used by the church, 1 is used by the day care, 1 is used by a volunteer in the church for a private ministry project, and we are proposing renting the remaining 3. The size, shape, location, topography, and existing improvements of the property are all suitable for this use, as they have been used in this manner since the building was built.
- d) **Approval Criteria: Reasonable compatibility with nearby uses:** Nearby uses include single family homes (to the south of the property), an office building (to the west of the building), a funeral home (to the east of the building) and apartment buildings (to the northwest of the building.) A small number of low traffic offices is reasonably compatible with these nearby uses.
- e) **Approval Criteria: Consistency with Applicable Comprehensive Plan.** The comprehensive plan designation for both the property and the area is High Density, with the predominant intended use of high density residential development. The inclusion of 3 small offices within an existing Community Service Use does not significantly impact

this designation, particularly when considered with the surrounding existing land uses that already exist.

- f) **Approval Criteria: Adequate Public Transportation Facilities.** The property is served by existing TriMet bus service with a bus stop on the neighboring corner.
- g) **Approval Criteria: Identified impacts mitigated to the extent practicable.** The only identified impact would be the additional traffic to the building generated by these three offices. We share the city's concern, since it is primary for us to maintain positive relationships with our neighbors. Three years ago we had 3 full time staff and 3 part time staff, 4 of whom came into the office daily. This included a full-time office manager, a part-time business manager, and several pastoral staff—all of whom used offices in the building. The pastors were coming and going multiple times a day, and were often meeting church members and leaders in the offices. The "staff parking lot" in our back alley was always full. After the transition, this impact reduced dramatically. I (Marc Schelske) am the only church staff person who comes to the building, and I only come 2 days a week. Our proposal to rent out three offices does not increase our traffic or impact much at all. In fact, the level of traffic and "trips" to and from the building, will be lower than when these offices were being used by church pastors and staff. Our proposal is to rent these 3 office spaces to professionals whose work is quiet, and does not require customer visits. These professionals largely work on the phone and the computer, and have no customers who visit the office. That means that these offices will each have a total of 10 trips per week. 1 trip coming to work and 1 trip going home, each day. This is a significantly lower level of traffic than what we had on a daily basis 3 years ago at our highest church function. Such a low level of traffic doesn't require any additional mitigation is it is lower than the normal church usage the building has historically seen.
- h) **Approval Criteria: Unmitigated Nuisance Impacts.** There would be no unmitigated nuisance impacts since the proposed standard office use would not generate any special noise, odor, vibration or other distractions to the community. The neighbors will experience no change from the usage the building has historically seen.
- i) **Approval Criteria: Minor Modifications.** There are no proposed modifications to the building for this office use.

4. Site Plans

Site plans showing the size and location of the proposed office spaces are attached.

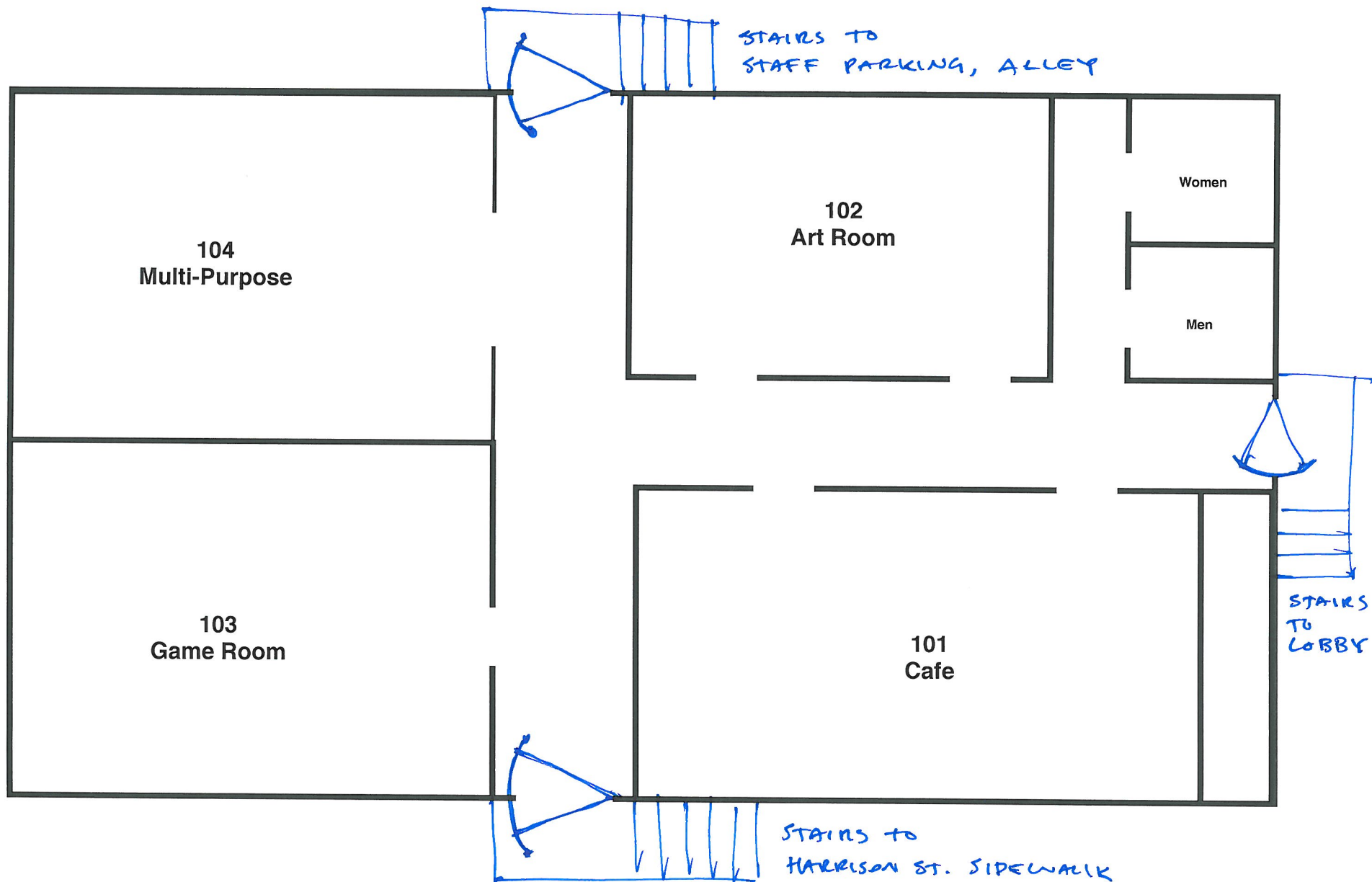
4. Copy of Valid Reapplication Conference Report

Attached with all supporting documents.

100 Level - Classroom Building

The Bridge House
Classroom Building
100 Level - Basement Level

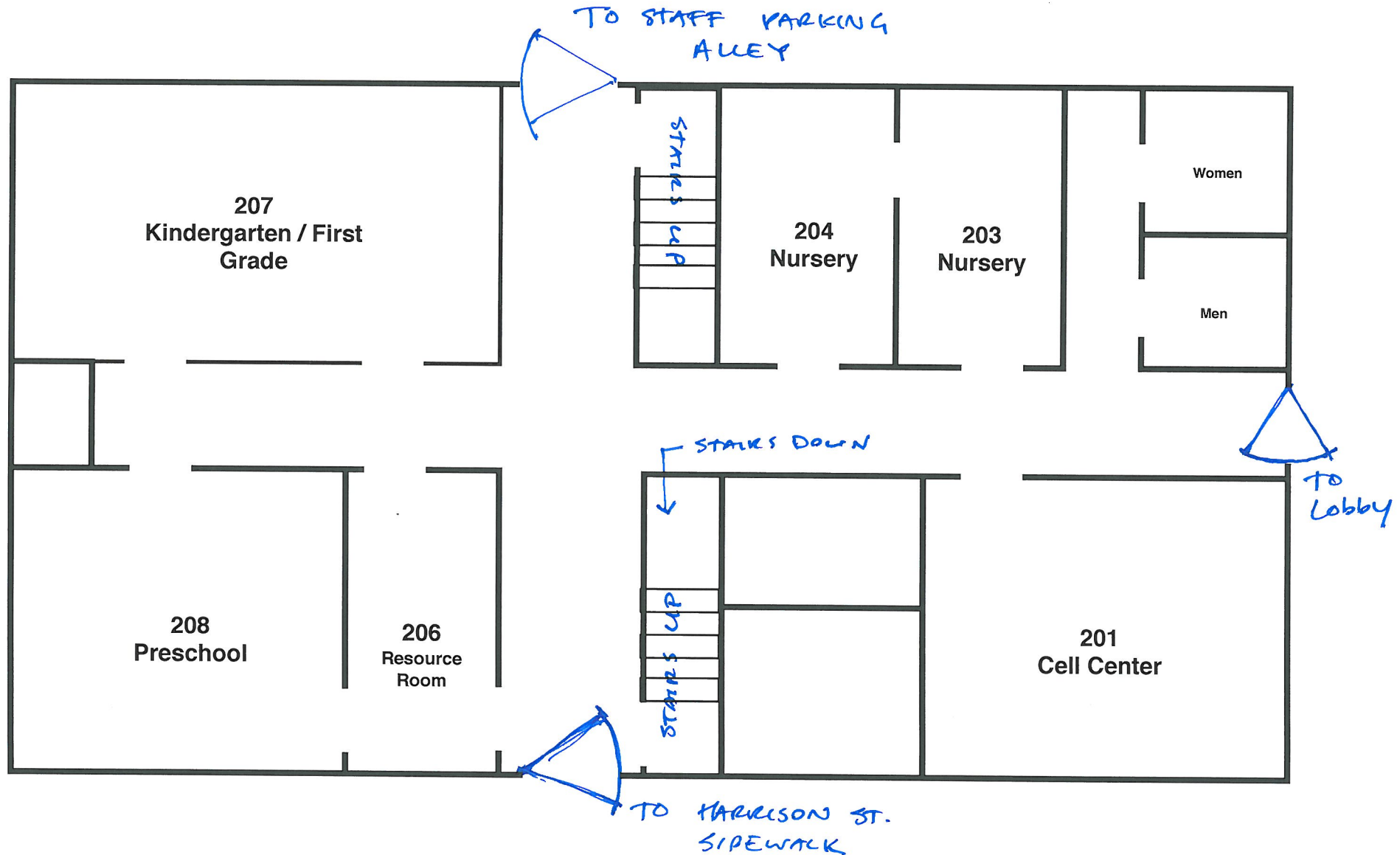
This proposal makes no changes to this level.



200 Level - Classroom Building

The Bridge House
Classroom Building
200 Level - Street Level, Main Level

This proposal makes no changes to this level.

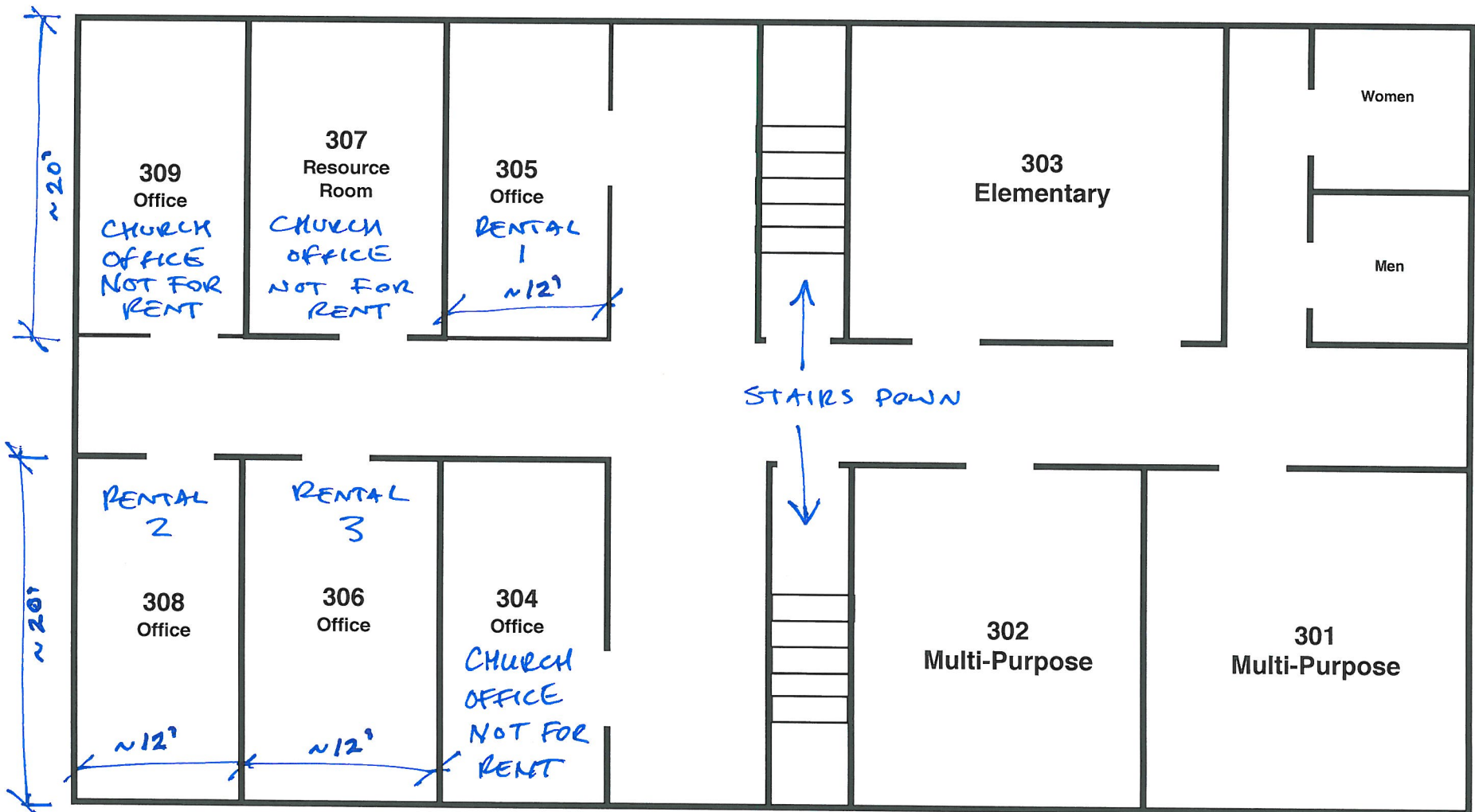


300 Level - Classroom Building

The Bridge House
Classroom Building
300 Level - 2nd Floor, Office Level

Proposal spaces are marked.

Rental 1, 2 & 3 only.
each approx 12' x 20'





July 1st, 2016

Marc Schelske
Bridge City Community Church
2816 SE Harrison Street
Milwaukie Oregon 97222

Re: Preapplication Report

Dear Marc:

Enclosed is the Preapplication Report Summary from your meeting with the City on June 16th, 2016, concerning your proposal for action on property located at 2816 SE Harrison St.

A preapplication conference is required prior to submittal of certain types of land use applications in the City of Milwaukie. Where a preapplication conference is required, please be advised of the following:

- Preapplication conferences are valid for a period of 2 years from the date of the conference. If a land use application or development permit has not been submitted within 2 years of the conference date, the Planning Director may require a new preapplication conference.
- If a development proposal is significantly modified after a preapplication conference occurs, the Planning Director may require a new preapplication conference.

If you have any questions concerning the content of this report, please contact the appropriate City staff.

Sincerely,

Joyce Stahly
Administrative Specialist II

Enclosure

cc: File

CITY OF MILWAUKIE

PreApp Project ID #: 16-016PA

PRE-APPLICATION CONFERENCE REPORT

This report is provided as a follow-up to a meeting that was held on 6/16/2016 at 10:00AM

Applicant Name: MARC SCHELSKE
Company: BRIDGE CITY COMMUNITY CHURCH
Applicant 'Role': Legal Rep
Address Line 1: 2816 SE HARRISON ST
Address Line 2:
City, State Zip: MILWAUKIE OR 97222
Project Name: RENTAL OF OFFICES
Description: PERMISSION TO RENT 3 PASTORAL OFFICE TO PROFESSIONALS FOR USE DURING NORMAL WORK HOURS IN A TEMPORARY CAPACITY
ProjectAddress: 2816 SE HARRISON ST
Zone: Residential R-2
Occupancy Group:
ConstructionType:
Use: High Density (HD)
Occupant Load:
AppsPresent: Mark Schelske
Staff Attendance: Vera Kolias, Alex Roller

BUILDING ISSUES

ADA:

Structural: All uses within the rented office space will need to conform to the uses as determined by the definition in the zoning code of "Traditional Office Space", or the uses will need to be separated from the main space by a 2 hour separation both vertical and horizontal.

Mechanical:

Plumbing:

Plumb Site Utilities:

Electrical:

Notes:

Please note all drawings must be individually rolled. If the drawings are small enough to fold they must be individually folded.

FIRE MARSHAL ISSUES**Fire Sprinklers:****Fire Alarms:****Fire Hydrants:****Turn Arounds:****Addressing:****Fire Protection:****Fire Access:****Hazardous Mat.:****Fire Marshal Notes:** 1.The Fire District has no comments for this proposal.**PUBLIC WORKS ISSUES****Water:** N/A**Sewer:** N/A**Storm:** N/A**Street:** N/A**Frontage:** N/A**Right of Way:** N/A**Driveways:** N/A**Erosion Control:** N/A**Traffic Impact Study:** N/A**PW Notes:** TRANSPORTATION SDC

Applicant has provided a narrative regarding the historical use of these office spaces (pastoral) and the effective trip count of the proposed office use. The previous uses were permitted under the Church designation, and did not incur additional transportation fees regardless of the trips it generated. The SDC fees that the City collects are based on the use, and the associated trip count it generates. The City does not continually monitor current usage to credit or require additional fees. The Transportation SDC will be based on the increase in trips generated by the new use per the Trip Generation Handbook from the Institute of Transportation Engineers. The SDC for transportation is \$1,920 per trip per 1000 sq ft. Credits will be given for current trip generation of existing space. The existing trip count for

Church use is .66 trips/1000 square ft. The proposed use is general office space which has a trip count of 1.49 trips/1000 sq ft. The additional trips generated will be .83 trips/1000 sq ft, which calculates to \$1593.60/1000 sq ft or fraction thereof. The square footage that has been provided to the City is 720, which corresponds to an SDC of \$1,147.39.

PLANNING ISSUES

Setbacks:

The proposal is for office use within an existing building. No modifications to the existing structure are proposed. MMC 19.302.4 establishes the setback in the R-2 zone: the front yard setback = 15 feet; side yard setback = 5 feet; rear yard setback = 15 feet.

Landscape:

The proposal is for office use within an existing building. No modifications to the existing site are proposed. In the R-2 zone, a minimum of 15% of the site must be landscaped. Vegetated areas can be planted in trees, grass, shrubs, or bark dust for planting beds, with no more than 20% of the landscaped area finished in bark dust (as per MMC Subsection 19.504.7). A maximum of 45% of the site may be covered by structures, including decks or patios over 18 inches above grade.

Parking:

This property has an off-site parking lot directly across the street. As per the off-street parking standards of MMC Chapter 19.600, religious institutions must provide a minimum of 1 parking space for every 4 seats to a maximum of 1 space for every 2 seats. A day care center is also located in the building, which is required to provide a minimum of 2 spaces per 1,000 SF of floor area. General office uses are required to provide a minimum of 2 spaces per 1,000 SF of floor area.

Transportation Review: Please see the Public Works notes for more information about the requirements of MMC 19.700.

Application Procedures: Land use applications required:
•New Conditional Use (Type III)

The subject property is an approved Community Service Use and the building has been operated as a religious institution by different organizations since 1945. Approvals have been given for a day care, church bookstore, and an after-school youth program. Office uses are permitted in the R-2 zone as conditional uses. In order to operate separate offices within the church building, approval for a new conditional use is required, which is a Type III land use review process.

MMC 19.905 covers the conditional use review process. MMC 19.905.4 establishes the criteria under which the conditional use will be reviewed. These criteria must be addressed in the land use application.

MMC 19.1006 describes the Type III land use review process.

The current application fee for Type III review is \$2,000; however, the City Manager has approved a fee reduction for this application to \$300.

For the City's initial review, the applicant should submit 5 complete copies of the application, including all required forms and checklists. A determination of the application's completeness will be issued within 30 days. If deemed incomplete, additional information will be requested. If deemed complete, additional copies of the application may be required for referral to other departments, the Historic Milwaukie Neighborhood District Association (NDA), and other relevant parties and agencies. City staff will inform the applicant of the total number of copies needed.

For Type III review, once the application is deemed complete, a public hearing with the Planning

Commission will be scheduled. Staff will determine the earliest available date that allows time for preparation of a staff report (including a recommendation regarding approval) as well as provision of the required public notice to property owners and residents within 300 ft of the subject property, at least 20 days prior to the public hearing. A sign giving notice of the application must be posted on the subject property at least 14 days prior to the hearing.

Issuance of a decision starts a 15-day appeal period for the applicant and any party who establishes standing. Permits submitted during the appeal period may be reviewed but are not typically approved until the appeal period has ended.

Prior to submitting the application, the applicant is encouraged to present the project at a regular meeting of the Historic Milwaukie NDA, which occurs at 6:30 p.m. on the second Monday of every month at Libbie's Restaurant (11056 SE Main St). Contact information can be found here: <http://www.milwaukieoregon.gov/citymanager/historic-milwaukie-nda>

Natural Resource Review: There are no natural resources on the subject property.

Lot Geography: The subject property is a rectilinear lot fronting on SE Harrison St. with driveway access on SE 29th Ave.

Planning Notes: The subject property is identified in the comprehensive plan as High Density, which includes the policy that these areas should be located either adjacent to or within close proximity to the downtown or district shopping centers. The subject property is located in a high density area between the downtown and central Milwaukie town center areas. It is appropriate that office uses are allowed as conditional uses to ensure that providing for the opportunity for smaller-scale commercial development does not impact nearby residential properties.

In order to maintain the primary use of the property as a community service use, the applicant should provide information on the amount of area proposed to be used as independent offices. This will allow the City to establish a maximum area to be used for this purpose.

The applicant should review the conditional use approval criteria to be sure that the proposal adequately addresses each of them.

The Milwaukie zoning code can be accessed at:
<http://www.qcode.us/codes/milwaukie/view.php?topic=19&frames=off>

ADDITIONAL NOTES AND ISSUES

County Health Notes:

Other Notes:

This is only preliminary preapplication conference information based on the applicant's proposal and does not cover all possible development scenarios. Other requirements may be added after an applicant submits land use applications or building permits. City policies and code requirements are subject to change. If you have any questions, please contact the City staff that attended the conference (listed on Page 1). Contact numbers for these staff are City staff listed at the end of the report.

Sincerely,

City of Milwaukie Development Review Team

BUILDING DEPARTMENT

Sam Vandagriff - Building Official - 503-786-7611

Bonnie Lanz - Permit Specialist - 503-786-7613

ENGINEERING DEPARTMENT

Chuck Eaton - Engineering Director - 503-786-7605

Rick Buen - Civil Engineer - 503 -786-7609

Chrissy Dawson - Engineering Tech II - 503-786-7610

Geoff Nettleton - Civil Engineer - 503-786-7609

Alex Roller - Engineering Tech II - 503-786-7695

COMMUNITY DEVELOPMENT DEPARTMENT

Alma Flores - Com Dev Director - 503-786-7652

Joyce B Stahly - Admin Specialist - 503-786-7600

Avery Pickard - Admin Specialist - 503-786-7600

Alicia Martin -Admin Specialist - 503-786-7600

PLANNING DEPARTMENT

Denny Egner - Planning Director - 503-786-7654

David Levitan - Senior Planner - 503-786-7627

Brett Kelter - Associate Planner - 503-786-7657

Vera Kolias - Associate Planner - 503-786-7653

CLACKAMAS FIRE DISTRICT

Mike Boumann - Lieutenant Deputy Fire Marshal - 503-742-2673

Matt Amos - Fire Inspector - 503-742-2661

Clackamas County Fire District #1

Fire Prevention Office



E-mail Memorandum

To: City of Milwaukie Planning Department
From: Matt Amos, Fire Inspector, Clackamas Fire District #1
Date: 7/1/2016
Re: Change of use for 3 office spaces 2816 SE Harrison St. 16-016PA

This review is based upon the current version of the Oregon Fire Code (OFC), as adopted by the Oregon State Fire Marshal's Office. The scope of review is typically limited to fire apparatus access and water supply, although the applicant must comply with all applicable OFC requirements. When buildings are completely protected with an approved automatic fire sprinkler system, the requirements for fire apparatus access and water supply may be modified as approved by the fire code official. The following items should be addressed by the applicant:

COMMENTS:

1. The Fire District has no comments for this proposal.



Required Narrative Description For Preapplication Conference

In the past two years our church has undergone a massive financial re-structuring, partly due to the changing economy, partly due to a couple very supportive families retiring and moving away. In order to stabilize our budget and remain viable, we had to cut our operating budget by almost 50%, which included laying off 3 staff members, as well cutting many other expenses.

Part of our plan to return to financial sustainability has been to rent out 3 office spaces in our building that were formerly used by pastoral staff. Because we want to have the impact on the building and the neighborhood be as small as possible, we've intentionally targeted professionals with very low-traffic administrative office needs.

One of these, Craig Erickson, is a CPA who has just moved into the area from Colorado. It was in the process of his applying for a business license in Milwaukie, that it came to light that we would need city approval for our plan. He's an example of the kind of office rental we have in mind. A single professional, who can do their work by phone and computer, who rarely, if ever, has clients visit their office, and who works normal business hours.

By renting these offices out, we are able to bring in the necessary income to help bridge the gap in our income, so that we can cover the costs of managing and maintaining the building, while allowing our church the time needed to re-stabilize so that we can remain a positive contribution to our Milwaukie neighborhood.

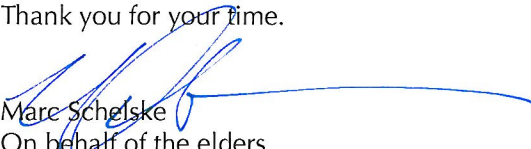
We have no plans for being a property management company; Our plan is a temporary one, to rent out these offices only for the short term (3-5 years max.) as we re-build the core of our church community. We're not doing this to make a profit. The rent rate for the offices (\$375/month) is below market rate and meant to simply cover the costs of keeping the building functioning and in good shape, during this low financial time for the church.

The impact to the building and neighborhood is very low. Three years ago we had 3 full time staff and 3 part time staff, 4 of whom came into the office daily. Now we only have 2 part-time staff who use offices only for a few hours a week. Bringing in 3 office renters will still be below the normal traffic the church has exhibited for the past ten years. As we regain our footing, and are again able to hire additional staff, we would need to let the office renters go, so that the offices would be available for our own team members.

There will be no construction or modification to the building for this plan.

We did not know that this kind of temporary rental relationship was outside of our approved community service use, but now that we do, we want to come into compliance as quickly as we can. We respectfully ask that you would authorize this temporary use of our facility.

Thank you for your time.


Marc Schelske
On behalf of the elders,
Bob Barnes, Byron Kehler & Marc Schelske

Love God. Love People. Bless & Serve the World.

2816 SE Harrison Street • Milwaukie, OR 97080 • www.bridgcity.org • info@bridgcity.org



Bill Monahan, City Manager
10722 SE Main St.
Milwaukie, OR 97222

Mr Monahan,

I am submitting my request to you for a reduction of fees regarding our required Type III new conditional use application.

I am an elder at Bridge City Community Church. We own the Bridge House, the property at 2816 SE Harrison Street, Milwaukie, OR. We've been in this building for nearing on 15 years now, and enjoy very much being a part of the Milwaukie community.

In the past two years our church has undergone a massive financial re-structuring, partly due to the changing economy, partly due to a couple very supportive families retiring and moving away. In order to stabilize our budget and remain viable, we had to cut our operating budget by almost 50%, which included laying off 3 staff members, as well cutting many other expenses. Part of our plan to return to financial sustainability has been to rent out 3 office spaces in our building that were formerly used by pastoral staff. Because we want to have the impact on the building and the neighborhood be as small as possible, we've intentionally targeted professionals with very low-traffic administrative office needs.

One of these, Craig Erickson, is a CPA who has just moved into the area from Colorado. It was in the process of his applying for a business license in Milwaukie, that it came to light that we would need city approval for our plan. He's an example of the kind of office rental we have in mind. A single professional, who can do their work by phone and computer, who rarely, if ever, has clients visit their office, and who works normal business hours.

By renting these offices out, we are able to bring in the necessary income to help cover the costs of managing and maintaining the building, allowing our church time to re-stabilize so that we can remain a positive contribution to our Milwaukie neighborhood. Because we're not interested in being a property management company, our plan is to rent out these offices only for the short term (3-5 years max.) as we re-build the core of our church community. We're not doing this to make a profit. The rent rate for the offices (\$375/month) is below market rate and meant to simply cover the costs of keeping the building functioning and in good shape, during this low financial time for the church.

We did not know that this kind of temporary rental relationship was outside of our approved community service use, but now that we do, we want to come into compliance as quickly as we can. Due to our circumstances, we are requesting a reduction in fees for the new conditional use application. We are able at this time to pay a total of \$500.00. We respectfully ask that you would consider this appropriate for the situation.

Thank you for your time.


Marc Schelske
Elder

cc: Denny Egner, Planning Director



MILWAUKIE

Dogwood City of the West

To: Planning Commission

Through: Dennis Egner, Planning Director

From: Vera Kolias, Associate Planner

Date: November 15, 2016, for the November 22, 2016, Public Hearing

Subject: **File:** S-2016-001; VR-2016-007
Applicant: Mission Homes, LLC
Owner(s): Paul Deggendorfer and Eva Marie Deggendorfer
Address: 5126 and 5096 SE King Rd.
Legal Description (Map & Tax lot): 12E30CD 6900, 7400, 7700, 7701, 10300, 10400
NDA: Hector Campbell, Lewelling, and Linwood

SUMMARY

As provided in Public Works Standards (PWS) 1.0060, the applicant has submitted a traffic impact analysis to the Engineering Director as part of a request for a design substitution to access spacing (driveway spacing) standards. The Engineering Director has rejected the traffic impact analysis due to several specified deficiencies, including the lack of mitigation, and has requested a resubmittal that satisfies the City's requirements. Without an approved design exception, the proposal requires a variance to these requirements. As a result, staff cannot recommend approval of the project at this time. Staff met with the applicant on November 14th and it is expected that the applicant will submit additional information in support of the design exception prior to the public hearing.

ACTION REQUESTED

Depending on pending supplementary material to be submitted by the applicant, review land use file# S-2016-001 and VR-2016-007 and the recommended Findings and Conditions of Approval found in Attachments 1 and 2. Action by the Commission in the affirmative would approve the applications which would permit a 14-lot subdivision and associated improvements on the property at 5126 SE King Rd. A motion for approval should be dependent upon submission of satisfactory supplemental materials by the applicant.

BACKGROUND INFORMATION

A. Site and Vicinity

The subject property is a group of 6 residential parcels zoned Residential R-5 in the Hector Campbell neighborhood, and on the boundary with the Lewelling and Linwood neighborhoods. Two existing single family dwellings occupy the subject property which is located at 5126 and 5096 SE King Rd. The property is wooded and is approximately 2.66 acres in size. The surrounding properties are developed with single-family detached dwellings. The Milwaukie Christian Church across King Rd from the site.

The proposal is to subdivide the property to create a 14-lot subdivision to be accessed by a new public street: SE 51st Ave (which will run north-south connecting to SE King Rd). The plan include a second new street: SE Lewellyn St (which will connect to SE 51st Ave near the center of the site). The 2 existing single-family homes will be removed as part of the project. City utility services will be provided via an extension of public sanitary sewer and water lines from SE King Rd to serve all of the proposed new lots. The application materials also included a future connectivity and development concept plan. (see Figures 1-4).

B. Zoning Designation

Residential zone R-5

C. Comprehensive Plan Designation

Medium Density Residential MD

Figure 1. Existing Conditions – street view

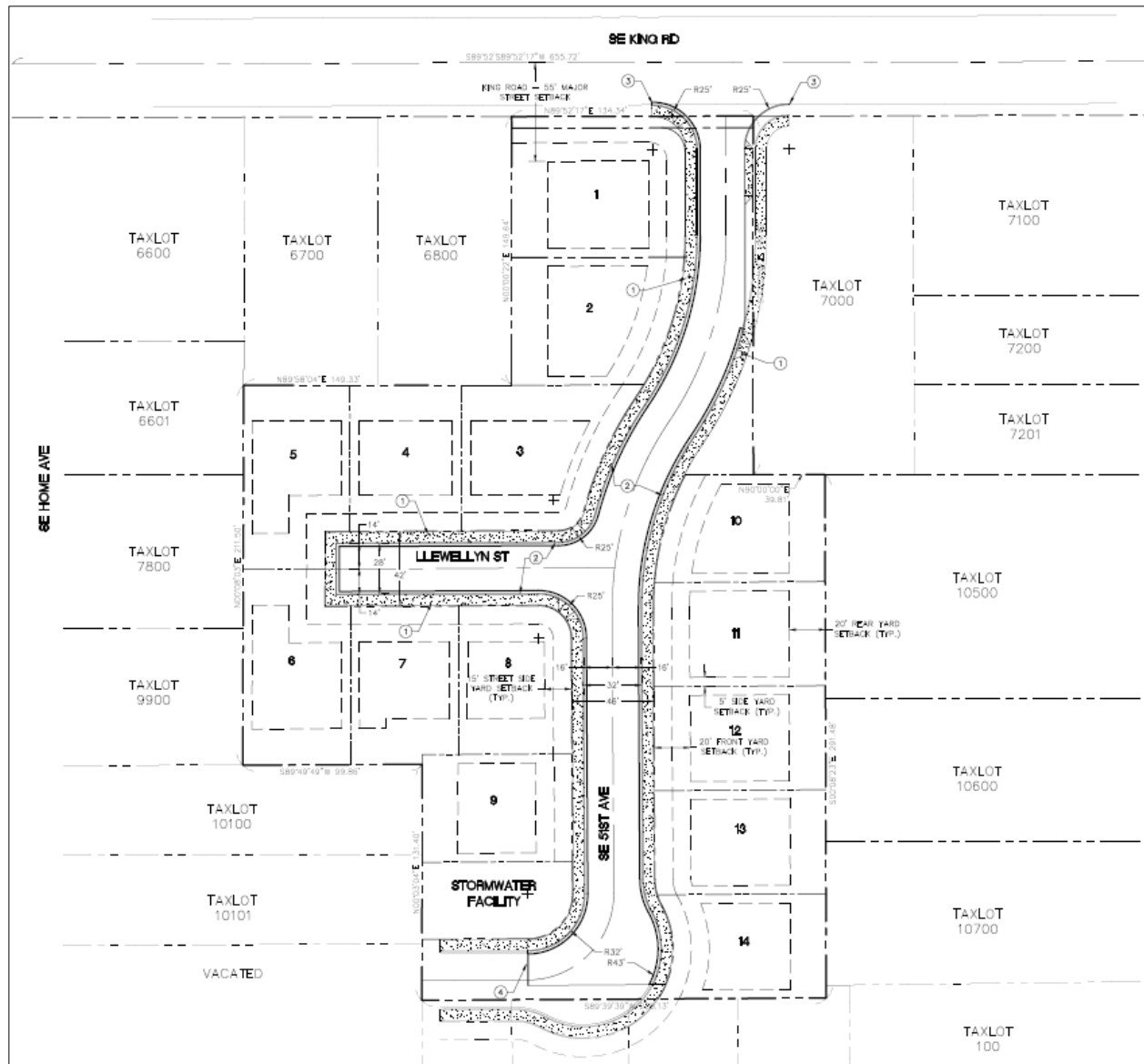


Source: Google Maps Street View

[illegible]

Source: 2015 RLIS data

Figure 3. Proposal



Source: Applicant's materials

Figure 4. Future Connectivity and Development Concept Plan



Source: Applicant's materials

D. Proposal

The applicant is seeking land use approval for a 14-lot subdivision that includes 2 new public streets and a stormwater facility tract. The lots will range in size between 5,008 sf and 6,460 sf. The required minimum lot size for a single-family home in the R-5 zone is 5,000 sf (see Attachment 3).

The proposal requires approval of the following applications:

1. Type III Subdivision Review: Per MMC 17.12.020.C, an increase in the number of lots within the original boundaries of a partition plat shall be reviewed as a subdivision when the number of proposed lots exceeds 3; subdivisions shall be reviewed under Type III review.
2. Type III Variance: Per MMC 19.708.1.F, the required minimum distance between street intersections on arterial streets (SE King Rd) is 530 ft. The proposed development includes a new local street intersection between SE Home and SE 52nd Ave in the middle of the existing block which is less than the required 530 ft. The required minimum intersection spacing of 530 ft must be met, or a variance is required. The intersection spacing standard is also part of the Milwaukie Public Works Standards section 5.0014.
3. Design exception: As provided in PWS 1.0060, the applicant has submitted a traffic impact analysis to the Engineering Director as part of a request for a design substitution to address access spacing (driveway and street spacing) standards specified in MMC 12.16.040. The Engineering Director has rejected the traffic impact analysis due to several specified deficiencies and has requested a resubmittal that satisfies the City's requirements. Without an approved design exception, the proposal requires a variance to these requirements.

KEY ISSUES**Introduction**

Staff has identified the following key issues for the Planning Commission's deliberation. Aspects of the proposal not listed below are addressed in the Findings (see Attachment 1) and generally require less analysis and discretion by the Commission.

- A. Staff notes that nearly all of the trees on the subject property are identified for removal in order to develop the site. Current City code does not include tree protection language except for trees located in mapped resource areas, of which there are none on the subject property.
- B. Applicability of MMC 19.700, MMC Title 12, and PWS 5.0014. Applicant contends that the proposal is a replat that does not increase the number of lots and is therefore not subject to MMC 19.700 or MMC Title 12.
- C. Does the proposed subdivision satisfy the approval criteria for a preliminary plat (MMC 17.12.040)? Specifically:
 1. The proposed preliminary plat complies with Title 19 of this code and other applicable ordinances, regulations, and design standards.

2. The proposed land division will allow reasonable development and will not create the need for a variance of any land division or zoning standard.

Analysis

A. Tree Protection

Current City code does not include tree protection language except for trees located in mapped resource areas, of which there are none on the subject property. Therefore, the applicant may remove trees on the property in order to facilitate development; the city does not have jurisdiction to regulate their protection.

B. Applicability of MMC 19.700 and MMC Title 12.

The applicant has stated in the application that there are 32 lots in the underlying subdivision plat, that this subdivision is a replat of those existing lots, and that the proposed 14 lots is less than 32 and therefore Chapter 19.700 does not apply to the proposal.

Per MMC 19.702.1.B, Chapter 19.700 applies to all subdivisions. A replat that re-establishes the original lot lines would be exempt from MMC 19.700. This proposal creates new public streets not in conformance with MMC 17.12.040.A.3. In order to review and apply city standards to new public streets, MMC 19.700 does apply to the proposal.

C. Does the proposed subdivision satisfy the approval criteria for a preliminary plat?

Staff has identified the following key areas for the Commission's deliberation relative to the approval criteria for a preliminary plat:

- Intersection spacing and design – MMC 19.708.1.F and PWS 5.0014

MMC 19.708.1.F includes specific intersection design and spacing requirements, which the proposed development does not meet. The required minimum distance between street intersections on arterial streets (SE King Rd) is 530 ft. The proposed development includes a new local street intersection between SE Home and SE 52nd Ave in the middle of the existing block which is less than the required 530 ft. The required minimum intersection spacing of 530 ft must be met, or a variance will be required.

As provided in MMC 19.703.5.A, the proposed development requires a variance to the standards in MMC 19.708.1. A variance application has been submitted to satisfy this requirement.

- Access for development of adjoining properties – MMC 19.708.1.3

MMC Section 19.708.1.E.3 requires that streets shall be extended to the boundary lines of the developing property where necessary to give access to or allow for future development of adjoining properties. As shown in Figure 4 – Future Connectivity & Development Concept Plan, the proposed street design does not appear to provide adequate frontage or access to the future development of tax lot 500. As shown, it is unclear that the future development as proposed on tax lot

500 would meet applicable development standards, particularly at the northeast corner at the end of SE 51st Ave. It appears that a future lot would have less than the required minimum frontage in the R7 zone. A condition of approval has been included to address this issue.

- Sidewalks – MMC 19.708.3

MMC 19.708.3 requires that sidewalks shall be provided on the public street frontage of all development. The construction of sidewalks along the proposed development property abutting all public rights-of-way is included in the street frontage requirements.

19.708.3.A.2 requires that public sidewalks shall conform to ADA standards. The proposal does not include ADA ramps on the north side of King Road, on the east side of the intersection of SE 51st Ave and SE King Rd at tax lot 7000, or on the east side of the intersection of SE 51st Ave and SE Llewellyn St. A revised design is required to show compliance with this section. Staff notes that the current proposed plans would require the construction of an ADA ramp on the adjacent property – tax lot 7000. Findings and Conditions of Approval have been detailed to address these issues.

- Access spacing for driveways and streets – MMC 12.16.040 and PWS 1.0060

MMC 12.16.040 regulates access spacing (driveways), and establishes criteria based upon several factors, including stopping sight distance, ability of turning traffic to leave a through lane with minimal disruption to operation, minimizing right turn conflict overlaps, maximizing egress capacity, and reducing compound turning conflicts where queues for turning/decelerating traffic encounter conflicting movements from entering/exiting streets and driveways.

The application as proposed results in access spacing for three accesses as follows (See diagram below):

- o Commercial driveway (5' proposed, 600' requirement) – TL 6500 – Milwaukie Christian Church across King Rd.
- o Residential driveway (24' proposed, 45' requirement) – TL 7000
- o Residential driveway (25' proposed, 45' requirement) – TL 6404



As designed, the proposed intersection location of SE 51st Ave and SE King Rd makes three driveways non-conforming with MMC 12.16.040. The new driveway proposed for TL 7000 on the new public street (SE 51st Ave) will be required to comply with 12.16.040. MMC 12.16.040.B.2 specifies the requirements for modification of access spacing.

As provided in PWS 1.0060, the applicant has submitted a traffic impact analysis to the Engineering Director as part of a request for a design substitution to access spacing (driveway spacing) standards. As noted earlier in this staff report, the Engineering Director has rejected the traffic impact analysis due to several specified deficiencies and has requested a resubmittal that satisfies the City's requirements. It also appears that the proposed intersection creates a design challenge relative to required crosswalks. As noted earlier in the staff report, it is expected that the applicant will submit additional information to support the design exception. Without an approved design exception, the proposal requires a variance to these requirements.

CONCLUSION

Staff recommendation to the Planning Commission is as follows:

Unless the applicant can provide a traffic analysis and mitigation plan that satisfies PWS 1.0060, staff cannot recommend approval of the application. The final decision on this subdivision application, which includes any appeals to the City Council, must be made by February 4, 2017, in accordance with the Oregon Revised Statutes and the Milwaukie

Zoning Ordinance. The applicant can waive the time period in which the application must be decided.

CODE AUTHORITY AND DECISION-MAKING PROCESS

The proposal is subject to the following provisions of the Milwaukie Municipal Code (MMC).

- MMC 12.02 Public Works Standards
- MMC 12.08 Street and Sidewalk Excavations, Construction and Repair
- MMC 12.16 Access Management
- MMC 12.24 Clear Vision at Intersections
- MMC 17.12, Application Procedure and Approval Criteria - Land Division
- MMC 17.20, Preliminary Plat
- MMC 19.301, Low Density Residential Zones
- MMC 19.600, Off-street Parking
- MMC 19.700, Public Facility Improvements
- MMC 19.911, Variances
- MMC 19.1006, Type III Review
- MMC 19.1200, Solar Access Protection

This application is subject to Type III review, which requires the Planning Commission to consider whether the applicant has demonstrated compliance with the code sections shown above. In Type III reviews, the Commission assesses the application against review criteria and development standards and evaluates testimony and evidence received at the public hearing.

The Commission has 4 decision-making options as follows:

- A. Approve the application subject to the recommended Findings and Conditions of Approval.
- B. Approve the application with modified Findings and Conditions of Approval. Such modifications need to be read into the record.
- C. Deny the application upon finding that it does not meet approval criteria.
- D. Continue the hearing to December 13, 2016.

The final decision on this application, which includes any appeals to the City Council, must be made by February 4, 2017, in accordance with the Oregon Revised Statutes and the Milwaukie Zoning Ordinance. The applicant can waive the time period in which the application must be decided.

COMMENTS

Notice of the proposed project was given to the following agencies and persons: Milwaukie Building Division; Milwaukie Engineering Department; Clackamas Fire District #1; and the Lewelling, Linwood, and Hector Campbell Neighborhood District Associations Chairperson and Land Use Committee. Notice of the application was also sent to surrounding property owners

within 300 ft of the site on September 7, 2016 and a sign was posted on the property on September 12, 2016. When the public hearing was postponed to November 22, 2016, a notice was sent to all property owners within 300 ft of the site on September 20, 2016. The sign identifying the new public hearing date of November 22, 2016 was posted on the property on September 21, 2016.

When the variance application was submitted, notice of the proposed project was given to the following agencies and persons: Milwaukie Building Division; Milwaukie Engineering Department; Clackamas Fire District #1; and the Lewelling, Linwood, and Hector Campbell Neighborhood District Associations Chairperson and Land Use Committee. Notice of the application was also sent to surrounding property owners within 300 ft of the site on November 2, 2016 and a sign was posted on the property on November 4, 2016.

The following comments were received (please refer to the Findings in Attachment 1 for staff response).

Please note that all comments were forwarded to the applicant, who indicated that additional information, including an arborist report, responding to these comments would be submitted. As of the date of this staff report, no additional information was provided.

Matt Amos, Clackamas Fire District #1: Mr. Amos's comments stated that an access and water supply plan was required, that the turning radius requirements were not met in several locations, and that the applicant needed to confirm that the water supply and distance to the nearest hydrant would meet the District's minimum requirements.

Aarisa Smith, Hector Campbell Neighborhood resident: Comments included questions about the removal of the existing trees from the site, the lack of a proper emergency vehicle turnaround, and the protection of existing structures on the site.

Lars Campbell, on behalf of the Hector Campbell NDA: The NDA's submitted several comments and questions regarding the following:

- Full street right-of-way design and pedestrian crossings
- Tree removal
- Stormwater facility
- Fire turnaround
- Proposed driveway locations
- On-street parking on the proposed new streets
- Bicycle lanes
- Fencing of property lines to, and protection of, adjacent parcels outside of the project limits
- Project timeline for construction and eventual sale of the new homes

Zac Perry, Linwood NDA: The NDA submitted several comments and questions regarding the requested reduction in the solar access requirement for new development per MMC 19.1203. The NDA's concern was about the lack of specific information to support the request.

Janet Cartmill, 5466 SE Monroe St: Comments centered on the removal of a large number of mature trees from the site.

Staff will continue to collect comments and will provide any comments received with the Commission at the hearing.

ATTACHMENTS

Attachments are provided as indicated by the checked boxes. All material is available for viewing upon request.

	Early PC Mailing	PC Packet	Public Copies	E-Packet
1. Recommended Findings in Support of Approval	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2. Recommended Conditions of Approval	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3. Applicant's Narrative and Supporting Documentation (Subdivision) dated July 13, 2016.				
a. Narrative – Existing and Proposed Uses	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Narrative – Compliance with Applicable Standards	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c. Exhibit A – Land Use Application Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
d. Exhibit B – Land Use Application Submittal Requirements Checklist	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
e. Exhibit C – Preliminary Plat Checklist and Procedures	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
f. Exhibit D – Preliminary Title Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
g. Exhibit E – Pre-Application Conference Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
h. Exhibit F – Storm Drainage Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
i. Exhibit G – Geotechnical Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
j. Exhibit H – Preliminary Engineering Plan Set	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
k. Exhibit I – Subdivision Naming Approval	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
l. Exhibit J – Future Connectivity and Development Plan Concept	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
m. Exhibit K – Tax Map 1S2E30CD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4. Applicant's Narrative and Supporting Documentation (Variance) dated October 14, 2016.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5. Mission Park Access Study prepared by Lancaster Engineering dated November 1, 2016	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6. Comments Received	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Key:

Early PC Mailing = paper materials provided to Planning Commission at the time of public notice 20 days prior to the hearing.

PC Packet = paper materials provided to Planning Commission 7 days prior to the hearing.

Public Copies = paper copies of the packet available for review at City facilities and at the Planning Commission meeting.

E-Packet = packet materials available online at <http://www.milwaukieoregon.gov/planning/planning-commission-162>.

Recommended Findings of Approval
File #S-2016-001; VR-2016-007 – Mission Park (5126 SE King Rd)

Sections of the Milwaukie Municipal Code not addressed in these findings are found to be inapplicable to the decision on this application.

1. The applicant, Kurt Dalbey of Mission Homes NW, LLC, is proposing to subdivide 6 parcels to create 14 lots and 1 tract on the properties located at 5126 SE King Rd. This site is in the Residential R-5 Zone. The land use application file number is S-2016-001; VR-2016-007.
2. The subdivision application was submitted on May 25, 2016. It was initially deemed incomplete by City staff on June 24, 2016. The applicant revised and resubmitted the application on July 14, 2016. The City deemed the subdivision application complete on July 20, 2016. Based on additional analysis by the City, it was determined that a variance to street intersection spacing standards was necessary and subsequently a concurrent variance application was submitted by the applicant on October 14, 2016. The applicant waived the timeframe for a decision for the initial subdivision application to run concurrently with the variance application; the City has until February 4, 2017 to issue a final decision on the application.
3. The proposal is subject to the following provisions of the Milwaukie Municipal Code (MMC):
 - MMC 12.02, Public Works Standards
 - MMC 12.08, Street and Sidewalk Excavations, Construction and Repair
 - MMC 12.16, Access Management
 - MMC 12.24, Clear Vision at Intersections
 - MMC 17.12, Application Procedure and Approval Criteria - Land Division
 - MMC 17.20, Preliminary Plat
 - MMC 19.301, Low Density Residential Zones
 - MMC 19.600, Off-street Parking
 - MMC 19.700, Public Facility Improvements
 - MMC 19.911, Variances
 - MMC 19.1006, Type III Review
 - MMC 19.1200, Solar Access Protection

The application has been processed and public notice provided in accordance with MMC Section 19.1006 Type III Review. A public hearing was held on November 22, 2016, as required by law.

4. MMC 12.02 Public Works Standards
 - A. 12.02.010 requires “all new public works, including streets, sanitary sewers, storm sewers, and water lines constructed or installed in the City shall be constructed in conformance with the applicable public works standards adopted under Section 12.02.020 of this chapter.”

The public works standards require intersections which are not directly aligned with street centerlines, the centerline spacing must meet the following:

Arterial - Minimum 530 feet, Maximum 1000 feet.

The distance between SE 52nd Ave to the east of the site and SE Home Ave to the west of the site is 930 ft. As proposed, the new SE 51st Ave will be sited between the 2 existing street only 285 ft from SE 52nd Ave.

A variance application has been submitted to respond to this requirement. As conditioned, subject to the approval of said variance, this criterion is met.

5. MMC 12.08 Street and Sidewalk Excavations, Construction and Repair

MMC 12.08 applies to all construction that is completed within right-of-way that will be dedicated to the City. The public improvement process for this project shall follow MMC 12.08.020.

6. MMC 12.16 Access Management

MMC Chapter 12.16.040 establishes standards for access (driveway) requirements.

- MMC 12.16.040.A requires that all properties be provided street access with the use of an accessway.

The proposed development, as conditioned to be constructed in compliance with the City of Milwaukie Public Works Standards, is consistent with MMC 12.16.040A.

- MMC 12.16.040.B provides requirements for access spacing onto arterial and collector streets.

The proposed development, as conditioned, is consistent with MMC 12.16.040B, as no accessways are proposed on a collector or arterial street.

- MMC 12.16.040.C provides requirements for accessway locations.

The proposed development, as conditioned, is consistent with MMC 12.16.040.C.1 as no double frontage lots are proposed.

The proposed development, as conditioned, is consistent with MMC 12.16.040.C.2, as no accessways are proposed on a collector or arterial street.

Driveways in the proposed development, as conditioned, are consistent with MMC 12.16.040.C.3.

- MMC 12.16.040.C regulates accessway locations. MMC 12.16.040.C.4 regulates the distance of an accessway from an intersection.

The proposed relocation of the driveway to tax lot 7000 and tax lot 6404 does not comply with the required 45 ft accessway spacing from intersections.

The proposed development, as conditioned is consistent with MMC 12.16.040.C.4.a.

The proposed street intersection creates a non-conforming driveways to tax lot 6500 (Milwaukie Christian Church) with the required 600 ft accessway spacing from intersections.

The proposed development does not comply as submitted. Subject to the approval of a design exception per PWS 1.0060, and as conditioned, the project is consistent with MMC 12.16.040.C.4.d.

The proposed development, as conditioned, is consistent with MMC 12.16.040.4.a, b, and c.

- MMC 12.16.040.D provides requirements for the number of accessway locations.

The applicant has proposed the minimum number of accessway locations.

The proposed development, as conditioned, is consistent with MMC 12.16.040.D.1, as the proposed development does not have any accessways on an arterial or collector street and only 1 accessway per property is proposed.

- MMC 12.16.040.E and MMC 12.16.040.F provide requirements for ADA standards and width for accessways.

The proposed development, as conditioned to be constructed in compliance with the City of Milwaukie Public Works Standards, will conform to MMC 12.16.040.E and F.

The applicant has failed to adequately address MMC 12.16.040.C. The applicant's request to modify the design does not include mitigation measures that provide safe ingress and egress into the commercial driveway north of the proposed development (Milwaukie Christian Church). As conditioned, which requires an access study and proposed mitigation measures acceptable to the Engineering Director, the proposed development is consistent with MMC 12.16.040.

7. MMC 12.24 Clear Vision at Intersections

MMC 12.24.040 provides requirements for clear vision.

The proposed driveways, accessways, and intersections in the proposed development, as conditioned, will conform to the standards in MMC 12.24.030.

8. MMC 19.301 Low Density Residential Zones

MMC 19.301 establishes the development standards that are applicable to this site. The proposed subdivision would create 14 lots that range in size between 5,008 sf to 6,876 sf. The minimum lot size for a single-family detached home in the R-5 zone is 5,000 sf. The minimum density requirement for the R-5 zone is 7 dwellings per acre and the maximum density requirement for the R-5 zone is 8.7 dwellings per acre. The 14 proposed lots total 79,501 sf or 1.82 acres, which results in an overall density of approximately 7.69 dwellings per acre. The minimum frontage requirement for a standard lot in the R5 zone is 35 ft. Lots 5 and 6 have 35 ft of frontage and have the smallest amount of street frontage of the 14 proposed lots.

The Planning Commission finds that the proposal complies with the applicable standards of the R-5 zone.

9. MMC 19.607 Off-Street Parking Standards for Residential Areas

MMC 19.607 establishes off-street parking standards for residential areas. The applicant's materials indicate awareness of these requirements and will address compliance during the development permit process.

10. MMC 19.700 contains regulations for Public Facility Improvements. The proposal complies with these regulations as described in this finding.

- A. MMC Chapter 19.700 applies to partitions, subdivisions, new construction, and modification or expansion of an existing structure or a change or intensification in use that result in any projected increase in vehicle trips or any increase in gross floor area on the site.

The applicant proposes to partition the existing 6 parcels into 14 new lots. The subdivision triggers the requirements of MMC Chapter 19.700.

MMC 19.700 applies to the proposed development.

- B. MMC 19.703 contains the requirements for the review process for all proposed developments subject to Chapter 19.700.
- (1) MMC 19.703.1 requires a pre-application conference for proposals that require a land use application. The requirement was satisfied on March 10, 2016.
 - (2) MMC 19.703.3.B requires that development shall provide transportation improvements and mitigation at the time of development in rough proportion to the potential impacts of the development per MMC 19.705. As conditioned, the proposal is consistent with MMC 19.703.3
- C. MMC 19.704 requires submission of a transportation impact study documenting the development impacts on the surrounding transportation system.

All of the trips for this proposed development affect SE King Rd, which is classified as an arterial street. The proposed development will not trigger a significant increase in trip generation on an arterial street and therefore the subdivision itself does not require a transportation impact study. (A traffic access study was required for the access design exception request.)

MMC 19.704 does not apply to the proposed development.

- D. MMC 19.705 requires that transportation impacts of the proposed development be mitigated in rough proportion of the impacts.

The proposed development does not trigger mitigation of impacts beyond the required frontage improvements. The impacts are minimal and the surrounding transportation system will continue to operate at the level of service previous to the proposed development. However, note that there are potential safety impacts due to turning movement conflicts with adjacent driveways. See Finding 11.B.

The proposed development, as conditioned, is consistent with MMC 19.705.

- E. MMC 19.708.1 requires that all development shall comply with access management, clear vision, street design, connectivity, and intersection design and spacing standards.

The applicant shall construct a driveway approach to meet all guidelines of the Americans with Disabilities Act (ADA) to each new lot. The driveway approach apron shall be between 9 ft and 20 ft in width and least 7.5 ft from the side property line. All access requirements shall comply with access management standards contained in MMC 12.16. Per MMC 19.708.1.B, clear vision requirements shall comply with MMC 12.24.

MMC 19.708.1.D applies to development in non-downtown zones and applies to street frontages outside of the downtown. The proposed development is outside of the downtown and, as conditioned to be constructed in compliance with the City of Milwaukie Public Works Standards, is consistent with MMC 19.708.1.D.

MMC Section 19.708.1.E.3 requires that streets shall be extended to the boundary lines of the developing property where necessary to give access to or allow for future development of adjoining properties. The proposed streets abut property to the east, west, and south and provide opportunity for land development in these locations. As shown on the Future Connectivity and Development Concept Plan: tax lot 7000 could be divided into 3 parcels; tax lot 10101 could be divided into 3 parcels; tax lot 700 could be divided into 4 parcels; tax lots 600 and 601 could be divided into 2 parcels each; and tax lots 400 and 500 could potentially be divided into 2 parcels each. The

City can maintain control over access to public streets by requiring a 1-ft wide reserve strip as follows:

1. End of proposed SE 51st Ave, the full width of the right-of-way.
2. Along east edge of proposed SE 51st Ave along tax lot 7000.
3. Along the South side of SE 51st Ave along tax lot 600, tax lot 601 and a portion of tax lot 500.

A condition of approval is proposed to require these reserve strips.

F. MMC 19.708.1.F includes specific intersection design and spacing requirements.

Per MMC 19.702.1.B, Chapter 19.700 applies to all subdivisions. A replat that re-establishes the original lot lines would be exempt from MMC 19.700. This proposal creates 14 new lots and public streets and is therefore a subdivision; MMC 19.700 applies. The required minimum intersection spacing of 530 ft is not met.

The proposed development requires a variance from the requirements of MMC 19.708.1. The applicant is requesting a variance from the minimum intersection spacing requirements of 530 ft to 285 ft.

G. MMC Section 19.708.2 establishes standards for street design and improvement.

The applicant shall construct a frontage improvement on the south side of SE King Rd along the site's frontage. The street improvement includes, from the fronting property line, construction of a 6-ft wide setback sidewalk, 5.3-ft wide planter strip, curb and gutter. The applicant is only responsible for new curb and gutter which aligns a proper turning radius into proposed SE 51st Ave, the planter strip, and sidewalk.

The existing right-of-way width of SE King Rd fronting the proposed development is 60 ft. The Milwaukie Transportation System Plan and Transportation Design Manual classify the fronting portions of SE King Rd as an Arterial street. According to Table 19.708.2 Street Design Standards, the required right-of-way width for an arterial street is between 54 ft and 89 ft depending on the required street improvements. The required right-of-way needed for the planned street improvements is 73 ft. The applicant is responsible for 6.5 ft of right-of-way dedication along SE King Rd fronting the development.

The proposed cross sections for SE 51st Ave and SE Llewellyn St conform to requirements and are consistent with MMC Section 19.708.2. The proposed development, as conditioned, is consistent with MMC Section 19.708.2.

H. MMC 19.708.3 requires that sidewalks shall be provided on the public street frontage of all development.

The construction of sidewalks along the proposed development property abutting all public rights-of-way is included in the street frontage requirements.

19.708.3.A.2 requires that public sidewalks shall conform to ADA standards. The proposal does not include ADA ramps on the north side of SE King Rd, on the east side of the intersection of SE 51st Ave and SE King Rd at tax lot 7000, or on the east side of the intersection of SE 51st Ave and SE Llewellyn St. A revised design is required to show compliance with this section. The proposed development, as conditioned to comply with the MMC 19.708.3 and the City of Milwaukie Public Works Standards, is consistent with MMC Section 19.708.3.

I. MMC 19.708.4 establishes standards for bicycle facilities.

SE Harrison St and SE Llewellyn St, which will eventually connect to this subdivision from the west, are not classified as bike routes in the Milwaukie Transportation System Plan. The portion of SE King Rd fronting the proposed development is classified as a bike route in the Milwaukie Transportation System Plan, and bike facilities are already in place. As a result, bicycle facility improvements are not required for the proposed development.

MMC 19.708.4 does not apply to the proposed development.

J. MMC 19.708.5 establishes standards for pedestrian and bicycle paths.

The proposed development property is surrounded by single family residences. The proposed development does not present an opportunity to provide a pedestrian or bicycle path, except for required sidewalks, and is not required to provide them.

MMC 19.708.5 does not apply to the proposed development.

K. MMC Section 19.708.6 establishes standards for transit facilities.

The portion of SE King Rd fronting the proposed development is classified as a transit route in the Milwaukie Transportation System Plan, however, transit facilities are already in place. As a result, transit facility improvements are not required for the proposed development.

MMC 19.708.6 does not apply to the proposed development.

L. MMC Section 19.709 establishes standards for public utility improvements.

The proposed development will be installing new water and wastewater public utilities to serve the proposed lots which are to be connected to utilities in SE King Rd.

The proposed development, as conditioned, is consistent with MMC Section 19.709.

11. MMC 19.911 Variances

A. MMC 19.911.3 establishes the review process for variance applications.

The applicant has requested a variance to the required intersection spacing standards established in MMC 19.708.1.F. The variance would reduce the minimum spacing standard of 530 ft to 285 ft. This type of variance is not specified in the list of Type II variances.

The Planning Commission finds that the application is subject to Type III Variance review for the proposed intersection spacing of less than 530 ft.

B. MMC 19.911.4.B establishes criteria for approving Type III Variance applications.

An application for a Type III Variance shall be approved when all of the criteria in either 19.911.4.B.1 or 2 have been met. An applicant may choose which set of criteria to meet based upon the nature of the variance request, the nature of the development proposal, and the existing site conditions.

The applicant has chosen to address the criteria of 19.911.4.B.1 Discretionary Relief Criteria.

(1) *The applicant's alternatives analysis provides, at a minimum, an analysis of the impacts and benefits of the variance proposal as compared to the baseline code requirements.*

Public right-of-way frontage for the subject property is provided onto SE King Rd along the property's north boundary; the subject property has no other public right-of-way frontage. The concurrent Mission Park Subdivision proposes to dedicate 2 new public streets, SE Llewellyn St and SE 51st Ave, to serve the subject property and provide for future connectivity to adjacent parcels. The proposed SE 51st Ave intersects SE King Rd at the NE corner of the subject property. Given both the existing SE Home Ave and existing SE 52nd Ave intersections with SE King Rd, the SE 51st Ave intersection on SE King Rd is less than minimum intersection spacing standard for arterial streets. The development's frontage on SE King Rd and the location of the existing streets are fixed.

Adjacent properties to the east, west and south of the subject property contain existing single-family homes and are zoned both R-5 and R-7. Based on this existing residential development in the surrounding neighborhood, the Mission Park Subdivision cannot take access from the east, west, or south. Given that the subject property takes access onto SE King Rd between SE Home Ave and SE 52nd Ave, it is not feasible to provide access to the subject property, while satisfying the standards of Table 19.708.1.

However, as designed, the proposed intersection location of SE 51st Ave and SE King Rd makes three driveways non-conforming with MMC 12.16.040. The new driveway proposed for TL 7000 on the new public street (SE 51st Ave) will be required to comply with 12.16.040. MMC 12.16.040.B.2 specifies the requirements for modification of access spacing.

As provided in PWS 1.0060, the applicant has submitted a traffic impact analysis to the Engineering Director as part of a request for a design substitution to access spacing (driveway spacing) standards. The Engineering Director has rejected the traffic impact analysis due to several specified deficiencies and has requested a resubmittal that satisfies the City's requirements. Without an approved design exception, the proposal requires a variance to these requirements.

As conditioned, subject to the submittal of a traffic impact analysis and a mitigation plan that satisfy PWS 1.0060, the Planning Commission finds that this criterion is met.

- 2) *The proposed variance is determined by the Planning Commission to be both reasonable and appropriate, and it meets one or more of the following criteria:*
- (a) *The proposed variance avoids or minimizes impacts to surrounding properties.*

Taking into account existing conditions, the proposed Variance allows the intersection of SE 51st Ave and SE King Rd to be roughly centered between SE Home Ave and SE 52nd Ave to the greatest extent possible, so as to maximize intersection spacing on SE King Rd.

An existing single family home with frontage on SE King Rd, adjacent to the east boundary of the subject property, currently takes access onto SE King Rd. As proposed, the development provides this adjacent property driveway access onto SE 51st Ave and eliminates a driveway accessing SE King Rd. Approval of this intersection spacing variance concurrent with the Mission Park subdivision will provide one public street intersection onto SE King Rd for the 14 new subdivision lots and the 1 existing home adjacent to the east. The number of access points onto SE King Rd will not increase as a result of the Mission Park Subdivision.

As conditioned, subject to the submittal of a traffic impact analysis and a mitigation plan that satisfy PWS 1.0060, the Planning Commission finds that this criterion is met.

(b) *The proposed variance has desirable public benefits.*

“Public benefits” are typically understood to refer to benefits to be enjoyed by members of the general public as a result of a particular project, or preservation of a public resource. Aesthetic improvements of a specific and limited nature do not typically constitute a public benefit.

The Planning Commission finds that this criterion is not applicable.

(c) *The proposed variance responds to the existing built or natural environment in a creative and sensitive manner.*

This criterion encourages flexibility in site planning and development when the existing built or natural environment provide challenges to standard development or site planning.

The Planning Commission finds that this criterion is not applicable.

(3) *Impacts from the proposed variance will be mitigated to the extent practicable.*

As noted in Finding 11.B (1), the Commission finds there are negative impacts and mitigation is needed.

As conditioned, subject to the submittal of a traffic impact analysis and a mitigation plan that satisfy PWS 1.0060, the Planning Commission finds that this criterion is met.

As conditioned, subject to the submittal of a traffic impact analysis and a mitigation plan that satisfy PWS 1.0060, the Planning Commission finds that this criterion is met.

12. MMC 19.1200 contains standards for solar access. These standards as described below.

- A. MMC 19.1203.2 states that the standards of Chapter 19.1200 apply to applications for a development to create lots in single-family zones, and are applicable to the proposed subdivision.
- B. MMC 19.1203.5.A states that the Director shall reduce the percentage of lots that must comply with Subsection 19.1203.3, to the minimum extent necessary, if he or she finds the applicant has shown it would cause an adverse impact on density or on-site development costs. Based on the existing street system, the configuration of the subject site, and the code requirement to extend public right-of-way through the property to both serve the proposed 14 lots and future development on adjacent properties, only 2 lots can meet the design requirements of this section. It is not possible for all of the lots to meet these standards without reducing the total number of lots below the minimum density required.

The proposal is determined to comply with this standard based on the adverse impacts of compliance.

13. MMC 17.12.040 contains approval criteria for a preliminary plat. These criteria are met as described below.

- A. MMC 17.12.040.A.1 requires that the proposed preliminary plat complies with Title 19 of this code and other applicable ordinances, regulations, and design standards. These findings demonstrate that the proposed subdivision and preliminary plat

comply with the applicable ordinances, regulations, and design standards in the Milwaukie Municipal Code.

MMC 19.708.1.F includes specific intersection design and spacing requirements, which the proposed development does not meet. These standards are addressed in Finding 10. The required minimum distance between street intersections on arterial streets (SE King Rd) is 530 ft. The proposed development includes a new local street intersection between SE Home and SE 52nd Ave in the middle of the existing block which is less than the required 530 ft. The required minimum intersection spacing of 530 ft must be met, or a variance will be required.

As provided in MMC 19.703.5.A, the proposed development requires a variance to the standards in MMC 19.708.1. A variance application has been submitted to respond to this requirement. As conditioned, subject to the approval of said variance, this criterion is met.

MMC 19.708.3 requires that sidewalks shall be provided on the public street frontage of all development. The construction of sidewalks along the proposed development property abutting all public rights-of-way is included in the street frontage requirements.

MMC 19.708.3.A.2 requires that public sidewalks shall conform to ADA standards. Please refer to Finding 10.H.

As proposed, the development is inconsistent with MMC 12.040.A.1. As conditioned, the proposal is consistent with MMC 12.040.A.1.

- B. MMC 17.12.030A2 requires that “the boundary change will allow reasonable development of the affected lots and will not create the need for a variance of any land division or zoning standard.”

The proposed development requires a variance to the minimum intersection spacing to satisfy this requirement. A variance application has been submitted to respond to this requirement. As conditioned, subject to the approval of said variance, this criterion is met.

- C. MMC 17.12.040.A.2 requires that the proposed division will allow reasonable development and will not create the need for a variance of any land division or zoning standard. The buildable areas for the primary structures on the parcels are all adequate to accommodate the uses allowed in the R-5 zone. The parcels do not have physical constraints that would necessitate the need for a variance in order to develop.

MMC 19.708.1.F includes specific intersection design and spacing requirements, which the proposed development does not meet. Please refer to Finding 10.F.

As provided in MMC 19.703.5.A, the proposed development requires a variance to the standards in MMC 19.708.1. A variance application has been submitted to respond to this requirement. As conditioned, subject to the approval of said variance, this criterion is met.

- D. MMC 17.12.040.A.3 requires that the proposed subdivision plat name is not duplicative and the plat otherwise satisfies the provisions of ORS 92.090(1). The proposed subdivision plat name of "Mission Park" is not duplicative in this jurisdiction and will satisfy the provisions of ORS 92.090(1).

- E. MMC 17.12.040.A.4 requires that the streets and roads are laid out so as to conform to the plats of subdivisions already approved for adjoining property as to width, general direction, and in all other respects unless the City determines it is in the public interest to modify the street or road pattern. This criterion is satisfied within the confines of what the City can obtain for street right-of-way per MMC Chapter 19.700.

MMC 19.708.1.F includes specific intersection design and spacing requirements, which the proposed development does not meet. Please refer to Finding 10.F.

As provided in MMC 19.703.5.A, the proposed development requires a variance to the standards in MMC 19.708.1. A variance application has been submitted to respond to this requirement. As conditioned, subject to the approval of said variance, this criterion is met.
- F. MMC 17.12.040.A.5 requires a detailed narrative description demonstrating how the proposal conforms to all applicable code sections and design standards. The applicant has submitted this information in the materials submitted for the land use application.
- 14. MMC 17.20 contains the information required for a preliminary plat application. The materials submitted by the applicant satisfy the requirements of this chapter except for the necessity for a variance to the requirements of MMC 19.708.1.
- 15. MMC 17.28 contains design standards for land divisions and boundary changes. The proposed subdivision satisfies these as described below.
 - A. MMC 17.28.010 requires that partitions and subdivisions shall conform with any development plans of the City and shall take into consideration any preliminary plans made in anticipation thereof and shall conform with the requirements of state laws and with the standards established by the City. The proposed streets abut property to the east, west, and south and provide opportunity for land development in these locations and to access these new streets. As demonstrated by these findings, pending approval of the submitted design exception, and as conditioned to accommodate the future development of adjoining property, the subdivision conforms with applicable city criteria and standards.
 - B. MMC 17.28.020 requires that all land divisions and boundary changes that increase the number of lots shall be subject to the requirements and standards contained in Chapter 19.700 Public Facility Improvements and the Public Works Standards for improvements to streets, sidewalks, bicycle facilities, transit facilities, and public utilities. As described elsewhere in these findings, the proposed subdivision complies with Chapter 19.700. Utilities and work within the right-of-way will be reviewed by the Milwaukie Engineering Department for conformance with Public Works Standards.
 - C. MMC 17.28.040 contains standards for lot design.
 - (1) MMC 17.28.040.A requires that the lot size, width, shape, and orientation shall be appropriate for the location and the type of use contemplated. Minimum lot standards shall conform to Title 19. The proposed parcels have adequate size and dimensions for development and uses allowed in the R-5 zone, and conform to the standards of Title 19 as described in these findings.
 - (2) MMC 17.28.040.B requires that lot shape shall be rectilinear, except where not practicable due to location along a street radius, or existing lot shape. The sidelines of lots, as far as practicable, shall run at right angles to the street upon which the lots face. As far as practicable, the rear lot line shall run parallel to the

street. The proposed parcels are rectilinear in shape, with side lot lines at right angles and the rear lot lines parallel to the street.

- (3) MMC 17.28.040.C limits compound lot lines for side or rear lot lines. There are no compound lot lines proposed for side or rear lot lines on any parcel.
- (4) MMC 17.28.040.D allows lot shape standards to be varied pursuant to MMC 19.911. No variance is requested in this application for lot shape standards.
- (5) MMC 17.28.040.E states that double frontage and reversed frontage lots should be avoided except in certain situations. None of the parcels in the proposed partition have frontage on more than 1 public right-of-way.
- (6) MMC 17.28.040.F requires that pursuant to the definition and development standards contained in Title 19 for frontage, required frontage shall be measured along the street upon which the lot takes access. This standard applies when a lot has frontage on more than 1 street. All parcels in the proposed subdivision will take access from a single frontage. As established in Finding 4.a, these frontages meet the minimum required street frontage in the R-5 zone.

D. MMC 17.28.080 contains criteria for public open spaces. The Milwaukie Comprehensive Plan does not identify any planned park or open space for the site. As such, no dedication for public open space is required.

- 16. MMC 17.32 describes required public improvements. The applicant proposes that all public improvements will meet the standards of this chapter. As conditioned, the proposal is consistent with MMC 17.32.
- 17. As described in Finding 3, public notice of these applications was posted on site and mailed to parties as identified in the Milwaukie Municipal Code. The applications were referred for comment to the following: Milwaukie Engineering Department, Milwaukie Building Department, Clackamas Fire District #1, and the Linwood, Lewelling, and Hector Campbell Neighborhood District Associations. The responses received are summarized below. Agencies did not respond if a response is not listed below.

Milwaukie Building Department – no comment

Milwaukie Engineering Department – the Milwaukie Engineering Department responded with a memorandum regarding public improvements and stormwater. The memorandum has been incorporated as the findings for MMC Chapter 19.700 and in the “Conditions of Approval” and “Other Requirements” sections of this notice.

Clackamas Fire District #1 – responded with comments regarding the required access and water supply plan as well as turning radius requirements. These requirements are incorporated into the findings and conditions of approval.

Aarisa Smith, Hector Campbell Neighborhood resident: Comments included questions about the removal of the existing trees from the site, the lack of a proper emergency vehicle turnaround, and the protection of existing structures on the site.

Staff response: The current City code does not include tree protection language except for trees located in mapped natural resource areas, of which there are none on the subject property. The issue of the removal of essentially all of the trees on the site was identified both in the initial Incompleteness letter as well as the Completeness letter, and staff encouraged the applicant to provide alternatives in order to preserve some of the trees on the site. The applicant indicated that a certified arborist has been retained to inventory and assess the condition of all trees on the property 12” in size and greater. However, an arborist report, or any additional information, was not provided to the City.

Regarding fire access and turnaround, the Fire Department submitted comments to that effect and requested additional information and/or revised plans to identify compliance with their access requirements.

Regarding the protection of the existing structures on the site, the Land Division code requires that the plans identify all existing structures and whether or not they will be removed. However, as with existing trees on the site, there is no language requiring that they be preserved nor that the narrative provide an alternatives analysis to identify why they are not being preserved.

Lars Campbell, on behalf of the Hector Campbell NDA: The NDA submitted several comments and questions regarding the following:

- Full street right-of-way design and pedestrian crossings
- Tree removal
- Stormwater facility
- Fire turnaround
- Proposed driveway locations
- On-street parking and bicycle lanes on the proposed new streets
- Fencing of property lines to, and protection of, adjacent parcels outside of the project limits
- Project timeline for construction and eventual sale of the new homes

Staff response: The Engineering Department responded to several of the comments as follows:

- The proposed sidewalk alignment at SE King Rd does not comply with the City of Milwaukie Public Works Standards. The final sidewalk will be required to be a 6' wide setback sidewalk with a 5.3-ft wide planter strip. One requirement of this development is to provide a crosswalk across SE King Rd at the proposed intersection of SE 51st Ave. Receiving ramps will be required to be constructed on the north side of SE King Rd as well.
- Tree removal, other than in resource areas, is not regulated in the code. The applicant indicated that a certified arborist had been retained to inventory and assess the condition of all trees on the property 12" in size and greater. No additional information was provided to the City.
- Clackamas Fire District has asked for additional information regarding the proposed fire turnaround. This information will be reviewed as part of the development permits for the project.
- Driveway locations will be covered under the building permit review process. The only restrictions are that the driveways are 7.5 ft from each side property line and that they are between 9 ft and 20 ft wide.
- Bicycle lanes are not required as the Transportation System Plan does not identify the need for bike lanes on SE Llewellyn St or SE Harrison St that may eventually connect to this subdivision.
- The proposal, as conditioned, creates streets in conformance with MMC 19.708 to allow parking on both sides.

- Sidewalk and paving will be constructed to the west property line. The line marked "4" on Sheet P400 of the preliminary plat is going to be the location of barricades indicating end of roadway. The south property line will be left open.
- As with any single family construction, there is no requirement for the builder to construct fencing. The erosion control plan submitted during the development process will require a silt fence at all boundaries of the project site.

The comments were forwarded to the applicant. No additional information was submitted to the City.

Zac Perry, Linwood NDA: The NDA submitted several comments and questions regarding the requested reduction in the solar access requirement for new development per MMC 19.1203. The NDA's concern was about the lack of specific information to support the request.

Staff response: The comments were forwarded to the applicant. No additional information was submitted to the City.

Janet Cartmill, 5466 SE Monroe St: Comments centered on the removal of a large number of mature trees from the site.

Staff response: The current City code does not include tree protection language except for trees located in mapped resource areas, of which there are none on the subject property. The issue of the removal of essentially all of the trees on the site was identified both in the initial Incompleteness letter as well as the Completeness letter, and staff encouraged the applicant to provide alternatives in order to preserve some of the trees on the site. The applicant indicated that a certified arborist has been retained to inventory and assess the condition of all trees on the property 12" in size and greater. No additional information was submitted to the City.

Recommended Conditions of Approval
File #S-2016-001; VR-2016-007 – Mission Park (5126 SE King Rd)

Conditions of Approval

1. Approval of the preliminary plat and a variance to allow a new public road intersection with a minimum intersection spacing not in conformance with the Public Works Design Standards shall be subject to:
 - a. Submittal of a revised traffic impact analysis meeting the requirements of PWS 1.0060 that resolves identified access conflicts and ADA access and crosswalks that is acceptable to the Engineering Director in accordance with MMC 12.16.040.B.2.
 - b. Submittal of proposed mitigation measures required to achieve compliance with Public Works Standards in accordance with MMC 12.16.040.2.d.
2. The applicant shall submit a final plat application within 6 months of the preliminary plat approval in accordance with MMC Subsection 17.24.040. The applicant shall obtain approval of the final plat prior to the expiration of this preliminary plat approval.
3. The applicant's final plat application shall include the items listed on the City of Milwaukie Final Plat Checklist. The following specific items and changes are required as part of the application:
 - a. A written narrative describing all changes made to the final plat that are not related to these conditions of approval.
 - b. A final plat that substantially conforms to the plans received by the Planning Department on July 14, 2016 and approved by this action, except as modified by these conditions of approval.
 - c. The final plat shall include spaces for signatures by the Milwaukie Planning Director and Milwaukie Engineering Director, and a note indicating that this subdivision is subject to the requirements of City of Milwaukie Land Use Application S-2016-001; VR-2016-007.
4. Prior to approval of the final plat, the following issues shall be resolved.
 - a. Submit a storm water management plan to the City of Milwaukie Engineering Department for review and approval. The plan shall be prepared in accordance with Section 2 – Stormwater Design Standards of the City of Milwaukie Public Works Standards. In the event the storm management system contains underground injection control devices, submit proof of acceptance of the storm system design from the Department of Environmental Quality.
 - b. Submit full-engineered plans for construction of all required public improvements, including the entire intersection of the proposed new public street with SE King Rd, reviewed and approved by the City of Milwaukie Engineering Department.
 - c. Obtain a right-of-way permit for construction of all required public improvements listed in these recommended conditions of approval.
 - d. Pay an inspection fee equal to 5.5% of the cost of the public improvements.

- e. Provide a payment and performance bond for 100 percent of the cost of the required public improvements.
- f. Provide an erosion control plan and obtain an erosion control permit.
- g. Dedicate 6.5 feet of right-of-way on SE King Rd fronting the proposed development property.
- h. Install all underground utilities, including stubs for utility service prior to surfacing any streets. Relocate or provide a private utility easement for all utilities encroaching onto adjacent properties.
- i. Construct a 6-ft set-back sidewalk, 5.3-ft wide planter strip curb and gutter on entire frontage of SE King Rd.
- j. Construct all sidewalks, ramps and driveways for the intersection of SE King and SE 51st Ave.
- k. Construct all required sidewalks, ramps and driveways on SE Llewellyn St, SE 51st Ave, and SE King Rd to comply with the MMC 19.708.3 and the City of Milwaukie Public Works Standards.
- l. Relocate the driveway approach to tax lot 7000 to comply with the requirements of MMC 12.16.040.C.4.a.
- m. Construct the entire width of the proposed SE 51st Ave to the final width of 32 feet along tax lot 7000.
- n. Construct the required sidewalk along the proposed SE 51st Ave along tax lot 7000.
- o. Construct a driveway approach to meet all guidelines of the Americans with Disabilities Act (ADA) to each new lot per the City of Milwaukie Public Works Standards. The driveway approach aprons shall be between 9 feet and 20 feet in width and least 7.5 feet from the side property line.
- p. Design and construct SE 51st Ave at Lot 14 such that tax lot 500 shall have adequate frontage meeting the development standards of the applicable zoning designation.
- q. Dedicate 1-ft wide reserve strips to the City of Milwaukie at the end of SE 51st Ave, the west boundary of tax lot 7000 and on the south side of 51st Ave along tax lot 600, tax lot 601 and a portion of tax lot 500.
- r. Clear vision areas shall be maintained at all driveways and accessways and on the corners of all property adjacent to an intersection.
- s. Provide a final approved set of Mylar and electronic PDF “As Constructed” drawings to the City of Milwaukie prior to final inspection.
- t. Remove all signs, structures, or vegetation in excess of three feet in height located in “vision clearance areas” at intersections of streets and driveways fronting the proposed development.

- u. Provide a final Access and Water Supply plan to be reviewed and approved by Clackamas Fire District #1.
- 5. Prior to final inspection for any building within the proposed development, the following shall be resolved:
 - a. Connect all residential roof drains to private drywells or other approved structures.

Other requirements

The following items are not conditions of approval necessary to meet applicable land use review criteria. They relate to other development standards and permitting requirements contained in the Milwaukie Municipal Code and Public Works Standards that are required at various points in the development and permitting process. They are included for the applicant's convenience and do not necessarily represent all standards or requirements that may be applicable.

- 1. The Time Limit on Approval established in MMC 17.04.050 applies to this proposed subdivision.
 - a. MMC 17.040.050.A: All decisions on boundary changes and land divisions shall expire 1 year after the date of approval. Reactivation of expired decisions may only be made by submission of a new application and related fees. *Staff note - approval of a final plat must occur prior to the expiration of the preliminary plat approval on which the final plat is based.*
 - b. MMC 17.04.050.B: Approvals may be extended up to 6 months upon submission of formal request to the original decision-making authority. One extension of the approval period not to exceed 6 months will be granted if the criteria in MMC 17.04.050.B are satisfied.
- 2. The requirements on MMC 17.24 for preparation and recording the final plat are as follows:
 - a. MMC 17.24.040: Within 6 months of City approval the applicant shall submit the final plat for City signatures. Approval of the final plat shall be null and void if the plat is not submitted within the time specified or if the plat is not recorded within 30 days after the date the last required signature has been obtained. One copy of the recorded plat shall be supplied to the City.
 - b. MMC 17.04.120.B: Prior to recording a lot consolidation, property line adjustment, subdivision, or partition plat or replat, the applicant shall submit the recording instruments to the Planning Director for a determination of consistency with the City Code and required approvals.
 - c. MMC 17.04.120.A: Recording instruments for boundary change, subdivision, partition, and replat shall be submitted to the County Surveyor within 6 months of City approval.

Mission Park

Subdivision Land Use Application

Milwaukie, OR 97222

July 13, 2016

RECEIVED JULY 14, 2016
MILWAUKIE PLANNING DEPARTMENT

Mission Park

Subdivision Land Use Application

Prepared for:
Mission Homes NW, LLC.
PO Box 1689
Lake Oswego, OR 97035
Phone: (503) 781 - 1814

Prepared by:
Westlake Consultants, Inc.
15115 SW Sequoia Parkway, Suite 150
Tigard, Oregon 97224
Phone: (503) 684-0652
Fax: (503) 624-0157



July 13, 2016

Ms. Vera Kolas AICP, Associate Planner
 CITY OF MILWAUKIE, OREGON
 Planning Department
 6101 SE Johnson Creek Blvd.
 Milwaukie OR 97206

RE: Mission Park Subdivision
FILE #: S-2016-001
Response for additional information - Completeness of Application

Dear Vera,

This letter is submitted in response to your incompleteness letter dated June 24, 2016 requesting additional information in order to deem the Mission Park Subdivision, File #S-2016-001 complete. This letter and enclosed materials are submitted by the applicant to supplement the application plans, narrative responses, and exhibits submitted to date. As per your letter, twenty-two (22) copies of all original and revised materials are enclosed.

Each of the items in your letter are addressed as follows:

Information Necessary to Complete Application

1. Compliance with MMC Title 17.20 – Preliminary Plat

- a. *Sheet P100 of the submitted plan set denotes a different property owner than the owner listed on page 1 of the application narrative. Please revise the submittal so that this information is correct and consistent within the application sections.*

Response: Sheet P100 of the preliminary engineering plan set and the application narrative have both been revised to reflect consistent property owner information.

- b. *The preliminary plat as submitted (Sheet P300) has not been stamped by an Oregon registered land surveyor as required.*

Response: Sheet P300 of the preliminary engineering plan set has been stamped by an Oregon registered land surveyor.

- c. *The preliminary plat as submitted (Sheet P300) does not include the location by section, township, and range and does not include a legal description as required. The property description noted on Sheet P100 identifies only tax map and lot information with 2 lots listed, whereas 6 lots are the extent of the property.*

Response: Sheet P300 of the preliminary engineering plan set has been revised to include the subject property location by section, township, and range, as well as a legal description. Sheet P100 has been revised to reflect the appropriate property description.

- d. *Contour lines with intervals at a minimum of 2 feet for slopes up to 10 percent and 5 feet for slopes over 10 percent have not been included on the existing conditions plan (Sheet P200); only spot elevations have been included on this sheet.*

Response: Sheet P200 of the preliminary engineering plan set has been revised to reflect contour lines with intervals at a minimum of 2 feet for slopes up to 10 percent and 5 feet for slopes over 10 percent.

- e. *The preliminary plat as submitted (Sheet P300) identifies Tract A (1,272 SF): what is the purpose of Tract A? Information regarding its use, ownership, etc. does not appear to be included.*

Response: Sheet P300 of the preliminary engineering plan set has been revised to reflect a public right-of-way dedication of 1,272 S. F. previously labeled Tract A.

2. Compliance with MMC Title 17.28 – Design Standards

3. Compliance with MMC Title 19.708

Response: The application narrative has been revised to address the subsections you cited in your completeness letter from these Chapters. Additionally, the preliminary engineering plan set has been revised to reflect sidewalk connectivity at the west end of the proposed Lewellyn St., as well as ADA compliant ramps at the end of all sidewalks.

4. *A 6.5' dedication on King Road frontage was not included in the plans. This dedication was required, and identified in the pre-application conference notes. This dedication will adjust the northern property line of Lot 1, which will in turn affect the adjoining lot. Please review and revise plans accordingly.*

Response: The preliminary engineering plan sets have been revised to include a 6.5' dedication on King Road frontage.

Lastly, your letter noted the number of existing trees on the property and the fact that the removal of these trees for development is not currently regulated. The applicant, Mission Homes NW, has retained a Certified Arborist to inventory and assess the condition of all trees on the subject property 12" in size and greater.

With submittal of this letter and enclosed revised materials, it is our understanding that this land use application is complete. We look forward to your confirmation of completeness.

Please feel free to contact me if you have any questions.

Sincerely,

Westlake Consultants, Inc.



Kenneth L. Sandblast, AICP
Director of Planning

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List of Exhibits

- A Land Use Application Form
- B Land Use Application Submittal Requirements Checklist
- C Preliminary Plat Checklist and Procedures
- D Preliminary Title Report
- E Pre-Application Conference Report
- F Storm Drainage Report
- G Geotechnical Report
- H Preliminary Engineering Plan Set
- I Subdivision Naming Approval
- J Future Connectivity and Development Concept Plan
- K Tax Map 1S2E30CD

Application and Subject Site Summary

SUBJECT PROPERTY: Tax Map 12E30CD
Tax Lots: 6900, 7400, 7700, 7701, 10300, 10400

PROPERTY LOCATION: 5126 SE King Rd.
Milwaukie, OR 97222

PROPOSAL: 14 Lot Subdivision

SITE SIZE: 2.66 Acres

ZONING DESIGNATION: R-5

PROPERTY OWNER: Paul Deggendorfer
11813 NE 15th Ave.
Vancouver, WA 98684

Eva Maria Deggendorfer
PO Box 1689
Lake Oswego, OR 97222

APPLICANT: Mission Homes NW, LLC.
PO Box 1689
Lake Oswego, OR 97035
Phone: (503) 781 - 1814

APPLICANT'S REPRESENTATIVE: Ken Sandblast, AICP
Westlake Consultants, Inc.
15115 SW Sequoia Parkway, Suite 150
Tigard, OR 97224
Phone: (503) 684 - 0652
Email: ksandblast@westlakeconsultants.com

Project Description

The proposed development subdivision comprised of 14 lots and 2 tracts on a 2.66 acre property fronting the south side of King Rd., west of SE 52nd Ave. in the City of Milwaukie (5126 SE King Rd, Milwaukie, OR 97222, Tax Map 12E30CD, Tax Lots: 6900, 7400, 7700, 7701, 10300, 10400). Two existing single family dwellings will be removed. Fourteen new lots will be served by two new public streets, SE 51st Ave. and Llewellyn Street. SE 51st Ave. will run north to south through the property, connecting to SE King Rd. on the north end of the site. Llewellyn St. will connect to SE 51st Ave. near the center of the site, ending near the western boundary of the property.

City utility services are available providing public water and public sewer in the adjacent King Road public right-of-way. The proposed 14-lot subdivision proposes to extend public sanitary and water lines as necessary to serve all of the proposed new lots.

Compliance with Applicable Standards for Subdivision Approval

After reviewing the City of Milwaukie Municipal Code, the applicant has found the following sections to be applicable to this subdivision preliminary plat application:

Chapter 12.16.040 Access Requirements and Standards

Chapter 12.24.030 Requirements

Chapter 17.12 Application Procedure and Approval Criteria

Chapter 17.16 Application Requirements and Procedure

Chapter 17.20 Preliminary Plat

Chapter 17.28 Design Standards

Chapter 17.32 Improvements

Chapter 17.44 Exceptions and Variances

Chapter 19.300 Base Zones

Chapter 19.400 Overlay Zones and Special Areas

Chapter 19.500 Supplementary Development Regulations

Chapter 19.600 Off-Street Parking and Loading

Chapter 19.700 Public Facility Improvements

Chapter 19.10000 Review Procedures

Chapter 19.1200 Solar Access Protection

Land Use Permit Request: Subdivision Preliminary Plat Application

As noted in *Milwaukie Municipal Code 17.12.020.E. (Application Procedure)*, subdivision preliminary plat applications shall be processed as a Type III Review in accordance with Section 19.1006. This application presents facts and narrative responses for approval of the Subdivision Preliminary Plat Application, pursuant to applicable requirements of the Milwaukie Municipal Code.

The following text recites applicable provisions of the Milwaukie Municipal Code, followed by a **Response** statement from the Applicant. References are made to several attached **Exhibits** containing evidence in support of the application.

TITLE 12: STREETS, SIDEWALKS AND PUBLIC PLACES

12.16.040 ACCESS REQUIREMENTS AND STANDARDS

A. Access

Private property shall be provided street access with the use of accessways. Driveway approaches shall be constructed as set forth in the Milwaukie Public Works Standards.

Response: The applicant has satisfied this condition by providing street access to the proposed lots in compliance with the provisions set forth in the Milwaukie Public Works Standards.

B. Access Spacing

1. Standards

a. Spacing for accessways on arterial streets, as identified in the Milwaukie Transportation System Plan, shall be a minimum of six hundred (600) feet.

b. Spacing for accessways on collector streets, as identified in the Milwaukie Transportation System Plan, shall be a minimum of three hundred (300) feet.

Response: These provisions are not applicable as no accessways on arterial or collector streets are proposed.

C. Accessway Location

1. Double Frontage

When a lot has frontage on two (2) or more streets, access shall be provided first from the street with the lowest classification. For example, access shall be provided from a local street before a collector or arterial street.

Response: This provision is not applicable as no double frontage lots are proposed.

2. Location Limitations

Individual access to single-family residential lots from arterial and collector streets is prohibited. An individual accessway may be approved by the Engineering Director only if there is no practicable alternative to access the site, shared access is provided by easement with adjacent properties, and the accessway is designed to contain all vehicle backing movements on the site and provide shared access with adjacent properties.

Response: This provision is not applicable as no individual access to lots from arterial or collector streets is proposed.

3. Distance from Property Line

The nearest edge of the driveway apron shall be at least seven and one-half (7½) feet from the side property line in residential districts and at least ten (10) feet from the

side property line in all other districts. This standard does not apply to accessways shared between two or more properties.

Response: The applicant has satisfied this provision by proposing lots that will allow future houses to be site upon each lot with driveways that can satisfy the standards of this section.

4. Distance from Intersection

To protect the safety and capacity of street intersections, the following minimum distance from the nearest intersecting street face of curb to the nearest edge of driveway apron shall be maintained. Where intersecting streets do not have curb, the distance shall be measured from the nearest intersecting street edge of pavement.

- a. *At least forty-five (45) feet for single-family residential properties accessing local and neighborhood streets. Where the distance cannot be met on existing lots, the driveway apron shall be located as far from the nearest intersection street face of curb as practicable.*

Response: The applicant has satisfied this provision by proposing lots that will allow future houses to be site upon each lot with driveways that can satisfy the standards of this section.

- b. *At least three hundred (300) feet for collectors, or beyond the end of queue of traffic during peak hour conditions, whichever is greater.*

Response: This provision is not applicable as the proposed development does not include any accessways on a collector road.

- c. *At least six hundred (600) feet for arterials, or beyond the end of queue of traffic during peak hour conditions, whichever is greater.*

Response: This provision is not applicable as the proposed development does not include any accessways on an arterial road.

D. Number of Accessway Locations

1. Safe Access

Accessway locations shall be the minimum necessary to provide access without inhibiting the safe circulation and carrying capacity of the street.

Response: The applicant has satisfied this provision by designing the proposed subdivision with the minimum necessary amount of accessways, so as to ensure safe circulation, and to not inhibit the carrying capacity of the streets. Each proposed lot has one access onto a public street. Lots 1, 2, 3, 9, 10, 11, 12, 13, and 14 take access onto SE 51st Ave. Lots 4, 5, 6, 7 and 8 take access onto Llewellyn St.

2. Shared Access

The number of accessways on collector and arterial streets shall be minimized whenever possible through the use of shared accessways and coordinated on-site circulation patterns. Within commercial, industrial, and multifamily areas, shared accessways and internal access between similar uses are required to reduce the number of access points to the higher-classified roadways, to improve internal site circulation, and to reduce local trips or movements on the street system. Shared

accessways or internal access between uses shall be established by means of common access easements.

Response: This provision is not applicable as shared accessways and accessways on collector and arterial streets are not proposed.

3. Single-Family Residential

One (1) accessway per property is allowed for single-family residential uses.

- a. For lots with more than one (1) street frontage on a local street and/or neighborhood route, one (1) additional accessway may be granted. Under such circumstances, a street frontage shall have no more than one (1) driveway approach.*

Response: This provision is not applicable as no lots with more than one street frontage are proposed.

- b. For lots with one (1) street frontage on a local street and/or neighborhood route, one (1) additional accessway may be granted where the driveway approaches can be spaced fifty (50) feet apart, upon review and approval by the Engineering Director. The spacing is measured between the nearest edges of the driveway aprons. Where the fifty (50)-foot spacing cannot be met, an additional accessway shall not be granted.*

Response: This provision is not applicable as the proposed subdivision does not propose lots with more than one accessway.

E. Accessway Design

1. Design Guidelines

Driveway approaches shall meet all applicable standards of the Americans with Disabilities Act and Milwaukie Public Works Standards.

Response: The applicant acknowledges this provision. All future driveway approaches will comply with applicable standards of the Americans with Disabilities Act and Milwaukie Public Works Standards.

F. Accessway Size

- 2. Single-family attached and detached residential uses shall have a minimum driveway apron width of nine (9) feet and a maximum width of twenty (20) feet.*

Response: The applicant has satisfied this provision by designing all proposed driveway aprons with a width of 20 feet.

12.24.030 REQUIREMENTS

A. No person shall maintain, or allow to exist on property which they own or which is in their possession or control, trees, shrubs, hedges, or other vegetation or projecting overhanging limbs thereof, which obstruct the view necessary for safe operation of motor vehicles or otherwise cause danger to the public in the use of City streets. It shall be the duty of the person who owns, possesses, or controls the property to remove or trim and keep trimmed any obstructions to the view.

Response: The applicant acknowledges the applicable provisions of this section

B. A clear vision area shall be maintained at all driveways and accessways and on the corners of all property adjacent to an intersection as provided by Section 12.24.040.

Response: The applicant is aware of these provisions. A clear vision area will be maintained at all driveways and accessways. Lots 1, 3, 8, 10 and 11 being adjacent to intersections, will also maintain a clear vision area. Compliance can be assured through a condition of approval.

C. A clear vision area shall contain no planting, fence, wall, structure, or temporary or permanent obstruction, except for an occasional utility pole or tree, exceeding three (3) feet in height, measured from the top of the curb, or where no curb exists, from the street centerline grade. Trees exceeding this height may be located in this area; provided, all branches and foliage are removed to the height of eight (8) feet above the grade. Open wire fencing that does not obscure sight more than ten percent (10%) is allowed to a maximum height of six (6) feet. (Ord. 2004 § 1, 2009; Ord. 1679 § 3, 1990)

Response: The applicant is aware of these provisions. A clear vision area will be maintained at all driveways and accessways. Lots 1, 3, 8, 10 and 11 being adjacent to intersections, will also maintain a clear vision area. Compliance can be assured through a condition of approval.

TITLE 17: LAND DIVISION

17.12.040 APPROVAL CRITERIA FOR PRELIMINARY PLAT

A. Approval Criteria

The approval authority may approve, approve with conditions, or deny a preliminary plat based on the following approval criteria:

1. *The proposed preliminary plat complies with Title 19 of this code and other applicable ordinances, regulations, and design standards.*

Response: The applicant is in compliance with this provision, as demonstrated by this application narrative and submitted exhibits, including preliminary engineering plans, preliminary plat and stormwater report.

2. *The proposed division will allow reasonable development and will not create the need for a variance of any land division or zoning standard.*

Response: The applicant is in compliance with this provision as the proposed development will not create a need for a variance of any land division or zoning standard.

3. *The proposed subdivision plat name is not duplicative and the plat otherwise satisfies the provisions of ORS 92.090(1).*

Response: The applicant is in compliance with this provision as the proposed subdivision plat name satisfies the applicable provisions of ORS 92.090(1) and is not duplicative (see Exhibit J).

4. *The streets and roads are laid out so as to conform to the plats of subdivisions already approved for adjoining property as to width, general direction, and in all*

other respects unless the City determines it is in the public interest to modify the street or road pattern.

Response: The applicant has satisfied this provision by proposing streets and roads laid out so as to conform to the width, general direction, and all other respects of that of SE King Rd., SE Home Ave., and SE 52nd Ave.

5. *A detailed narrative description demonstrating how the proposal conforms to all applicable code sections and design standards.*

Response: The applicant is in compliance with this provision as this narrative herein and submitted exhibits demonstrate how the proposal satisfies all applicable code sections and design standards.

B. Conditions of Approval

The approval authority may attach such conditions as are necessary to carry out the applicable ordinances and regulations and may require access control strips be granted to the City for the purpose of controlling access to adjoining undeveloped properties. (Ord. 1965 §§ 6, 7, 2006; Ord. 1907 (Attach. 1), 2002)

Response: The applicant is aware of this provision. Compliance can be assured through a condition of approval.

17.16.060 PRELIMINARY PLAT FOR PARTITION AND SUBDIVISION

The following shall accompany applications for partition:

- A. *Completed application form signed by all owners of property included in the proposal;*

Response: The applicant has satisfied this provision by including with this application a completed application form signed by all property owners (see Exhibit A).

- B. *Application fee as adopted by the City Council;*

Response: The applicant has satisfied this provision by including with this application all associated fees.

- C. *Completed and signed “submission requirements” and “partition checklist” or “subdivision checklist” forms as appropriate;*

Response: The applicant has satisfied this provision by including with this application a completed and signed submission requirements form and subdivision checklist form (see Exhibit B and Exhibit C).

- D. *All information specified on the “submission requirements” and “partition checklist” or “subdivision checklist” forms as appropriate;*

Response: The applicant has satisfied this provision by including with this application a completed and signed submission requirements form and subdivision checklist form; all information specified is appropriate (see Exhibit B and Exhibit C).

E. Requirements and information specified in Chapter 17.20; and

Response: The applicant has satisfied this provision by reviewing Chapter 17.20 and addressing compliance with all provisions found to be applicable to this application.

F. Any additional information as may be needed to demonstrate compliance with approval

Response: The applicant has satisfied this provision by reviewing the Milwaukie Municipal Code and addressing compliance with all provisions found to be applicable to this application.

17.20.010 SUBMISSION OF PLANS

Applicants for partition, subdivision, and replat shall prepare a preliminary plat and such improvement plans and other supplemental material including as may be required to describe and represent the objectives of the proposal. (Ord. 1907 (Attach. 1), 2002)

Response: The applicant has satisfied this provision by including with this application a preliminary plat (see Exhibit H), improvement plans, and all other necessary supplemental materials to properly represent the objectives of the proposal.

17.20.020 SCALE

The preliminary plat shall be drawn at a scale and on a sheet size that reliably and conveniently represents design details sufficient for the proper plan review and determination of compliance with this title. (Ord. 1907 (Attach. 1), 2002)

Response: The applicant has satisfied this provision by providing a preliminary plat drawn to scale and on a sheet size to insure all design details are legible (see Exhibit H).

17.20.030 GENERAL INFORMATION TO BE SHOWN ON THE PRELIMINARY PLAT

A. Preliminary plats shall be prepared by an Oregon registered land surveyor.

Response: The applicant has satisfied this provision by providing a preliminary plat prepared by a land surveyor registered in the state of Oregon.

B. The following general information shall be submitted with the preliminary plat:

- 1. Proposed name of the subdivision/partition. The name shall not duplicate nor resemble the name of another subdivision in the county. Subdivision names shall be approved by the County Surveyor in accordance with ORS Chapter 92;*
- 2. Date, north point, and scale of drawing;*
- 3. Appropriate identification clearly stating the map is a preliminary plat;*
- 4. Location by section, township, and range; and a legal description sufficient to define the location and boundaries of the area to be divided;*
- 5. Names and addresses of the owner, subdivider, and engineer or surveyor;*
- 6. Acreage;*
- 7. Structures and yard setbacks;*
- 8. The location, width, and purpose of easements;*
- 9. The location, approximate dimensions, and area of all lots;*
- 10. Lot and block numbers; and*

11. Other information as maybe specified on application forms and checklists prescribed by the Planning Director.

Response: The applicant has satisfied 17.20.030.B.(1-11) by including all required general information with the preliminary plat (see Exhibit H).

C. Vicinity map shall be drawn at an appropriate scale, showing all existing subdivisions, streets, and unsubdivided land between the proposed subdivision and the nearest existing arterial or collector streets, and showing how proposed streets may be extended to connect with existing streets. At a minimum, the vicinity map shall depict future street connections for land within 400 feet of the subject property. (Ord. 1907 (Attach. 1), 2002)

Response: The applicant has satisfied 17.20.030.C by including all necessary design standards with the vicinity map (see Exhibit H).

17.20.050 EXISTING CONDITIONS

The following shall be shown on the preliminary plat:

A. Location, width, and names of all existing or platted streets within or adjacent to the tract, together with easements, railroad right-of-way, and other important features, such as section lines and corners, City boundary lines, and monuments.

B. Contour lines related to an established benchmark or other datum approved by the Engineering Director, with intervals at a minimum of 2 feet for slopes up to 10% and 5 feet for slopes over 10%.

C. Location within the area to be divided, and in the adjoining streets and property, of existing sewers, water mains, culverts, storm drain system, and electric conduits or lines proposed to service the property to be subdivided, and invert elevations of sewer manholes, drain pipes, and culverts.

D. Zoning and existing uses within the tract and 200 feet on all sides, including the location and use of all existing structures indicating those that will remain and those to be removed.

E. Approximate location of areas subject to inundation or stormwater overflow with approximate high-water elevation. Location, width, direction, and flow of all watercourses on or abutting the tract including wetlands and watercourses as shown on City-adopted natural resource and Title 3 maps.

F. Natural features such as rock outcroppings, drainages whether seasonal or perennial, wooded areas, and isolated trees, including type and caliper.

G. Floodway and floodplain boundary.

H. Areas containing slopes of 25% or greater. (Ord. 1907 (Attach. 1), 2002)

Response: The applicant has satisfied 17.20.050 by including all applicable design standards for this 14-lot subdivision on the preliminary plat (see Exhibit H).

17.20.060 PROPOSED CONDITIONS

A. 12 copies of a preliminary plat shall be submitted to the Planning Director. The plat shall include the following information:

- 1. Date, north point, scale, address, assessor reference number, and legal description;*
- 2. Name and address of the record owner or owners and of the person who prepared the site plan;*

3. *Approximate acreage and square feet under a single ownership, or if more than 1 ownership is involved, the total contiguous acreage of all landowners directly involved in the partition;*
4. *For land adjacent to and within the area to be divided, the locations, names, and existing widths of all streets, driveways, public safety accesses, easements, and rights-of-way; location, width, and purpose of all other existing easements; and location and size of sewer and waterlines, drainage ways, power poles, and other utilities;*
5. *Location of existing structures, identifying those to remain in place and those to be removed;*
6. *Lot design and layout, showing proposed setbacks, landscaping, buffers, driveways, lot sizes, and relationship to existing or proposed streets and utility easements;*
7. *Existing development and natural features for the site and adjacent properties, including those properties within 100 feet of the proposal, showing buildings, mature trees, topography, and other structures;*
8. *Elevation and location of flood hazard boundaries;*
9. *The location, width, name, and approximate centerline grade and curve radii of all streets; the relationship of all streets to any projected streets planned by the City; whether roads will continue beyond the plat; and existing and proposed grade profiles. No street name may be used which will duplicate or be confused with the name of an existing street, except for extensions of existing streets. Street names and numbers shall conform to the established pattern in the surrounding area.*

Response: The applicant has satisfied 17.20.050.A.(1-9) by including all applicable design standards with the preliminary plat (see Exhibit H).

B. A conceptual plan shall be provided for complete subdivision or partitioning of the property, as well as any adjacent vacant or underutilized properties, so that access issues may be addressed in a comprehensive manner. The concept plan shall include documentation that all options for access have been investigated including shared driveways, pedestrian accessways, and new street development.

Response: As depicted on the submitted preliminary plat, the 14 lots proposed in this application provide for the complete subdivision of the property under its current R5 zoning (see Exhibit I).

C. A detailed narrative description demonstrating how the proposal meets all applicable provisions of this title, Title 19, and City design standards, including the Public Works Standards.

Response: The applicant has satisfied this provision by utilizing this narrative to demonstrate compliance with all applicable provisions of Title 17, Title 19, and City design standards, including the Public Works Standards.

D. Plans and drawings as necessary to demonstrate compliance with all applicable provisions of chapters of this title, Title 19, and City design standards, including the Public Works Standards.

Response: The applicant has satisfied this provision by submitting plans and drawings which demonstrate compliance with all applicable provisions of Title 17, Title 19, and City design standards, including the Public Works Standards.

G. A drainage summary report and plan prepared in accordance with the applicable Public Works Standards.

Response: The applicant has satisfied this provision by submitting with this application a drainage summary report and plan prepared in accordance with the applicable Public Works Standards (see Exhibit F).

H. Proposed deed restrictions, if any, in outline form.

Response: The applicant has satisfied this provision by submitting with this application a title deed verifying ownership of the property (see Exhibit D).

I. Improvements to be made by the developer and the approximate time such improvements are to be completed. Sufficient detail regarding proposed improvements shall be submitted so that they may be checked for compliance with the objectives of this title, State law, and other applicable City ordinances. If the nature of the improvements is such that it is impractical to prepare all necessary details prior to approval of the preliminary plat, the additional details shall be submitted with the request for final plat approval. (Ord. 2003 § 2, 2009; Ord. 1907 (Attach. 1), 2002)

Response: The applicant has satisfied this provision by submitting with this application detailed information regarding improvements to be made by the developer (see Exhibit H).

17.28.010 CONFORMITY OF SUBDIVISION

Partitions and subdivisions shall conform with any development plans of the City and shall take into consideration any preliminary plans made in anticipation thereof and shall conform with the requirements of state laws and with the standards established by the City. (Ord. 2003 § 2, 2009; Ord. 1907 (Attach. 1), 2002)

Response: The applicant has satisfied this provision by proposing a subdivision which conforms to the development plans of the City, in accordance with the requirements of state laws and the standards established by the City.

17.28.020 PUBLIC FACILITY IMPROVEMENTS

All land divisions and boundary changes that increase the number of lots shall be subject to the requirements and standards contained in Chapter 19.700 Public Facility Improvements and the Public Works Standards for improvements to streets, sidewalks, bicycle facilities, transit facilities, and public utilities. (Ord. 2025 § 3, 2011; Ord. 2003 § 2, 2009; Ord. 1907 (Attach. 1), 2002)

Response: The applicant has satisfied this provision by reviewing Chapter 19.700 Public Facility Improvements and the Public Works Standards, and proposing designs in compliance with all applicable provisions (see Exhibit H).

17.28.030 EASEMENTS*A. Utility Lines*

Easements for sewers, water mains, electric lines, or other public utilities shall be dedicated wherever necessary. The easements shall be provided in accordance with applicable design standards in the Public Works Standards.

Response: The applicant has satisfied this provision by providing easements for sewers, water mains, electric lines and other public utilities where necessary in accordance with applicable design standards set out by the Public Works Standards (see Exhibit H).

B. Watercourses

If a subdivision is traversed by a watercourse such as a drainageway, channel, or stream, there shall be provided a stormwater easement or drainage right-of-way conforming substantially with the lines of the watercourse, and such further width as will be adequate for the purpose of construction and maintenance. Streets, parkways, bicycle ways, or pedestrian ways parallel to major watercourses may be required. (Ord. 2003 § 2, 2009; Ord. 1907 (Attach. 1), 2002)

Response: This provision is not applicable as the proposed subdivision is not traversed by a watercourse.

17.28.040 GENERAL LOT DESIGN

This section does not apply to units of land that are created for purposes other than land development including parks, natural areas, right-of-way dedications, or reservations of a similar nature. Lots and tracts created for cottage cluster housing development, per Subsection 19.505.4, are also exempt from the requirements of this section.

A. Size and Shape

Lot size, width, shape, and orientation shall be appropriate for the location and the type of use contemplated. Minimum lot standards shall conform to Title 19.

Response: The applicant has satisfied this provision by proposing lots appropriate for the area and type of use. All lot standards established by Title 19 and applicable to the R-5 zone have been satisfied (see Exhibit H).

B. Rectilinear Lots Required

Lot shape shall be rectilinear, except where not practicable due to location along a street radius, or existing lot shape. The sidelines of lots, as far as practicable, shall run at right angles to the street upon which the lots face. As far as practicable, the rear lot line shall run parallel to the street.

Response: The applicant has satisfied this provision by proposing rectilinear lots. Sidelines of the proposed lots run at right angles to the street upon which the lots face, and rear lot lines run parallel to the street (see Exhibit H).

C. Limits on Compound Lot Line Segments

Changes in direction along side and rear lot lines shall be avoided. Cumulative lateral changes in direction of a side or rear lot line exceeding 10% of the distance between opposing lot corners along a given lot line is prohibited. Changes in direction shall be measured from a straight line drawn between opposing lot corners.

Response: As depicted on Sheet P300, the preliminary plat: (i) Lot 5 and Lot 6 have front lot lines on the Llewellyn public right-of-way and are proposed to be served via a shared private driveway easement and (ii) Lot 7 has a rear lot change of direction of 2.7'. When calculated using the methodology of this section, this 2.7' length is a 4.4% cumulative lateral change of direction which is less than 10%. This code section is satisfied.

D. Adjustments to Lot Shape Standard

Lot shape standards may be adjusted subject to Section 19.911 Variances.

Response: This provision is not applicable, as the applicant is not requesting a lot shape variance.

E. Limits on Double and Reversed Frontage Lots

Double frontage and reversed frontage lots should be avoided, except where essential to provide separations of residential development from railroads, traffic arteries, or adjacent nonresidential uses, or to overcome specific disadvantages of topography and orientation.

Response: This provision is not applicable as no lots with double frontage or reversed frontage are proposed.

F. Measurement of Required Frontage

Pursuant to the definition and development standards contained in Title 19 for frontage, required frontage shall be measured along the street upon which the lot takes access. (Ord. 2051 § 2, 2012; Ord. 2025 § 3, 2011; Ord. 2003 § 2, 2009; Ord. 1907 (Attach. 1), 2002)

Response: The applicant has satisfied this provision by measuring all frontage along the street upon which the lots takes access. The minimum street frontage requirement for a standard lot in the R-5 zone is 35 feet (see Table 19.301.4. Low Density Residential Development Standards). Lots 5 and 6 having 35 feet of street frontage have the smallest amount of street frontage of the 14 proposed lots. All applicable lot frontage standards have been satisfied (see Exhibit H).

17.28.050 FLAG LOT DEVELOPMENT AND FUTURE ACCESS

Applicants for flag lot partitioning must show that access by means of a dedicated public street is not possible. Consideration shall be given to other inaccessible adjacent or nearby properties for which a jointly dedicated public right-of-way could provide suitable access and avoid other flag lots. The creation of flag lots shall not preclude the development of street access to surrounding properties. Where there is the potential for future development on adjacent lots with new roadway development, flag lots may be allowed as an interim measure. In this case, Planning Commission review shall be required and the flag lot(s) must be designed to allow for future street development. Dedication of the future street right-of-way shall be required as part of final plat approval. (Ord. 2003 § 2, 2009; Ord. 1907 (Attach. 1), 2002)

Response: This provision is not applicable as no flag lots are proposed.

17.28.060 FLAG LOT DESIGN STANDARDS

A. Consistency with the Zoning Ordinance

Flag lot design shall be consistent with Subsection 19.504.8.

B. More than 2 Flag Lots Prohibited

The division of any unit of land shall not result in the creation of more than 2 flag lots within the boundaries of the original parent lot. Successive land divisions that result in more than 2 flag lots are prohibited. (Ord. 2051 § 2, 2012; Ord. 2025 § 3, 2011; Ord. 2003 § 2, 2009; Ord. 1907 (Attach. 1), 2002)

Response: These provisions are not applicable as no flag lots are proposed.

17.28.070 FLAG LOT LIMITATIONS

Flag lots are prohibited in new subdivisions and subdivisions platted after August 20, 2002, the effective date of Ordinance #1907. (Ord. 2051 § 2, 2012; Ord. 2003 § 2, 2009; Ord. 1907 (Attach. 1), 2002)

Response: This provision is not applicable as no flag lots are proposed.

17.32.010 IMPROVEMENT PROCEDURES

In addition to other requirements, improvements installed by the applicant, either as a requirement of these regulations or their own option, shall conform to the requirements of this title and to improvement standards and specifications in the Public Works Standards and Chapter 19.700 Public Facility Improvements. The improvements shall be installed in accordance with the following procedure:

- A. *Work shall not begin until plans have been checked for adequacy and approved by the City in writing. All such plans shall be prepared in accordance with requirements of the City.*

Response: The applicant is aware of this provision. Compliance can be assured through conditions of approval.

- B. *Work shall not begin until the City has been notified in advance, and if work is discontinued for any reason, it shall not be resumed until the City is notified.*

Response: The applicant is aware of this provision. Compliance can be assured through conditions of approval.

- C. *Improvements shall be constructed under the inspection and to the satisfaction of the City. The City may require changes in typical sections and details if unusual conditions arising during construction warrant such changes in the public interest.*

Response: The applicant is aware of this provision. Compliance can be assured through conditions of approval.

- D. *All underground utilities, installed in streets by the applicant, including but not limited to, water, sanitary sewers, and storm drains shall be constructed prior to the surfacing of streets. Stubs for service connections shall be extended to property lines long enough to avoid disturbing the street improvements when service connections are made. How utilities are to be serviced shall be indicated.*

Response: The applicant is aware of this provision. Compliance can be assured through conditions of approval.

- E. *A map showing all public improvements as built shall be filed with the City upon completion of the improvements. All such maps shall be prepared in accordance with*

requirements of the City. (Ord. 2025 § 3, 2011; Ord. 2003 § 2, 2009; Ord. 1907 (Attach. 1), 2002)

Response: The applicant is aware of this provision. Compliance can be assured through conditions of approval.

17.32.030 GUARANTEE

All improvements installed by the applicant shall be guaranteed as to workmanship and material for a period of 1 year following acceptance by the City. Such guarantee shall be secured by cash deposit or bond in the amount of the value of the improvements as set by the Engineering Director. Said cash or bond shall comply with the terms and conditions of Section 17.24.060. (Ord. 2003 § 2, 2009; Ord. 1907 (Attach. 1), 2002)

Response: The applicant is aware of this provision. Compliance can be assured through conditions of approval.

17.44.010 VARIANCE

A variance of any provision of this title may only be granted in accordance with Section 19.911. (Ord. 2025 § 3, 2011; Ord. 1907 (Attach. 1), 2002)

Response: This provision is not applicable as the applicant is not requesting a variance.

TITLE 19: ZONING

19.301 LOW DENSITY RESIDENTIAL ZONES

19.301.2 Allowed Uses in Low Density Residential Zones

Uses allowed, either outright or conditionally, in the low density residential zones are listed in Table 19.301.2 below. Similar uses not listed in the table may be allowed through a Director's Determination pursuant to Section 19.903. Notes and/or cross references to other applicable code sections are listed in the "Standards/Additional Provisions" column.

See Section 19.201 Definitions for specific descriptions of the uses listed in the table.

Table 19.301.2 Low Density Residential Uses Allowed				
Use	R-10	R-7	R-5	Standards/Additional Provisions
Residential Uses				
Single-family detached dwelling	P	P	P	Subsection 19.505.1 Design Standards for Single-Family Dwellings and Duplexes
Duplex	P/II	P/II	P	Subsection 19.505.1 Design Standards for Single-Family Dwellings and Duplexes Subsection 19.910.2 Duplexes
Residential home	P	P	P	Subsection 19.505.1 Design Standards for Single-Family Dwellings and Duplexes
Accessory dwelling unit	P/II	P/II	P/II	Subsection 19.910.1 Accessory Dwelling Units
Manufactured dwelling park	N	III	III	Subsection 19.910.3 Manufactured Dwelling Parks.
Senior and retirement housing	CU	CU	CU	Subsection 19.905.9.G Senior and Retirement Housing
Accessory and Other Uses				
Accessory use	P	P	P	Section 19.503 Accessory Uses
Agricultural or horticultural use	P	P	P	Subsection 19.301.3 Use Limitations and Restrictions
Community service use	CSU	CSU	CSU	Section 19.904 Community Service Uses
Home occupation	P	P	P	Section 19.507 Home Occupation Standards

Response: The applicant has satisfied this provision as single-family detached dwellings are a permitted use in the R-5 zone (see Table 19.301.2)

19.301.4 Development Standards

In the low density residential zones, the development standards in Table 19.301.4 apply. Notes and/or cross references to other applicable code sections are listed in the “Standards/Additional Provisions” column. Additional standards are provided in Subsection 19.301.5.

See Sections 19.201 Definitions and 19.202 Measurements for specific descriptions of standards and measurements listed in the table.

Table 19.301.4				
Low Density Residential Development Standards				
Standard	R-10	R-7	R-5	Standards/ Additional Provisions
A. Lot Standards				
1. Minimum lot size (sq ft)				Subsection 19.501.1 Lot Size Exceptions
a. Single-family detached	10,000	7,000	5,000	
b. Duplex	14,000	14,000	10,000	
2. Minimum lot width (ft)	70	60	50	
3. Minimum lot depth (ft)	100		80	
4. Minimum street frontage requirements (ft)				
a. Standard lot			35	
b. Flag lot			25	
c. Double flag lot			35	
B. Development Standards				
1. Minimum yard requirements for primary structures (ft)				Subsection 19.301.5.A Side Yards
a. Front yard	20	20	20	Subsection 19.501.2 Yard Exceptions
b. Side yard	10	5/10	5	Subsection 19.504.8 Flag Lot Design and Development Standards
c. Street side yard	20	20	15	
d. Rear yard	20	20	20	

Table 19.301.4 CONTINUED				
Low Density Residential Development Standards				
Standard	R-10	R-7	R-5	Standards/ Additional Provisions
B. Development Standards CONTINUED				
2. Maximum building height for primary structures	2.5 stories or 35 ft, whichever is less			Subsection 19.501.3 Building Height and Side Yard Height Plane Exceptions
3. Side yard height plane limit				Subsection 19.501.3 Building Height and Side Yard Height Plane Exceptions
a. Height above ground at minimum required side yard depth (ft)	20			
b. Slope of plane (degrees)	45			
4. Maximum lot coverage (percent of total lot area)	30%		35%	Section 19.201 "Lot coverage" definition Subsection 19.301.5.B Lot Coverage
5. Minimum vegetation (percent of total lot area)	35%	30%	25%	Subsection 19.301.5.C Front Yard Minimum Vegetation Subsection 19.504.7 Minimum Vegetation
C. Other Standards				
1. Density requirements (dwelling units per acre)				Subsection 19.301.5.D Residential Densities
a. Minimum	3.5	5.0	7.0	Subsection 19.501.4 Density Exceptions
b. Maximum	4.4	6.2	8.7	

Response: The property is zoned R5, a Low Density Residential zoning district as per the provisions of this section. The applicant has satisfied the provisions of *19.301.4 Development Standards* by reviewing Table 19.301.4 Low Density Residential Development Standards, and proposing a 14-lot preliminary plat that complies with all applicable lot standards, development standards and density requirements for the R-5 Zone (see Exhibit H).

19.301.5 Additional Development Standards

A. Side Yards

In the R-7 Zone, one side yard shall be at least 5 ft and one side yard shall be at least 10 ft, except on a corner lot the street side yard shall be 20 ft.

Response: This provision is not applicable as the applicant's site is zoned R-5.

B. Lot Coverage

The lot coverage standards in Subsection 19.301.4.B.4 are modified for specific uses and lot sizes as described below. The reductions and increases are combined for properties that are described by more than one of the situations below.

1. Decreased Lot Coverage for Large Lots

The maximum lot coverage percentage in Subsection 19.301.4.B.4 is reduced by 10 percentage points for a single-family detached dwelling, duplex, or residential home on a lot that is more than 2.5 times larger than the minimum lot size in Subsection 19.301.4.A.1.

Response: The minimum lot size for a single-family detached home in the R-5 zone is 5,000 sq. ft. Lot 1 at 7,126 sq. ft. is the largest of the 14 proposed lots. This provision is thereby not applicable as no proposed lots are more than 2.5 times larger than the minimum lot size for the R-5 zone.

2. Increased Lot Coverage for Single-Family Detached Dwellings

The maximum lot coverage percentage in Subsection 19.301.4.B.4 is increased by 10 percentage points for development of a single-family detached dwelling, or an addition to an existing single-family detached dwelling, provided that the portions of the structure that are in excess of 20 ft high, or in excess of one story, are limited to the lot coverage standard listed in Subsection 19.301.4.B.4. Only portions of the structure that are less than 20 and no taller than one story are allowed to exceed the listed lot coverage standard. See Figure 19.301.5.B.2 for an illustration of this allowance. A Type II variance per Subsection 19.911.4.A, to further increase this lot coverage allowance, is prohibited.

Response: This provision is not applicable as the applicant is in compliance with all applicable standards for maximum lot coverage percentages (see Exhibit H). No Type II variance per Subsection 19.911.4.A is requested.

3. Increased Lot Coverage for Duplexes

The maximum lot coverage percentage in Subsection 19.301.4.B.4 is increased by 20 percentage points for a duplex.

Response: This provision is not applicable as no duplexes are proposed.

4. Increased Lot Coverage for Detached Accessory Dwelling Units

The maximum lot coverage percentage in Subsection 19.301.4.B.4 is increased by 5 percentage points for the development of a new detached accessory dwelling unit. This allowance applies only to the detached accessory structure and does not allow for the primary structure or other accessory structures to exceed lot coverage standards.

Response: This provision is not applicable as no detached accessory dwellings are proposed.

C. Front Yard Minimum Vegetation

At least 40% of the front yard shall be vegetated. The front yard vegetation area required by this subsection counts toward the minimum required vegetation for the lot. A property may provide less than the 40% of the front yard vegetation requirement if it is necessary to provide a turnaround area so that vehicles can enter a collector or arterial street in a forward motion.

Response: At the future time of building permit, this section will be reviewed for compliance.

D. Residential Densities

The minimum and maximum development densities in Subsection 19.301.4.C.1 are applicable for land divisions and replats that change the number of lots.

If a proposal for a replat or land division is not able to meet the minimum density requirement—due to the dimensional requirements for lot width, lot depth, or lot frontage—the minimum density requirement shall instead be equal to the maximum number of lots that can be obtained from the site given its dimensional constraints. The inability of new lot lines to meet required yard dimensions from existing structures shall not be considered as a basis for automatically lowering the minimum density requirement.

Response: The applicant has satisfied this provision by complying with all applicable minimum and maximum development densities. The minimum density requirement for the R-5 zone is 7 dwellings per acre and the maximum density requirement for the R-5 zone is 8.7 dwellings per acre. The 14 proposed lots total 79,501 sq. ft. or 1.82 acres, therefore there are approximately 7.69 dwellings per acre, and all applicable minimum and maximum density requirements have been satisfied (see Exhibit H).

E. Accessory Structure Standards

Standards specific to accessory structures are contained in Section 19.502.

Response: This provision is not applicable as no accessory structures are proposed.

F. Number of Dwelling Structures

In the low density residential zones, 1 primary building designed for dwelling purposes shall be permitted per lot. See Subsection 19.504.4.

Response: The applicant has satisfied this provision by proposing only one primary dwelling per lot (see Exhibit H).

G. Off-Street Parking and Loading

Off-street parking and loading is required as specified in Chapter 19.600.

Response: The applicant has reviewed Chapter 19.600 and has satisfied all applicable standards regarding off-street parking and loading.

H. Public Facility Improvements

Transportation requirements and public facility improvements are required as specified in Chapter 19.700.

Response: The applicant has reviewed Chapter 19.700 and has satisfied all applicable standards regarding transportation requirements and public facility improvements.

I. Additional Standards

Depending upon the type of use and development proposed, the following sections of Chapter 19.500 Supplementary Development Regulations may apply. These sections are referenced for convenience, and do not limit or determine the applicability of other sections within the Milwaukie Municipal Code.

- 1. Subsection 19.504.4 Buildings on the Same Lot*
- 2. Subsection 19.504.8 Flag Lot Design and Development Standards*
- 3. Subsection 19.505.1 Design Standards for Single-Family Dwellings and Duplexes*
- 4. Subsection 19.505.2 Garage and Carport Standards*
- 5. Subsection 19.506.4 Manufactured Dwelling Siting and Design Standards, Siting Standards*

(Ord. 2051 § 2, 2012)

Response: Subsections 19.504.4 (Buildings on the Same Lot), 19.504.8 (Flag Lot Design and Development Standards), and 19.506.4 (Manufactured Dwelling Siting and Design Standard, Siting Standards) are not applicable as more than one building on the same lot, flag lots, and manufactured dwellings are not proposed. Future building permits for single family detached houses on each of the 14 lots proposed in this application will be reviewed for compliance with Subsection 19.505.1 (Design Standards for Single-Family Dwellings and Duplexes) and Subsection 19.505.2 (Garage and Carport Standards).

19.501 GENERAL EXCEPTIONS

The exceptions listed in Subsections 19.501.1–4 below are “by right” exceptions. “By right” exceptions require no special review or approval by the City to implement.

19.501.1 Lot Size Exceptions

Any legal lot or lot of record that does not meet the area or dimensional requirements specified in Chapter 19.300 may be put to a use permitted by the requirements of the Zoning Ordinance, with the following limitations:

- A. The development must conform to all other applicable standards of Title 19, unless a variance is granted per Section 19.911.*
- B. Single-family detached dwellings shall not be built on a lot with less than 3,000 sq ft of lot area.*

Response: The applicant has satisfied all lot size dimensional requirements, and does not require any lot size exceptions.

19.501.2 Yard Exceptions

A. In addition to yard requirements listed for each zoning district, buildings along certain major streets are subject to additional yard requirements as provided in Table 19.501.2.A below. Yards shall be measured so that the minimum distance from the center line of the right-of-way to the closest point of any building is the distance listed in Table 19.501.2.A plus the yard requirement of the underlying zone.

Table 19.501.2.A CONTINUED Additional Yard Requirements	
Major Street	Distance from Centerline (plus yard requirements in zone)
King Road	40'

Response: The applicant has reviewed Table 19.501.2.A (Additional yard Requirements) and all proposed lots are in compliance with all applicable provisions of this section. Lot 1 is the only proposed lot with frontage on King Road. A measurement of 40 feet from the centerline of King Road, in addition to the street side yard minimum of 15 ft. for the R-5 zone has been incorporated into the design of Lot 1 (see Exhibit H).

B. Architectural features such as cornices, eaves, canopies, sunshades, gutters, steps, unroofed landings, and flues may project up to 24 in into a required side yard or 36 in into a required front or rear yard. Such features extending from an accessory structure shall not be closer than 3 ft from a property line.

Response: The applicant is aware of these provisions. Provisions will be satisfied at the time of future building permit and approval. Compliance can be assured through conditions of approval.

C. A covered porch on a single-family detached dwelling may extend 6 ft into a required front yard if the following standards are met.

- 1. The porch is not enclosed on any side other than what is enclosed by the exterior walls of the dwelling. The following are not considered to be enclosures: structural supports for a covered porch, projections not extending more than 3 ft upward from the surface of the porch, railings, retractable sunshades, screens, or netting.*
- 2. The surface of the porch does not exceed 18 in high above the average grade.*
- 3. The porch is at least 5 ft from the front lot line.*

Response: The applicant is aware of these provisions. Provisions will be satisfied at the time of future building permit and approval. Compliance can be assured through conditions of approval.

19.501.3 Building Height and Side Yard Height Plane Exceptions

A. Projections such as chimneys, spires, domes, elevator shaft housings, flagpoles, and other similar objects not used for human occupancy are not subject to the building height and side yard height plane limitations of the Zoning Ordinance, except as provided in an L-F Zone.

B. The following encroachments into a side yard height plane are allowed:

- 1. Roof overhangs or eaves, provided that they do not extend more than 30 in horizontally beyond the side yard height plane.*
- 2. The gable end of a roof, provided that the encroachment is not more than 8 ft high above the side yard height plane or more than 40 ft wide.*
- 3. Dormers, with the following limitations:*

- a. *The highest point of any dormer is at or below the height of the primary roof ridge.*
- b. *The encroachment is not more than 6 ft high above the side yard height plane or more than 8 ft wide.*
- c. *The combined width of all dormers does not exceed 50% of the length of the roof on which they are located.*

Response: The applicant is aware of these provisions. Provisions will be satisfied prior to the design of homes. Compliance can be assured through conditions of approval.

19.501.4 Density Exceptions

In exchange for the dedication of parkland, residential density may be increased (and lot sizes decreased) so that overall parcel density remains the same. (Ord. 2051 § 2, 2012; Ord, 2025 § 2, 2011)

Response: This provision is not applicable as no variances to density requirements are requested.

19.504 SITE DESIGN STANDARDS

19.504.1 Clear Vision Areas

A clear vision area shall be maintained on the corners of all property at the intersection of 2 streets or a street and a railroad according to the provisions of the clear vision ordinance in Chapter 12.24.

Response: The applicant has satisfied this provision by maintaining a clear vision area on the corners of all property at the intersection of two streets.

19.504.2 Maintenance of Minimum Ordinance Requirements

No lot area, yard, other open space, or off-street parking or loading area shall be reduced by conveyance or otherwise below the minimum requirements of this title, except by dedication or conveyance for a public use.

Response: The applicant has satisfied this provision as no lot area, yard, other open space, or off-street parking or loading area reduced by conveyance have been proposed.

19.504.3 Dual Use of Required Open Space

No lot area, yard, or other open space or off-street parking or loading area which is required by this title for one use shall be used to meet the required lot area, yard, or other open space or off-street parking area for another use, except as provided in Subsection 19.605.4.

Response: The applicant has satisfied this provision as no lot area, yard or off-street parking area has been used to meet the required lot area, yard or off-street parking area for another use.

19.504.4 Buildings on the Same Lot

A. In R-10, R-7, and R-5 Zones, 1 primary dwelling shall be permitted per lot. A detached accessory dwelling unit may be permitted per Subsection 19.910.1.

Response: The applicant has satisfied this provision as only one primary dwelling unit

is proposed per lot.

- B. In the R-3 Zone, 1 single-family detached dwelling shall be permitted per lot. A detached accessory dwelling unit may be permitted per Subsection 19.910.1. Multifamily housing, with multiple structures designed for dwelling purposes, may be permitted as a conditional use per Section 19.905.*

Response: This provision is not applicable as the proposed development is zoned R-5.

19.504.5 Distance from Property Line

Where a side or rear yard is not required and a structure is not to be erected at the property line, it shall be set back at least 3 ft from the property line.

Response: This provision is not applicable as the R-5 zone has required side and rear yard setbacks.

19.504.6 Transition Area Measures

Where commercial, mixed use, or industrial development is proposed adjacent to properties zoned for lower-density residential uses, the following transition measures shall be required. These additional requirements are intended to minimize impacts on lower-density residential uses.

- A. All yards that abut, or are adjacent across a right-of-way from, a lower-density zone shall be at least as wide as the required front yard width of the adjacent lower-density zone. This additional yard requirement shall supersede the base zone yard requirements for the development property where applicable.*
- B. All yards that abut, or are adjacent across a right-of-way from, a lower-density zone shall be maintained as open space. Natural vegetation, landscaping, or fencing shall be provided to the 6-ft level to screen lower-density residential uses from direct view across the open space.*

Response: These provisions are not applicable as the proposed development is not zoned commercial, mixed use or industrial.

19.504.7 Minimum Vegetation

No more than 20% of the required vegetation area shall be covered in mulch or bark dust. Mulch or bark dust under the canopy of trees or shrubs is excluded from this limit. Plans for development shall include landscaping plans which shall be reviewed for conformance to this standard.

Response: The applicant will satisfy this provision as no more than 30% of the required vegetation area shall be covered in mulch or bark dust. Compliance can be assured through conditions of approval.

19.504.8 Flag Lot Design and Development Standards

A. Applicability

Flag lots in all zones are subject to the development standards of this subsection.

B. Development Standards

1. Lot Area Calculation

The areas contained within the accessway or pole portion of the lot shall not be counted toward meeting the minimum lot area requirement.

2. Yard Setbacks for Flag Lots

- a. *Front and rear yard: The minimum front and rear yard requirement for flag lots is 30 ft.*
- b. *Side yard. The minimum side yard for principal and accessory structures in flag lots is 10 ft.*

C. Variances Prohibited

Variances of lot area, lot width, and lot depth standards are prohibited for flag lots.

D. Frontage, Accessway, and Driveway Design

1. *Flag lots shall have frontage and access on a public street. The minimum width of the accessway and street frontage is 25 ft. The accessway is the pole portion of the lot that provides access to the flag portion of the lot.*
2. *Abutting flag lots shall have a combined frontage and accessway of 35 ft. For abutting accessways of 2 or more flag lots, the accessway of any individual lot shall not be less than 15 ft.*
3. **Driveway Design and Emergency Vehicle Access**
 - a. *Driveways shall be designed and constructed in accordance with Chapters 12.16 and 12.24 and the Public Works Standards.*
 - b. *Driveways serving single flag lots shall have a minimum paved width of 12 ft.*
 - c. *Driveways shall be centered within the accessway to minimize impacts on adjoining lots except when otherwise warranted to preserve existing vegetation or meet the intent of this subsection.*
 - d. *A paved turnaround area, or other provisions intended to provide emergency vehicle access and adequate maneuvering area, may be required.*
 - e. *Driveways serving 2 flag lots shall be consolidated and have a minimum shared driveway width of 16 ft.*
 - f. *The flag lot driveway shall be consolidated with the driveway on the parent lot to the greatest extent practicable.*
 - g. *Design standards for shared driveways serving more than 3 lots shall be specified by the Engineering Director after consultation with the Fire Marshal.*
 - h. *Parking along any portion of the driveway within the accessway is prohibited unless the driveway is suitably sized to meet the combined needs of parking and emergency access requirements.*

E. Protection of Adjoining Properties

Flag lots must be screened in accordance with this subsection to minimize potential adverse impacts to abutting properties. Fencing and screening must conform to the clear vision standards of Chapter 12.24. Fencing shall conform to the standards of Subsection 19.502.2.B.

1. *Planting and screening must be provided at the time of development. Installation of required screening and planting is required prior to final inspections and occupancy of the site unless a bond or other surety acceptable to the City Attorney is provided. Screening and landscaping shall be installed within 6 months thereafter or the bond will be foreclosed. The property owner shall maintain required screening and planting in*

good and healthy condition. The requirement to maintain required screening and planting is continuous.

2. *Impacts to neighboring lots due to use of the flag lot driveway shall be mitigated to the greatest extent practicable through screening and planting. Continuous screening along lot lines of the flag lot abutting any neighboring lot that is not part of the parent lot from which the flag lot was created is required as described below. See Figure 19.504.8.E.*
 - a. *Any combination of dense plantings of trees and shrubs and fencing that will provide continuous sight obstruction for the benefit of adjoining properties within 3 years of planting is allowed.*
 - b. *Fencing along an accessway may not be located nearer to the street than the front building line of the house located on lots that abut the flag lot accessway. Dense planting shall be used to provide screening along the accessway in areas where fencing is not permitted.*
 - c. *All required screening and planting shall be maintained and preserved to ensure continuous protection against potential adverse impacts to adjoining property owners.*

F. Tree Mitigation

All trees 6 in or greater in diameter, as measured at the lowest limb or 4 ft above the ground, whichever is less, shall be preserved. Where trees are required to be removed for site development, at least 1 evergreen or deciduous tree, of a species known to grow in the region, shall be replanted for each tree removed. At planting, deciduous trees shall be a minimum of 2 in caliper and evergreen trees shall be a minimum of 5 ft tall.

G. Landscaping Plan Required

A landscaping plan shall be submitted to the Planning Director prior to issuance of a building permit for new construction. The plan shall be drawn to scale and shall accompany development permit applications. The plan shall show the following information:

1. *A list of existing vegetation by type, including number, size, and species of trees.*
2. *Details for protections of existing trees.*
3. *List of existing natural features.*
4. *Location and space of existing and proposed plant materials.*
5. *List of plant material types by botanical and common names.*
6. *Notation of trees to be removed.*
7. *Size and quantity of plant materials.*
8. *Location of structures on adjoining lots, and location of windows, doors, and outdoor use areas on lots that adjoin the flag lot driveway.*

Response: These provisions are not applicable as no flag lots are proposed.

19.504.9 On-Site Walkways and Circulation

A. Requirement

All development subject to Chapter 19.700 (excluding single-family and multifamily residential development) shall provide a system of walkways that encourages safe and convenient pedestrian movement within and through the development site. Redevelopment projects that involve remodeling or changes in use shall be brought closer into conformance with this requirement to the greatest extent practicable. On-site walkways

shall link the site with the public street sidewalk system. Walkways are required between parts of a site where the public is invited to walk. Walkways are not required between buildings or portions of a site that are not intended or likely to be used by pedestrians, such as truck loading docks and warehouses.

B. Location

A walkway into the site shall be provided for every 300 ft of street frontage.

C. Connections

Walkways shall connect building entrances to one another and building entrances to adjacent public streets and existing or planned transit stops. On-site walkways shall connect with walkways, sidewalks, bicycle facilities, alleys, and other bicycle or pedestrian connections on adjacent properties used or planned for commercial, multifamily, institutional, or park use. The City may require connections to be constructed and extended to the property line at the time of development.

D. Routing

Walkways shall be reasonably direct. Driveway crossings shall be minimized. Internal parking lot circulation and design shall provide reasonably direct access for pedestrians from streets and transit stops to primary buildings on the site.

E. Design Standards

Walkways shall be constructed with a hard surface material, shall be permeable for stormwater, and shall be no less than 5 ft in width. If adjacent to a parking area where vehicles will overhang the walkway, a 7-ft-wide walkway shall be provided. The walkways shall be separated from parking areas and internal driveways using curbing, landscaping, or distinctive paving materials. On-site walkways shall be lighted to an average 5/10-footcandle level. Stairs or ramps shall be provided where necessary to provide a direct route.

Response: These provisions are not applicable as the proposed development is for single-family residential development.

19.504.10 Setbacks Adjacent to Transit

The following requirement applies to all new commercial, office, and institutional development within 500 ft of an existing or planned transit route measured along the public sidewalk that provides direct access to the transit route:

When adjacent to a street served by transit, new commercial, office, or institutional development, including uses authorized under Section 19.904 Community Service Uses, shall be set back no more than 30 ft from the right-of-way that is providing transit service.

- A. An individual building may be set back more than 30 ft, provided the building is part of an approved phased development that will result in a future building(s) that complies with the 30-ft setback standard.*
- B. For sites with multiple buildings, the maximum distance from a street with transit to a public entrance of the primary building shall be no more than 100 ft.*
- C. If the proposed building is part of an institutional campus, the Planning Director may allow flexibility in the setback and orientation of the building. As a trade-off for this flexibility, enhanced sidewalk connections shall be provided between the institutional building(s) and nearby transit stops.*

D. If the site abuts more than 1 street served by transit, then the maximum setback requirement need only apply to 1 street. (Ord. 2106 § 2 (Exh. F), 2015; Ord. 2051 § 2, 2012; Ord. 2025 § 2, 2011)

Response: These provisions are not applicable as the proposed development is not zoned for commercial, office or institutional development.

19.505 BUILDING DESIGN STANDARDS

19.505.1 Design Standards for Single-Family Dwellings and Duplexes

C. Standards

All buildings that meet the applicability provisions in Subsection 19.505.1.B shall meet the following design standards. The graphics provided are intended to illustrate how development could comply with these standards and should not be interpreted as requiring a specific architectural style. An architectural feature may be used to comply with more than one standard.

An applicant may request a variance to the Detailed Design standards in Subsection 19.505.1.C.4 through a Type II review, pursuant to Subsection 19.911.3.B. Variances to any other design standards requires a variance through a Type III review, per Subsection 19.911.3.C.

1. Articulation

All buildings shall incorporate design elements that break up all street-facing façades into smaller planes as follows. See Figure 19.505.1.C.1 for illustration of articulation.

a. For buildings with 30-60 ft of street frontage, a minimum of 1 of the following elements shall be provided along the street-facing façades.

- (1) A porch at least 5 ft deep.*
- (2) A balcony that is at least 2 ft deep and is accessible from an interior room.*
- (3) A bay window that extends at least 2 ft wide.*
- (4) A section of the façade that is recessed by at least 2 ft deep and 6 ft long.*
- (5) A gabled dormer.*

b. For buildings with over 60 ft of street frontage, at least 1 element in Subsection 19.505.1.C.1.a(1)-(4) above shall be provided for every 30 ft of street frontage. Elements shall be distributed along the length of the façade so that there are no more than 30 ft between 2 elements.

c. For buildings with less than 30 ft of street frontage, the building articulation standard is not applicable.

Response: The applicant is aware of this provision. Compliance can be assured through conditions of approval.

2. Eyes on the Street

At least 12% of the area of each street-facing façade must be windows or entrance doors. See Figure 19.505.1.C.2 for illustration of eyes on the street.

- a. Windows used to meet this standard must be transparent and allow views from the building to the street. Glass blocks and privacy windows in bathrooms do not meet this standard.*

- b. Half of the total window area in the door(s) of an attached garage counts toward the eyes on the street standard. All of the window area in the street-facing wall(s) of an attached garage count toward meeting this standard.*
- c. Window area is considered the entire area within the outer window frame, including any interior window grid.*
- d. Doors used to meet this standard must face the street or be at an angle of no greater than 45 degrees from the street.*
- e. Door area is considered the portion of the door that moves. Door frames do not count toward this standard.*

Response: The applicant is aware of this provision. Compliance can be assured through conditions of approval.

3. *Main Entrance*

At least 1 main entrance must meet both of the following standards. See Figure 19.505.1.C.3 for illustration of main entrances.

- a. Be no further than 8 ft behind the longest street-facing wall of the building.*
- b. Face the street, be at an angle of up to 45 degrees from the street, or open onto a porch. If the entrance opens up onto a porch, the porch must meet all of these additional standards.*
 - (1) Be at least 25 sq ft in area with a minimum 4-ft depth.*
 - (2) Have at least 1 porch entry facing the street.*
 - (3) Have a roof that is no more than 12 ft above the floor of the porch.*
 - (4) Have a roof that covers at least 30% of the porch area.*

Response: The applicant is aware of this provision. Compliance can be assured through conditions of approval.

4. *Detailed Design*

All buildings shall include at least 5 of the following features on any street-facing façade. See Figure 19.505.1.C.4 for illustration of detailed design elements.

- a. Covered porch at least 5 ft deep, as measured horizontally from the face of the main building façade to the edge of the deck, and at least 5 ft wide.*
- b. Recessed entry area at least 2 ft deep, as measured horizontally from the face of the main building façade, and at least 5 ft wide.*
- c. Offset on the building face of at least 16 in from 1 exterior wall surface to the other.*
- d. Dormer that is at least 4 ft wide and integrated into the roof form.*
- e. Roof eaves with a minimum projection of 12 in from the intersection of the roof and the exterior walls.*

- f. *Roof line offsets of at least 2 ft from the top surface of 1 roof to the top surface of the other.*
- g. *Tile or wood shingle roofs.*
- h. *Horizontal lap siding between 3 to 7 in wide (the visible portion once installed). The siding material may be wood, fiber-cement, or vinyl.*
- i. *Brick, cedar shingles, stucco, or other similar decorative materials covering at least 40% of the street-facing façade.*
- j. *Gable roof, hip roof, or gambrel roof design.*
- k. *Window trim around all windows at least 3 in wide and 5/8 in deep.*
- l. *Window recesses, in all windows, of at least 3 in as measured horizontally from the face of the building façade.*
- m. *Balcony that is at least 3 ft deep, 5 ft wide, and accessible from an interior room.*
- n. *One roof pitch of at least 500 sq ft in area that is sloped to face the southern sky and has its eave line oriented within 30 degrees of the true north/south axis.*
- o. *Bay window at least 2 ft deep and 5 ft long.*
- p. *Attached garage width, as measured between the inside of the garage door frame, of 35% or less of the length of the street-facing façade.*

Response: The applicant is aware of this provision. Compliance will be reviewed at the time of future building permit.

5. *Standards for Duplexes*

In addition to the other standards in Subsection 19.505.1, duplexes shall also comply with the following standards.

- a. *The exterior finish of the structure must be the same for both units.*
- b. *The eaves must be uniform for the entire structure.*
- c. *The window and door trim must be the same in type, size, and location for the entire structure.*
- d. *Windows must match in proportion and orientation for the entire structure.*
- e. *For duplexes or corner lots, each entrance is required to face a separate street frontage. Where an existing house is being converted, 1 main entrance with internal access to both units is allowed.*
- f. *For duplexes facing 1 frontage, the following standards apply.*
 - (1) *Only 1 entrance is required to face the frontage.*
 - (2) *Where more than 1 entrance to the structure faces the street, each separate entrance is required to meet the standards of Subsection 19.505.1.C.3.*
 - (3) *A second entrance from a side or rear yard is not allowed within 10 ft of the side or rear property line.*

Response: These provisions are not applicable as no duplexes are proposed.

19.505.2 *Garage and Carport Standards*

C. Standards

1. The front of a garage or carport can be no closer to the front lot line than the longest street-facing wall of the house that encloses living area. The following exceptions apply:
 - a. A garage or carport may extend up to 5 ft in front if there is a covered front porch and the garage or carport does not extend beyond the front of the porch.
 - b. A garage may extend up to 5 ft in front if the garage is part of a 2-story façade that has a window at least 12 sq ft in area on the second story that faces the street.
2. The width of a street-facing garage door(s), as measured between the inside of the garage door frame, may not exceed 40% of the total width of the street-facing façades on the same street frontage as the garage door. See Figure 19.505.2.C.2. Notwithstanding this limit, a dwelling is allowed 1 12-ft-wide garage door, regardless of the total width of street-facing façades.

The maximum allowed garage width may be increased to 50% of the total width of the street-facing façade if a total of 7 detailed design elements in Subsection 19.505.1.C.4 are included on the street-facing façade.
3. Garages may be side-oriented to the front lot line if the eyes on the street standard in Subsection 19.505.1.C.2 is met.

Response: The applicant is aware of this provision. Compliance can be assured through conditions of approval.

19.605 VEHICLE PARKING QUANTITY REQUIREMENTS

19.605.1 Minimum and Maximum Requirements

A. Development shall provide at least the minimum and not more than the maximum number of parking spaces as listed in Table 19.605.1. Modifications to the standards in Table 19.605.1 may be made as per Section 19.605. Where multiple ratios are listed, the Planning Director shall determine which ratio to apply to the proposed development or use.

Response: The applicant has satisfied this provision by providing the minimum off-street parking requirement for the R-5 zone of one parking space per dwelling unit. There is no maximum off-street parking requirement for the R-5 zone (see Table 19.605.1).

19.607 OFF-STREET PARKING STANDARDS FOR RESIDENTIAL AREAS

19.607.1 Residential Driveways and Vehicle Parking Areas

A. Dimensions

Off-street parking space dimensions for required parking spaces are 9 ft wide x 18 ft deep.

B. Location

1. Off-street vehicle parking shall be located on the same lot as the associated dwelling, unless shared parking is approved per Subsection 19.605.4.
2. No portion of the required parking space is allowed within the following areas. See Figure 19.607.1.B.2. These standards do not apply to off-street parking for cottage clusters, which are subject to the standards in Subsection 19.505.4.
 - a. Within the required front yard or within 15 ft of the front lot line, whichever is greater.
 - b. Within a required street side yard.

Response: The applicant is aware of this provision. Compliance can be assured through conditions of approval.

C. Parking Surface Materials

Parking of vehicles shall only be allowed on surfaces described in Subsection 19.607.1.C.

1. *The following areas are required to have a durable and dust-free hard surface, and shall be maintained for all-weather use. The use of pervious concrete, pervious paving, driveway strips, or an in-ground grid or lattice surface is encouraged to reduce stormwater runoff.*
 - a. *Required parking space(s).*
 - b. *All vehicle parking spaces and maneuvering areas located within a required front or side yard. Areas for boat or RV parking are exempt from this requirement and may be graveled.*
 - c. *All off-street parking and maneuvering areas for a residential home.*
2. *Maneuvering areas and unrequired parking areas that are outside of a required front or side yard are allowed to have a gravel surface.*

Response: The applicant is aware of this provision. Compliance can be assured through conditions of approval.

D. Parking Area Limitations

Uncovered parking spaces and maneuvering areas for vehicles, and for recreational vehicles and pleasure craft as described in Subsection 19.607.2.B, have the following area limitations. See Figure 19.607.1.D. The pole portion of a flag lot is not included in these area limitations.

These standards do not apply to off-street parking for cottage clusters, which are subject to the standards in Subsection 19.505.4; nor to rowhouses, which are subject to the standards in Subsection 19.505.5.

- a. *Uncovered parking spaces and maneuvering areas cannot exceed 50% of the front yard area.*
- b. *Uncovered parking spaces and maneuvering areas cannot exceed 30% of the required street side yard area.*
- c. *No more than 3 residential parking spaces are allowed within the required front yard. A residential parking space in the required front yard is any 9- x 18-ft rectangle that is entirely within the required front yard that does not overlap with another 9- x 18-ft rectangle within the required front yard.*

Response: The applicant is aware of these provisions and will address compliance when designing the proposed off-street parking.

Figure 19.607.1.D

Front and Street Side Yard Parking Area Limits

E. Additional Driveway Standards

1. *Parking areas and driveways on the property shall align with the approved driveway approach and shall not be wider than the approved driveway approach within 10 ft of the right-of-way boundary.*

2. *Properties that take access from streets other than local streets and neighborhood routes shall provide a turnaround area on site that allows vehicles to enter the right-of-way in a forward motion.*

Response: The applicant is aware of this provision. Compliance can be assured through conditions of approval.

19.703 REVIEW PROCESS

19.703.1 Preapplication Conference

For all proposed development that requires a land use application and is subject to Chapter 19.700 per Section 19.702, the applicant shall schedule a preapplication conference with the City prior to submittal of the land use application. The Engineering Director may waive this requirement for proposals that are not complex.

Response: This provision has been satisfied as the applicant attended a pre-application conference with the City on Thursday, March 10th, 2016.

19.703.2 Application Submittal

For all proposed development that is subject to Chapter 19.700 per Section 19.702, one of the following types of applications is required.

A. Development Permit Application

If the proposed development does not require a land use application, compliance with Chapter 19.700 will be reviewed as part of the development permit application submittal.

B. Transportation Facilities Review (TFR) Land Use Application

If the proposed development triggers a transportation impact study (TIS) per Section 19.704, a TFR land use application shall be required. Compliance with Chapter 19.700 will be reviewed as part of the TFR application submittal and will be subject to a Type II review process as set forth in Section 19.1005. The TFR application shall be consolidated with, and processed concurrently with, any other required land use applications.

If the proposed development does not trigger a TIS per Section 19.704, but does require the submittal of other land use applications, compliance with Chapter 19.700 will be reviewed during the review of the other land use applications.

Response: This provision is not applicable as a TFR is not required. The 14-lot residential development currently proposed is projected to generate 14 new trips during the evening peak hour, with 9 entering and 5 exiting the site. The estimated daily traffic volumes for the site are 140 new trips, with half entering and half exiting.

19.703.3 Approval Criteria

For all proposed development that is subject to Chapter 19.700 per Section 19.702, the required development permit and/or land use application shall demonstrate compliance with the following approval criteria at the time of submittal.

A. Procedures, Requirements, and Standards

Development and related public facility improvements shall comply with procedures, requirements, and standards of Chapter 19.700 and the Public Works Standards.

Response: The applicant has satisfied this provision and has documented compliance with the standards of Chapter 19.700 and the Public Works Standards via this narrative.

B. Transportation Facility Improvements

Development shall provide transportation improvements and mitigation at the time of development in rough proportion to the potential impacts of the development per Section 19.705 Rough Proportionality, except as allowed by Section 19.706 Fee in Lieu of Construction.

Development in downtown zones that is exempt per Subsection 19.702.3.B shall only be required to provide transportation improvements that are identified by a Transportation Impact Study as necessary to mitigate the development's transportation impacts. Such development is not required to provide on-site frontage improvements.

Response: To satisfy this provision, at the time of development the applicant will provide transportation improvements and mitigation in rough proportion to the potential impacts of the development. Compliance can be assured through conditions of approval.

C. Safety and Functionality Standards

The City will not issue any development permits unless the proposed development complies with the City's basic safety and functionality standards, the purpose of which is to ensure that development does not occur in areas where the surrounding public facilities are inadequate. Upon submittal of a development permit application, an applicant shall demonstrate that the development property has or will have all of the following:

- 1. Adequate street drainage, as determined by the Engineering Director.*
- 2. Safe access and clear vision at intersections, as determined by the Engineering Director.*
- 3. Adequate public utilities, as determined by the Engineering Director.*
- 4. Access onto a public street with the minimum paved widths as stated in Subsection 19.703.3.C.5 below.*
- 5. Adequate frontage improvements as follows:*
 - a. For local streets, a minimum paved width of 16 ft along the site's frontage.*
 - b. For nonlocal streets, a minimum paved width of 20 ft along the site's frontage.*
 - c. For all streets, a minimum horizontal right-of-way clearance of 20 ft along the site's frontage.*
- 6. Compliance with Level of Service D for all intersections impacted by the development, except those on Oregon Highway 99E that shall be subject to the following:*
 - a. Level of Service F for the first hour of the morning or evening 2-hour peak period.*
 - b. Level of Service E for the second hour of the morning or evening 2-hour peak period.*

Response: The applicant will satisfy these provisions by demonstrating compliance upon submittal of a development permit application.

19.704.2 TIS General Provisions

A. All transportation impact studies, including neighborhood through-trip and access studies, shall be prepared and certified by a registered Traffic or Civil Engineer in the State of Oregon.

Response: The provisions of section 19.704.2. are not applicable as a transportation impact study is not required.

19.708 TRANSPORTATION FACILITY REQUIREMENTS

19.708.1 General Street Requirements and Standards

A. Access Management

All development subject to Chapter 19.700 shall comply with access management standards contained in Chapter 12.16.

Response: The applicant has utilized this narrative to address compliance with the access management standards contained in Chapter 12.16.

B. Clear Vision

All development subject to Chapter 19.700 shall comply with clear vision standards contained in Chapter 12.24.

Response: The applicant has utilized this narrative to address compliance with the clear vision standards contained in Chapter 12.24.

C. Development in Downtown Zones

Street design standards and right-of-way dedication for the downtown zones are subject to the requirements of the Milwaukie Public Works Standards, which implement the streetscape design of the Milwaukie Downtown and Riverfront Plan: Public Area Requirements (PAR). Unless specifically stated otherwise, the standards in Section 19.708 do not apply to development located in the downtown zones or on street sections shown in the PAR per Subsection 19.304.6.

Response: This provision is not applicable as the proposed development is not within a downtown zone.

D. Development in Non-Downtown Zones

Development in a non-downtown zone that has frontage on a street section shown in the PAR is subject to the requirements of the Milwaukie Public Works Standards, which implements the street design standards and right-of-way dedication requirements contained in the PAR for that street frontage. The following general provisions apply only to street frontages that are not shown in the PAR and for development that is not in any of the downtown zones listed in Subsection 19.708.1.C above:

- 1. Streets shall be designed and improved in accordance with the standards of this chapter and the Public Works Standards. ODOT facilities shall be designed consistent with State and federal standards. County facilities shall be designed consistent with County standards.*
- 2. Streets shall be designed according to their functional classification per Figure 8-3b of the TSP.*
- 3. Street right-of-way shall be dedicated to the public for street purposes in accordance with Subsection 19.708.2. Right-of-way shall be dedicated at the corners of street intersections to accommodate the required turning radii and transportation facilities in accordance with Section 19.708 and the Public Works Standards. Additional dedication*

may be required at intersections for improvements identified by the TSP or a required transportation impact study.

4. *The City shall not approve any development permits for a proposed development unless it has frontage or approved access to a public street.*
5. *Off-site street improvements shall only be required to ensure adequate access to the proposed development and to mitigate for off-site impacts of the proposed development.*
6. *The following provisions apply to all new public streets and extensions to existing public streets.*
 - a. *All new streets shall be dedicated and improved in accordance with this chapter.*
 - b. *Dedication and construction of a half-street is generally not acceptable. However, a half-street may be approved where it is essential to allow reasonable development of a property and when the review authority finds that it will be possible for the property adjoining the half-street to dedicate and improve the remainder of the street when it develops. The minimum paved roadway width for a half-street shall be the minimum width necessary to accommodate 2 travel lanes pursuant to Subsection 19.708.2.*
7. *Traffic calming may be required for existing or new streets. Traffic calming devices shall be designed in accordance with the Public Works Standards or with the approval of the Engineering Director.*
8. *Railroad Crossings*
Where anticipated development impacts trigger a need to install or improve a railroad crossing, the cost for such improvements may be a condition of development approval.
9. *Street Signs*
The City shall install all street signs, relative to traffic control and street names, as specified by the Engineering Director. The applicant shall reimburse the City for the cost of all such signs installed by the City.
10. *Streetlights*
The location of streetlights shall be noted on approved development plans. Streetlights shall be installed in accordance with the Public Works Standards or with the approval of the Engineering Director.

Response: These provisions govern implementation following approval of a plan to construct a public street. Compliance can be assured through a condition of approval.

E. Street Layout and Connectivity

1. *The length, width, and shape of blocks shall take lot size standards, access and circulation needs, traffic safety, and topographic limitations into consideration.*
2. *The street network shall be generally rectilinear but may vary due to topography or other natural conditions.*
3. *Streets shall be extended to the boundary lines of the developing property where necessary to give access to or allow for future development of adjoining properties.*
 - a. *Temporary turnarounds shall be constructed for street stubs in excess of 150 ft in length. Drainage facilities shall be constructed to properly manage stormwater runoff from temporary turnarounds.*

- b. *Street stubs to adjoining properties shall not be considered turnarounds, unless required and designed as turnarounds, since they are intended to continue as through streets when adjoining properties develop.*
 - c. *Reserve strips may be required in order to ensure the eventual continuation or completion of a street.*
4. *Permanent turnarounds shall only be provided when no opportunity exists for creating a through street connection. The lack of present ownership or control over abutting property shall not be grounds for construction of a turnaround. For proposed land division sites that are 3 acres or larger, a street ending in a turnaround shall have a maximum length of 200 ft, as measured from the cross street right-of-way to the farthest point of right-of-way containing the turnaround. For proposed land division sites that are less than 3 acres, a street ending in a turnaround shall have a maximum length of 400 ft, measured from the cross street right-of-way to the farthest point of right-of-way containing the turnaround. Turnarounds shall be designed in accordance with the requirements of the Public Works Standards. The requirements of this subsection may be adjusted by the Engineering Director to avoid alignments that encourage nonlocal through traffic.*
 5. *Closed-end street systems may serve no more than 20 dwellings.*

Response: The applicant examined the subject property's existing conditions, as well as the surrounding street network, circulation needs and traffic safety prior to the design of the proposed streets, Llewellyn St. and SW 51st Ave. To show possible future development of surrounding properties the applicant has provided a future connectivity and development concept plan (see Exhibit J). This plan depicts conceptually how surrounding adjacent properties to the south and east of the subject site may be divided under current zoning and served by the public streets proposed in this application. When overall configuration, gross lot areas, existing improvements, minimum setbacks and current zoning are combined for each, adjacent parcels east and south are divisible as depicted on Exhibit J and in the case of Tax Lot 10600 and 10700, not dividable. The proposed public streets in this application to allow for and provide for future development adjoining properties. There are no permanent turnarounds proposed. The applicable provision of these sections are satisfied.

F. Intersection Design and Spacing

1. *Connecting street intersections shall be located to provide for traffic flow, safety, and turning movements, as conditions warrant.*
2. *Street and intersection alignments for local streets shall facilitate local circulation but avoid alignments that encourage nonlocal through traffic.*
3. *Streets should generally be aligned to intersect at right angles (90 degrees). Angles of less than 75 degrees will not be permitted unless the Engineering Director has approved a special intersection design.*
4. *New streets shall intersect at existing street intersections so that centerlines are not offset. Where existing streets adjacent to a proposed development do not align properly, conditions shall be imposed on the development to provide for proper alignment.*
5. *Minimum and maximum block perimeter standards are provided in Table 19.708.1.*
6. *Minimum and maximum intersection spacing standards are provided in Table 19.708.1.*

Response: In satisfaction of these subsections, this subdivision application proposes local public streets on the property that are designed and located to provide for traffic flow and turning movements into and through the subject site. As depicted on Exhibit J, the proposed local streets are aligned at right angles and facilitate local circulation. The proposed SE 51st local public street will intersect with the existing King Road and there is no existing intersection centerline offsets involved given there is no existing street opposite the subject site on the north side of King Road. Future extension of the proposed local street comply with block perimeter local street standards.

As depicted on Exhibit K, this application proposes a 14 lot subdivision and a new local street intersection onto King Road, an arterial street, in approximately the middle of the existing block between SE Home and SE 52nd Avenues which is less than 530' minimum distance between Arterial intersections. The intersection location is proposed in this location due to a combination of existing conditions including the total length of public street frontage of the subject site on King Road, existing driveway access of the adjacent property at the northeast corner of the subject site, underlying R5 zoning lot area and dimensional standards, and the proposed 6.5 feet of King Road right-of-way dedication along the subject site King Road frontage. Further, as depicted on Exhibit K, the Tax Assessor map for the subject site, this application is a replat of the existing 32 lots in the Minthorn Addition subdivision plat underlying the subject site. As per Section 19.702.1.C, the entire Chapter 19.700 is applicable to replats that increase the number of lots. The replatted 14 lots resulting from this application is less than the existing 32 platted lots. Thus, the minimum 530' arterial intersection spacing standard is not applicable to this application.

Table 19.708.1 Street/Intersection Spacing			
<i>Street Classification</i>	<i>Minimum Distance Between Street Intersections</i>	<i>Maximum Distance Between Street Intersections</i>	<i>Maximum Block Perimeter</i>
<i>Arterial</i>	530'	1,000'	2600'
<i>Collector</i>	300'	600'	1800'
<i>Neighborhood Route</i>	150'	530'	1650'
<i>Local</i>	100'	530'	1650'

19.708.2 Street Design Standards

Table 19.708.2 contains the street design elements and dimensional standards for street cross sections by functional classification. Dimensions are shown as ranges to allow for flexibility in developing the most appropriate cross section for a given street or portion of street based on existing conditions and the surrounding development pattern. The additional street design

standards in Subsection 19.708.2.A augment the dimensional standards contained in Table 19.708.2. The Engineering Director will rely on Table 19.708.2 and Subsection 19.708.2.A to determine the full-width cross section for a specific street segment based on functional classification. The full-width cross section is the sum total of the widest dimension of all individual street elements. If the Engineering Director determines that a full-width cross section is appropriate and feasible, a full-width cross section will be required. If the Engineering Director determines that a full-width cross section is not appropriate or feasible, the Engineering Director will modify the full-width cross section requirement using the guidelines provided in Subsection 19.708.2.B. Standards for design speed, horizontal/vertical curves, grades, and curb return radii are specified in the Public Works Standards.

Street Classification	Full-Width Right of Way Dimension	Individual Street Elements					
		Travel Lane (Center Lane)	Bike Lane	On-Street Parking	Landscape Strips	Sidewalk Curb Tight	Sidewalk Setback
Arterial	54'-89'	11'-12' (12'-13')	5'-6'	6'-8'	3'-5'	8'-10'	6'
Collector	40'-74'	10'-11'	5'-6'	6'-8'	3'-5'	8'	6'
Neighborhood	20'-68'	10'	5'	6'-8'	3'-5'	6'	5'
Local	20'-68'	8' or 10'	5'	6'-8'	3'-5'	6'	5'
Truck Route	34'-89'	11'-12' (12'-13')	5'-6'	6'-8'	3'-5'	8'-10'	Per street classification
Transit Route	30'-89'	10'-12' (12'-13')	5'-6'	6'-8'	3'-5'	Per street classification	Per street classification

A. Additional Street Design Standards

These standards augment the dimensional standards contained in Table 19.708.2 and may increase the width of an individual street element and/or the full-width right-of-way dimension.

- 1. Minimum 10-ft travel lane width shall be provided on local streets with no on-street parking.*
- 2. Where travel lanes are next to a curb line, an additional 1 ft of travel lane width shall be provided. Where a travel lane is located between curbs, an additional 2 ft of travel lane width shall be provided.*
- 3. Where shared lanes or bicycle boulevards are planned, up to an additional 6 ft of travel lane width shall be provided.*
- 4. Bike lane widths may be reduced to a minimum of 4 ft where unusual circumstances exist, as determined by the Engineering Director, and where such a reduction would not result in a safety hazard.*
- 5. Where a curb is required by the Engineering Director, it shall be designed in accordance with the Public Works Standards.*
- 6. Center turn lanes are not required for truck and bus routes on street classifications other than arterial roads.*
- 7. On-street parking in industrial zones shall have a minimum width of 8 ft.*
- 8. On-street parking in commercial zones shall have a minimum width of 7 ft.*
- 9. On-street parking in residential zones shall have a minimum width of 6 ft.*
- 10. Sidewalk widths may be reduced to a minimum of 4 ft for short distances for the purpose of avoiding obstacles within the public right-of-way including, but not limited to, trees and power poles.*

11. *Landscape strip widths shall be measured from back of curb to front of sidewalk.*
12. *Where landscape strips are required, street trees shall be provided a minimum of every 40 ft in accordance with the Public Works Standards and the Milwaukie Street Tree List and Street Tree Planting Guidelines.*
13. *Where water quality treatment is provided within the public right-of-way, the landscape strip width may be increased to accommodate the required treatment area.*
14. *A minimum of 6 in shall be required between a property line and the street element that abuts it; e.g., sidewalk or landscape strip.*

Response: As depicted on the preliminary plan set submitted with this application, SE 51st Avenue is proposed with 32' wide asphalt which provides for on-street parking on both sides of street and SE Llewlyn Street is proposed with 28' of asphalt which provides for parking on one side of street. All proposed on-street parking will have a minimum width of 6'.

19.708.3 Sidewalk Requirements and Standards

B. Sidewalk Requirements

1. Requirements

Sidewalks shall be provided on the public street frontage of all development per the requirements of this chapter. Sidewalks shall generally be constructed within the dedicated public right-of-way, but may be located outside of the right-of-way within a public easement with the approval of the Engineering Director.

2. Design Standards

Sidewalks shall be designed and improved in accordance with the requirements of this chapter and the Public Works Standards.

3. Maintenance

Abutting property owners shall be responsible for maintaining sidewalks and landscape strips in accordance with Chapter 12.04.

Response: As Pre-Application Conference Notes from the City of Milwaukie staff the applicant has proposed curb-tight 6 foot sidewalks on Llewellyn St. and SE 51st Ave. Proposed sidewalks are designed to satisfy all applicable Milwaukie Development Standards. ADA compliant ramps are proposed at the end of all sidewalks (see Exhibit H).

19.1003 APPLICATION SUBMITTAL AND COMPLETENESS REVIEW

19.1003.2 Application Submittal Requirements

A. Application form, including signature(s) of the property owner or public agency initiating the application.

B. Deed, title report, or other proof of ownership.

C. Detailed and comprehensive description of all existing and proposed uses and structures, including a summary of all information contained in any site plans. The description may need to include both a written and graphic component such as elevation drawings, 3-D models, and photo simulations, etc. For applications where the subjective aspects of the height and mass of the proposed development will be evaluated at a public hearing, temporary on-site "story pole" installations that simulate the proposed development, and photographic representations thereof, may be required at the time of application submittal.

D. Detailed statement that demonstrates how the proposal meets all applicable approval criteria, zoning and land use regulations, and development standards.

E. Site plan(s), preliminary plat, or final plat as applicable.

F. All materials identified on the Submittal Requirements form, including the signature(s) of the applicant submitting the materials.

G. Payment of all applicable land use application fee(s) and deposit(s), based on the fee schedule in effect on the date of application submittal.

H. Copy of a valid preapplication conference report if one was required per Subsection 19.1002.2.

Response: The applicant has satisfied this provision by submitting with this application all required materials (see page i – List of Exhibits)

19.1006 TYPE III REVIEW

19.1006.1 Preapplication Conference

A preapplication conference is required for Type III applications per Section 19.1002.

Response: This provision has been satisfied as the applicant attended a pre-application conference with the City on Thursday, March 10th, 2016.

19.1006.2 Type III Application Requirements

A. Type III applications shall be made on forms provided by the Planning Director and shall include all of the information required by Subsection 19.1003.2.

Response: The applicant has satisfied this provision by including with this application all submittal materials required by Subsection 19.1003.2 (see page i – List of Exhibits).

19.1203 SOLAR ACCESS FOR NEW DEVELOPMENT

19.1203.3 Design Standard

At least 80% of the lots in a development subject to these provisions shall comply with one or more of the options in this subsection; provided a development may, but is not required to, use the options in Subsections 19.1203.3.B or C below to comply with Section 19.1203.

A. Basic Requirement

A lot complies with Subsection 19.1203.3 if it:

- 1. Has a north-south dimension of 90 ft or more; and*
- 2. Has a front lot line that is oriented within 30 degrees of a true east-west axis (see Figure 19.1203.3).*

Figure 19.1203.3

Solar Lot Option 1: Basic Requirements

B. Protected Solar Building Line Option

In the alternative, a lot complies with Subsection 19.1203.3 if a solar building line is used to protect solar access as follows:

- 1. A protected solar building line is designated on the plat or in documents recorded with the plat; and*
- 2. The protected solar building line is oriented within 30 degrees of a true east-west axis; and*
- 3. There are at least 70 ft between the protected solar building line and the middle of the north-south dimension of the lot to the south, measured along a line perpendicular to the protected solar building line; and*

4. There are least 45 ft between the protected solar building line and the northern edge of the buildable area of the lot, or habitable structures are situated so that at least 80% of their south-facing wall will not be shaded by structures or nonexempt vegetation (see Figure 19.1202.1-4).

C. Performance Option

In the alternative, a lot complies with Subsection 19.1203.3 if:

1. *Habitable structures built on that lot will have their long axis oriented within 30 degrees of a true east-west axis, and at least 80% of their ground floor south wall will be protected from shade by structures and nonexempt trees using appropriate deed restrictions; or*
2. *Habitable structures built on that lot will orient at least 32% of their glazing, and at least 500 sq ft of their roof area, to face within 30 degrees east or west of true south, and that glazing and roof area are protected from shade by structures and nonexempt trees using appropriate deed restrictions.*

19.1203.4 Exemptions from Design Standard

A development is exempt from Subsection 19.1203.3 if the Director finds the applicant has shown that one or more of the following conditions apply to the site. A development is partially exempt from Subsection 19.1203.3 to the extent the Director finds the applicant has shown that one or more of the following conditions apply to a corresponding portion of the site. If a partial exemption is granted for a given development, the remainder of the development shall comply with Subsection 19.1203.3.

A. Slopes

The site, or a portion of the site for which the exemption is sought, is sloped 20% or more in a direction greater than 45 degrees east or west of true south, based on a topographic survey by a licensed professional land surveyor or USGS or other officially recognized topographic information.

B. Off-Site Shade

The site, or a portion of the site for which the exemption is sought, is within the shadow pattern of off-site features, such as, but not limited to, structures, topography, or nonexempt vegetation, which will remain after development occurs on the site from which the shade is originating.

1. *Shade from an existing or approved off-site dwelling in a single-family residential zone, and from topographic features, is assumed to remain after development of the site.*
2. *Shade from an off-site structure in a zone other than a single-family residential zone is assumed to be the shadow pattern of the existing or approved development thereon or the shadow pattern that would result from the largest structure allowed at the closest setback on adjoining land, whether or not that structure now exists.*
3. *Shade from off-site vegetation is assumed to remain after development of the site if: the trees that cause it are situated in a required setback; they are part of a developed area, public park, or legally reserved open space; they are in or separated from the developable remainder of a parcel by an undevelopable area or feature; or they are part of landscaping required pursuant to local law.*
4. *Shade from other offsite sources is assumed to be shade that exists or that will be cast by development for which applicable local permits have been approved on the date a complete application for the development is filed.*

C. On-Site Shade

The site, or a portion of the site for which the exemption is requested:

- 1. Is within the shadow pattern of on-site features such as, but not limited to, structures and topography which will remain after the development occurs; or*
- 2. Contains nonexempt trees at least 30 ft tall and more than 6 in. in diameter measured 4 ft above the ground, which have a crown cover over at least 80% of the site or the relevant portion. The applicant can show such crown cover exists using a scaled survey or an aerial photograph. If granted, the exemption shall be approved subject to the condition that the applicant preserve at least 50% of the crown cover that causes the shade that warrants the exemption. The applicant shall file a note on the plat or other documents in the office of the County Recorder binding the applicant to comply with this requirement. The City shall be made a party to any covenant or restriction created to enforce any provision of this section. The covenant or restriction shall not be amended without written City approval.*

D. Completion of Phased Subdivision

The site is part of a phased subdivision, none of which was subject to Section 19.1203, and the site and the remainder of the unplatted portion of the phased subdivision contains no more than 20% of the lots in all phases of the subdivision.

19.1203.5 Adjustment to Design Standard

The Director shall reduce the percentage of lots that must comply with Subsection 19.1203.3, to the minimum extent necessary, if he or she finds the applicant has shown it would cause or is subject to one or more of the following conditions.

A. Adverse Impacts on Density, Cost, or Amenities

- 1. If the design standard in Subsection 19.1203.3.A is applied, either the resulting density is less than that proposed, or on-site site development costs (e.g., grading, water, storm drainage, sanitary systems, and road) and solar-related off-site site development costs are at least 5% more per lot than if the standard is not applied. The following conditions, among others, could constrain the design of a development in such a way that compliance with Subsection 19.1203.3.A would reduce density or increase costs per lot in this manner. The applicant shall show which, if any, of these or other similar site characteristics apply in an application for a development:*
 - a. The portion of the site for which the adjustment is sought has a natural grade that is sloped 10% or more and is oriented greater than 45 degrees east or west of true south, based on a topographic survey of the site by a professional land surveyor, USGS, or other officially recognized topographic information;*
 - b. There is a significant natural feature on the site, identified as such in the Comprehensive Plan or Development Ordinance, that prevents given streets or lots from being oriented for solar access, and it will exist after the site is developed;*
 - c. Existing road patterns must be continued through the site or must terminate on the site to comply with applicable road standards or public road plans in a way that prevents given streets or lots in the development from being oriented for solar access;*
 - d. An existing public easement or right-of-way prevents given streets or lots in the development from being oriented for solar access.*

2. *If the design standard in Subsection 19.1203.3.A applies to a given lot or lots, significant development amenities that would otherwise benefit the lot(s) will be lost or impaired. Evidence that a significant diminution in the market value of the lot(s) would result from having the lot(s) comply with Subsection 19.1203.3.A is relevant to whether a significant development amenity is lost or impaired.*

Response: As per the applicable provisions of this section, the design standard for solar access for a development creating lots in a single-family zone are contained in Section 19.1203.3, including the basic requirement of 80% of lots having a north-south dimension of 90 ft or more and a front lot line oriented within 30 degrees of a true east-west axis. Two of the proposed 14 lots comply with this basic requirement which is 14.3%. Given the overall configuration of the subject site and the requirement of extending a public right-of-way into and through the property to serve the 14 lots as well as adjacent future development, the design standard cannot be met. None of the exemptions of Section 19.1203.4 are applicable to this application. This application requests reduction to the percentage of lots complying with the basic requirement. As per Section 12.1203.5.A.1, when the basic design requirement of 80% is applied the resulting density is less than the 14 lots proposed. This reduction in density is a result of the overall dimensions and configuration of the subject property. In satisfaction of Section 19.12305.A.1.c, the combination of minimum City design standards for public rights-of-way, existing road patterns surrounding the property and applicable connectivity road standards result in a way that prevents proposed lots and streets from being oriented for solar access.

Summary and Request

The applicant has utilized a design team consisting of planning, engineering, development, and environmental disciplines to conduct research and reports and produce a detailed plan for the 2.66 acre site.

The Applicant has presented substantial evidence to demonstrate that the proposed Mission Park Planned Development complies with all applicable standards and approval criteria, and requests approval of the Land Use Request.

Exhibit A

Land Use Application Form



PLANNING DEPARTMENT
 6101 SE Johnson Creek Blvd
 Milwaukie OR 97206

PHONE: 503-786-7630
 FAX: 503-774-8236
 E-MAIL: planning@milwaukieoregon.gov

Application for Land Use Action

Master File #: _____

Review type*: ☐ I ☐ II ☐ III ☐ IV ☐ V

CHOOSE APPLICATION TYPE(S):

Land Division: Subdivision

...

...

...

...

Use separate application forms for:

- Annexation and/or Boundary Change
- Compensation for Reduction in Property Value (Measure 37)
- Daily Display Sign
- Appeal

RESPONSIBLE PARTIES:

APPLICANT (owner or other eligible applicant—see reverse): Mission Homes NW, LLC.

Mailing address: PO Box 1689

Zip: 97035

Phone(s): 503.781.1814

E-mail: kdalbey@gmail.com

APPLICANT'S REPRESENTATIVE (if different than above): Ken Sandblast

Mailing address: 15115 SW Sequoia Pkwy., Ste. 150

Zip: 97224

Phone(s): 503.684.0652

E-mail: ksandblast@westlakeconsultants.com

SITE INFORMATION:

Address: 5126 SE King Rd.

Map & Tax Lot(s): 12E30CD Tl: 6900, 7400*

Comprehensive Plan Designation: MD

Zoning: R-5

Size of property:

2.64 Acres

PROPOSAL (describe briefly):

*7700, 7701, 10300, 10400

Proposed development of 14 lot subdivision on 2.64 acre property fronting the south side of King Rd., west of SE 52nd Ave.

SIGNATURE:

ATTEST: I am the property owner or I am eligible to initiate this application per Milwaukie Municipal Code (MMC) Subsection 19.1001.6.A. If required, I have attached written authorization to submit this application. To the best of my knowledge, the information provided within this application package is complete and accurate.

Submitted by: *[Signature]*

Date: 5-23-16

IMPORTANT INFORMATION ON REVERSE SIDE

RESET

WHO IS ELIGIBLE TO SUBMIT A LAND USE APPLICATION (excerpted from MMC Subsection 19.1001.6.A):

Type I, II, III, and IV applications may be initiated by the property owner or contract purchaser of the subject property, any person authorized in writing to represent the property owner or contract purchaser, and any agency that has statutory rights of eminent domain for projects they have the authority to construct.

Type V applications may be initiated by any individual.

PREAPPLICATION CONFERENCE:

A preapplication conference may be required or desirable prior to submitting this application. Please discuss with Planning staff.

REVIEW TYPES:

This application will be processed per the assigned review type, as described in the following sections of the Milwaukie Municipal Code:

- Type I: Section 19.1004
- Type II: Section 19.1005
- Type III: Section 19.1006
- Type IV: Section 19.1007
- Type V: Section 19.1008

THIS SECTION FOR OFFICE USE ONLY:

FILE TYPE	FILE NUMBER	FEE AMOUNT*	PERCENT DISCOUNT	DISCOUNT TYPE	DEPOSIT AMOUNT	DATE STAMP
Master file		\$			\$	
Concurrent application files		\$			\$	
		\$			\$	
		\$			\$	
		\$			\$	
SUBTOTALS		\$			\$	
TOTAL AMOUNT RECEIVED: \$			RECEIPT #:		RCD BY:	
Associated application file #s (appeals, modifications, previous approvals, etc.):						
Neighborhood District Association(s):						
Notes:						

*After discount (if any)

Exhibit B

Land Use Application Submittal Requirements Checklist



PLANNING DEPARTMENT
 6101 SE Johnson Creek Blvd
 Milwaukie OR 97206

PHONE: 503-786-7630
 FAX: 503-774-8236
 E-MAIL: planning@milwaukieoregon.gov

For all Land Use Applications
 (except Annexations and Development Review)

Submittal Requirements

All land use applications must be accompanied by a signed copy of this form (see reverse for signature block) and the information listed below. The information submitted must be sufficiently detailed and specific to the proposal to allow for adequate review. Failure to submit this information may result in the application being deemed incomplete per the Milwaukie Municipal Code (MMC) and Oregon Revised Statutes.

Contact Milwaukie Planning staff at 503-786-7630 or planning@milwaukieoregon.gov for assistance with Milwaukie's land use application requirements.

1. **All required land use application forms and fees**, including any deposits.
Applications without the required application forms and fees will not be accepted.
2. **Proof of ownership or eligibility to initiate application** per MMC Subsection 19.1001.6.A.
Where written authorization is required, applications without written authorization will not be accepted.
3. **Detailed and comprehensive description** of all existing and proposed uses and structures, including a summary of all information contained in any site plans.
Depending upon the development being proposed, the description may need to include both a written and graphic component such as elevation drawings, 3-D models, photo simulations, etc. Where subjective aspects of the height and mass of the proposed development will be evaluated at a public hearing, temporary on-site "story pole" installations, and photographic representations thereof, may be required at the time of application submittal or prior to the public hearing.
4. **Detailed statement** that demonstrates how the proposal meets all applicable application-specific approval criteria (check with staff) and all applicable development standards (listed below):
 - a. **Base zone standards** in Chapter 19.300.
 - b. **Overlay zone standards** in Chapter 19.400.
 - c. **Supplementary development regulations** in Chapter 19.500.
 - d. **Off-street parking and loading standards and requirements** in Chapter 19.600.
 - e. **Public facility standards and requirements**, including any required street improvements, in Chapter 19.700.
5. **Site plan(s), preliminary plat, or final plat** as appropriate.
See Site Plan, Preliminary Plat, and Final Plat Requirements for guidance.
6. **Copy of valid preapplication conference report**, when a conference was required.

APPLICATION PREPARATION REQUIREMENTS:

- Five hard copies of all application materials are required at the time of submittal (unless submitted electronically). Staff will determine how many additional hard copies are required, if any, once the application has been reviewed for completeness.
- All hard copy application materials larger than 8½ x 11 in. must be folded and be able to fit into a 10- x 13-in. or 12- x 16-in. mailing envelope.
- All hard copy application materials must be collated, including large format plans or graphics.

ADDITIONAL INFORMATION:

- Neighborhood District Associations (NDAs) and their associated Land Use Committees (LUCs) are important parts of Milwaukie's land use process. The City will provide a review copy of your application to the LUC for the subject property. They may contact you or you may wish to contact them. Applicants are strongly encouraged to present their proposal to all applicable NDAs prior to the submittal of a land use application and, where presented, to submit minutes from all such meetings. NDA information: <http://www.milwaukieoregon.gov/communityservices/neighborhoods-program>.
- Submittal of a full or partial electronic copy of all application materials is strongly encouraged.

As the authorized applicant I, _____, attest that all required application materials have been submitted in accordance with City of Milwaukie requirements. I understand that any omission of required items or lack of sufficient detail may constitute grounds for a determination that the application is incomplete per MMC Subsection 19.1003.3 and Oregon Revised Statutes 227.178. I understand that review of the application may be delayed if it is deemed incomplete.

Furthermore, I understand that, if the application triggers the City's sign-posting requirements, I will be required to post signs on the site for a specified period of time. I also understand that I will be required to provide the City with an affidavit of posting prior to issuance of any decision on this application.

Applicant Signature: _____

Date: 5-23-2016**Official Use Only**

Date Received (date stamp below):

RESET

Exhibit C

Preliminary Plat Checklist and Procedures

**PLANNING DEPARTMENT**

6101 SE Johnson Creek Blvd
Milwaukie OR 97206

PHONE: 503-786-7630

FAX: 503-774-8236

E-MAIL: planning@milwaukieoregon.gov

Preliminary Plat Checklist and Procedures

All applications for partitions and subdivisions require submission of preliminary development plans and supporting information in accordance with the Milwaukie Land Division Ordinance. In special cases, certain items listed below may not be required and can be waived by staff. All items below must be submitted except when authorized by staff signature at the end of the form. Errors, omissions, or poor quality may result in the application being rejected or declared incomplete pursuant to the Milwaukie Zoning Ordinance and/or Land Division Ordinance.

Application Checklist

1. Detailed description of how the proposal complies with Land Division Ordinance Section 17.12 Application Procedure and Approval Criteria.
2. Detailed description of how the proposal complies with Land Division Ordinance Section 17.16 Application Requirements and Procedures.
3. Detailed description of how the proposal and application complies with Land Division Ordinance Section 17.20 Preliminary Plat including the following minimum requirements.
 - a. Preliminary plats shall be prepared by an Oregon registered land surveyor.
 - b. The following general information shall be submitted with the preliminary plat:
 - 1) Proposed name of the subdivision/partition. The name shall not duplicate nor resemble the name of another subdivision in the county. Subdivision names shall be approved by the County Surveyor in accordance with Oregon Revised Statutes Chapter 92.
 - 2) Appropriate identification clearly stating the map is a preliminary plat.
 - 3) Location by section, township, and range; and a legal description sufficient to define the location and boundaries of the area to be divided.
 - 4) Names and addresses of the owner, subdivider, and engineer or surveyor.
 - 5) Other information as may be specified on application forms and checklists prescribed by the Planning Director.
 - c. Vicinity map shall be drawn at an appropriate scale, showing all existing subdivisions, streets, and unsubdivided land between the proposed subdivision and the nearest existing arterial or collector streets; and showing how proposed streets may be extended to connect with existing streets. At a minimum, the vicinity map shall depict future street connections for land within 400 feet of the subject property.
4. Existing conditions plan including the following (12 copies):
 - a. Location, width, and names of all existing or platted streets within or adjacent to the tract, together with easements, railroad right-of-way, and other important features, such as section lines and corners, city boundary lines, and monuments.
 - b. Contour lines related to an established benchmark or other datum approved by the Engineering Director, with intervals at a minimum of 2 feet for slopes up to 10 percent and 5 feet for slopes over 10 percent.

- c. Location within the area to be divided, and in the adjoining streets and property, of existing sewers, water mains, culverts, storm drain system, and electric conduits or lines proposed to service the property to be subdivided, and invert elevations of sewer manholes, drain pipes, and culverts.
 - d. Zoning and existing uses within the tract and 200 feet on all sides, including the location and use of all existing structures indicating those that will remain and those to be removed.
 - e. Approximate location of areas subject to inundation or stormwater overflow with approximate high-water elevation. Location, width, direction, and flow of all watercourses on or abutting the tract including wetlands and watercourses as shown on City-adopted natural resource and Title 3 maps.
 - f. Natural features such as rock outcroppings, drainages whether seasonal or perennial, wooded areas, and isolated trees, including type and caliper.
 - g. Floodway and floodplain boundary.
 - h. Areas containing slopes of 25 percent or greater
5. The preliminary plat plan shall include the following information (12 copies):
- a. Date, north point, scale, address, assessor reference number, and legal description.
 - b. Name and address of the record owner or owners and of the person who prepared the site plan.
 - c. Approximate acreage and square feet under a single ownership or, if more than one ownership is involved, the total contiguous acreage of all landowners directly involved in the partition.
 - d. For land adjacent to and within the area to be divided, the locations, names, and existing widths of all streets, driveways, public safety accesses, easements, and right-of-ways; location, width, and purpose of all other existing easements; and location and size of sewer and waterlines, drainage ways, power poles, and other utilities.
 - e. Location of existing structures, identifying those to remain in place and those to be removed.
 - f. Dimensioned lot design and layout, showing proposed setbacks, landscaping, buffers, driveways, lot sizes, and relationship to existing or proposed streets and utility easements.
 - g. Existing development and natural features for the site and adjacent properties, including those properties within one 100 feet of the proposal, showing buildings, mature trees, topography, and other structures.
 - h. Elevation and location of flood hazard boundaries.
 - i. The location, width, name, and approximate centerline grade and curve radii of all streets; the relationship of all streets to any projected streets planned by the City; indication as to whether roads will continue beyond the plat; and existing and proposed grade profiles.
 - j. Lot and block numbers.
6. A conceptual plan shall be provided for complete subdivision or partitioning of the property, as well as any adjacent vacant or underutilized properties, so that access issues may be addressed in a comprehensive manner. The concept plan shall include documentation that all options for access have been investigated including shared driveways, pedestrian accessways, and new street development.

7. A detailed narrative description demonstrating how the proposal meets all applicable provisions of this title and Title 19.
8. Plans and drawings as necessary to demonstrate compliance with all applicable provisions of chapters of this title and Title 19.
9. A drainage summary report and plan that demonstrates estimated pre- and post-development flows, stormwater collection and management measures, and proposed discharges.
10. Proposed deed restrictions, if any, in outline form.
11. Improvements to be made by the developer and the approximate time such improvements are to be completed. Sufficient detail regarding proposed improvements shall be submitted so that they may be checked for compliance with the objectives of this title, State law, and other applicable City ordinances. If the nature of the improvements is such that it is impractical to prepare all necessary details prior to approval of the preliminary plat, the additional details shall be submitted with the request for final plat approval.
12. 12 copies of a location plan drawn to an appropriate scale (on paper no larger than 8½ by 11 inches) showing nearest cross streets, drives opposite the site, and location of buildings and parking areas on adjoining lots.

Application Procedures

1. A preapplication conference with City staff is highly recommended.
2. Appointments may be made for review of preliminary plat requirements through the Planning Department in advance of formal submission.
3. The Planning Department coordinates with appropriate City departments, the Fire District, and other involved agencies as needed.
4. Applications will be screened for completeness at the time of submission. Incomplete applications will not be accepted.

Please contact Milwaukie Planning staff at 503-786-7630 for any questions or help with this form.

EVA M. DEGGENDORFER
Applicant Name

Eva M. Deggenborfer
Applicant Signature

5-23-2016
Date

Waived Items

Signature of
Milwaukie Planner

Date

Exhibit D

Preliminary Title Report


First American
First American Title Company of Oregon

121 SW Morrison St, FL 3

Portland, OR 97204

Phn - (503)222-3651 (800)929-3651

Fax - (877)242-3513

Order No.: 7000-2588048

February 05, 2016

FOR QUESTIONS REGARDING YOUR CLOSING, PLEASE CONTACT:
SHERRI MARSDEN, Escrow Officer/Closer

Phone: (503)350-5005 - Fax: (866)656-1602- Email: smarsden@firstam.com

First American Title Company of Oregon

5335 SW Meadows Rd #100, Lake Oswego, OR 97035

FOR ALL QUESTIONS REGARDING THIS PRELIMINARY REPORT, PLEASE CONTACT:
Sarah Walters, Title Officer

Toll Free: (800)929-3651 - Direct: (503)790-7857 - Email: sawalters@firstam.com

Revised Preliminary Title Report

County Tax Roll Situs Address: 5096 and 5126 SE King Road, Milwaukie, OR 97222

Proposed Insured Lender: TBD

Proposed Borrower: Mission Homes Northwest, LLC

2006 ALTA Owners Standard Coverage	Liability \$	750,000.00	Premium \$	1,725.00
2006 ALTA Owners Extended Coverage	Liability \$		Premium \$	
2006 ALTA Lenders Standard Coverage	Liability \$		Premium \$	
2006 ALTA Lenders Extended Coverage	Liability \$		Premium \$	
Endorsement 9, 22 & 8.1			Premium \$	
Govt Service Charge			Cost \$	180.00
City Lien/Service District Search			Cost \$	
Other			Cost \$	

We are prepared to issue Title Insurance Policy or Policies of First American Title Insurance Company, a Nebraska Corporation in the form and amount shown above, insuring title to the following described land:

The land referred to in this report is described in Exhibit A attached hereto.

and as of January 15, 2016 at 8:00 a.m., title to the fee simple estate is vested in:

Paul Deggendorfer, as to Parcels I, II, III and IV and Eva Maria Deggendorfer, as to Parcel V

Subject to the exceptions, exclusions, and stipulations which are ordinarily part of such Policy form and the following:

This report is for the exclusive use of the parties herein shown and is preliminary to the issuance of a title insurance policy and shall become void unless a policy is issued, and the full premium paid.

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or by making inquiry of persons in possession thereof.
3. Easements, or claims of easement, not shown by the public records; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.
4. Any encroachment (of existing improvements located on the subject land onto adjoining land or of existing improvements located on adjoining land onto the subject land), encumbrance, violation, variation, or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey of the subject land.
5. Any lien, or right to a lien, for services, labor, material, equipment rental or workers compensation heretofore or hereafter furnished, imposed by law and not shown by the public records.

The exceptions to coverage 1-5 inclusive as set forth above will remain on any subsequently issued Standard Coverage Title Insurance Policy.

In order to remove these exceptions to coverage in the issuance of an Extended Coverage Policy the following items are required to be furnished to the Company; additional exceptions to coverage may be added upon review of such information:

- A. Survey or alternative acceptable to the company
 - B. Affidavit regarding possession
 - C. Proof that there is no new construction or remodeling of any improvement located on the premises. In the event of new construction or remodeling the following is required:
 - i. Satisfactory evidence that no construction liens will be filed; or
 - ii. Adequate security to protect against actual or potential construction liens;
 - iii. Payment of additional premiums as required by the Industry Rate Filing approved by the Insurance Division of the State of Oregon
 6. Water rights, claims to water or title to water, whether or not such rights are a matter of public record.
 7. City liens, if any, of the City of Milwaukie.
- Note: There are no liens as of February 05, 2016. All outstanding utility and user fees are not liens and therefore are excluded from coverage.
8. Easements for utilities over and across the premises formerly included within the boundaries of Magnolia Avenue now vacated, if any such exists.

9. Easement, including terms and provisions contained therein:
Recording Information: July 31, 1953 as [Book 472, Page 48](#)
In Favor of: Portland General Electric Company, an Oregon corporation
For: electrical and telephone lines and rights incidental thereto
Affects: The Southerly portion of the subject property
(Affects Parcel V)
10. Easement Agreement and the terms and conditions thereof:
Between: Laura M. Poole Fuller, who took title as Laura M. Poole
And: Gloria M. Mitchell
Recording Information: June 11, 1974 as Fee No. [74015812](#)
11. An easement reserved in a deed, including the terms and provisions thereof;
Recorded: July 08, 1994
Recording Information: Fee No. [94055563](#)
From: Eva Maria Deggendorfer
To: Paul E. Deggendorfer
For: ingress and egress
Affects: Parcel I
12. Agreement for Easement and the terms and conditions thereof:
Between: Eva Maria Deggendorfer
And: Paul E. Deggendorfer
Recording Information: October 11, 1994 as Fee No. [94080079](#)
(Affects Parcels I and V)
- Said instrument was re-recorded April 02, 1997 as Fee No. [97024047](#).
13. Deed of Trust and the terms and conditions thereof.
Grantor/Trustor: Eva Maria Deggendorfer
Grantee/Beneficiary: Household Finance Corporation II
Trustee: Fidelity National Title
Amount: \$4,920.00
Recorded: December 26, 2000
Recording Information: Fee No. [2000 082403](#)
(Affects Parcel II)

Note: This Deed of Trust contains Line of Credit privileges. If the current balance owing on said obligation is to be paid in full in the forthcoming transaction, confirmation should be made that the beneficiary will issue a proper request for full reconveyance.

14. Deed of Trust and the terms and conditions thereof.

Grantor/Trustor: Eva Maria Deggendorfer
 Grantee/Beneficiary: Mortgage Electronic Registration Systems, Inc., MERS solely as a nominee for Landmark Mortgage Company, its successors and assigns
 Trustee: Pacific Northwest Title
 Amount: \$158,000.00
 Recorded: August 17, 2005
 Recording Information: Fee No. [2005 078645](#)
 (Affects Parcel V)

The beneficial interest under said Deed of Trust has been assigned to Bank of America, N.A., successor by merger to BAC Home Loans Servicing, LP fka Countrywide Home Loans Servicing, LP, by Assignment recorded May 30, 2012 as Fee No. [2012 033662](#).

15. Notice of Pendency of an action, being a Suit to Foreclose Deed of Trust .

Suit No.: CV15100607
 Recorded/Filed: December 01, 2015 as Fee No. [2015 079472](#)
 Plaintiff: Keybank National Association
 Defendant: Eva M. Deggendorfer aka Eva Marie Deggendorfer; and persons or parties unknown claiming any right, title, lien or interest in the property described in the complaint herein

(Affects Parcel V)

- END OF EXCEPTIONS -

NOTE: Taxes for the year 2015-2016 PAID IN FULL

Tax Amount: \$980.04
 Map No.: 12E30CD06900
 Property ID: 00079961
 Tax Code No.: 012-002

(Affects Parcel I)

NOTE: Taxes for the year 2015-2016 PAID IN FULL

Tax Amount: \$895.84
 Map No.: 12E30CD07400
 Property ID: 00080012
 Tax Code No.: 012-002

(Affects Parcel I)

NOTE: Taxes for the year 2015-2016 PAID IN FULL

Tax Amount: \$452.43
 Map No.: 12E30CD07700
 Property ID: 00080021
 Tax Code No.: 012-002

(Affects Parcel II)

NOTE: Taxes for the year 2015-2016 PAID IN FULL

Tax Amount: \$568.27
Map No.: 12E30CD07701
Property ID: 00080030
Tax Code No.: 012-002

(Affects Parcel III)

NOTE: Taxes for the year 2015-2016 PAID IN FULL

Tax Amount: \$2,836.75
Map No.: 12E30CD10300
Property ID: 00080478
Tax Code No.: 012-002

(Affects Parcel IV)

NOTE: Taxes for the year 2015-2016 PAID IN FULL

Tax Amount: \$4,659.93
Map No.: 12E30CD10400
Property ID: 00080487
Tax Code No.: 012-002

(Affects Parcel V)

NOTE: According to the public record, the following deed(s) affecting the property herein described have been recorded within 24 months of the effective date of this report: NONE

THANK YOU FOR CHOOSING FIRST AMERICAN TITLE!
WE KNOW YOU HAVE A CHOICE!

RECORDING INFORMATION

Filing Address: **Clackamas County**
1710 Red Soil Ct, Suite 110
Oregon City, OR 97045

Recording Fees: **\$ 53.00 First Page**
(Comprised of:
\$ 5.00 per page
\$ 5.00 per document - GIS Fee
\$10.00 per document - Public Land Corner Preservation Fund
\$11.00 per document - OLIS Assessment & Taxation Fee
\$22.00 per document - Oregon Housing Alliance Fee)
\$ 5.00 E-Recording fee per document
\$ 5.00 for each additional page
\$ 5.00 for each additional document title, if applicable
\$ 20.00 Non-Standard Document fee, if applicable



First American Title Insurance Company

SCHEDULE OF EXCLUSIONS FROM COVERAGE

ALTA LOAN POLICY (06/17/06)

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;
 or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

ALTA OWNER'S POLICY (06/17/06)

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;
 or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risks 9 and 10); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
 - (a) a fraudulent conveyance or fraudulent transfer; or
 - (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

SCHEDULE OF STANDARD EXCEPTIONS

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or by making inquiry of persons in possession thereof.
3. Easements, or claims of easement, not shown by the public records; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.
4. Any encroachment (of existing improvements located on the subject land onto adjoining land or of existing improvements located on adjoining land onto the subject land), encumbrance, violation, variation, or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey of the subject land.
5. Any lien or right to a lien, for services, labor, material, equipment rental or workers compensation heretofore or hereafter furnished, imposed by law and not shown by the public records.

NOTE: A SPECIMEN COPY OF THE POLICY FORM (OR FORMS) WILL BE FURNISHED UPON REQUEST

TI 149 Rev. 7-22-08



First American Title

Privacy Information

We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our subsidiaries we have adopted this Privacy Policy to govern the use and handling of your personal information.

Applicability

This Privacy Policy governs our use of the information that you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its Fair Information Values.

Types of Information

Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's Fair Information Values. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Information Obtained Through Our Web Site

First American Financial Corporation is sensitive to privacy issues on the Internet. We believe it is important you know how we treat the information about you we receive on the Internet.

In general, you can visit First American or its affiliates' Web sites on the World Wide Web without telling us who you are or revealing any information about yourself. Our Web servers collect the domain names, not the e-mail addresses, of visitors. This information is aggregated to measure the number of visits, average time spent on the site, pages viewed and similar information. First American uses this information to measure the use of our site and to develop ideas to improve the content of our site.

There are times, however, when we may need information from you, such as your name and email address. When information is needed, we will use our best efforts to let you know at the time of collection how we will use the personal information. Usually, the personal information we collect is used only by us to respond to your inquiry, process an order or allow you to access specific account/profile information. If you choose to share any personal information with us, we will only use it in accordance with the policies outlined above.

Business Relationships

First American Financial Corporation's site and its affiliates' sites may contain links to other Web sites. While we try to link only to sites that share our high standards and respect for privacy, we are not responsible for the content or the privacy practices employed by other sites.

Cookies

Some of First American's Web sites may make use of "cookie" technology to measure site activity and to customize information to your personal tastes. A cookie is an element of data that a Web site can send to your browser, which may then store the cookie on your hard drive.

FirstAm.com uses stored cookies. The goal of this technology is to better serve you when visiting our site, save you time when you are here and to provide you with a more meaningful and productive Web site experience.

Fair Information Values

Fairness We consider consumer expectations about their privacy in all our businesses. We only offer products and services that assure a favorable balance between consumer benefits and consumer privacy.

Public Record We believe that an open public record creates significant value for society, enhances consumer choice and creates consumer opportunity. We actively support an open public record and emphasize its importance and contribution to our economy.

Use We believe we should behave responsibly when we use information about a consumer in our business. We will obey the laws governing the collection, use and dissemination of data.

Accuracy We will take reasonable steps to help assure the accuracy of the data we collect, use and disseminate. Where possible, we will take reasonable steps to correct inaccurate information. When, as with the public record, we cannot correct inaccurate information, we will take all reasonable steps to assist consumers in identifying the source of the erroneous data so that the consumer can secure the required corrections.

Education We endeavor to educate the users of our products and services, our employees and others in our industry about the importance of consumer privacy. We will instruct our employees on our fair information values and on the responsible collection and use of data. We will encourage others in our industry to collect and use information in a responsible manner.

Security We will maintain appropriate facilities and systems to protect against unauthorized access to and corruption of the data we maintain.

Exhibit "A"

Real property in the County of Clackamas, State of Oregon, described as follows:

PARCEL I: TL 6900 & 7400

PART OF BLOCK 9, ACCORDING TO THE DULY FILED PLAT OF MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE CITY OF MILWAUKIE, FILED JUNE 23, 1890 AS MAP NO. 59, RECORDS OF THE COUNTY OF CLACKAMAS AND STATE OF OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 14, SAID BLOCK 9; THENCE EAST ALONG THE NORTH LINE OF SAID BLOCK A DISTANCE OF 135 FEET TO A POINT WHICH IS 10 FEET EAST OF THE NORTHWEST CORNER OF LOT 9; THENCE SOUTH PARALLEL WITH THE EAST LINE OF LOTS 10 AND 39 A DISTANCE OF 200 FEET TO A POINT IN THE SOUTH LINE OF LOT 40, SAID BLOCK 9; THENCE EAST A DISTANCE OF 40 FEET TO THE SOUTHEAST CORNER OF LOT 41, SAID BLOCK 9; THENCE SOUTH A DISTANCE OF 30 FEET TO THE CENTER LINE OF VACATED LLEWELLYN STREET; THENCE WEST ALONG THE CENTER LINE OF LLEWELLYN STREET, SAID LINE RUNNING PARALLEL WITH AND 30 FEET SOUTH OF THE SOUTH LINE OF BLOCK 9, A DISTANCE OF 175 FEET TO A POINT DUE SOUTH OF THE SOUTHWEST CORNER OF LOT 35, BLOCK 9; THENCE NORTH 30 FEET TO THE SOUTHWEST CORNER OF SAID LOT 35, BLOCK 9; THENCE CONTINUING NORTH 200 FEET TO THE POINT OF BEGINNING.

RESERVING THEREFROM AN EASEMENT FOR INGRESS AND EGRESS BEING A PART OF BLOCK 9, ACCORDING TO THE DULY FILED PLAT OF MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE CITY OF MILWAUKIE, FILED JUNE 23, 1890 AS MAP NO. 59, RECORDS OF THE COUNTY OF CLACKAMAS AND STATE OF OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 14, SAID BLOCK 9; THENCE EAST ALONG THE NORTH LINE OF SAID BLOCK A DISTANCE OF 15 FEET TO A POINT; THENCE SOUTH PARALLEL WITH THE WEST LINE OF LOT 14 AND IT'S SOUTHERLY EXTENSION THEREOF, A DISTANCE OF 200 FEET TO A POINT IN THE CENTER OF VACATED LLEWELLYN STREET; THENCE WEST 15 FEET TO THE SOUTHERLY EXTENSION OF THE WEST LINE OF SAID LOT 14; THENCE NORTH ALONG THE SOUTHERLY EXTENSION OF SAID WEST LINE OF LOT 14 AND THE WEST LINE OF LOT 14, TO THE POINT OF BEGINNING.

NOTE: This legal description was created prior to January 1, 2008.

PARCEL II: TL 7700

THE SOUTH HALF OF LOTS 33 AND 34, BLOCK 9, MINTHORN ADDITION TO THE CITY OF PORTLAND.

ALSO THAT PORTION OF VACATED MAGNOLIA STREET LYING BETWEEN THE SOUTH LINE OF SAID LOTS AND THE NORTH LINE OF LOTS 15 AND 16, BLOCK 20, MINTHORN ADDITION TO THE CITY OF PORTLAND.

NOTE: This legal description was created prior to January 1, 2008.

PARCEL III: TL 7701

THE SOUTH ONE-HALF OF LOTS 29, 30, 31 AND 32, BLOCK 9, MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE COUNTY OF CLACKAMAS AND STATE OF OREGON.

TOGETHER WITH THAT PORTION OF VACATED MAGNOLIA AVENUE THAT INURED TO THE PREMISES BY REASON OF THE VACATION THEREOF.

NOTE: This legal description was created prior to January 1, 2008.

PARCEL IV: TL 10300

LOTS 17, 18, 19 AND 20, BLOCK 20, MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE COUNTY OF CLACKAMAS AND STATE OF OREGON. TOGETHER WITH THAT PORTION OF VACATED MAGNOLIA AVENUE THAT INURED TO THE PREMISES BY REASON OF THE VACATION THEREOF.

PARCEL V: TL 10400

PART OF BLOCK 20, ACCORDING TO THE DULY FILED PLAT OF MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE CITY OF MILWAUKIE, FILED JUNE 23, 1890 AS MAP NO. 59, RECORDS OF THE COUNTY OF CLACKAMAS AND STATE OF OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 14, SAID BLOCK 9; THENCE EAST ALONG THE NORTH LINE OF SAID BLOCK A DISTANCE OF 135 FEET TO A POINT WHICH IS 10 FEET EAST OF THE NORTHWEST CORNER OF LOT 9; THENCE SOUTH PARALLEL WITH THE EAST LINE OF LOTS 10 AND 39 A DISTANCE OF 200 FEET TO A POINT IN THE SOUTH LINE OF LOT 40, SAID BLOCK 9; THENCE EAST A DISTANCE OF 40 FEET TO THE SOUTHEAST CORNER OF LOT 41, SAID BLOCK 9; THENCE SOUTH A DISTANCE OF 30 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH A DISTANCE OF 30 FEET TO THE NORTHEAST CORNER OF LOT 8, BLOCK 20; THENCE CONTINUING SOUTH ALONG THE EAST LINE OF LOTS 8 AND 41, SAID BLOCK 20, AND SOUTHERLY EXTENSION THEREOF A DISTANCE OF 230 FEET TO THE CENTER LINE OF VACATED HARRISON STREET; THENCE WEST ALONG SAID CENTER LINE A DISTANCE OF 225 FEET TO A POINT WHICH IS 30 FEET SOUTH OF THE SOUTHWEST CORNER OF LOT 33, SAID BLOCK 20; THENCE NORTH 30 FEET TO SAID SOUTHWEST CORNER; THENCE CONTINUING NORTH ALONG THE WEST LINE OF LOTS 33 AND 16 A DISTANCE OF 200 FEET TO THE NORTHWEST CORNER OF SAID LOT 16; THENCE EAST 50 FEET TO THE NORTHEAST CORNER OF LOT 15; THENCE NORTH 30 FEET TO THE CENTER LINE OF VACATED LLEWELLYN STREET; THENCE EAST ALONG THE CENTER LINE OF SAID VACATED LLEWELLYN A DISTANCE OF 175 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS BEING A PART OF BLOCK 9, ACCORDING TO THE DULY FILED PLAT OF MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE CITY OF MILWAUKIE, FILED JUNE 23, 1890 AS MAP NO. 59, RECORDS OF THE COUNTY OF CLACKAMAS AND STATE OF OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 14, SAID BLOCK 9; THENCE EAST ALONG THE NORTH LINE OF SAID BLOCK A DISTANCE OF 15 FEET TO A POINT; THENCE SOUTH PARALLEL WITH THE WEST LINE OF LOT 14 AND IT'S SOUTHERLY EXTENSION THEREOF, A DISTANCE OF 200 FEET TO A POINT IN THE CENTER OF VACATED LLEWELLYN STREET; THENCE WEST 15 FEET TO THE SOUTHERLY EXTENSION OF THE WEST LINE OF SAID LOT 14; THENCE NORTH ALONG THE SOUTHERLY EXTENSION OF SAID WEST LINE OF LOT 14 AND THE WEST LINE OF LOT 14, TO THE POINT OF BEGINNING.

NOTE: This legal description was created prior to January 1, 2008.

Exhibit E

Pre-Application Conference Report

CITY OF MILWAUKIE

PreApp Project ID #: 16-008PA

PRE-APPLICATION CONFERENCE REPORT

This report is provided as a follow-up to a meeting that was held on **3/10/2016** at **10:00am**

Applicant Name: Ken Sandblast
Company: Westlake Consultants
Applicant 'Role': Legal Rep
Address Line 1: 15115 SW Sequoia Pkwy
Address Line 2:
City, State Zip: Tigard OR 97224
Project Name: 13 Lot Subdivision
Description: 13 Lot Subdivision - demolish 2 existing dwellings - new road with cul-de-sac and improvements
ProjectAddress: 5126 SE King Rd
Zone: Residential R-5
Occupancy Group:
ConstructionType:
Use: Moderate Density (MD)
Occupant Load:
AppsPresent: Kurt Dalbey, Ken Sandblast
Staff Attendance: Brett Kelter, Chrissy Dawson, Alex Roller, Matt Amos, Claire Lust

BUILDING ISSUES

ADA:
Structural: No Comments at this time.
Mechanical:
Plumbing:
Plumb Site Utilities:
Electrical:
Notes:

Please note all drawings must be individually rolled. If the drawings are small enough to fold they must be individually folded.

FIRE MARSHAL ISSUES

Fire Sprinklers:

Fire Alarms:

Fire Hydrants:

Turn Arounds:

Addressing:

Fire Protection:

Fire Access:

Hazardous Mat.:

Fire Marshal Notes: See attached letter

PUBLIC WORKS ISSUES

Water: A City of Milwaukie 8-inch water main on SE King Road is available for connection to serve the proposed development. The applicant shall construct a 6-inch diameter ductile iron water mainline within the right of way of the new public street to provide for water service to the development. Construction of any main line improvement within the public right-of-way shall be completed prior to final plat approval.

The water System Development Charge (SDC) is based on the size of water meter serving the property. The corresponding water SDC will be assessed with installation of each new water meter. Water SDC credit will be provided based on the size of any existing water meter serving the property removed from service. The water SDC will be assessed and collected at the time the building permits are issued.

Sewer: A City of Milwaukie 8-inch wastewater main on SE King Road is available for connection to serve the proposed development. The applicant shall construct an 8-inch diameter PVC wastewater mainline and a 48-inch diameter standard sanitary sewer manhole within the right of way of the new public street to provide for wastewater service to the development. Construction of any main line improvement within the public right-of-way shall be completed prior to final plat approval.

Currently, the wastewater System Development Charge (SDC) is comprised of two components. The first component is the City's SDC charge of \$893.00 and the second component is the County's fee for treatment of \$5,970 that the City collects and forwards to the County. Both charges are per connection unit. The wastewater SDC is assessed using a plumbing fixture count from Table 7-3 of the Uniform Plumbing Code. The wastewater SDC connection units are calculated by dividing the fixture count of new plumbing fixtures by sixteen. The wastewater SDC will be assessed and collected at the time the building permits are issued.

Storm: Submission of a storm water management plan by a qualified professional engineer is required as part of the proposed development. The plan shall conform to Section 2 - Stormwater Design Standards of

the City of Milwaukie Public Works Standards.

The storm water management plan shall demonstrate that the post-development runoff does not exceed the pre-development, including any existing storm water management facilities serving the development property. Also, the plan shall demonstrate compliance with water quality standards. The City of Milwaukie has adopted the most current City of Portland Stormwater Management Manual for design of water quality facilities.

All new impervious surfaces, including replacement of impervious surface with new impervious surfaces, are subject to the water quality standards. See City of Milwaukie Public Works Standards for design and construction standards and detailed drawings.

The storm SDC is based on the amount of new impervious surface constructed at the site. One storm SDC unit is the equivalent of 2,706 square feet of impervious surface. The storm SDC is currently \$844 per unit. The storm SDC will be assessed and collected at the time the building permits are issued.

Street:

The proposed development fronts the south side of SE King Road, an arterial roadway. The portion of SE King Road fronting the proposed development has a right-of-way width of 60 feet and a paved width of 48 feet with curb on both sides, asphalt sidewalk improvements on the south side and concrete sidewalk improvements on the north side.

Frontage:

Chapter 19.700 of the Milwaukie Municipal Code, hereafter referred to as "Code", applies to partitions, subdivisions, and new construction.

Transportation Facility Requirements, Code Section 19.708, states that all rights-of-way, streets, sidewalks, necessary public improvements, and other public transportation facilities located in the public right-of-way and abutting the development site shall be adequate at the time of development or shall be made adequate in a timely manner.

SE KING ROAD

According to Code Table 19.708.2 and the Transportation Design Manual, the arterial street section includes the following:

- 11-foot travel lanes
- 6-foot bike lane with curb
- 6.5-foot landscape strips
- 6-foot setback sidewalks

The necessary improvements to King Road will be a 6 foot setback sidewalk and 6.5 foot planter strip. The curb will remain in the same location but may need to be reconstructed to accomplish a proper turning radius into the new public street serving the development.

NEW PUBLIC STREET

According to Code Table 19.708.2 and the Transportation Design Manual, the local street cross section includes the following:

- 10-foot travel lanes
- 8-foot parking strip (one side) with curb (both sides)
- 5-foot landscape strips
- 5-foot setback sidewalks

The new public street improvement cross-section shall include: a 28-foot paved width asphalt roadway with curb and gutter, 5-foot landscape strips and 5-foot set-back sidewalks on both sides. If an alternate stormwater facility of sufficient size to manage street stormwater runoff is designed, the applicant may forego the 5-foot landscape strips and construct 6-foot curb-tight sidewalks.

Right of Way:

The existing right-of-way width on SE King Road fronting the proposed development is 60 feet in width. According to Code Table 19.708.2, the required right-of-way width for an arterial roadway is 73 feet. The applicant is responsible for a right-of-way dedication, 6.5 feet in width, along the entire portion of SE King Road fronting the proposed development.

The existing right-of-way width of the new public street to serve the proposed development is nonexistent. The applicant is responsible for a right-of-way dedication of sufficient width to accommodate the new street cross-section in accordance with Code Table 19.708.2.

Driveways:

Code Section 12.16.040.A states that access to private property shall be permitted with the use of driveway curb cuts and driveways shall meet all applicable guidelines of the Americans with Disabilities Act (ADA). Driveway approaches shall be improved to meet the requirements of Milwaukie's Public Works Standards.

Erosion Control:

Per Code Section 16.28.020(C), an erosion control permit is required prior to placement of fill, site clearing, or land disturbances, including but not limited to grubbing, clearing or removal of ground vegetation, grading, excavation, or other activities, any of which results in the disturbance or exposure of soils exceeding five hundred square feet.

Code Section 16.28.020(E) states that an erosion control permit is required prior to issuance of building permits or approval of construction plans. Also, Section 16.28.020(B) states that an erosion control plan that meets the requirements of Section 16.28.030 is required prior to any approval of an erosion control permit.

Traffic Impact Study:

Code Section 19.704.1(A) states that the City will determine whether a transportation impact study (TIS) is required. In the event the proposed development will significantly increase the intensity of use, a transportation impact study will be required. The City of Milwaukie Engineering Director will make this determination based on proposed preliminary subdivision design and the number of lots created.

If required, the transportation impact study triggers a Transportation Facilities Review (TFR) Land Use Application to be filed concurrent with the land use application. Once the scope of the proposed development is determined and a deposit of \$1000.00 is paid, the City of Milwaukie will provide a detailed transportation impact study scope for the traffic study.

When the traffic impact study is completed in accordance with the TIS scope, the applicant shall schedule a second pre-application meeting with Milwaukie Engineering Staff. The second pre-application meeting will allow Engineering staff to review and comment on the applicant's traffic impact study prior to submission of any land use applications. The fee for the second pre-application meeting is \$100.00 and a deposit of \$2500.00. Upon completion of the second pre-application meeting, the applicant may submit their land use applications.

PW Notes:**TRANSPORTATION SDC**

The Transportation SDC will be based on the increase in trips generated by the new use per the Trip Generation Handbook from the Institute of Transportation Engineers. The SDC for transportation is \$1,920 per trip generated. The transportation SDC for each Single-Family Residence is \$1,920 (one trip). Credits will be given for any demolished structures, which shall be based upon the existing use of the structures. Transportation SDC will be assessed and collected at the time the building permits are issued.

PARKS & RECREATION SDC

The parks & recreation System Development Charge (SDC) is triggered when application for a building permit on a new dwelling is received. Currently, the parks and recreation SDC for each Single-Family Residence is \$3,985.00. Credit is applied to any demolished structures and is based upon the existing use of the structures. The parks and recreation

SDC will be assessed and collected at the time the building permits are issued.

REQUIREMENTS AT FINAL PLAT

- Engineered plans for public improvements (street, sidewalk, and utility) are to be submitted and approved prior to start of construction. Full-engineered design is required along the frontage of the proposed development.
- The applicant shall pay an inspection fee of 5.5% of the cost of public improvements prior to start of construction.
- The applicant shall provide a payment and performance bond for 100% of the cost of the public improvements prior to the start of construction.
- The applicant shall provide a final approved set of Mylar "As Constructed" drawings to the City of Milwaukie prior to the final inspection.
- The applicant shall provide a maintenance bond for 100% of the cost of the public improvements prior to the final inspection.

PLANNING ISSUES

Setbacks:

Yard requirements for the Residential R-5 zone are established in Milwaukie Municipal Code (MMC) Subsection 19.301.4. Minimum front and rear yards are 20 ft, side yards are 5 ft, and street-side yards are 15 ft (for corner lots).

As per MMC Subsection 19.501.2, there is an extra setback requirement for King Road, applied in addition to the underlying zone front or street-side yard setbacks from King Road. The public right-of-way on King Road is 60 ft wide along the subject property's frontage and the additional setback is 40 ft as measured from the centerline of the right-of-way.

Landscape:

In the R-5 zone, a minimum of 25% of the site must be landscaped, including at least 40% vegetation in the front yard (measured from the front property line to the front face of the house). Vegetated areas may be planted in trees, grass, shrubs, or bark dust for planting beds, with no more than 20% of the landscaped area finished in bark dust (as per MMC Subsection 19.504.7). A maximum of 35% of any R-5 lot may be covered by structures, including decks or patios over 18 in above grade.

Parking:

As per the off-street parking standards of MMC Chapter 19.600, properties that contain single-family dwellings must provide at least 1 off-street parking space per dwelling unit. As per MMC Subsection 19.607.1, required residential off-street parking spaces must be at least 9 ft wide and 18 ft deep. The required spaces cannot be located in a required front or street-side yard and must have a durable and dust-free hard surface.

Uncovered parking spaces and maneuvering areas cannot exceed 50% of the front yard area and 30% of the required street-side yard area. No more than 3 residential parking spaces are allowed within the required front yard. Parking areas and driveways on the property shall align with the approved driveway approach and shall not be wider than the approach within 10 ft of the right-of-way boundary.

Transportation Review:

The proposed subdivision will trigger the requirements of MMC Chapter 19.700 Public Facility Improvements. Please see the Public Works notes for more information about the requirements of MMC 19.700 and the necessary right-of-way dedication and street frontage improvements.

Each new lot created in the R-5 zone must provide a minimum of 35 ft of frontage on a public street. The applicant should coordinate with the City's Engineering Department to determine a workable layout for the new streets needed to serve the proposed subdivision. Private streets are not allowed.

The subject property is partially comprised of vacated right-of-way from Llewellyn and Harrison Streets. Although development subsequent to the street vacation(s) has made re-establishment of the Llewellyn Street right-of-way unfeasible, a future reconnection to Harrison Street at Home Avenue to the west would allow redevelopment of several adjacent properties fronting on Home Avenue and Jackson Street. In addition, the new public street that will provide access to the subject property from King Road will allow for redevelopment of several adjacent properties fronting on 52nd Avenue.

Application Procedures: Required land use applications for the proposed action include the following:
* Subdivision (Type III review)

The subject property at 5126 SE King Road is comprised of 6 lots, which encompass portions of various underlying 2,500-sq-ft lots from Blocks 9 and 20 of the Minthorn Addition platted in 1890. The minimum size for new lots in the R-5 zone is 5,000 sq ft. The proposed development requires replatting the subject property using the subdivision process.

The current fee for subdivision applications (preliminary plat review) is \$4,400, plus \$100 for each lot over 4 lots. The applicant should submit 5 complete copies of all application materials for the City's initial review. A determination of the application's completeness will be issued within 30 days. If deemed incomplete, additional information will be requested. If deemed complete, additional copies of the application may be required for referral to other departments, the associated Neighborhood District Associations (NDAs), and other relevant parties and agencies. City staff will inform the applicant of the total number of copies needed. Note: The subject property is within the Hector Campbell NDA but is within 300 ft of the boundaries of the Lewelling and Linwood NDAs, so referrals will be made to all three NDAs.

For Type III review, once the application is deemed complete, a public hearing with the Planning Commission will be scheduled. Staff will determine the earliest available date that allows time for preparation of a staff report (including a recommendation regarding approval) as well as provision of the required public notice to property owners and residents within 300 ft of the subject property, at least 20 days prior to the public hearing. A sign giving notice of the application must be posted on the subject property at least 14 days prior to the hearing.

Once the Planning Commission makes a decision on the application, notice of the decision will be issued, initiating a 15-day appeal period for the applicant and any party who has established standing by submitting comments or participating in the public hearing process. Following the appeal period, the applicant may submit the necessary Final Plat application, which will require Type I review (current fee, \$200).

Prior to submitting the subdivision application, the applicant is encouraged to present the project at the regular meetings of the Hector Campbell NDA (6:30 p.m. on the second Monday of every month at the City's Public Safety Building, 3200 SE Harrison St), the Lewelling NDA, (7:00pm on the second Wednesday of every month at Lewelling Elementary, 5325 SE Logus Rd), and the Linwood NDA (7:00pm on the second Thursday of every month at Linwood Elementary, 11909 SE Linwood Ave).

Natural Resource Review: The subject property does not include any designated natural resource areas.

Lot Geography: The subject property is comprised of 6 lots, with a total area of approximately 115,000 sq ft (2.64 acres). The property has frontage on King Road to the north.

Planning Notes:

The minimum density requirement for the R-5 zone is 7.0 units per acre, with a maximum density of 8.7 units per acre. The area of right-of-way dedications and publically or commonly owned open spaces (such as stormwater tracts) is subtracted from the gross site area for the purpose of calculating density. Standards for calculating density, including rounding, are established in MMC Subsection 19.202.4.

MMC Section 17.28.040 establishes general design standards for new lots, including a requirement for rectilinear lots unless impractical and a limitation on compound lot line segments. As per MMC Section 17.28.070, flag lots are prohibited in new subdivisions.

Currently, there are no City regulations for tree removal on private property, except where flag lot development is proposed or where there are natural resource designations on the site. Neither situation applies to the proposed project.

ADDITIONAL NOTES AND ISSUES

County Health Notes:

Other Notes:

This is only preliminary preapplication conference information based on the applicant's proposal and does not cover all possible development scenarios. Other requirements may be added after an applicant submits land use applications or building permits. City policies and code requirements are subject to change. If you have any questions, please contact the City staff that attended the conference (listed on Page 1). Contact numbers for these staff are City staff listed at the end of the report.

Sincerely,

City of Milwaukie Development Review Team

BUILDING DEPARTMENT

Sam Vandagriff - Building Official - 503-786-7611

Bonnie Lanz - Permit Specialist - 503-786-7613

ENGINEERING DEPARTMENT

Chuck Eaton - Engineering Director - 503-786-7605

Vacant - Civil Engineer - 503 -786-7609

Chrissy Dawson - Engineering Tech II - 503-786-7610

Geoff Nettleton - Civil Engineer - 503-786-7609

Alex Roller - Engineering Tech II - 503-786-7695

COMMUNITY DEVELOPMENT DEPARTMENT

Alma Flores - Com Dev Director - 503-786-7652

Shauna Large - Admin Specialist - 503-786-7643

Joyce B Stahly -Admin Specialist - 503-786-7600

Alicia Martin -Admin Specialist - 503-786-7600

PLANNING DEPARTMENT

Denny Egner - Planning Director - 503-786-7654

Vacant - Senior Planner - 503-786-7627

Brett Kelter - Associate Planner - 503-786-7657

Vera Kolas - Associate Planner - 503-786-7653

CLACKAMAS FIRE DISTRICT

Mike Boumann - Lieutenant Deputy Fire Marshal - 503-742-2673

Matt Amos - Fire Inspector - 503-742-2661

Clackamas County Fire District #1

Fire Prevention Office



E-mail Memorandum

To: City of Milwaukie Planning Department
From: Matt Amos, Fire Inspector, Clackamas Fire District #1
Date: 3/25/2016
Re: 13 Lot subdivision 5126 SE king Rd. 16-008PA

This review is based upon the current version of the Oregon Fire Code (OFC), as adopted by the Oregon State Fire Marshal's Office. The scope of review is typically limited to fire apparatus access and water supply, although the applicant must comply with all applicable OFC requirements. When buildings are completely protected with an approved automatic fire sprinkler system, the requirements for fire apparatus access and water supply may be modified as approved by the fire code official. The following items should be addressed by the applicant:

COMMENTS:

A Fire Access and Water Supply plan is required for subdivisions and commercial buildings over 1000 square feet in size or when required by Clackamas Fire District #1. The plan shall show fire apparatus access, fire lanes, fire hydrants, fire lines, available fire flow, FDC location (if applicable), building square footage, and type of construction. The applicant shall provide fire flow tests per NFPA 291, and shall be no older than 12 months. Work to be completed by experienced and responsible persons and coordinated with the local water authority.

Access:

- 1) The inside turning radius and outside turning radius for a 20' wide road shall not be less than 28 feet and 48 feet respectively, measured from the same center point.
- 2) Fire Department turnarounds shall meet the dimensions found in the fire code applications guide.
- 3) Access streets between 26 feet and less than 32 feet in width must have parking restricted to one side of the street. Access streets less than 26 feet in width must have parking restricted on both sides of the street. No parking restrictions for access roads 32 feet wide or more.
- 4) Developers of private streets less than 32 feet in width must establish a street maintenance agreement that provides for enforcement of parking restrictions.

Water Supply:

- 1) For one and two family dwellings located in areas with reliable municipal fire fighting water supply the following shall apply:

<3,600 square feet (including attached garage)

- a) 1,000 gpm @ 20 psi with hydrant within 600 feet of furthest portion of new residential construction, (OFC Section B105.2)

>3,600 square feet (including attached garage)

- a) Shall meet fire flow requirements specified in Appendix B of the current Oregon Fire Code, (OFC, Table B105.1)
b) Shall meet hydrant coverage as specified in Appendix C of the current Oregon Fire Code, (OFC, Table C105.1)

Note: In lieu of the above fire flow requirements, residential fire sprinklers may be considered as an alternate when approved by the Fire Marshal.

Please see our design guide at:

<http://www.clackamasfire.com/documents/fireprevention/firecodeapplicationguide.pdf>

Exhibit F

Storm Drainage Report

*MEMORANDUM*

*ENGINEERING ♦ SURVEYING ♦ PLANNING**Phone: 503 684-0652***Date:** May 20, 2016**Re: Mission Park Subdivision
Preliminary Stormwater Memorandum**

This project is located at 5126 SE King Road and has a total area of 2.66 acres. The site contains an existing residential home. The remainder of the site consists of a gravel driveway, and a combination of grassed and treed areas.

This development will provide 14 new residential homes with public street improvements. Storm laterals will be provided to each lot and will be directed to a new public storm main. The public storm main will discharge into a new water quality and infiltration facility located at the southwest corner of the property.

The water quality and infiltration facility will be designed according to the requirements set forth in City of Milwaukie Public Works Standards dated February 15, 2015.

Analysis Purpose

The purpose of this preliminary analysis is to determine the following:

1. Water quality treatment feasibility
2. Preliminary Infiltration Feasibility

Water Quality Treatment

A grassy swale is proposed for water quality treatment and shall be designed per the City of Portland 2014 Stormwater Manual. The swale will be lined so as to prevent untreated stormwater from infiltrating into underlying soils. A collection system will be installed at the downstream end of the swale which will then be directed to infiltration trenches located in the stormwater tract.

A water quality manhole will be constructed prior to the water quality facility. The water quality manhole is sized accordingly to the 25-year peak runoff rate.

Infiltration System

The City of Milwaukie requirement states that the developed peak runoff rates for the purposes of designing an infiltration system shall be 2 inches per hour.

Infiltration testing was performed by Hardman Geotechnical Services Inc. on March 8, 2016. Infiltration rates were found to be 14 in/hr. Trenches will be designed based on 7 in/hr.

Exhibit G

Geotechnical Report



March 23, 2016
HGS I Project No. 16-1988

Kurt Dalbey
Mission Homes NW, LLC
P.O. Box 1689
Lake Oswego, Oregon 97035

Copy: Shad Haney / Jeff Vanderdasson, Westlake Consultants

Subject: GEOTECHNICAL ENGINEERING REPORT
5096 SE KING ROAD PROPERTY
MILWAUKIE, OREGON

This report presents the results of a geotechnical engineering study conducted by Hardman Geotechnical Services Inc. (HGS I) for the above-referenced project. The purpose of this study was to evaluate subsurface conditions at the site and to provide geotechnical recommendations for site development. This geotechnical study was performed in accordance with HGS I Proposal No. 16-779, dated February 17, 2016, and your subsequent authorization of our proposal and *General Conditions for Geotechnical Services*.

SITE DESCRIPTION AND PROPOSED DEVELOPMENT

The site consists of a 2.5 acre irregularly shaped property located at 5096 SE King Road in Milwaukie, Oregon (see Vicinity Map, Figure 1). Four existing structures currently occupy the site. There is also a large concrete channel, consisting of concrete stem walls and stream bed, along with many large boulders. The site is flat to gently sloping and is covered with many trees and bushes.

The proposed development includes subdividing the property to create 14 lots for single family home construction. Approximately 550-600 lineal feet of new private street will provide access to the homes from King Road. Underground utilities are also planned. We anticipate site development will consist of single family residential structures up to three stories in height. A grading plan has not yet been developed. HGS I should review grading plans when they become available in order to provide additional geotechnical recommendations as needed.

REGIONAL GEOLOGY AND SEISMIC SETTING

The subject site lies within the Portland Basin, a broad structural depression situated between the Coast Range on the west and the Cascade Range on the east. The Portland Basin is a northwest-southwest trending structural basin produced by broad regional downwarping of the area. The Portland Basin is approximately 20 miles wide and 45 miles long and is filled with consolidated and unconsolidated sedimentary rocks of late Miocene, Pliocene and Pleistocene age.

Gannet and Caldwell (1998) map the site area as being underlain by Pleistocene-age Alluvium and Glacial-Outburst Flood Sediments and Holocene Alluvial Deposits. These materials are described as “silt, sand and gravel deposited primarily by late Pleistocene glacial-outburst floods, but also including glaciofluvial sediments from the Cascade Range” and “sand, gravel, and silt deposits along channels and flood plains of the present day drainage system”, respectively. The catastrophic flood deposits are associated with repeated

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glacial outburst flooding of the Willamette Valley, the last of which occurred about 10,000 years ago (Madin, 1990). The lower, eastern portion of the site is mapped as Continental Sedimentary Rocks. This geologic unit is the main basin filling unit of the Willamette Lowland and consists of sand, gravel, sandstone, conglomerate siltstone, and mudstone derived primarily from the Cascade Range and Columbia River drainage (Gannett and Caldwell, 1998).

At least three major seismic source zones capable of generating damaging earthquakes are known to exist in the region. These include the Portland Hills Fault Zone, Gales Creek-Newberg-Mt. Angel Structural Zone, and the Cascadia Subduction Zone. These potential earthquake source zones are included in the determination of seismic design values for structures, as presented in the *Seismic Design* section.

FIELD EXPLORATION

The site-specific exploration for this study was conducted on March 8, 2016 and consisted of three test pits (designated TP-1 through TP-3) excavated to depths of approximately 10 to 10.5 feet below ground surface (bgs) at the approximate locations shown on the attached Site Plan, Figure 2. It should be noted that exploration locations were determined in the field by pacing or taping distances from apparent property corners and other site features shown on the plans provided. As such, the locations of the explorations should be considered approximate.

Explorations were conducted under the full-time observation of HGSI personnel. Soil samples obtained from the borings were classified in the field and representative portions were placed in relatively air-tight plastic bags. These soil samples were then returned to the laboratory for further examination. Pertinent information including soil sample depths, stratigraphy, soil engineering characteristics, and groundwater occurrence was recorded. Soils were classified in general accordance with the Unified Soil Classification System.

Summary test pit logs are attached to this report. The stratigraphic contacts shown on the individual borehole logs represent the approximate boundaries between soil types. The actual transitions may be more gradual. The soil and groundwater conditions depicted are only for the specific dates and locations reported, and therefore, are not necessarily representative of other locations and times.

INFILTRATION TESTING

On March 8, 2016, HGSI performed falling head infiltration tests using the stand pipe method in Test Pits TP-1 and TP-2. Soils were pre-saturated for several hours prior to testing. Following the soil saturation, infiltration tests were conducted. The water level was measured to the nearest 0.1 inch from a fixed point. The change in water level was recorded at regular intervals over a period of several hours. Table 1 presents the results of the falling head infiltration tests.

Table 1. Summary of Infiltration Test Results

Test Pit	Depth (feet)	Soil Type	Infiltration Rate(in/hr)	Hydraulic Head Range (inches)
TP-1	10	Sand	14	68.8 – 47.8
TP-2	4	Silt	2.2	26.2 – 23.2

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SUBSURFACE CONDITIONS

The following discussion is a summary of subsurface conditions encountered in our explorations. For more detailed information regarding subsurface conditions at specific exploration locations, refer to the attached test pit logs. Also, please note that subsurface conditions can vary between exploration locations, as discussed in the *Uncertainty and Limitations* section below.

Soil

On-site soils are anticipated to consist of silt and sand belonging to the Willamette Formation as described below.

Silt – Underlying approximately 12 inches of topsoil, test pits encountered silt. These soils were typically medium stiff to very stiff and were brown with gray and orange mottling. The silt unit extended to roughly 6.5 feet bgs. This silt unit was interpreted as belonging to the Willamette Formation.

Silty Sand – Beneath the silt, test pits encountered silty sand. This silty sand was loose to medium dense and brownish grey in color. The silty sand unit extended to the maximum depth of exploration in each test pit, up to 10.5 feet below ground surface. This unit was also interpreted as belonging to the Willamette Formation.

Groundwater

At the time of our explorations, groundwater was not encountered beneath the site. Regional geologic mapping (Snyder, 2008) indicates that static groundwater is present at a depth of about 60 feet below the existing ground surface at the site. In our experience, it is not uncommon to encounter thin perched groundwater zones within the Willamette Formation in this area, particularly during the wet season.

The groundwater conditions reported above are for the specific date and locations indicated, and therefore may not necessarily be indicative of other times and/or locations. Furthermore, it is anticipated that groundwater conditions will vary depending on the season, local subsurface conditions, changes in land use and other factors.

CONCLUSIONS AND RECOMMENDATIONS

Results of this study indicate that the proposed development is geotechnically feasible, provided that the recommendations of this report are incorporated into the design and construction phases of the project. At the time of this report, a grading plan was not yet available. HGSI should review grading plans when they become available in order to provide additional geotechnical recommendations as needed.

Recommendations are presented below regarding site preparation, engineered fill, wet weather earthwork, spread footing foundations, below grade structural retaining walls, concrete slabs-on-grade, perimeter footing drains, seismic design, stormwater infiltration systems, excavating conditions and utility trench backfill, and erosion control considerations.

Site Preparation

The areas of the site to be graded should first be cleared of vegetation and any loose debris; and debris from clearing should be removed from the site. Organic-rich topsoil should then be removed to competent native soils. We anticipate that the average depth of topsoil stripping will be 12 inches over most of the site, however deeper removals and/or root picking may be needed in the wooded portion of the site. The final depth of stripping removal may vary depending on local subsurface conditions and the contractor's methods, and should be determined on the basis of site observations after the initial stripping has been performed.

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Stripped organic soil should be stockpiled only in designated areas or removed from the site and stripping operations should be observed and documented by HGSI. Existing subsurface structures (tile drains, old utility lines, septic leach fields, etc.) beneath areas of proposed structures and pavement should be removed and the excavations backfilled with engineered fill.

There is potential for old fills to be present on site in areas beyond our explorations. Where encountered beneath proposed structures, pavements, or other settlement-sensitive improvements, undocumented fill should be removed down to firm inorganic native soils and the removal area backfilled with engineered fill (see below). HGSI should observe removal excavations (if any) prior to fill placement to verify that overexcavations are adequate and an appropriate bearing stratum is exposed.

In construction areas, once stripping has been verified, the area should be ripped or tilled to a depth of 12 inches, moisture conditioned, and compacted in-place prior to the placement of engineered fill. Exposed subgrade soils should be evaluated by HGSI. For large areas, this evaluation is normally performed by proof-rolling the exposed subgrade with a fully loaded scraper or dump truck. For smaller areas where access is restricted, the subgrade should be evaluated by probing the soil with a steel probe. Soft/loose soils identified during subgrade preparation should be compacted to a firm and unyielding condition or over-excavated and replaced with engineered fill, as described below. The depth of overexcavation, if required, should be evaluated by HGSI at the time of construction.

Engineered Fill

In general, we anticipate that on-site soils will be suitable for use as engineered fill in dry weather conditions, provided they are relatively free of organics and are properly moisture conditioned for compaction. Imported fill material must be approved by the geotechnical engineer prior to being imported to the site. Oversize material greater than 6 inches in size should not be used within 3 feet of foundation footings, and material greater than 12 inches in diameter should not be used in engineered fill.

Engineered fill should be compacted in horizontal lifts not exceeding 8 inches using standard compaction equipment. We recommend that engineered fill be compacted to at least 90 percent of the maximum dry density determined by ASTM D1557 (Modified Proctor) or equivalent. On-site soils may be wet or dry of optimum; therefore, we anticipate that moisture conditioning of native soil will be necessary for compaction operations.

Proper test frequency and earthwork documentation usually requires daily observation and testing during stripping, rough grading, and placement of engineered fill. Field density testing should conform to ASTM D2922 and D3017, or D1556. Engineered fill should be periodically observed and tested by HGSI.

Wet Weather Earthwork

The on-site soils are moisture sensitive and may be difficult to handle or traverse with construction equipment during periods of wet weather. Earthwork is typically most economical when performed under dry weather conditions. Earthwork performed during the wet-weather season will probably require expensive measures such as cement treatment or imported granular material to compact fill to the recommended engineering specifications. If earthwork is to be performed or fill is to be placed in wet weather or under wet conditions when soil moisture content is difficult to control, the following recommendations should be incorporated into the contract specifications.

- Earthwork should be performed in small areas to minimize exposure to wet weather. Excavation or the removal of unsuitable soils should be followed promptly by the placement and compaction of clean engineered fill. The size and type of construction equipment used may have to be limited to

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prevent soil disturbance. Under some circumstances, it may be necessary to excavate soils with a backhoe to minimize subgrade disturbance caused by equipment traffic;

- The ground surface within the construction area should be graded to promote run-off of surface water and to prevent the ponding of water;
- Material used as engineered fill should consist of clean, granular soil containing less than about 7 percent fines. The fines should be non-plastic. Alternatively, cement treatment of on-site soils may be performed to facilitate wet weather placement;
- The ground surface within the construction area should be sealed by a smooth drum vibratory roller, or equivalent, and under no circumstances should be left uncompacted and exposed to moisture. Soils which become too wet for compaction should be removed and replaced with clean granular materials;
- Excavation and placement of fill should be observed by the geotechnical engineer to verify that all unsuitable materials are removed and suitable compaction and site drainage is achieved; and
- Bales of straw and/or geotextile silt fences should be strategically located to control erosion.

If cement or lime treatment is used to facilitate wet weather construction, HGSI should be contacted to provide additional recommendations and field monitoring.

Spread Footing Foundations

Shallow, conventional isolated or continuous spread footings may be used to support the proposed structures, provided they are founded on competent native soils, or compacted engineered fill placed directly upon the competent native soils. We recommend a maximum allowable bearing pressure of 2,000 pounds per square foot (psf) for designing spread footings bearing on undisturbed native soils or engineered fill. The recommended maximum allowable bearing pressure may be increased by a factor of 1.33 for short term transient conditions such as wind and seismic loading. All footings should be founded at least 18 inches below the lowest adjacent finished grade. Minimum footing widths should be determined by the project engineer/architect in accordance with applicable design codes.

Assuming construction is accomplished as recommended herein, and for the foundation loads anticipated, we estimate total settlement of spread foundations of less than about 1 inch and differential settlement between two adjacent load-bearing components supported on competent soil of less than about ½ inch. We anticipate that the majority of the estimated settlement will occur during construction, as loads are applied.

Wind, earthquakes, and unbalanced earth loads will subject the proposed structure to lateral forces. Lateral forces on a structure will be resisted by a combination of sliding resistance of its base or footing on the underlying soil and passive earth pressure against the buried portions of the structure. For use in design, a coefficient of friction of 0.5 may be assumed along the interface between the base of the footing and subgrade soils. Passive earth pressure for buried portions of structures may be calculated using an equivalent fluid weight of 390 pounds per cubic foot (pcf), assuming footings are cast against dense, natural soils or engineered fill. The recommended coefficient of friction and passive earth pressure values do not include a safety factor. The upper 12 inches of soil should be neglected in passive pressure computations unless it is protected by pavement or slabs on grade.

Footing excavations should be trimmed neat and the bottom of the excavation should be carefully prepared. Loose, wet or otherwise softened soil should be removed from the footing excavation prior to placing reinforcing steel bars. HGSI should observe foundation excavations prior to placing crushed rock, to verify that adequate bearing soils have been reached. Due to the high moisture sensitivity of on-site soils,

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construction during wet weather may require overexcavation of footings and backfill with compacted, crushed aggregate.

Below-Grade Structural Retaining Walls

Lateral earth pressures against below-grade retaining walls will depend upon the inclination of any adjacent slopes, type of backfill, degree of wall restraint, method of backfill placement, degree of backfill compaction, drainage provisions, and magnitude and location of any adjacent surcharge loads. At-rest soil pressure is exerted on a retaining wall when it is restrained against rotation. In contrast, active soil pressure will be exerted on a wall if its top is allowed to rotate or yield a distance of roughly 0.001 times its height or greater. If the subject retaining walls will be free to rotate at the top, they should be designed for an active earth pressure equivalent to that generated by a fluid weighing 35 pcf for level backfill against the wall. For restrained walls, an at-rest equivalent fluid pressure of 54 pcf should be used in design, again assuming level backfill against the wall. These values assume that the recommended drainage provisions are incorporated, and hydrostatic pressures are not allowed to develop against the wall.

During a seismic event, lateral earth pressures acting on below-grade structural walls will increase by an incremental amount that corresponds to the earthquake loading. Based on the Mononobe-Okabe equation and peak horizontal accelerations appropriate for the site location, seismic loading should be modeled using the active or at-rest earth pressures recommended above, plus an incremental rectangular-shaped seismic load of magnitude $5H$, where H is the total height of the wall.

We assume relatively level ground surface below the base of the walls. As such, we recommend passive earth pressure of 390 pcf for use in design, assuming wall footings are cast against competent native soils or engineered fill. If the ground surface slopes down and away from the base of any of the walls, a lower passive earth pressure should be used and HGSI should be contacted for additional recommendations.

A coefficient of friction of 0.5 may be assumed along the interface between the base of the wall footing and subgrade soils. The recommended coefficient of friction and passive earth pressure values do not include a safety factor, and an appropriate safety factor should be included in design. The upper 12 inches of soil should be neglected in passive pressure computations unless it is protected by pavement or slabs on grade.

The above recommendations for lateral earth pressures assume that the backfill behind the subsurface walls will consist of properly compacted structural fill, and no adjacent surcharge loading. If the walls will be subjected to the influence of surcharge loading within a horizontal distance equal to or less than the height of the wall, the walls should be designed for the additional horizontal pressure. For uniform surcharge pressures, a uniformly distributed lateral pressure of 0.3 times the surcharge pressure should be added.

The recommended equivalent fluid densities assume a free-draining condition behind the walls so that hydrostatic pressures do not build up. This can be accomplished by placing a 12-inch wide zone of crushed drain rock containing less than 5 percent fines against the walls. A 3-inch minimum diameter perforated, plastic drain pipe should be installed at the base of the walls and connected to a sump to remove water from the crushed drain rock zone. The drain pipe should be wrapped in filter fabric (Mirafi 140N or other as approved by the geotechnical engineer) to minimize clogging. The above drainage measures are intended to remove water from behind the wall to prevent hydrostatic pressures from building up. Additional drainage measures may be specified by the project architect or structural engineer, for damp-proofing or other reasons.

HGSI should be contacted during construction to verify subgrade strength in wall keyway excavations, to verify that backslope soils are in accordance with our assumptions, and to take density tests on the wall backfill materials.

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Concrete Slabs-on-Grade

Preparation of areas beneath concrete slab-on-grade floors should be performed as recommended in the *Site Preparation* section. Care should be taken during excavation for foundations and floor slabs, to avoid disturbing subgrade soils. If subgrade soils have been adversely impacted by wet weather or otherwise disturbed, the surficial soils should be scarified to a minimum depth of 8 inches, moisture conditioned to within about 3 percent of optimum moisture content, and compacted to engineered fill specifications. Alternatively, disturbed soils may be removed and the removal zone backfilled with additional crushed rock. For evaluation of the concrete slab-on-grade floors using the beam on elastic foundation method, a modulus of subgrade reaction of 200 kcf (115 pci) should be assumed for the soils anticipated at subgrade depth. This value assumes the concrete slab system is designed and constructed as recommended herein, with a minimum thickness of crushed rock of 8 inches beneath the slab.

Interior slab-on-grade floors should be provided with an adequate moisture break. The capillary break material should consist of ODOT open graded aggregate per ODOT Standard Specifications 02630-2. The minimum recommended thickness of capillary break materials on re-compacted soil subgrade is 8 inches. The total thickness of crushed aggregate will be dependent on the subgrade conditions at the time of construction, and should be verified visually by proof-rolling. Under-slab aggregate should be compacted to at least 90% of its maximum dry density as determined by ASTM D1557 or equivalent.

In areas where moisture will be detrimental to floor coverings or equipment inside the proposed structure, appropriate vapor barrier and damp-proofing measures should be implemented. A commonly applied vapor barrier system consists of a 10-mil polyethylene vapor barrier placed directly over the capillary break material. With this type of system, an approximately 2-inch thick layer of sand is often placed over the vapor barrier to protect it from damage, to aid in curing of the concrete, and also to help prevent cement from bleeding down into the underlying capillary break materials. Other damp/vapor barrier systems may also be feasible. Appropriate design professionals should be consulted regarding vapor barrier and damp proofing systems, ventilation, building material selection and mold prevention issues, which are outside HGSI's area of expertise.

Perimeter Footing Drains

Due to the potential for perched surface water above fine grained deposits such as those encountered at the site, we recommend the outside edge of perimeter footings be provided with a drainage system consisting of 3-inch minimum diameter perforated PVC pipe embedded in a minimum of 1 ft³ per lineal foot of clean crushed drain rock. The drain pipe and surrounding drain rock should be wrapped in non-woven geotextile (Mirafi 140N, or approved equivalent) to minimize the potential for clogging and/or ground loss due to piping. Water collected from the footing drains should be directed into the local storm drain system or other suitable outlet. A minimum 0.5 percent fall should be maintained throughout the drain and non-perforated pipe outlet. The footing drains should include clean-outs to allow periodic maintenance and inspection.

Down spouts and roof drains should collect roof water in a system separate from the footing drains in order to reduce the potential for clogging. Roof drain water should be directed to an appropriate discharge point well away from structural foundations. Grades should be sloped downward and away from buildings to reduce the potential for ponded water near structures.

Seismic Design

Structures should be designed to resist earthquake loading in accordance with the methodology described in the 2014 Oregon Residential Specialty Code (ORSC). We recommend Site Class D be used for design per ASCE 7-10, Chapter 20. Design values determined for the site using the USGS (United States Geological Survey) *Seismic Design Tool* utility are summarized below in Table 2.

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Table 2. Recommended Earthquake Ground Motion Parameters (2014 ORSC)

Parameter	Value
Location (Lat, Long), degrees	45.447, -122.611
Mapped Spectral Acceleration Values (MCE, Site Class B):	
Short Period, S_s	0.974 g
Soil Factors for Site Class D:	
F_a	1.110
$SD_s = 2/3 \times F_a \times S_s$	0.721 g
Seismic Design Category (2014 ORSC Table R301.2.2.1.1)	D_1 $0.50g < SD_s < 0.83g$

Soil liquefaction is a phenomenon wherein saturated soil deposits temporarily lose strength and behave as a liquid in response to earthquake shaking. Soil liquefaction is generally limited to loose, granular soils located below the water table. Following development, on-site soils will consist predominantly of engineered fill or stiff native soils above the water table, which are not considered susceptible to liquefaction. Therefore, it is our opinion that special design or construction measures are not required to mitigate the effects of liquefaction.

Stormwater Infiltration Systems

Based on results of the infiltration testing, near-surface soils on site exhibit moderate infiltration rates and deeper soils exhibit higher rates; see Table 1. Groundwater was not encountered in test pits advanced to a maximum depth of 10.5 feet. No indications of seasonal high groundwater were observed.

The designer of the stormwater system should select an appropriate infiltration value based on our test results. Dry wells extending at least 10 feet bgs and into the silty sand unit on site may be designed for an ultimate infiltration rate of 14 inches/hour. Shallow infiltration facilities such as flow-through planters or swales should be designed for the lower test value of 2.2 inches/hour. The infiltration rates do not incorporate a factor of safety. For the design infiltration rate, the system designer should incorporate an appropriate factor of safety against slowing of the rate over time due to biological and sediment clogging.

Infiltration test methods and procedures attempt to simulate the as-built conditions of the planned disposal system. However, due to natural variations in soil properties, actual infiltration rates may vary from the measured and/or recommended design rates. All systems should be constructed such that potential overflow is discharged in a controlled manner away from structures, and all systems should include an adequate factor of safety. Infiltration rates presented in this report should not be applied to inappropriate or complex hydrological models such as a closed basin without extensive further studies. Evaluating environmental implications of stormwater disposal at this site are beyond the scope of this study.

Excavating Conditions and Utility Trench Backfill

We anticipate that on-site soils can be excavated using conventional heavy equipment such as trackhoes. Our exploratory test pits extended to a maximum depth of 10 feet. Soil conditions beyond our explorations are unknown. Maintenance of safe working conditions, including temporary excavation stability, is the

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responsibility of the contractor. Actual slope inclinations at the time of construction should be determined based on safety requirements and actual soil and groundwater conditions. All temporary cuts in excess of 4 feet in height should be sloped in accordance with U.S. Occupational Safety and Health Administration (OSHA) regulations (29 CFR Part 1926), or be shored. The existing native soils classify as Type B Soil and temporary excavation side slope inclinations as steep as 1H:1V may be assumed for planning purposes. This cut slope inclination is applicable to excavations above the water table only. Flatter temporary excavation slopes will be needed if groundwater is present, or if significant thicknesses of sandy soils are present in excavation sidewalls.

Perched groundwater conditions often occur over fine-grained native deposits such as those beneath the site, particularly during the wet season. If encountered, the contractor should be prepared to implement an appropriate dewatering system for installation of the utilities. At this time, we anticipate that dewatering systems consisting of ditches, sumps and pumps would be adequate for control of groundwater where encountered during construction conducted during the dry season. Regardless of the dewatering system used, it should be installed and operated such that in-place soils are prevented from being removed along with the groundwater.

Vibrations created by traffic and construction equipment may cause some caving and raveling of excavation walls. In such an event, lateral support for the excavation walls should be provided by the contractor to prevent loss of ground support and possible distress to existing or previously constructed structural improvements.

Utility trench backfill should consist of ¾"-0 crushed rock, compacted to at least 90% of the maximum dry density obtained by Modified Proctor (ASTM D1557) or equivalent. Initial backfill lift thicknesses for a ¾"-0 crushed aggregate base may need to be as great as 4 feet to reduce the risk of flattening underlying flexible pipe. Subsequent lift thickness should not exceed 1 foot. If imported granular fill material is used, then the lifts for large vibrating plate-compaction equipment (e.g. hoe compactor attachments) may be up to 2 feet, provided that proper compaction is being achieved and each lift is tested. Use of large vibrating compaction equipment should be carefully monitored near existing structures and improvements due to the potential for vibration-induced damage.

Adequate density testing should be performed during construction to verify that the recommended relative compaction is achieved. Typically, one density test is taken for every 4 vertical feet of backfill on each 200-lineal-foot section of trench.

Erosion Control Considerations

Fine grained soils on steep slopes are susceptible to erosion. Erosion during construction can be minimized by implementing the project erosion control plan, which should include judicious use of bio-bags, silt fences, or other appropriate technology. Where used, erosion control devices should be in place and remain in place throughout site preparation and construction.

Erosion and sedimentation of exposed soils can also be minimized by quickly re-vegetating exposed areas of soil, and by staging construction such that large areas of the project site are not denuded and exposed at the same time. Areas of exposed soil requiring immediate and/or temporary protection against exposure should be covered with either mulch or erosion control netting/blankets. Areas of exposed soil requiring permanent stabilization should be seeded with an approved grass seed mixture, or hydroseeded with an approved seed-mulch-fertilizer mixture.

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UNCERTAINTIES AND LIMITATIONS

We have prepared this report for the owner and his/her consultants for use in design of this project only. This report should be provided in its entirety to prospective contractors for bidding and estimating purposes; however, the conclusions and interpretations presented in this report should not be construed as a warranty of the subsurface conditions. Experience has shown that soil and groundwater conditions can vary significantly over small distances. Inconsistent conditions can occur between explorations that may not be detected by a geotechnical study. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, HGSI should be notified for review of the recommendations of this report, and revision of such if necessary.

Sufficient geotechnical monitoring, testing and consultation should be provided during construction to confirm that the conditions encountered are consistent with those indicated by explorations. Recommendations for design changes will be provided should conditions revealed during construction differ from those anticipated, and to verify that the geotechnical aspects of construction comply with the contract plans and specifications.

Within the limitations of scope, schedule and budget, HGSI executed these services in accordance with generally accepted professional principles and practices in the field of geotechnical engineering at the time the report was prepared. No warranty, expressed or implied, is made. The scope of our work did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous or toxic substances in the soil, surface water, or groundwater at this site.



We appreciate this opportunity to be of service.

Sincerely,

HARDMAN GEOTECHNICAL SERVICES INC.



EXPIRES: 06-30-20 17

Scott L. Hardman, P.E., G.E.
Principal Geotechnical Engineer

Attachments: References
 Figure 1 – Vicinity Map
 Figure 2 – Site Plan
 Logs of Test Pits TP-1 through TP-7

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REFERENCES

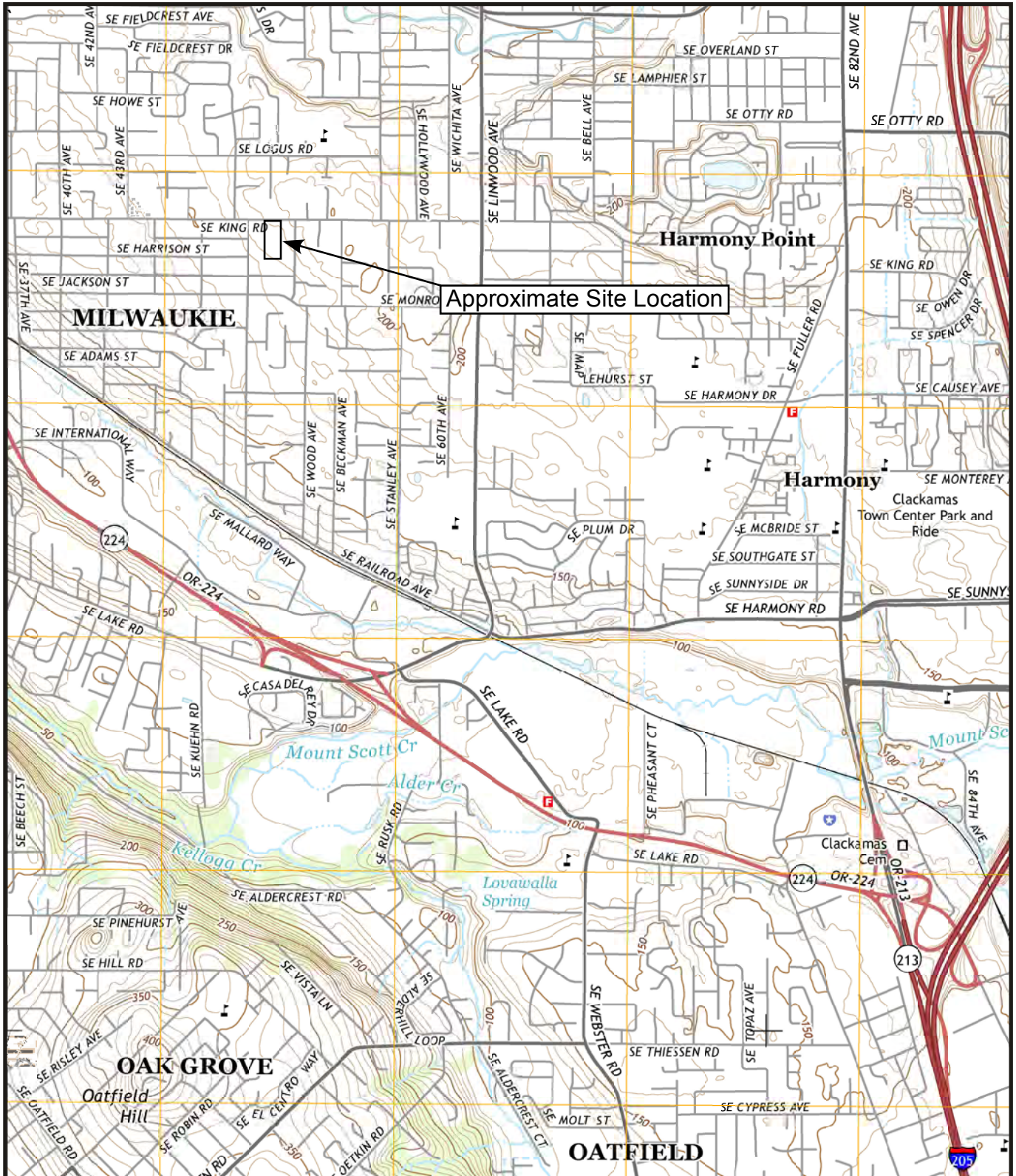
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- Madin, I.P., 1990, Earthquake hazard geology maps of the Portland metropolitan area, Oregon: Oregon Department of Geology and Mineral Industries Open-File Report 0-90-2, scale 1:24,000, 22 p.
- Snyder, D.T., 2008, Estimated Depth to Ground Water and Configuration of the Water Table in the Portland, Oregon Area: U.S. Geological Survey Scientific Investigations Report 2008-5059, 41 p., 3 plates.



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Practical, Cost-Effective Geotechnical Solutions

VICINITY MAP



Project: 5096 SE King Rd
Milwaukie, Oregon

Project No. 16-1988

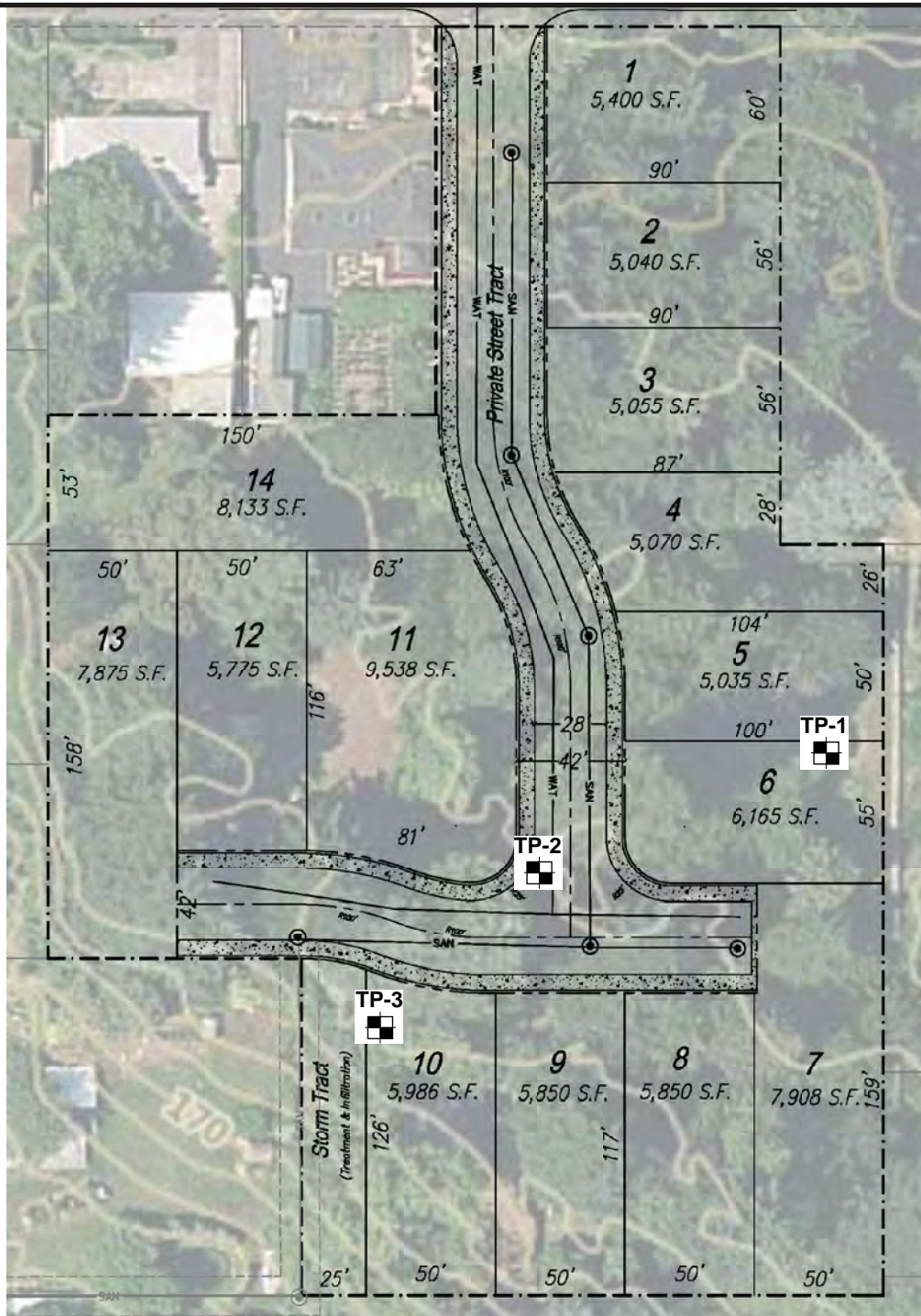
FIGURE 1



**HARDMAN
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SITE AND EXPLORATION PLAN



Legend

TP-3



Test Pit Designation and
Approximate Location

Base map provided by:
Westlake Consultants

Project 5096 SE King Rd
Milwaukie, Oregon

Project No. 16-1988

FIGURE 2

LOG OF BACKHOE / EXCAVATOR TEST PIT

Project: 5096 SE Kind Rd
Milwaukie, Oregon

Project No. 16-1988

Test Pit No. TP- 1

Depth (ft)	Pocket Penetrometer (tons/ft ²)	Sample Interval	Sample Designation	Moisture Content (%)	Groundwater	Material Description
1	0.50					Medium stiff, Silt, dark brown, moist, many fine roots (top soil)
2	0.75					Medium stiff to very stiff, Silt, brown, moist to slightly moist
3	1.25					
4	2.25					
5						
6						
7						Loose to medium dense, Silty sand, brown, slightly moist
8						
9						
10						Test pit terminated at 10 feet No groundwater or seepage encountered
11						
12						
13						
14						
15						
16						
17						



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Practical Cost-Effective Geotechnical Solutions

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LEGEND



S-1



Soil Sample Depth
Interval and Designation

Water Level at
Time of Excavation

Date Excavated: 3-8-16

Logged By: IDM

LOG OF BACKHOE / EXCAVATOR TEST PIT

Project: 5096 SE Kind Rd
Milwaukie, Oregon

Project No. 16-1988

Test Pit No. TP- 2

Depth (ft)	Pocket Penetrometer (tons/ft ²)	Sample Interval	Sample Designation	Moisture Content (%)	Groundwater	Material Description
1	0.50					Medium stiff, Silt, dark brown, moist, many fine roots (top soil)
2	1.00					Medium stiff to very stiff, Silt, brown, moist to slightly moist
3	1.75					
4	3.50					
5						
6						
7						
8						Loose to medium dense, Silty sand, brown, slightly moist
9						
10						
11						Test pit terminated at 10.5 feet No groundwater or seepage encountered
12						
13						
14						
15						
16						
17						



**HARDMAN
GEOTECHNICAL
SERVICES INC.**
Practical Cost-Effective Geotechnical Solutions

10110 SW Nimbus Avenue, Suite B-5
Portland, OR 97223
(503) 530-8076

LEGEND



S-1



Soil Sample Depth
Interval and Designation

Water Level at
Time of Excavation

Date Excavated: 3-8-16

Logged By: IDM

LOG OF BACKHOE / EXCAVATOR TEST PIT

Project: 5096 SE Kind Rd
Milwaukie, Oregon

Project No. 16-1988

Test Pit No. TP- 3

Depth (ft)	Pocket Penetrometer (tons/ft ²)	Sample Interval	Sample Designation	Moisture Content (%)	Groundwater	Material Description
1	0.75					Medium stiff, Silt, dark brown, moist, many roots (top soil)
2	2.50					Medium stiff to very stiff, Silt, brown, moist to slightly moist
3	>4					
4	>4					
5						
6						Loose to medium dense, Silty sand, brown, slightly moist
7						
8						
9						
10						
11						Test pit terminated at 10.5 feet No groundwater or seepage encountered
12						
13						
14						
15						
16						
17						



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SERVICES INC.**
Practical Cost-Effective Geotechnical Solutions

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Portland, OR 97223
(503) 530-8076

LEGEND



S-1



Soil Sample Depth
Interval and Designation

Water Level at
Time of Excavation

Date Excavated: 3-8-16

Logged By: IDM

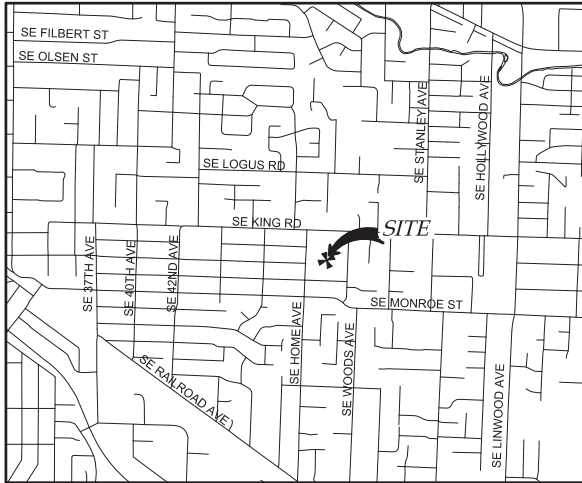
Exhibit H

Preliminary Engineering Plan Set

PRELIMINARY PLANS FOR MISSION PARK CITY OF MILWAUKIE, OREGON

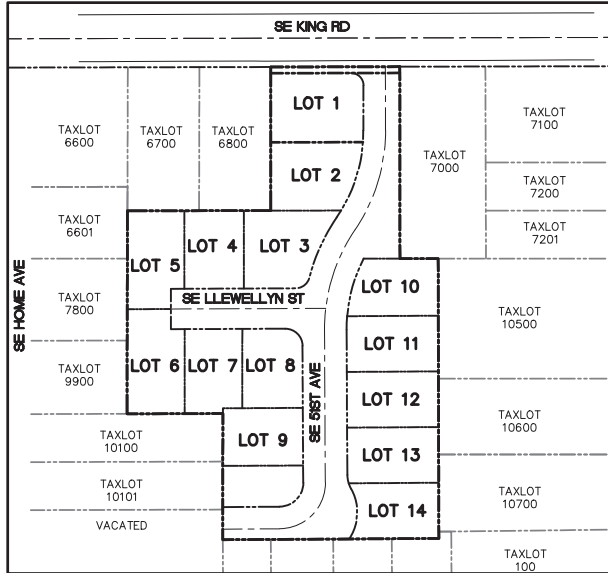
SHEET INDEX

<u>NAME:</u>	<u>NO.</u>
COVER SHEET	P100
EXISTING CONDITIONS	P200
PRELIMINARY PLAT	P300
PRELIMINARY CONCEPT/SITE PLAN	P400
PRELIMINARY GRADING PLAN	P500
PRELIMINARY UTILITY PLAN	P600



VICINITY MAP

NOT TO SCALE



LOCATION MAP

SCALE: 1"=100'

**PROPERTY OWNER**

PAUL DEGGENDORFER
11813 NE 15TH ST
VANCOUVER, WA 98684
EVA MARIA DEGGENDORFER
4230 SE KING RD
MILWAUKIE, OR 97222

APPLICANT

MISSION HOMES NW, LLC
PO BOX 1689
LAKE OSWEGO, OR 97035
PHONE: (503) 781-1814
CONTACT: KURT DALBEY

CIVIL ENGINEER

WESTLAKE CONSULTANTS, INC.
PACIFIC CORPORATE CENTER
15115 S.W. SEQUOIA PARKWAY, SUITE 150
TIGARD, OREGON 97224
PHONE: (503) 684-0652
FAX: (503) 624-0157
CONTACT: JEFF A. VANDERDASSON, PE
KENNETH SANDBLAST, AICP

SURVEY OF

WESTLAKE CONSULTANTS, INC.
PACIFIC CORPORATE CENTER
15115 S.W. SEQUOIA PARKWAY, SUITE 1500
TIGARD, OREGON 97224
PHONE: (503) 684-0652
FAX: (503) 624-0157
CONTACT: KENNETH SANDBLAST, AICP

PROPERTY DESCRIPTION

TAX MAP + LOT:
1S2E 30CD TAX LOTS 6900, 7400
7700, 7701, 10,300 & 10,400

SITE SIZE:
2.66 ACRES

ZONING DESIGNATION:
R-5 (MODERATE DENSITY)

PROPOSAL:
14-LOT RESIDENTIAL SUBDIVISION

STREET ADDRESS

5126 SE KING RD
MILWAUKIE, OR 97222

BENCHMARK

SET A MAGNAIL IN ASPHALTIC CONCRETE PARKING LOT
NORTH OF THE MILWAUKIE CHRISTIAN CHURCH BUILDING
AND SOUTH OF THE WESTERLY CONCRETE CURBED PARKING
ISLAND. ELEVATION= 191.40 FEET (NAVD88, GEOID 12B)

ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THESE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987).

UTILITY STATEMENT: THE UNDERGROUND UTILITIES SHOWN ARE PER FIELD MARKINGS AND RECORD DRAWINGS PROVIDED BY THE RESPECTIVE UTILITY AGENCIES. LOCATION OF NON-OBSERVABLE AND/OR UNDERGROUND UTILITIES ARE SHOWN FOR INFORMATION ONLY AND ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE.

UTILITY VERIFICATION: CONTRACTOR SHALL POTHOLE TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION AND SHALL PROVIDE **WESTLAKE CONSULTANTS, INC.** 72-HOURS NOTICE OF ANY POTENTIAL CONFLICTS.



WESTLAKE
CONSULTANTS INC.

ENGINEERING ♦ SURVEYING ♦ PLANNING
PACIFIC CORPORATE CENTER
5115 S.W. SEQUOIA PARKWAY, SUITE 150
TIGARD, OREGON 97224
(503) 684-0652
FAX (503) 624-0157

MISSION PARK
CITY OF MILWAUKEE, OR

COVER SHEET

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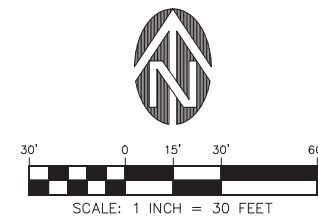
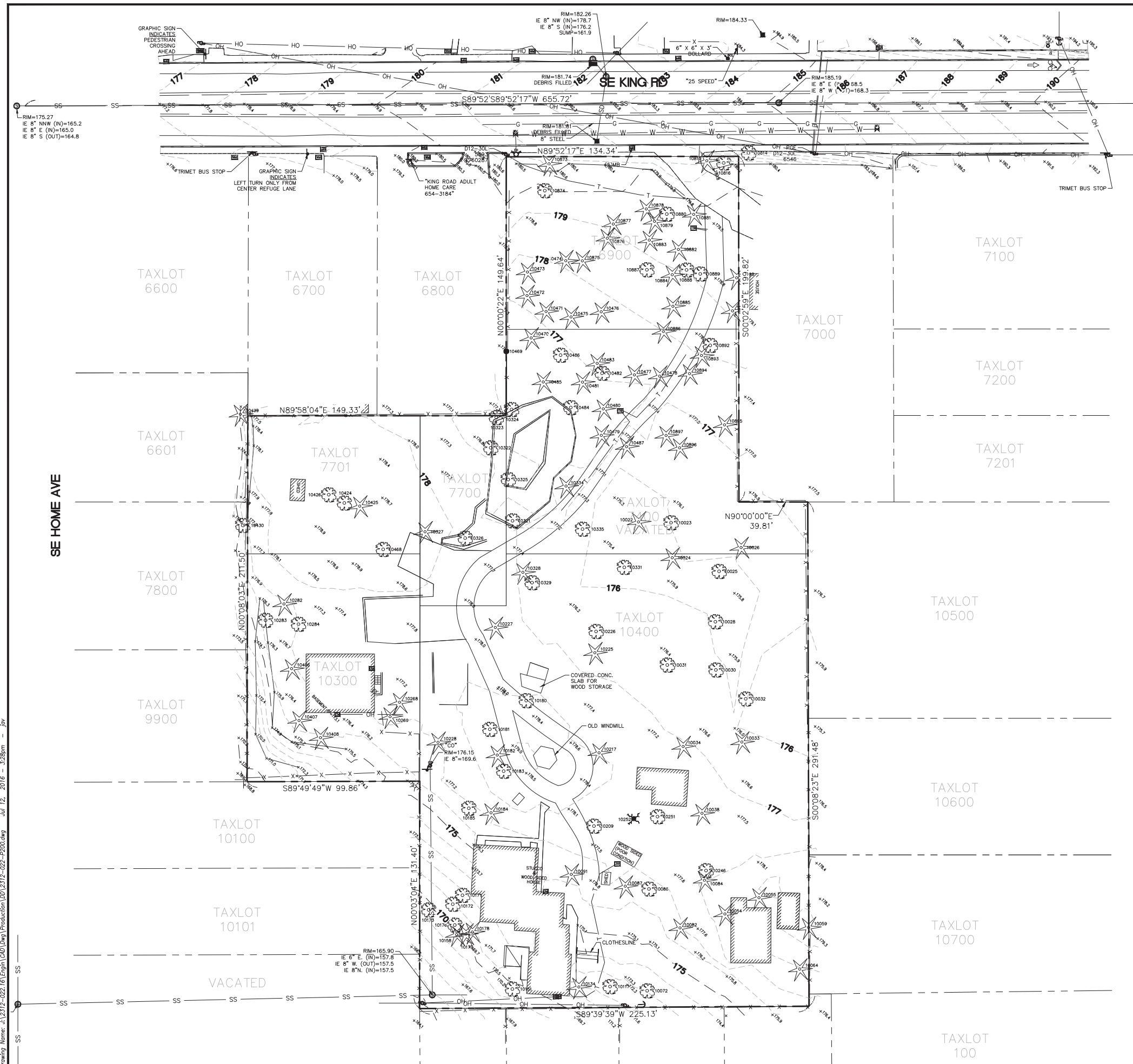
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SHEET

P100

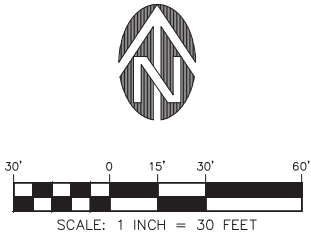
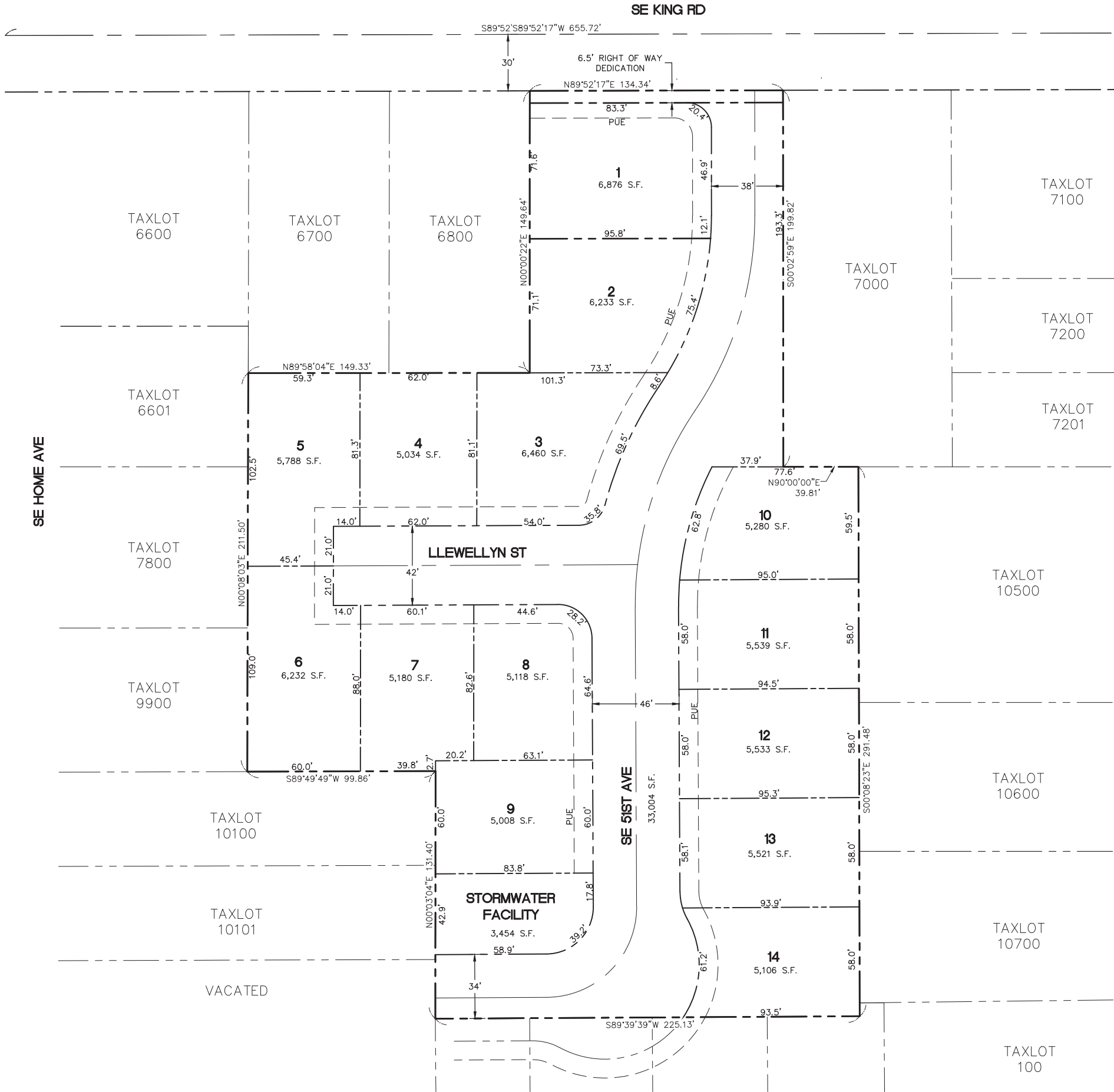
JOB NO.
2312-022

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TOWNSHIP 1 SOUTH, RANGE 2 EAST, SECTION 30

LEGAL DESCRIPTIONS

REAL PROPERTY IN THE COUNTY OF CLACKAMAS, STATE OF OREGON, DESCRIBED AS FOLLOWS:

PARCEL I: TL 6900 & 7400

PART OF BLOCK 9, ACCORDING TO THE DULY FILED PLAT OF MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE CITY OF MILWAUKIE, FILED JUNE 23, 1890 AS MAP NO. 59, RECORDS OF THE COUNTY OF CLACKAMAS AND STATE OF OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 14, SAID BLOCK 9; THENCE EAST ALONG THE NORTH LINE OF SAID BLOCK A DISTANCE OF 135 FEET TO A POINT WHICH IS 10 FEET EAST OF THE NORTHWEST CORNER OF LOT 9; THENCE SOUTH PARALLEL WITH THE EAST LINE OF LOTS 10 AND 39 A DISTANCE OF 200 FEET TO A POINT IN THE SOUTH LINE OF LOT 40, SAID BLOCK 9; THENCE EAST A DISTANCE OF 40 FEET TO THE SOUTHEAST CORNER OF LOT 41, SAID BLOCK 9; THENCE SOUTH A DISTANCE OF 30 FEET TO THE CENTER LINE OF VACATED LLEWELLYN STREET; THENCE WEST ALONG THE CENTER LINE OF LLEWELLYN STREET, SAID LINE RUNNING PARALLEL WITH AND 30 FEET SOUTH OF THE SOUTH LINE OF BLOCK 9, A DISTANCE OF 175 FEET TO A POINT DUE SOUTH OF THE SOUTHWEST CORNER OF LOT 35, BLOCK 9; THENCE NORTH 30 FEET TO THE SOUTHWEST CORNER OF SAID LOT 35, BLOCK 9; THENCE CONTINUING NORTH 200 FEET TO THE POINT OF BEGINNING.

RESERVING THEREFROM AN EASEMENT FOR INGRESS AND EGRESS BEING A PART OF BLOCK 9, ACCORDING TO THE DULY FILED PLAT OF MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE CITY OF MILWAUKIE, FILED JUNE 23, 1890 AS MAP NO. 59, RECORDS OF THE COUNTY OF CLACKAMAS AND STATE OF OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 14, SAID BLOCK 9; THENCE EAST ALONG THE NORTH LINE OF SAID BLOCK A DISTANCE OF 15 FEET TO A POINT; THENCE SOUTH PARALLEL WITH THE WEST LINE OF LOT 14 AND IT'S SOUTHERLY EXTENSION THEREOF, A DISTANCE OF 200 FEET TO A POINT IN THE CENTER OF VACATED LLEWELLYN STREET; THENCE WEST 15 FEET TO THE SOUTHERLY EXTENSION OF THE WEST LINE OF SAID LOT 14; THENCE NORTH ALONG THE SOUTHERLY EXTENSION OF SAID WEST LINE OF LOT 14 AND THE WEST LINE OF LOT 14, TO THE POINT OF BEGINNING.

NOTE: THIS LEGAL DESCRIPTION WAS CREATED PRIOR TO JANUARY 1, 2008.

PARCEL II: TL 7700

THE SOUTH HALF OF LOTS 33 AND 34, BLOCK 9, MINTHORN ADDITION TO THE CITY OF PORTLAND.

ALSO THAT PORTION OF VACATED MAGNOLIA STREET LYING BETWEEN THE SOUTH LINE OF SAID LOTS AND THE NORTH LINE OF LOTS 15 AND 16, BLOCK 20, MINTHORN ADDITION TO THE CITY OF PORTLAND.

NOTE: THIS LEGAL DESCRIPTION WAS CREATED PRIOR TO JANUARY 1, 2008.

PARCEL III: TL 7701

THE SOUTH ONE-HALF OF LOTS 29, 30, 31 AND 32, BLOCK 9, MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE COUNTY OF CLACKAMAS AND STATE OF OREGON.

TOGETHER WITH THAT PORTION OF VACATED MAGNOLIA AVENUE THAT INURED TO THE PREMISES BY REASON OF THE VACATION THEREOF.

NOTE: THIS LEGAL DESCRIPTION WAS CREATED PRIOR TO JANUARY 1, 2008.

PARCEL IV: TL 10300

LOTS 17, 18, 19 AND 20, BLOCK 20, MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE COUNTY OF CLACKAMAS AND STATE OF OREGON, TOGETHER WITH THAT PORTION OF VACATED MAGNOLIA AVENUE THAT INURED TO THE PREMISES BY REASON OF THE VACATION THEREOF.

PARCEL V: TL 10400

PART OF BLOCK 20, ACCORDING TO THE DULY FILED PLAT OF MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE CITY OF MILWAUKIE, FILED JUNE 23, 1890 AS MAP NO. 59, RECORDS OF THE COUNTY OF CLACKAMAS AND STATE OF OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 14, SAID BLOCK 9; THENCE EAST ALONG THE NORTH LINE OF SAID BLOCK A DISTANCE OF 135 FEET TO A POINT WHICH IS 10 FEET EAST OF THE NORTHWEST CORNER OF LOT 9; THENCE SOUTH PARALLEL WITH THE EAST LINE OF LOTS 10 AND 39 A DISTANCE OF 200 FEET TO A POINT IN THE SOUTH LINE OF LOT 40, SAID BLOCK 9; THENCE EAST A DISTANCE OF 40 FEET TO THE SOUTHEAST CORNER OF LOT 41, SAID BLOCK 9; THENCE SOUTH A DISTANCE OF 30 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH A DISTANCE OF 30 FEET TO THE NORTHEAST CORNER OF LOT 8, BLOCK 20; THENCE CONTINUING SOUTH ALONG THE EAST LINE OF LOTS 8 AND 41, SAID BLOCK 20, AND SOUTHERLY EXTENSION THEREOF A DISTANCE OF 230 FEET TO THE CENTER LINE OF VACATED HARRISON STREET; THENCE WEST ALONG SAID CENTER LINE A DISTANCE OF 225 FEET TO A POINT WHICH IS 30 FEET SOUTH OF THE SOUTHWEST CORNER OF LOT 33, SAID BLOCK 20; THENCE NORTH 30 FEET TO SAID SOUTHWEST CORNER; THENCE CONTINUING NORTH ALONG THE WEST LINE OF LOTS 33 AND 16 A DISTANCE OF 200 FEET TO THE NORTHWEST CORNER OF SAID LOT 16; THENCE EAST 50 FEET TO THE NORTHEAST CORNER OF LOT 15; THENCE NORTH 30 FEET TO THE CENTER LINE OF VACATED LLEWELLYN STREET; THENCE EAST ALONG THE CENTER LINE OF SAID VACATED LLEWELLYN A DISTANCE OF 175 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS BEING A PART OF BLOCK 9, ACCORDING TO THE DULY FILED PLAT OF MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE CITY OF MILWAUKIE, FILED JUNE 23, 1890 AS MAP NO. 59, RECORDS OF THE COUNTY OF CLACKAMAS AND STATE OF OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 14, SAID BLOCK 9; THENCE EAST ALONG THE NORTH LINE OF SAID BLOCK A DISTANCE OF 15 FEET TO A POINT; THENCE SOUTH PARALLEL WITH THE WEST LINE OF LOT 14 AND IT'S SOUTHERLY EXTENSION THEREOF, A DISTANCE OF 200 FEET TO A POINT IN THE CENTER OF VACATED LLEWELLYN STREET; THENCE WEST 15 FEET TO THE SOUTHERLY EXTENSION OF THE WEST LINE OF SAID LOT 14; THENCE NORTH ALONG THE SOUTHERLY EXTENSION OF SAID WEST LINE OF LOT 14 AND THE WEST LINE OF LOT 14, TO THE POINT OF BEGINNING.

NOTE: THIS LEGAL DESCRIPTION WAS CREATED PRIOR TO JANUARY 1, 2008.

WESTLAKE
CONSULTANTS INC.

ENGINEERING ♦ SURVEYING ♦ PLANNING

PACIFIC CORPORATION CENTER
1515 N. SPURWAY, SUITE 150
TUGAID, OREGON 97224
(503) 684-0652
FAX (503) 624-0157

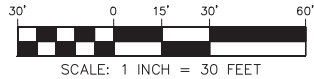
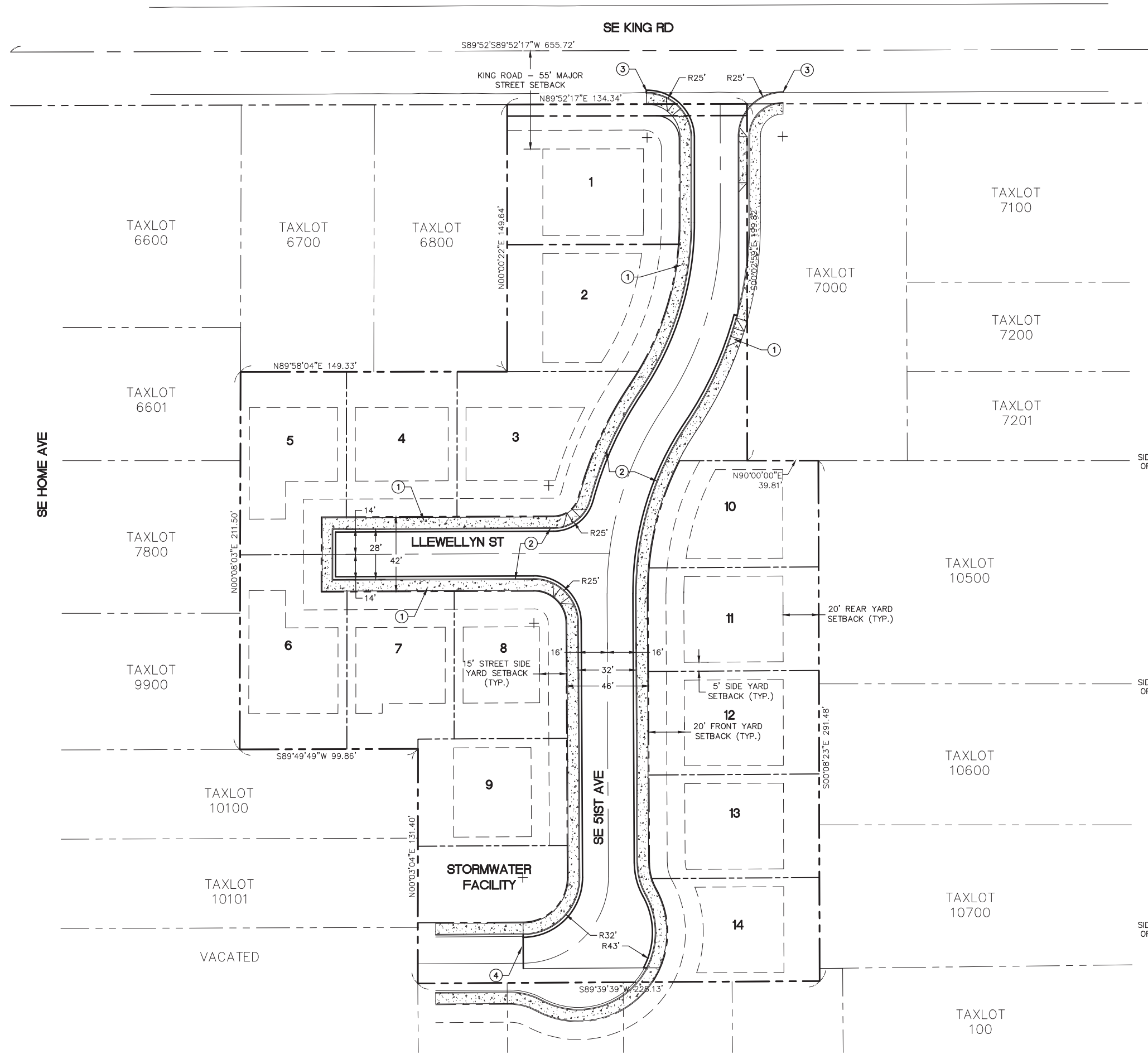
MISSION PARK
CITY OF MILWAUKIE, OR
PRELIMINARY PLAT

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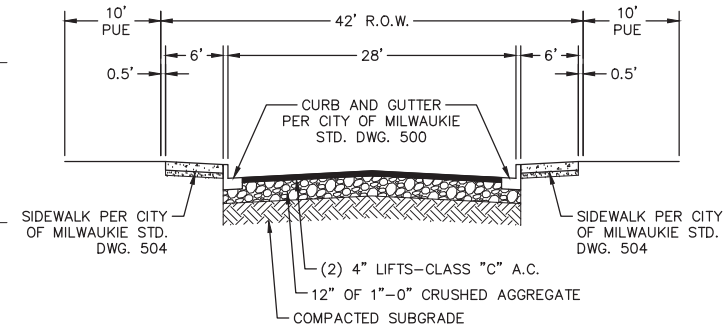
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JOB NO.
2312-022

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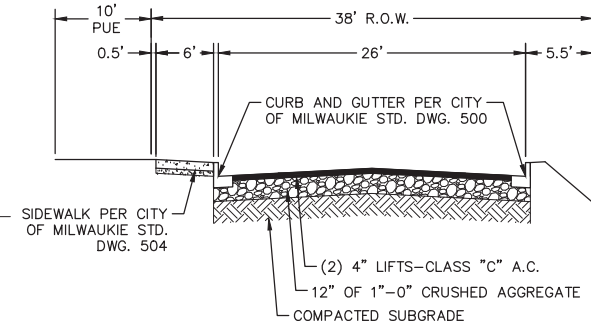
CONSTRUCTION KEYNOTES:

- ① INSTALL 6" CONCRETE SIDEWALK.
- ② INSTALL STANDARD CURB & GUTTER.
- ③ MATCH EXISTING SIDEWALK, CURB & GUTTER.
- ④ INSTALL BARRICADE



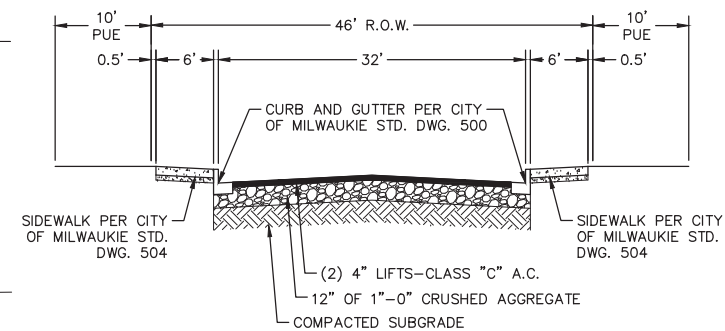
SE LLEWELLYN ST

NOT TO SCALE



SE 51ST AVE 1+00 TO 2+16

NOT TO SCALE



SE 51ST AVE 2+16 TO 5+46

NOT TO SCALE



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1515 S. SPURLOCK PARKWAY, SUITE 150
TUGAS, OREGON 97224
(503) 684-0652
FAX (503) 624-0157

MISSION PARK
CITY OF MILWAUKIE, OR

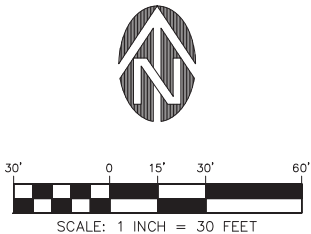
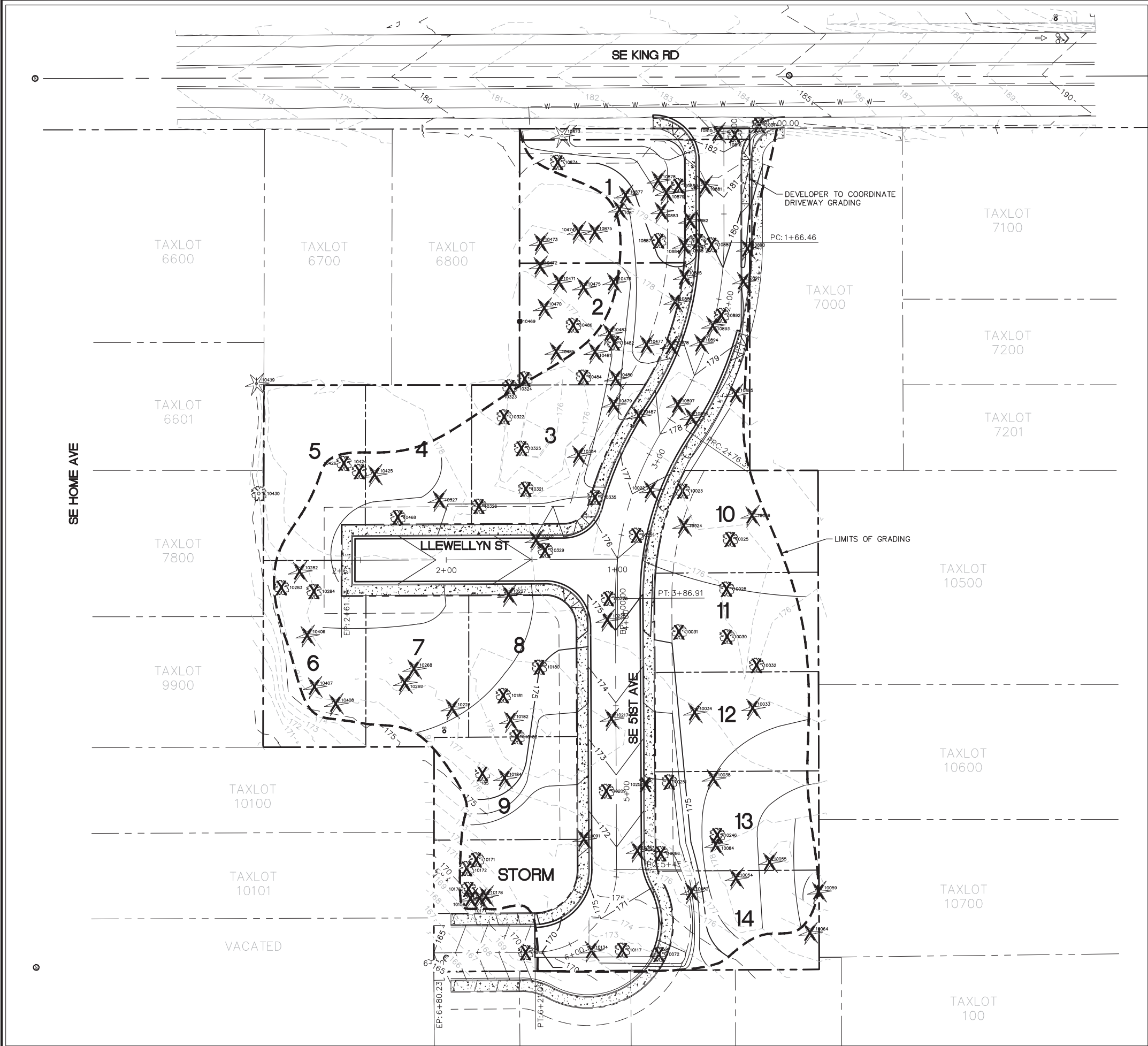
PRELIMINARY CONCEPT/SITE PLAN

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2312-022

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- LEGEND**
- UTILITY EASEMENT LINE
 - - - PROPERTY LINE
 - - - ROW LINE
 - CURB
 - 100- EXISTING 5' CONTOUR
 - 102- EXISTING 1' CONTOUR
 - 100- PROPOSED 5' CONTOUR
 - 102- PROPOSED 1' CONTOUR
 - DRAINAGE ROUTE
 - 15" X TREE TO BE REMOVED

**WESTLAKE**
CONSULTANTS INC.

ENGINEERING ♦ SURVEYING ♦ PLANNING

PACIFIC CORPORATE CENTER
1500 S. SPURLOCK PARKWAY, SUITE 150
TUCASID, OREGON 97224
(503) 684-0652
FAX (503) 624-0157

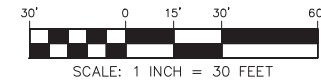
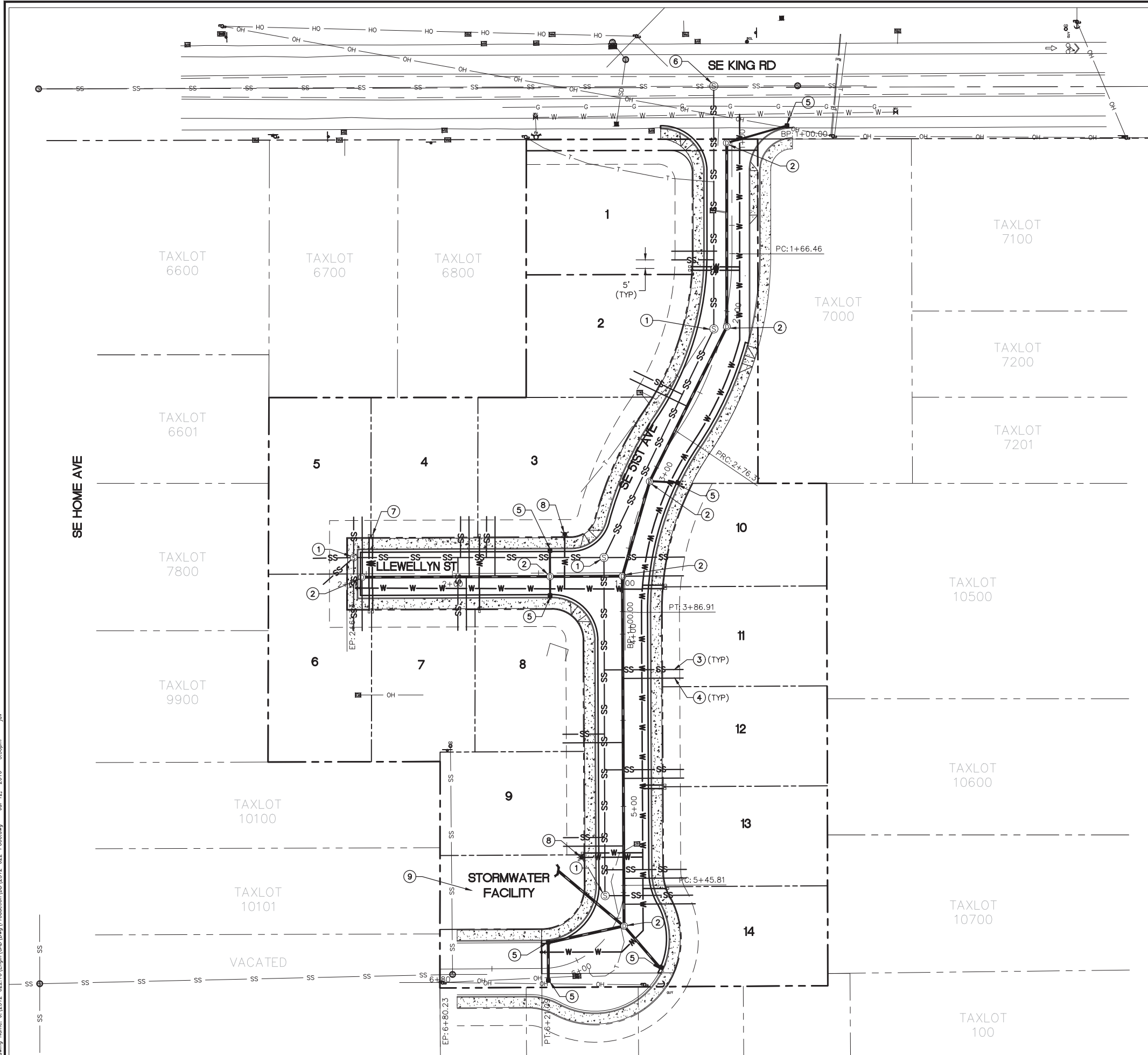
MISSION PARK

CITY OF MILWAUKIE, OR

PRELIMINARY GRADING AND TREE PLAN

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REVISIONS		CHECK		DESCRIPTION
NO.	DATE	DRAFT	BY:	



CONSTRUCTION KEYNOTES:

- ① INSTALL 48" STANDARD SANITARY MANHOLE.
- ② INSTALL 48" STANDARD STORM MANHOLE.
- ③ INSTALL 4" SANITARY LATERAL.
- ④ INSTALL 4" STORM LATERAL.
- ⑤ INSTALL CATCH BASIN
- ⑥ CONNECT TO EXISTING SANITARY MAIN.
- ⑦ INSTALL WATER METER.
- ⑧ INSTALL FIRE HYDRANT
- ⑨ INSTALL LINED WQ STORMWATER TREATMENT SWALE WITH INFILTRATION TRENCHES FOR DISPOSAL



WESTLAKE
CONSULTANTS INC.

ENGINEERING	◆	SURVEYING	◆	PLANNING
PACIFIC CORPORATE CENTER				
15115 S.W. SEQUOIA PARKWAY, SUITE 150				
TIGARD, OREGON 97224				
				(503) 684-0652
				FAX (503) 624-0157

MISSION PARK
CITY OF MILWAUKIE, OR

PRELIMINARY UTILITY PLAN

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REVISIONS					
NO.	DATE	DESCRIPTION	DRAFT BY:	CHECK BY:	

SHEET

600

JOB NO.
2312-022

Exhibit I

Subdivision Naming Approval

REQUEST TO RESERVE SUBDIVISION / CONDOMINIUM NAME

Clackamas County Surveyor's Office
 150 Beavercreek Road #325
 Oregon City, OR 97045
 (503) 742-4475 / FAX (503) 742-4481
 E-mail address: surveyor@clackamas.us

PLAT NAME REQUESTED:

Mission Park

	TWP/RANGE:	SECTION#:	TAX LOT#(s):
Location of Plat:	1S 2E	30	6900, 7400, 7701, 7700, 10300, 10400

I understand that if the above name plat is not pending or recorded within two years, the name will be removed from the reserved list.

RESERVED BY:

Leonard Schelsky

DATE:

5/16/2016

TELEPHONE:

(503) 684 - 0652

FAX:

(503) 503 - 0157

EMAIL ADDRESS:

lschelsky@westlakeconsultants.com

PLAT SURVEYOR: #

1841

NAME OF DEVELOPER:

Mission Homes NW, LLC

ADDRESS:

PO Box 1689, Lake Oswego, Oregon 97035

DATE:

5/16/2016

TELEPHONE:

(503) 570 - 8828

FAX:

(503) 570 - 8869

EMAIL ADDRESS:

kdalbey@gmail.com

APPROVED BY:**APPROVAL DATE:**

Exhibit J

Future Connectivity and Development Concept Plan

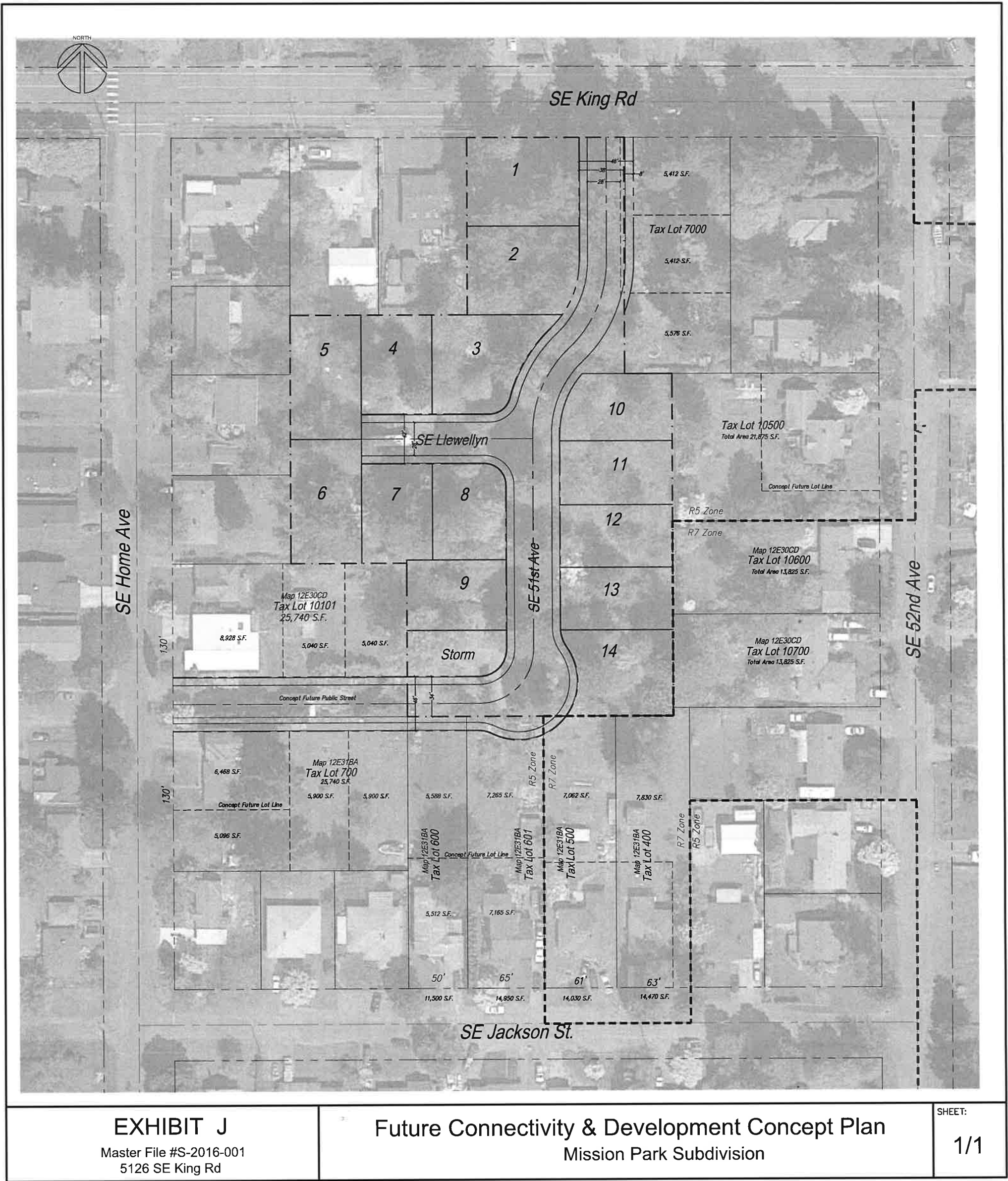


Exhibit K

Tax Map 1S2E30CD

1 2 E 30CD
MILWAUKIE

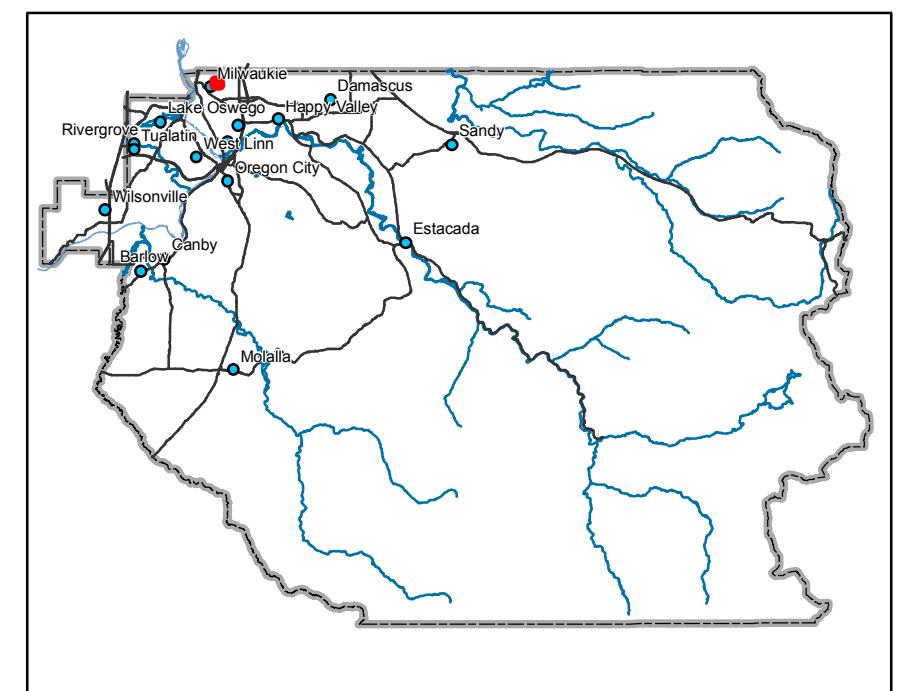
S.E. 1/4 S.W. 1/4 SEC. 30 T.1S. R.2E. W.M.
CLACKAMAS COUNTY
1" = 100'

D. L. C.
DANIEL HATHAWAY NO. 40
HECTOR CAMPBEL NO. 41

Cancelled Taxlots

300
400
3900E1
4400
4900
5000
6300
6401
6501
7300
7401
7500
7600
8900
9000
9400
9500
9801
10000
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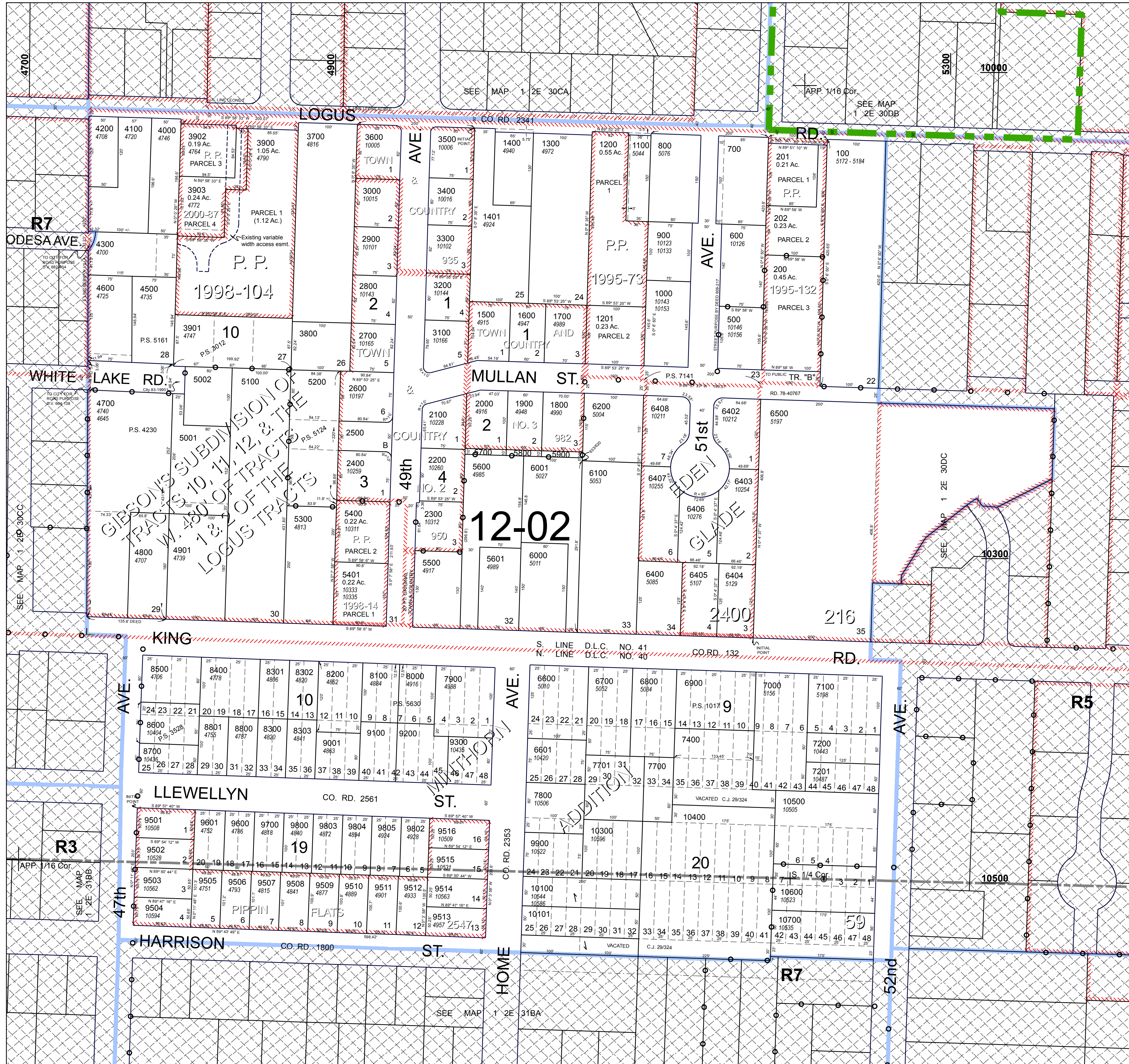
- Parcel Boundary
- Private Road ROW
- Historical Boundary
- Railroad Centerline
- TaxCodeLines
- Map Index
- WaterLines
- Land Use Zoning
- Plats
- Water
- Corner
- Section Corner
- 1/16th Line
- Govt Lot Line
- DLC Line
- Meander Line
- PLSS Section Line
- Historic Corridor 40'
- Historic Corridor 20'



THIS MAP IS FOR ASSESSMENT
PURPOSES ONLY

2/23/2016

1 2 E 30CD
MILWAUKIE



Mission Park Subdivision

Type III Variance

5126 SE King Rd. Milwaukie, OR 97222

October 14, 2016

Mission Park Subdivision

Type III Variance

5126 SE King Rd. Milwaukie, OR 97222

Prepared for:

Mission Homes Northwest, LLC.

PO Box 1689

Lake Oswego, OR 97035

Phone: (503) 781 - 1814

Prepared by:

Westlake Consultants, Inc.

15115 SW Sequoia Parkway, Suite 150

Tigard, Oregon 97224

Phone: (503) 684-0652

Fax: (503) 624-0157

Table of Contents

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List of Exhibits

- A Application Form
- B Tax Map 12E30CD
- C Preliminary Engineering Plan Set

Application and Subject Site Summary

SUBJECT PROPERTY: Tax Map 12E30CD
Tax Lots: 6900, 7400, 7700, 7701, 10300, 10400

PROPERTY LOCATION: 5126 SE King Rd.
Milwaukie, OR 97222

PROPOSAL: Type III Variance

SITE SIZE: 2.66 Acres

ZONING DESIGNATION: R-5

PROPERTY OWNER & APPLICANT: Kurt Dalbey
Mission Homes NM, LLC
PO Box 1689
Lake Oswego, OR 97035

APPLICANT'S REPRESENTATIVE: Ken Sandblast, AICP
Westlake Consultants, Inc.
15115 SW Sequoia Parkway, Suite 150
Tigard, OR 97224
Phone: 503.684.0652
Email: ksandblast@westlakeconsultants.com

Project Description

1. Description of Application.

The application is a replat of a 32-lot recorded subdivision to fourteen (14) lots. *Milwaukie Municipal Code (“MMC”) 17.16.010, “Application Required”, provides: “Application submissions for lot consolidation, property line adjustment, partition, subdivision, and replat shall be made in accordance with provisions of this Chapter” (emphasis added). MMC 17.08.250, “Replat”, defines replat as:*

“Replat” means the act of platting the lots, parcels, and easements in a recorded subdivision or partition plat to achieve a reconfiguration of the existing subdivision or partition plat including an increase or decrease in the number of lots.”

The MMC definition of replat is the same as the definition in *ORS 92.010(13)*. Additionally, *ORS 92.180(1)* authorizes local governments to have the same review and approval authority over a proposed replat as the authority to approve a proposed subdivision or partition plat. *ORS 92.185* provides that the act of replatting is the reconfiguration of lots or parcels and public easements within a recorded plat. As the application demonstrates, the land that is subject to the application is within a recorded plat. *ORS 92.185(1)* provides that a replat shall apply only to a recorded plat.

The Planning Commission can find that the application is a replat of a recorded subdivision. The MMC distinguishes between replat applications and other land division applications.

2. MMC Chapter 19.708, “Transportation Facility Requirements”.

MMC Chapter 19.708 is entitled “Transportation Facility Requirements”. The Chapter provides for requirements and standards applying to public streets. *MMC 19.708.1, “General Street Requirements and Standards”, establishes such standards. MMC 19.708.1.F.6 provides: “Minimum and maximum intersection spacing standards are provided in Table 19.708.1.” MMC Table 19.708.1, “Street/Intersection Spacing”, provides that the minimum distance between street intersections on an arterial street (SE King Street is classified on the City’s TSP as an “Arterial Street”) is 530 feet. The proposed SE 51st Avenue intersection in the subdivision application does not propose a distance between the intersections of SE King Street and SE Home and SE 52nd Ave that meets the 530 foot spacing requirement established in MMC Table 19.708.1.*

MMC 19.702.1, “General”, establishes the types of development in all zoning districts to which MMC Chapter 19.700 applies. MMC 19.702.1.C provides that the Chapter applies to “replats that increase the number of lots” (Emphasis added). Further, MMC 19.702.4, “Exemptions”, provides for the types of development to which MMC 19.700 does not apply. MMC 19.702.4.C provides as follows:

“Chapter 19.700 does not apply to the following types of development in all zones:

* * *

C. Replats that do not increase the number of lots.”

The Planning Commission must find that *MMC Chapter 19.700* expressly exempts replats that do not increase the number of lots from the requirements of *MMC Chapter 19.700*. This application is a replat because it reconfigures a recorded subdivision. Further, the replat application reduces the number of lots from 32-lots to 14-lots. Thus, the Planning Commission must find that the Transportation Improvement Requirements in *MMC Chapter 19.700* do not apply to this application because of the express terms of the *MMC*.

This Type III Variance application is submitted concurrently with pending Subdivision Replat Application (S-2016-001). The proposed subdivision, Mission Park, is comprised of 14 lots and 2 tracts on a 2.66 acre property fronting the south side of King Rd., west of SE 52nd Ave. in the City of Milwaukie (5126 SE King Rd, Milwaukie, OR 97222, Tax Map 12E30CD, Tax Lots: 6900, 7400, 7700, 7701, 10300, 10400). The applicant is requesting a variance to *MMC Section 19.708.1.F.6 Intersection Design and Spacing* and *Public Works Standards 5.0014 Intersections*.

Compliance with Applicable Standards for Type III Variance Approval

After reviewing the City of *Milwaukie Municipal Code*, the applicant has found the following sections to be applicable to this Type III Variance application:

MMC 12.02 Public Works Standards

MMC 19.708 Transportation Facility Requirements

MMC 19.911 Variances

MMC 19.1006 Type III Review

PWS 5.0014 Intersections

Land Use Permit Request: Type III Variance Application

The requested Variance is not specifically listed as a Type II Variance per *MMC 19.911.3.B*. As noted by *MMC 19.911.3 Review Process*, this variance application shall be evaluated through a Type III review procedure, and shall be subject to the provisions of *19.1006 Type III Review*. Thus, this application presents facts and narrative responses for approval of a Type III Variance Application, pursuant to applicable requirements of the *MMC*. References are made to several attached Exhibits containing evidence in support of the application.

Title 12 Streets, Sidewalks, and Public Places

Chapter 12.02 Public Works Standards

12.02.010 Standards

As per *MMC 12.02.010 Standards*, any new streets proposed by this application must be in compliance with the applicable *Public Works Standards* (PWS) adopted under *MMC 12.02.020 Adoption*. PWS 5.0014 contains the same 530 foot standard as Section 19.708.1. With this Section 12.02.010 referencing the PWS, this variance application to intersection spacing on King Road for the proposed new public street intersection includes the requested spacing reduction under PWS 5.00014. Title 19 Zoning

Chapter 19.708 Transportation Facility Requirements

19.708.1. General Street Requirements and Standards

The applicant requests a Type III Variance from the minimum intersection spacing requirement on King Rd. between SE Home Ave. and SE 51st Ave., and SE 51st Ave. and SE 52nd Ave. As per *Milwaukie Transportation System Plan Figure 8-1 Functional Classification*, King Rd. has a functional classification of Arterial street. As per *MMC Table 19.708.1 Street/Intersection Spacing* and *PWS 5.0014*, street intersections on Arterial streets shall be spaced at a minimum of 530 feet. The applicant requests a Variance to allow for intersection spacing on King Rd. of approximately 375 feet between SE Home Ave. and SE 51st Ave., and approximately 285 feet between SE 51st Ave. and SE 52nd Ave., instead of 530 feet in each case.

Chapter 19.911 Variances

19.911.2 Applicability

As per *Subsection 19.911.2.A* as this Type III Variance application requests a variance to a standard of *Title 19* of the MMC it is an eligible Variance request.

19.911.3 Review Process

As per *Subsection 19.911.3.A General Provisions*, Type III Variance applications may be reviewed concurrently with other land use applications. The applicant thereby respectfully requests this Type III Variance Application be reviewed currently with pending Subdivision Replat Application (S-2016-001).

As noted by *Subsection 19.911.3.C Type III Variances*, as the requested Variance is not specifically listed as a Type II Variance per *Subsection 19.911.3.B*. Thus this intersection spacing variance application shall be evaluated through a Type III review procedure, and shall be subject to the provisions of *19.1006 Type III Review*.

19.911.4 Approval Criteria

This application is for an intersection spacing variance concurrent with a 14 lot Subdivision Replat Application. As per *Subsection 19.911.4.B* an application for a Type III Variance must satisfy criteria of either *Subsection 19.911.4.B.1. Discretionary Relief Criteria*, or *Subsection 19.911.4.B.2 Economic Hardship Criteria*. Based upon the existing public street rights-of-way in the area around the subject property, the existing site conditions and configuration, and the proposed subdivision site development, this application requests approval through the applicable provisions of *Subsection 19.911.4.B.1 Discretionary Relief Criteria* as follows:

19.911.4.B Type III Variances

1. Discretionary Relief Criteria

a, b and c

As depicted on the Exhibit B, public right-of-way frontage for the subject property is provided onto SE King Road along property's north boundary and the subject property has no other public right-of-way frontage. The concurrent Mission Park Subdivision dedicates two new public rights-of-way, Llewellyn St. and SE 51st Ave, to serve the subject property and provide for future connectivity to adjacent parcels. As depicted on Exhibit C, to serve the replat subdivision of the subject property, the proposed SE 51st intersects SE King Rd. at the NE corner of the subject property. Given both the existing SE Home Ave and existing SE 52nd intersections with SE King Rd., the SE 51st intersection on SE King Rd. is less than minimum intersection spacing standard for arterial. The development's frontage on SE King Rd. and the location of the existing streets are fixed.

Adjacent properties to the east, west and south of the subject property containing existing single-family homes and are zoned both R-5 and R-7. Based on this existing residential development in the surrounding neighborhood, the Mission Park Subdivision cannot take access from the east, west, or south. Thus, the subject property takes access from its public street frontage on SE King Rd. between SE Home Ave. and SE 52nd Ave. As per *Milwaukie Transportation System Plan Figure 8-1 Functional Classification*, King Rd. is classified as an Arterial. As per *MMC Table 19.708.1 Street/Intersection Spacing* and *PWS 5.0014* street intersections on arterial streets shall be spaced at a minimum of 530 feet. The existing block length between SE Home Ave. and SE 52nd Ave. on King Rd. is approximately 660 feet. Given that the subject property takes access onto King Rd. between SE Home Ave. and SE 52nd Ave., it is not feasible to provide access to the subject property, while satisfying the standards of *Table 19.708.1 Street/Intersection Spacing* and *PWS 5.0014*. Therefore, the applicant requests a Variance to allow for intersection spacing on King Rd. of approximately 375 feet between SE Home Ave. and SE 51st Ave., and approximately 285 feet between SE 51st Ave. and SE 52nd Ave. The applicant has reviewed all possible alternatives to the proposed intersection of SE 51st Ave. and King Rd. and has found the proposed access point, mitigates impact to surrounding properties to the greatest extent possible.

Taking into account existing conditions, the proposed Variance allows the intersection of SE 51st Ave. and King Rd. to be centered between SE Home Ave. and SE 52nd Ave. to the greatest extent possible, so as to maximize intersection spacing on King Rd.

There is an existing center turning lane located in the King Rd. right-of-way between SE Home and SE 52nd. This turn refuge lane provides the proposed SE 51st & King Rd intersection serving the subject property replat subdivision with vehicle access without obstructing the flow of traffic on King Rd. This intersection configuration satisfies the Arterial Management Objective of *Table 8-1 City of Milwaukie Functional Classifications*, “to provide for safe and efficient traffic flow”.

As noted by *Chapter 8 Street Network Element, Access Management Strategies* “the presence of numerous driveways can erode the capacity of arterial and collector roadways”. Approval of this Variance will achieve this Access Management Strategy by providing one public street intersection access point onto King Rd. for all new lots. Furthermore, an existing single family home with frontage on SE King Rd., adjacent to the east boundary of the subject property, currently takes access onto King Rd. As depicted on Exhibit C, approval of this Variance provides this adjacent property driveway access onto SE 51st Ave and eliminates a driveway on King Rd. Thus, approval of this intersection spacing variance concurrent with the Mission Park replat subdivision will provide one public street intersection onto King Rd. for the 14 subdivision lots and the 1 existing home adjacent to the east. The number of access points onto King Rd. will not increase as a result of the Mission Park Subdivision. This application satisfies the applicable Access Management Strategy by preserving the functional integrity of King Rd., while proposing an alternative to the *MMC* which responds to and minimizes impact on the existing built environment.

A number of existing streets in the surrounding vicinity taking access onto SE King Rd. have intersection spacing less than that of the required minimum of 530 feet. To the west of the subject property, intersection spacing on SE King Rd. between SE 52nd Ave. and SE 53rd Pl. is approximately 340 feet. Intersection spacing between SE 53rd Pl. and SE 55th Ave. is approximately 320 feet. North of the subject property, on the north side of King Rd., intersection spacing between SE 54th Ave. and SE Carmel Ct. is approximately 280 feet. This variance application requests approval of intersection spacing consistent with existing intersections on SE King Road in the vicinity around the subject property.

There is no existing intersection north of King Rd. across from the proposed intersection of King Rd. and SE. 51st Ave., thus provisions regarding the limiting of offset centerlines are not applicable. The proposed streets are generally rectilinear, and are compatible with the existing street network. As per *Subsection 19.708.1.E. Street Layout and Connectivity*, the proposed “street length, width and shape of blocks take lot size standards, access and circulation needs, traffic safety and topographic limitations into consideration”. As depicted on Exhibit C, the proposed SE 51st Street is designed to intersect at a 90 degree angle, and street rights-of-way will be dedicated to the public in accordance with all applicable subsections of *Chapter 19.708 Transportation Facility Requirements*. Street design will comply with all applicable standards of *Subsection 19.708.1.D Development in Non-Downtown Zones*. Streets will be designed and improved in accordance with all applicable *Public Works Standards*, as well as all applicable provisions of *Chapter 19.700 Public Facility Improvements*. All proposed streets are designed according to the Local functional classification as per the *Milwaukie Transportation System Plan*. The proposed street design considers traffic flow, safety, and turning movements. Thus, the applicant has satisfied *Goal 1 Livability* of *Chapter 11 Neighborhood Traffic Management* of the *Milwaukie Transportation System Plan*, which “guides the City to protect residential neighborhood from excessive through traffic and travel speeds while providing reasonable access to and from residential areas”. As per *Subsection 19.708.1.E.3* to the greatest extent possible, proposed streets are extended to the boundary lines of the subject property, so as to allow for the future development of adjacent properties. The proposed Llewellyn St. public street dedication ends on the western side of the subject property at the front property lines of Lot 5 and Lot 6. The extension of Llewellyn St. to the existing street network is not required or feasible due to the location of existing single family homes and overall lot sizes adjacent to the west in this area of the subject property. As depicted on Exhibit C, SE 51st Ave. bisects the subject property from north to south, before turning west and ending in the southwest corner of the subject property to provide future public street connectivity. SE 51st Ave. is not proposed to connect to SE Home Ave. at this time. This public street configuration upon the subject property satisfies *Goal 5 Reliability and Mobility* of *Chapter 8 Street Network Element* of the *Milwaukie Transportation System Plan*, which “directs the City to enhance street connectivity and maintain traffic flow”. SE 51st Ave. is designed and located to align with a vacated right-of-way to the southwest of the subject property. Thus, the proposed street design allows for the future connection of SE 51st Ave. and SE Home Ave., promoting neighborhood connectivity, and facilitating local circulation.

Chapter 10 Street Design of the *Milwaukie Transportation System Plan* includes a Policy Direction to “maintain flexibility in street design standards to allow for local design preferences and to avoid costly and time-consuming Variance process requirements”. In support of this Policy Direction, City staff has discussed applicable street design standards with the applicant in detail. While City staff agree the concurrent subdivision application is a replat of the subject property, the applicant is submitting this Type III variance to the minimum intersection spacing on an arterial to insure all applicable provisions of City of Milwaukie Title 17 and Title 19 for the concurrent subdivision application are responded to by the applicant.

Chapter 19.1006 Type III Review

The applicant has reviewed and is in compliance with all applicable provisions regarding Type III Review procedures. A pre-application conference for the concurrent Subdivision Application (S-2016-001) was held on March 10, 2016. Based upon discussions with City of Milwaukie staff over the two weeks submittal of this variance application, no additional Pre-Application Conference is required. All applicable provisions of *Subsection 19.1001.6 Applications* regarding public notice and sign notice will be satisfied.

Milwaukie Public Works Standards

5.0000 Streets

5.0014 Intersections

The applicant requests a Type III Variance from the minimum intersection spacing requirement on King Rd. between SE Home Ave. and SE 51st Ave., and SE 51st Ave. and SE 52nd Ave. As per *Milwaukie Transportation System Plan Figure 8-1 Functional Classification*, King Rd. has a functional classification of Arterial street. As per *MMC Table 19.708.1 Street/Intersection Spacing* and *PWS 5.0014*, street intersections on Arterial streets shall be spaced at a minimum of 530 feet. The applicant requests a Variance to allow for intersection spacing on King Rd. of approximately 375 feet between SE Home Ave. and SE 51st Ave., and approximately 285 feet between SE 51st Ave. and SE 52nd Ave., instead of 530 feet in each case.

Adjacent properties to the east, west and south of the subject property containing existing single-family homes and are zoned both R-5 and R-7. Based on this existing residential development in the surrounding neighborhood, the Mission Park Subdivision cannot take access from the east, west, or south. Thus, the subject property takes access from its public street frontage on SE King Rd. between SE Home Ave. and SE 52nd Ave.

The existing block length between SE Home Ave. and SE 52nd Ave. on King Rd. is approximately 660 feet. Given that the subject property takes access onto King Rd. between SE Home Ave. and SE 52nd Ave., it is not feasible to provide access to the subject property, while satisfying the standards of *Table 19.708.1 Street/Intersection Spacing* and *PWS 5.0014*. Therefore, the applicant requests a Variance to allow for intersection spacing on King Rd. of approximately 375 feet between SE Home Ave. and SE 51st Ave., and approximately 285 feet between SE 51st Ave. and SE 52nd Ave. The applicant has reviewed all possible alternatives to the proposed intersection of SE 51st Ave. and King Rd. and has found the proposed access point, mitigates impact to surrounding properties to the greatest extent possible.

There is no existing intersection north of King Rd. across from the proposed intersection of King Rd. and SE. 51st Ave., thus provisions regarding the limiting of offset centerlines are not applicable. The proposed streets are generally rectilinear, are designed to intersect at 90 degree angles, and are compatible with the existing street network.

Taking into account existing conditions, the proposed Variance allows the intersection of SE 51st Ave. and King Rd. to be centered between SE Home Ave. and SE 52nd Ave. to the greatest extent possible, so as to maximize intersection spacing on King Rd.

There is an existing center turning lane located in the King Rd. right-of-way between SE Home and SE 52nd. This turn refuge lane provides the proposed SE 51st & King Rd intersection serving the subject property replat subdivision with vehicle access without obstructing the flow of traffic on King Rd. This intersection configuration satisfies the Arterial Management Objective of *Table 8-1 City of Milwaukie Functional Classifications*, “to provide for safe and efficient traffic flow”.

The proposed development is designed to provide safe traffic flow and turning movements.

Summary and Request

In summary, this application submittal provides substantial evidence to demonstrate that a variance reducing the minimum required intersection spacing on King Rd. for the subject property is satisfied. This application demonstrates the impacts and benefits of the proposed variance, addresses how the variance minimizes impacts to surrounding properties, has desirable public benefits, and responds to the existing built and natural environment. The applicant thereby respectfully requests approval of this Type III Variance Land Use Application.

Applicant's Reservation of Rights

The City's completeness review did not identify the issue of the applicability of *MMC Chapter 19.700* or *PWS 5.0014* to the application. After the completeness review, the Planning Department conferred with the Applicant and asked the Applicant to address the requirements of *MMC Table 19.708.1*, and subsequent review by City Engineer identified *PWS 5.0014*. The Applicant agreed to address both these standards through the Type III Variance but subject to an express reservation of rights. This submittal explains why the replat application is not subject to the requirements of *MMC Chapter 19.700* because the express provisions of *MMC Chapter 19.700* exempt a replat creating fewer lots than the currently platted subdivision is exempt from the standards of *MMC Chapter 19.700*.

The Applicant reserves its rights to assert that *MMC Chapter 19.700* and *PWS 5.0014* do not apply to the application in the event the City does not approve the Type III Variance application.

Exhibit A

Land Use Application Form

**PLANNING DEPARTMENT**

6101 SE Johnson Creek Blvd
Milwaukie OR 97206

PHONE: 503-786-7630

FAX: 503-774-8236

E-MAIL: planning@milwaukieoregon.gov

Application for Land Use Action

Master File #: _____

Review type*: ☐ I ☐ II ☒ III ☐ IV ☐ V**CHOOSE APPLICATION TYPE(S):**

Variance: Variance

...

...

...

...

Use separate application forms for:

- Annexation and/or Boundary Change
- Compensation for Reduction in Property Value (Measure 37)
- Daily Display Sign
- Appeal

RESPONSIBLE PARTIES:**APPLICANT** (owner or other eligible applicant—see reverse): Mission Homes Northwest, LLC.

Mailing address: PO Box 1689 Lake Oswego, OR

Zip: 97035

Phone(s): (503) 781 1814

E-mail: kdalbey@gmail.com**APPLICANT'S REPRESENTATIVE** (if different than above): Ken Sandblast

Mailing address: 15115 SW Sequoia Pkwy. Ste. 150 Tigard, OR

Zip: 97224

Phone(s): (503) 684 - 0652

E-mail: ksandblast@westlakeconsultants.com**SITE INFORMATION:**

Tax Map 12E30CD

Address: 5126 SE King Rd. Milwaukie, OR 97222

Map & Tax Lot(s): Tax Lots: 6900, 7400, 7700, 7701, 10300, 10400

Comprehensive Plan Designation: MD

Zoning: R-5

Size of property:

2.66 Acres

PROPOSAL (describe briefly):

Type III Variance application requesting variance from Table 19.708.1 Street/Intersection Spacing.

SIGNATURE:

ATTEST: I am the property owner or I am eligible to initiate this application per Milwaukie Municipal Code (MMC) Subsection 19.1001.6.A. If required, I have attached written authorization to submit this application. To the best of my knowledge, the information provided within this application package is complete and accurate.

Submitted by:

Date:

IMPORTANT INFORMATION ON REVERSE SIDE**RESET**

WHO IS ELIGIBLE TO SUBMIT A LAND USE APPLICATION (excerpted from MMC Subsection 19.1001.6.A):

Type I, II, III, and IV applications may be initiated by the property owner or contract purchaser of the subject property, any person authorized in writing to represent the property owner or contract purchaser, and any agency that has statutory rights of eminent domain for projects they have the authority to construct.

Type V applications may be initiated by any individual.

PREAPPLICATION CONFERENCE:

A preapplication conference may be required or desirable prior to submitting this application. Please discuss with Planning staff.

REVIEW TYPES:

This application will be processed per the assigned review type, as described in the following sections of the Milwaukie Municipal Code:

- Type I: Section 19.1004
- Type II: Section 19.1005
- Type III: Section 19.1006
- Type IV: Section 19.1007
- Type V: Section 19.1008

THIS SECTION FOR OFFICE USE ONLY:

FILE TYPE	FILE NUMBER	FEE AMOUNT*	PERCENT DISCOUNT	DISCOUNT TYPE	DEPOSIT AMOUNT	DATE STAMP
Master file		\$			\$	
Concurrent application files		\$			\$	
		\$			\$	
		\$			\$	
		\$			\$	
SUBTOTALS		\$			\$	
TOTAL AMOUNT RECEIVED: \$			RECEIPT #:			RCD BY:
Associated application file #s (appeals, modifications, previous approvals, etc.):						
Neighborhood District Association(s):						
Notes:						

*After discount (if any)

Exhibit B

Tax Map 1S2E30CD

1 2 E 30CD
MILWAUKIE

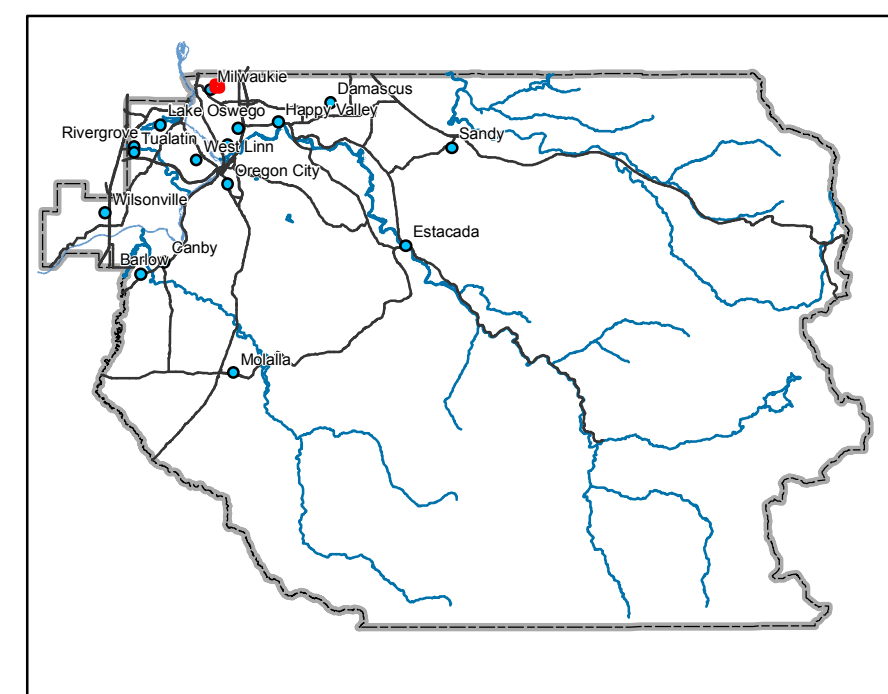
S.E. 1/4 S.W. 1/4 SEC. 30 T. 1S. R. 2E. W.M.
CLACKAMAS COUNTY
1" = 100'

D. L. C.
DANIEL HATHAWAY NO. 40
HECTOR CAMPBEL NO. 41

Cancelled Taxlots

- 300
- 400
- 3900E1
- 4400
- 4900
- 5000
- 6300
- 6401
- 6501
- 7300
- 7401
- 7500
- 7600
- 8900
- 9000
- 9400
- 9500
- 9801
- 10000
- 10200

- Parcel Boundary
- Private Road ROW
- Historical Boundary
- Railroad Centerline
- TaxCodeLines
- Map Index
- WaterLines
- Land Use Zoning
- Plats
- Water
- Corner
- Section Corner
- 1/16th Line
- Govt Lot Line
- DLC Line
- Meander Line
- PLSS Section Line
- Historic Corridor 40'
- Historic Corridor 20'



THIS MAP IS FOR ASSESSMENT
PURPOSES ONLY

2/23/2016

1 2 E 30CD
MILWAUKIE

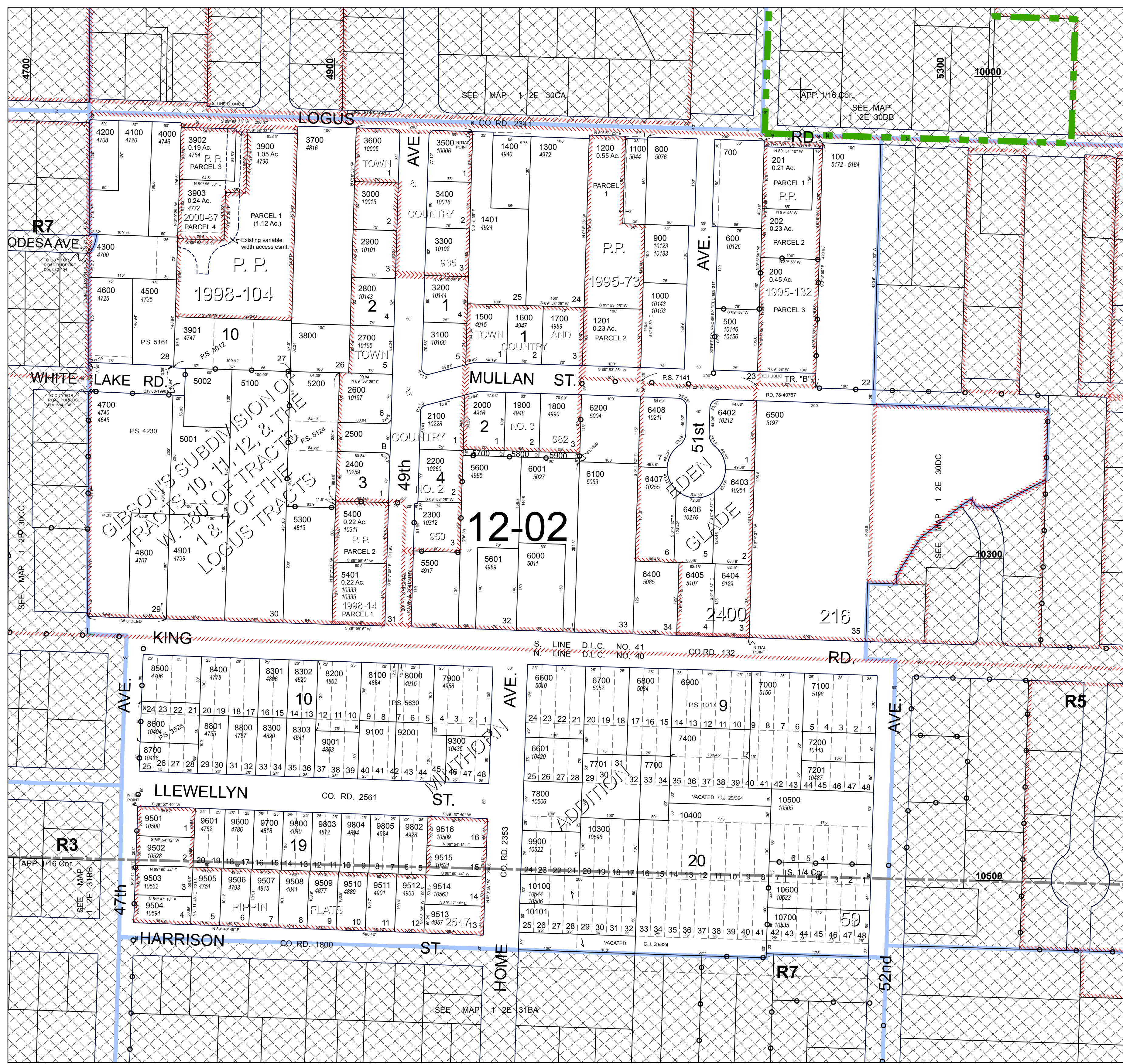


Exhibit C

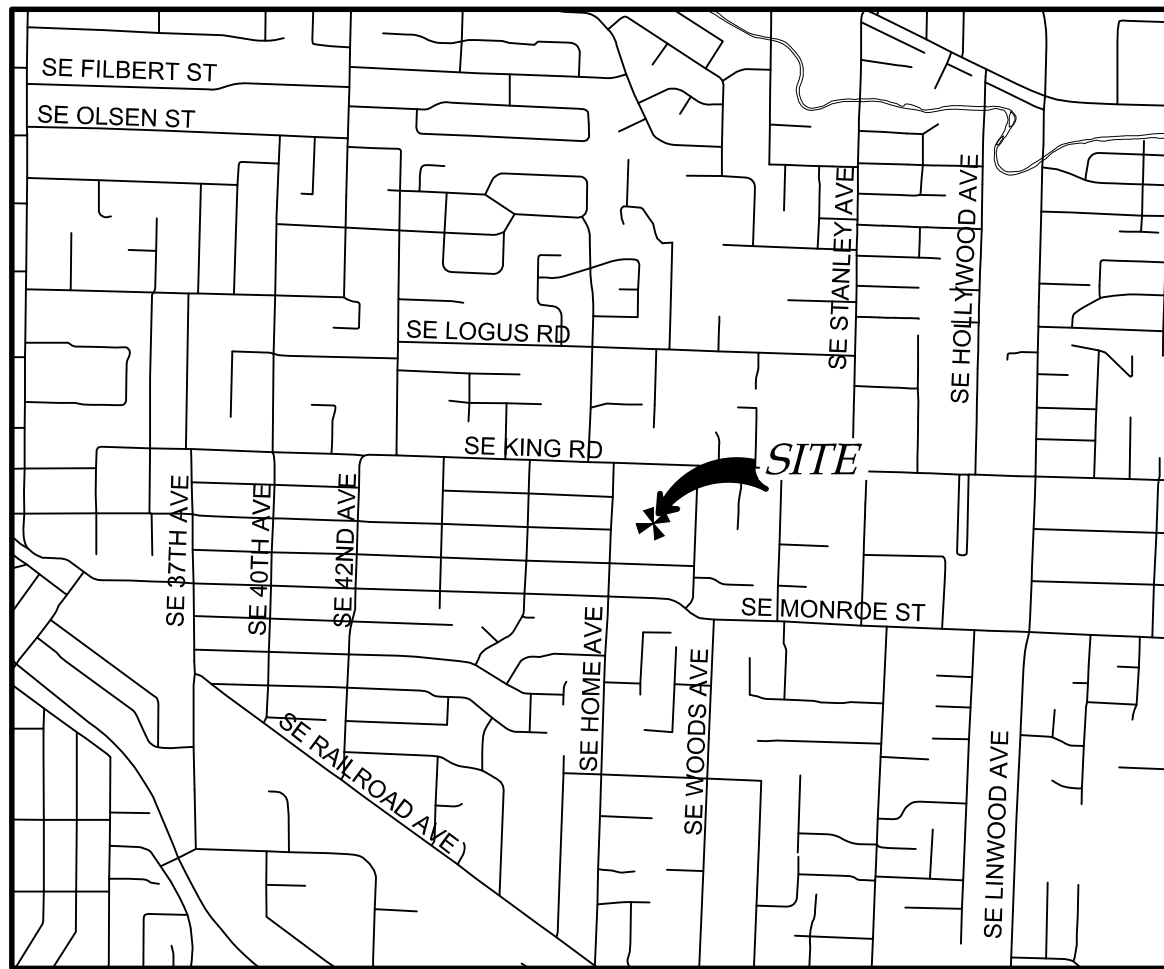
Preliminary Engineering Plan Set

SHEET INDEX

The map shows a grid of lots and taxlots. At the top, a dashed line represents SE KING RD. Below it, a solid line runs horizontally. To the left, a solid line represents SE HOME AVE. The central area contains several lots: LOT 1 and LOT 2 are at the top; LOT 4 and LOT 3 are below them; LOT 5 is to the left of LOT 4; LOT 6, LOT 7, and LOT 8 are below LOT 5; LOT 9 is below LOT 6 and LOT 7. A street, SE LEWELLYN ST, runs horizontally between LOT 5 and LOT 6. To the right of the central lots is a curved road, SE 51ST AVE, which runs vertically. Along SE 51ST AVE are LOT 10, LOT 11, LOT 12, LOT 13, and LOT 14. Surrounding these lots are various taxlots: TAXLOT 6600, 6700, 6800, 6601, 7800, 9900, 10100, 10101, and a VACATED area are to the west of SE HOME AVE. TAXLOT 7100, 7200, 7201, 10500, 10600, 10700, and 100 are to the east of SE 51ST AVE. TAXLOT 7000 is located between LOT 2 and LOT 10.

LOCATION MAP

SCALE: 1"=100

VICINITY MAP

NOT TO SCALE



PROPERTY OWNER

PAUL DEGGENDORFER
11813 NE 15TH ST
VANCOUVER, WA 98684
EVA MARIA DEGGENDORFER
4230 SE KING RD
MILWAUKIE, OR 97222

APPLICANT

MISSION HOMES NW, LLC
PO BOX 1689
LAKE OSWEGO, OR 97035
PHONE: (503) 781-1814
CONTACT: KURT DALBEY

CIVIL ENGINEER

WESTLAKE CONSULTANTS, INC.
PACIFIC CORPORATE CENTER
15115 S.W. SEQUOIA PARKWAY, SUITE 150
TIGARD, OREGON 97224
PHONE: (503) 684-0652
FAX: (503) 624-0157
CONTACT: JEFF A. VANDERDASSON, PE
KENNETH SANDBLAST, AICP

SURVEYOR

WESTLAKE CONSULTANTS, INC.
PACIFIC CORPORATE CENTER
15115 S.W. SEQUOIA PARKWAY, SUITE 150
TIGARD, OREGON 97224
PHONE: (503) 684-0652
FAX: (503) 624-0157
CONTACT: KENNETH SANDBLAST, AICP

PROPERTY DESCRIPTION

TAX MAP + LOT:
1S2E 30CD TAX LOTS 6900, 7400,
7700, 7701, 10,300 & 10,400

SITE SIZE:
2.66 ACRES

ZONING DESIGNATION:
R-5 (MODERATE DENSITY)

PROPOSAL:
14-LOT RESIDENTIAL SUBDIVISION

STREET ADDRESS

5126 SE KING RD
MILWAUKIE, OR 97222

BENCHMARK

SET A MAGNAIL IN ASPHALTIC CONCRETE PARKING LOT
NORTH OF THE MILWAUKIE CHRISTIAN CHURCH BUILDING
AND SOUTH OF THE WESTERLY CONCRETE CURBED PARKING
ISLAND. ELEVATION= 191.40 FEET (NAVD88, GEOID 12B)

ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THESE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987).

UTILITY STATEMENT: THE UNDERGROUND UTILITIES SHOWN ARE PER FIELD MARKINGS AND RECORD DRAWINGS PROVIDED BY THE RESPECTIVE UTILITY AGENCIES. LOCATION OF NON-OBSERVABLE AND/OR UNDERGROUND UTILITIES ARE SHOWN FOR INFORMATION ONLY AND ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE.

UTILITY VERIFICATION: CONTRACTOR SHALL POTHOLE TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION AND SHALL PROVIDE **WESTLAKE CONSULTANTS, INC.** 72-HOURS NOTICE OF ANY POTENTIAL CONFLICTS.



WESTLAKE
CONSULTANTS INC.

ENGINEERING	◆	SURVEYING	◆	PLANNING
PACIFIC CORPORATE CENTER, 15115 S.W. SEQUOIA PARKWAY, SUITE 150 TIGARD, OREGON 97224				
			(503) 684-0652	
			FAX (503) 624-0157	

MISSION PARK
CITY OF MILWAUKEE, OR
COVER SHEET

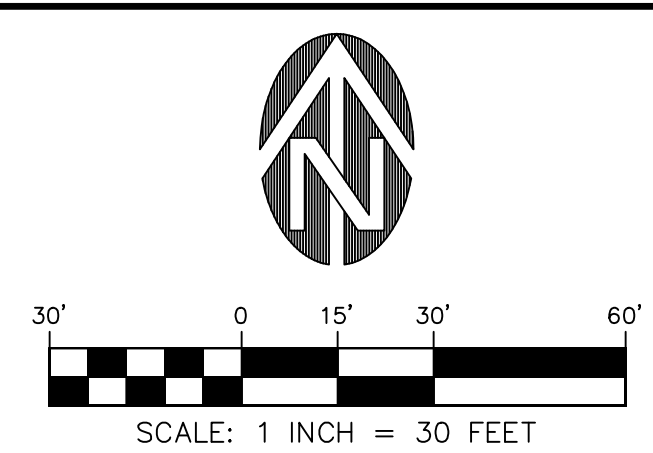
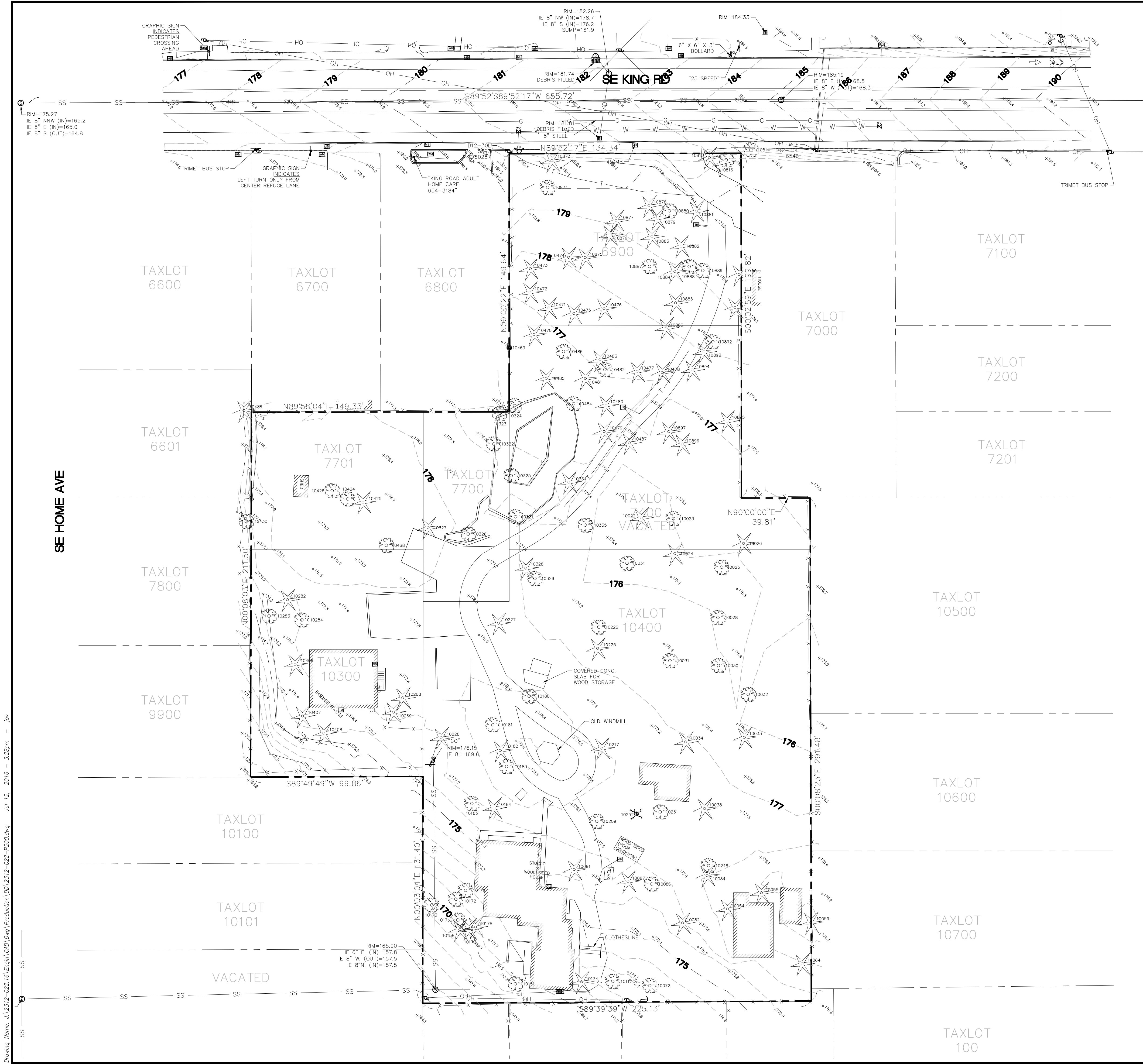
THESE DRAWINGS ARE THE PROPERTY OF
WESTLAKE CONSULTANTS INC. (WCI) AND
ARE NOT TO BE REPRODUCED IN ANY
MANNER EXCEPT WITH THE WRITTEN
PERMISSION OF WCI

[illegible]

SHEET

P100

JOB NO.
2312-022



- LEGEND**
- FOUND SURVEY MONUMENT AS NOTED
 - FH FIRE HYDRANT
 - WV WATER VALVE
 - SANITARY SEWER MANHOLE
 - CATCH BASIN
 - STORM SEWER MANHOLE
 - SS UNDERGROUND SANITARY SEWER LINE
 - ST UNDERGROUND STORM DRAIN LINE
 - OVERHEAD WIRES
 - ★ EVERGREEN TREE

NOTES

THE BASIS OF BEARING IS THE RECORDED PLAT OF MINTHORN ADDITION, PLATS NUMBERED 59 AND 63, CLACKAMAS COUNTY PLAT RECORDS, MORE PARTICULARLY: THE BEARING OF THE SOUTH LINE OF BLOCK 9 WAS HELD PER PLAT, SAID PLATTED BEARING BEING NORTH 00°00'00" EAST.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN MAPPED FROM FIELD SURVEY INFORMATION, OBSERVED ABOVE GROUND EVIDENCE AND GROUND MARKINGS BY OTHERS, AND EXISTING DRAWINGS SUPPLIED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

PT. NO.	TREE TYPE/TRUNK DIA.	PT. NO.	TREE TYPE/TRUNK DIA.	PT. NO.	TREE TYPE/TRUNK DIA.
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10023	T-DC 14	10246	T-DC 18	10483	T-EG 28
10024	T-EG 12	10251	T-DC 12	10484	T-DC 10
10025	T-DC 15	10252	T-DD 12	10485	T-EG 36
10026	T-EG 22	10268	T-EG 33	10486	T-DC 16
10028	T-DC 21	10269	T-EG 50	10487	T-EG 40
10030	T-DC 18	10282	T-EG 46	10814	T-DC10
10031	T-DC 26	10283	T-DC 16	10815	T-EG 50
10032	T-DC 18	10284	T-DC 26	10816	T-DC 2X11-15
10033	T-EG 17	10321	T-DC 16	10873	T-EG
10034	T-EG 20	10322	T-DC 18	10874	T-DC 20
10038	T-EG 38	10323	T-DC 18	10875	T-EG 14
10054	T-EG 2X12	10324	T-DC 18	10876	T-EG 25
10055	T-EG 18	10325	T-DC 20	10877	T-EG 36
10059	T-EG 48	10326	T-DC 16	10878	T-EG 28
10064	T-EG 3X12	10327	T-EG 29	10879	T-EG 20
10072	T-DC 12	10328	T-EG 24	10880	T-DC 12
10082	T-EG 48	10329	T-DC 11	10881	T-EG-48
10084	T-EG 24	10331	T-DC 21	10882	T-EG-36
10086	T-DC 18	10334	T-EG 48	10883	T-EG-22
10087	T-EG 16	10335	T-DC 18	10884	T-EG-22
10091	T-EG 48	10406	T-EG 48	10885	T-EG-27
10117	T-DC 30	10407	T-EG 48	10886	T-EG-31
10134	T-EG 18	10408	T-EG 48	10887	T-DC 18
10151	T-DC 20	10424	T-DC 24	10888	T-DC 12
10158	T-EG 11	10425	T-EG 52	10889	T-DC 22
10171	T-DC 14	10426	T-DC 28	10890	T-EG 30
10172	T-DC 40	10430	T-DC 18	10891	T-EG 32
10173	T-DC 10	10439	T-EG 20	10892	T-DC 12
10176	T-DC 42	10468	T-DC 10	10893	T-EG 36
10177	T-EG 12	10469	T-ST 30	10894	T-EG 36
10178	T-EG 12	10470	T-EG 36	10895	T-EG 45
10180	T-DC 24	10471	T-EG 18	10896	T-EG 24
10181	T-DC 24	10472	T-EG 28	10897	T-EG 40
10182	T-EG 48	10473	T-EG 30		
10183	T-DC 27	10474	T-EG 32		
10184	T-EG 28	10475	T-EG 24		
10185	T-DC 15	10476	T-EG 30		
10209	T-DC 11	10477	T-EG 48		
10217	T-EG 54	10478	T-EG 34		
10225	T-EG 30	10479	T-EG 38		
10226	T-DC 12	10480	T-EG 38		
10227	T-EG 28	10481	T-EG 26		

TREE TABLE LEGEND

T-DC = DECIDUOUS TREE
T-EG = EVERGREEN TREE
T-DD = DEAD TREE
T-ST = TREE STUMP

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TUCUMCARI, OREGON 97724
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EXISTING CONDITIONS

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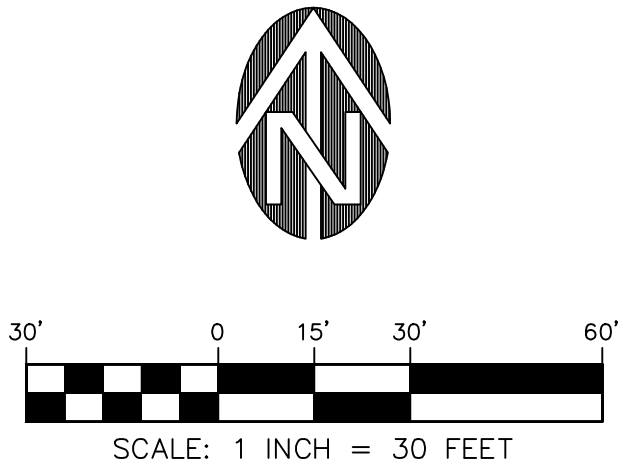
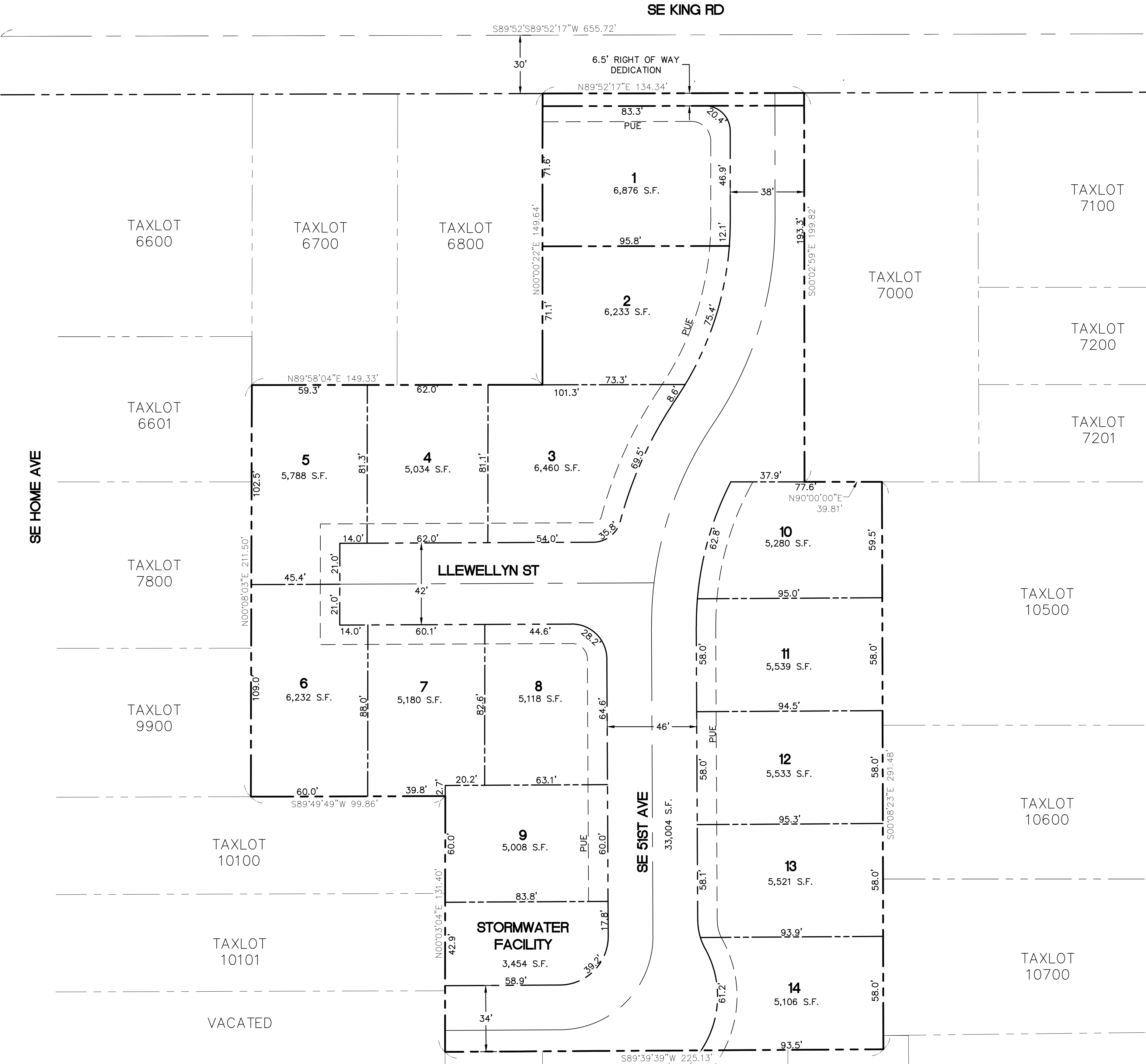
REVISIONS

SHEET

P200

JOB NO. 2312-022

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TOWNSHIP 1 SOUTH, RANGE 2 EAST, SECTION 30

LEGAL DESCRIPTIONS

REAL PROPERTY IN THE COUNTY OF CLACKAMAS, STATE OF OREGON, DESCRIBED AS FOLLOWS:

PARCEL I: TL 6900 & 7400

PART OF BLOCK 9, ACCORDING TO THE DULY FILED PLAT OF MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE CITY OF MILWAUKIE, FILED JUNE 23, 1890 AS MAP NO. 59, RECORDS OF THE COUNTY OF CLACKAMAS AND STATE OF OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 14, SAID BLOCK 9; THENCE EAST ALONG THE NORTH LINE OF SAID BLOCK A DISTANCE OF 135 FEET TO A POINT WHICH IS 10 FEET EAST OF THE NORTHWEST CORNER OF LOT 9; THENCE SOUTH PARALLEL WITH THE EAST LINE OF LOTS 10 AND 39 A DISTANCE OF 200 FEET TO A POINT IN THE SOUTH LINE OF LOT 40, SAID BLOCK 9; THENCE EAST A DISTANCE OF 40 FEET TO THE SOUTHEAST CORNER OF LOT 41, SAID BLOCK 9; THENCE SOUTH A DISTANCE OF 30 FEET TO THE CENTER LINE OF VACATED LLEWELLYN STREET; THENCE WEST ALONG THE CENTER LINE OF LLEWELLYN STREET, SAID LINE RUNNING PARALLEL WITH AND 30 FEET SOUTH OF THE SOUTH LINE OF BLOCK 9, A DISTANCE OF 175 FEET TO A POINT DUE SOUTH OF THE SOUTHWEST CORNER OF LOT 35, BLOCK 9; THENCE NORTH 30 FEET TO THE SOUTHWEST CORNER OF SAID LOT 35, BLOCK 9; THENCE CONTINUING NORTH 200 FEET TO THE POINT OF BEGINNING.

RESERVING THEREFROM AN EASEMENT FOR INGRESS AND EGRESS BEING A PART OF BLOCK 9, ACCORDING TO THE DULY FILED PLAT OF MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE CITY OF MILWAUKIE, FILED JUNE 23, 1890 AS MAP NO. 59, RECORDS OF THE COUNTY OF CLACKAMAS AND STATE OF OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 14, SAID BLOCK 9; THENCE EAST ALONG THE NORTH LINE OF SAID BLOCK A DISTANCE OF 15 FEET TO A POINT; THENCE SOUTH PARALLEL WITH THE WEST LINE OF LOT 14 AND IT'S SOUTHERLY EXTENSION THEREOF, A DISTANCE OF 200 FEET TO A POINT IN THE CENTER OF VACATED LLEWELLYN STREET; THENCE WEST 15 FEET TO THE SOUTHERLY EXTENSION OF THE WEST LINE OF SAID LOT 14; THENCE NORTH ALONG THE SOUTHERLY EXTENSION OF SAID WEST LINE OF LOT 14 AND THE WEST LINE OF LOT 14, TO THE POINT OF BEGINNING.

NOTE: THIS LEGAL DESCRIPTION WAS CREATED PRIOR TO JANUARY 1, 2008.

PARCEL II: TL 7700

THE SOUTH HALF OF LOTS 33 AND 34, BLOCK 9, MINTHORN ADDITION TO THE CITY OF PORTLAND.

ALSO THAT PORTION OF VACATED MAGNOLIA STREET LYING BETWEEN THE SOUTH LINE OF SAID LOTS AND THE NORTH LINE OF LOTS 15 AND 16, BLOCK 20, MINTHORN ADDITION TO THE CITY OF PORTLAND.

NOTE: THIS LEGAL DESCRIPTION WAS CREATED PRIOR TO JANUARY 1, 2008.

PARCEL III: TL 7701

THE SOUTH ONE-HALF OF LOTS 29, 30, 31 AND 32, BLOCK 9, MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE COUNTY OF CLACKAMAS AND STATE OF OREGON.

TOGETHER WITH THAT PORTION OF VACATED MAGNOLIA AVENUE THAT INURED TO THE PREMISES BY REASON OF THE VACATION THEREOF.

NOTE: THIS LEGAL DESCRIPTION WAS CREATED PRIOR TO JANUARY 1, 2008.

PARCEL IV: TL 10300

LOTS 17, 18, 19 AND 20, BLOCK 20, MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE COUNTY OF CLACKAMAS AND STATE OF OREGON, TOGETHER WITH THAT PORTION OF VACATED MAGNOLIA AVENUE THAT INURED TO THE PREMISES BY REASON OF THE VACATION THEREOF.

PARCEL V: TL 10400

PART OF BLOCK 20, ACCORDING TO THE DULY FILED PLAT OF MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE CITY OF MILWAUKIE, FILED JUNE 23, 1890 AS MAP NO. 59, RECORDS OF THE COUNTY OF CLACKAMAS AND STATE OF OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 14, SAID BLOCK 9; THENCE EAST ALONG THE NORTH LINE OF SAID BLOCK A DISTANCE OF 135 FEET TO A POINT WHICH IS 10 FEET EAST OF THE NORTHWEST CORNER OF LOT 9; THENCE SOUTH PARALLEL WITH THE EAST LINE OF LOTS 10 AND 39 A DISTANCE OF 200 FEET TO A POINT IN THE SOUTH LINE OF LOT 40, SAID BLOCK 9; THENCE EAST A DISTANCE OF 40 FEET TO THE SOUTHEAST CORNER OF LOT 41, SAID BLOCK 9; THENCE SOUTH A DISTANCE OF 30 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH A DISTANCE OF 30 FEET TO THE NORTHEAST CORNER OF LOT 8, BLOCK 20; THENCE CONTINUING SOUTH ALONG THE EAST LINE OF LOTS 8 AND 41, SAID BLOCK 20, AND SOUTHERLY EXTENSION THEREOF A DISTANCE OF 230 FEET TO THE CENTER LINE OF VACATED HARRISON STREET; THENCE WEST ALONG SAID CENTER LINE A DISTANCE OF 225 FEET TO A POINT WHICH IS 30 FEET SOUTH OF THE SOUTHWEST CORNER OF LOT 33, SAID BLOCK 20; THENCE NORTH 30 FEET TO SAID SOUTHWEST CORNER; THENCE CONTINUING NORTH ALONG THE WEST LINE OF LOTS 33 AND 16 A DISTANCE OF 200 FEET TO THE NORTHWEST CORNER OF SAID LOT 16; THENCE EAST 50 FEET TO THE NORTHEAST CORNER OF LOT 15; THENCE NORTH 30 FEET TO THE CENTER LINE OF VACATED LLEWELLYN STREET; THENCE EAST ALONG THE CENTER LINE OF SAID VACATED LLEWELLYN A DISTANCE OF 175 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS BEING A PART OF BLOCK 9, ACCORDING TO THE DULY FILED PLAT OF MINTHORN ADDITION TO THE CITY OF PORTLAND, IN THE CITY OF MILWAUKIE, FILED JUNE 23, 1890 AS MAP NO. 59, RECORDS OF THE COUNTY OF CLACKAMAS AND STATE OF OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 14, SAID BLOCK 9; THENCE EAST ALONG THE NORTH LINE OF SAID BLOCK A DISTANCE OF 15 FEET TO A POINT; THENCE SOUTH PARALLEL WITH THE WEST LINE OF LOT 14 AND IT'S SOUTHERLY EXTENSION THEREOF, A DISTANCE OF 200 FEET TO A POINT IN THE CENTER OF VACATED LLEWELLYN STREET; THENCE WEST 15 FEET TO THE SOUTHERLY EXTENSION OF THE WEST LINE OF SAID LOT 14; THENCE NORTH ALONG THE SOUTHERLY EXTENSION OF SAID WEST LINE OF LOT 14 AND THE WEST LINE OF LOT 14, TO THE POINT OF BEGINNING.

NOTE: THIS LEGAL DESCRIPTION WAS CREATED PRIOR TO JANUARY 1, 2008.

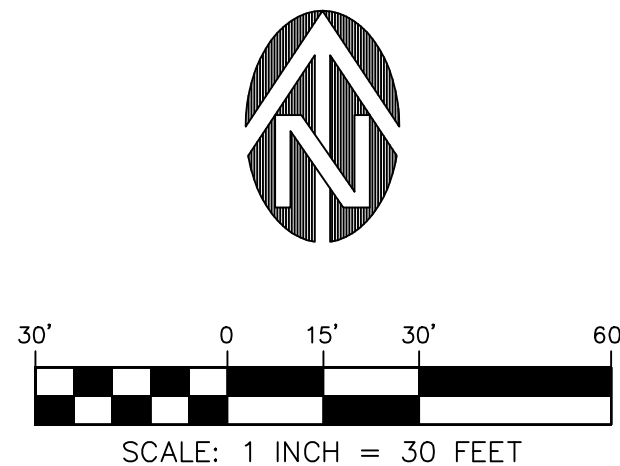
MISSION PARK
CITY OF MILWAUKIE, OR
PRELIMINARY PLAT

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CONSULTANTS INC.

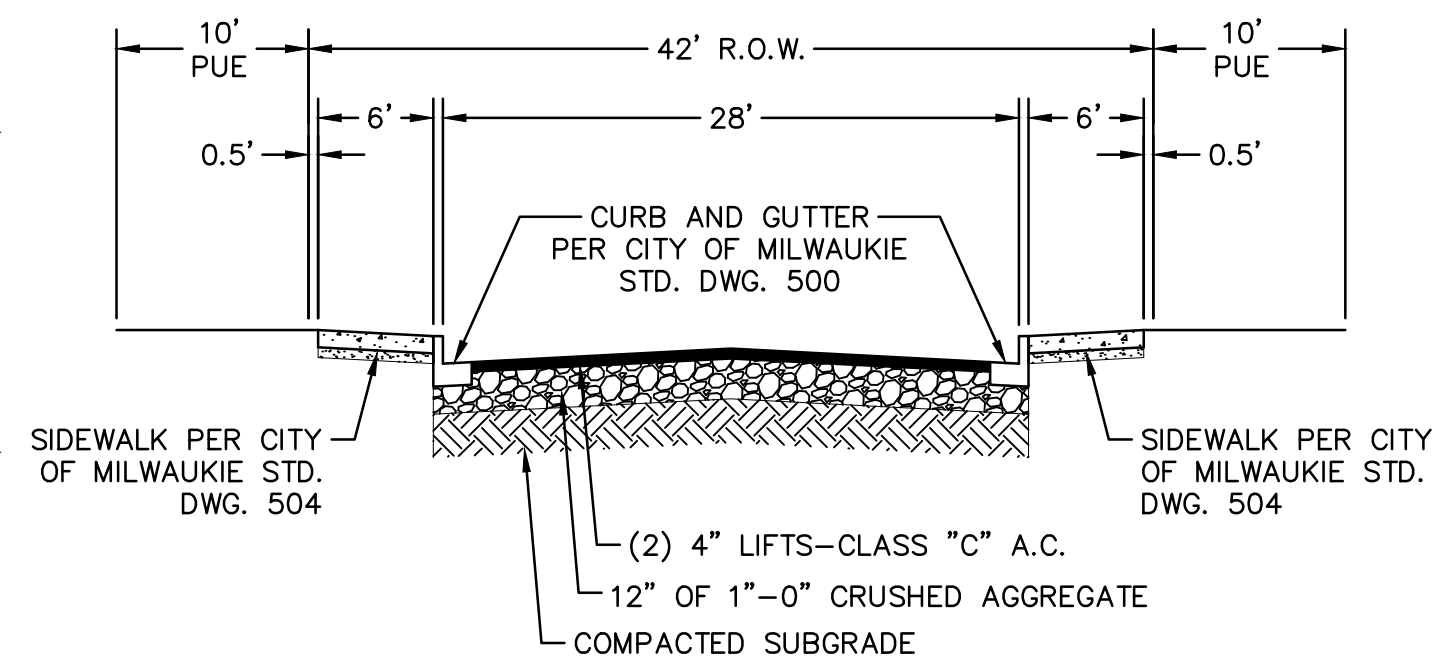
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PACIFIC CORPORATE CENTER
1400 S. WASHINGTON PARKWAY, SUITE 150
TUCUMCUM, OREGON 97224
(503) 684-0652
FAX (503) 624-0157

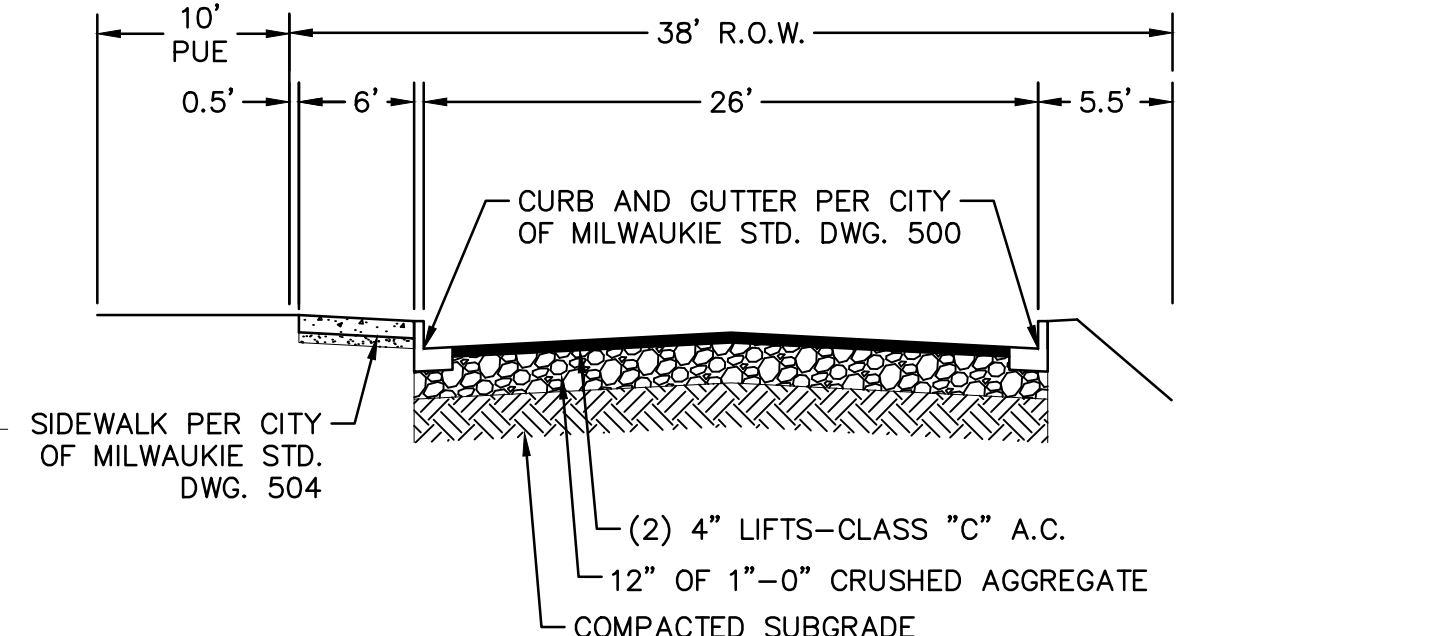
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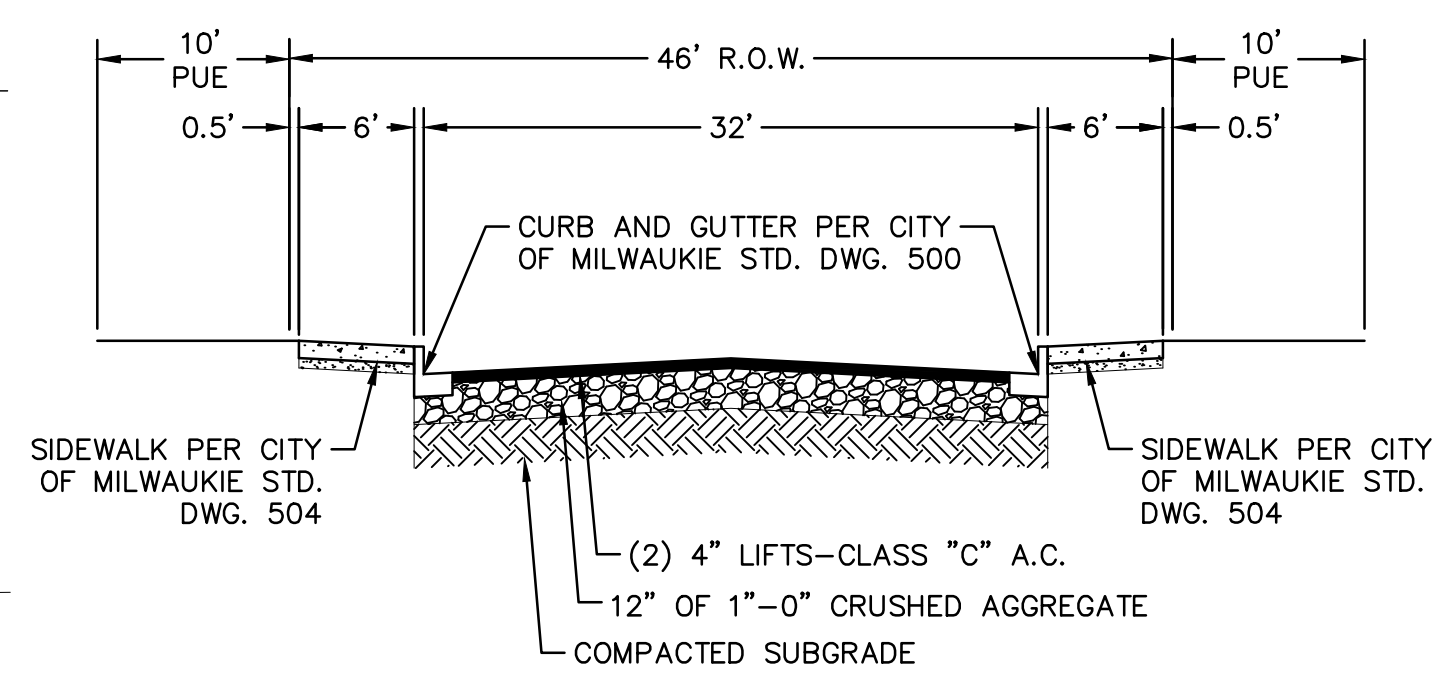
- ## CONSTRUCTION KEYNOTES:
- ① INSTALL 6' CONCRETE SIDEWALK.
 - ② INSTALL STANDARD CURB & GUTTER.
 - ③ MATCH EXISTING SIDEWALK, CURB & GUTTER
 - ④ INSTALL BARRICADE



SE LLEWELLYN ST
NOT TO SCALE



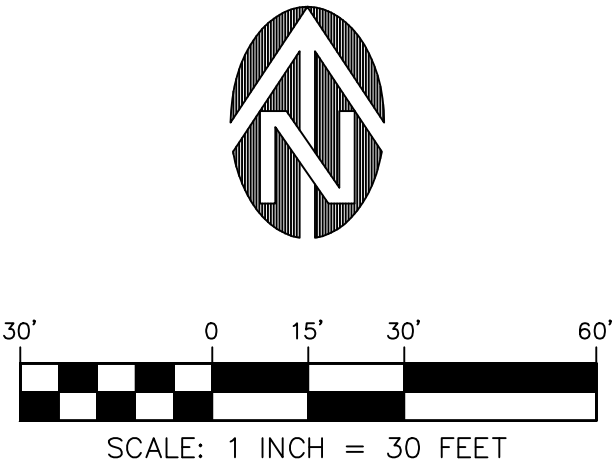
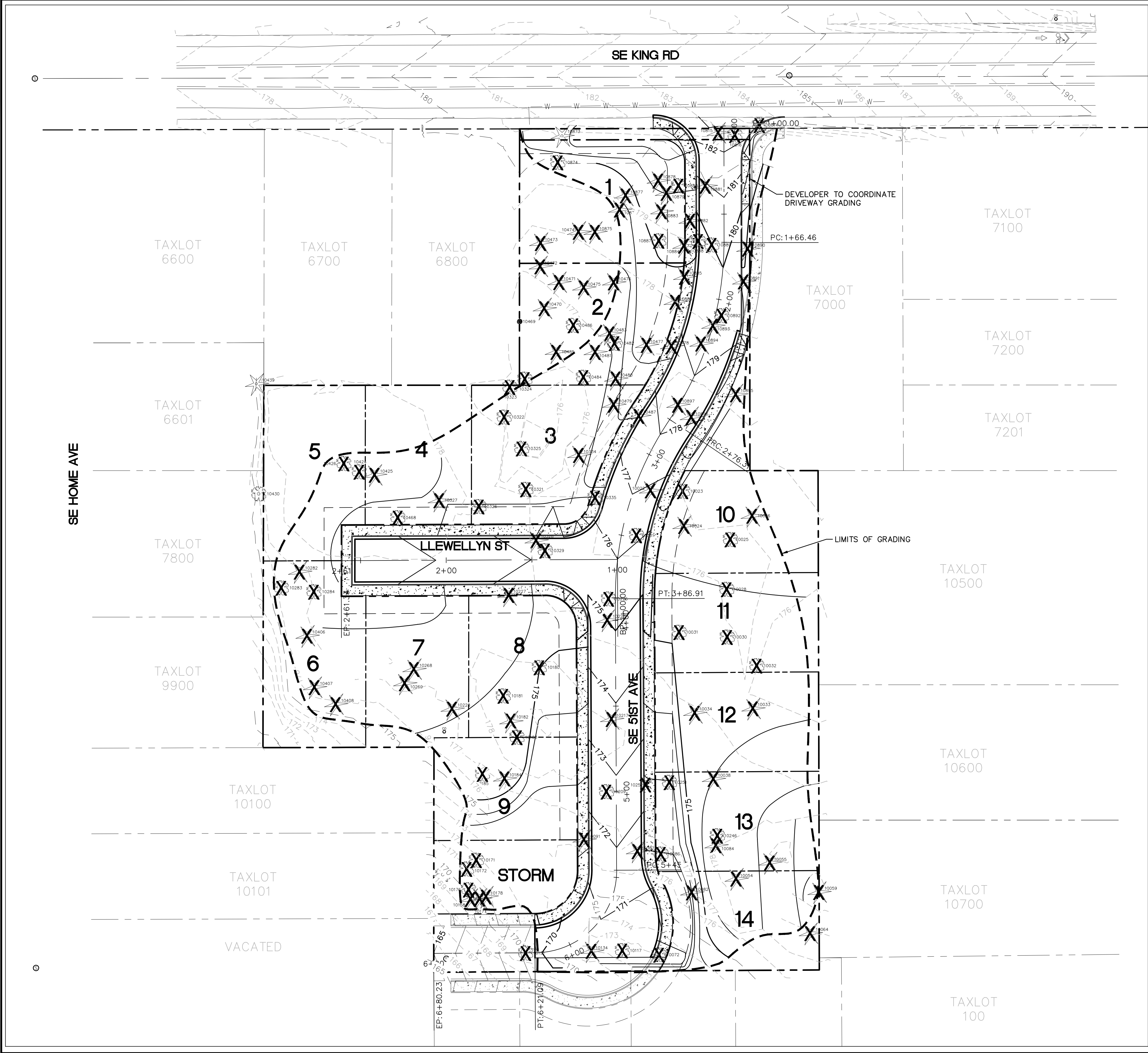
SE 51ST AVE 1+00 TO 2+16
NOT TO SCALE



SE 51ST AVE 2+16 TO 5+46
NOT TO SCALE

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- LEGEND**
- UTILITY EASEMENT LINE
 - PROPERTY LINE
 - ROW LINE
 - CURB
 - 100- EXISTING 5' CONTOUR
 - 102- EXISTING 1' CONTOUR
 - 100 PROPOSED 5' CONTOUR
 - 102 PROPOSED 1' CONTOUR
 - DRAINAGE ROUTE
 - 15" X TREE TO BE REMOVED

MISSION PARK
CITY OF MILWAUKIE, OR
PRELIMINARY GRADING AND TREE PLAN

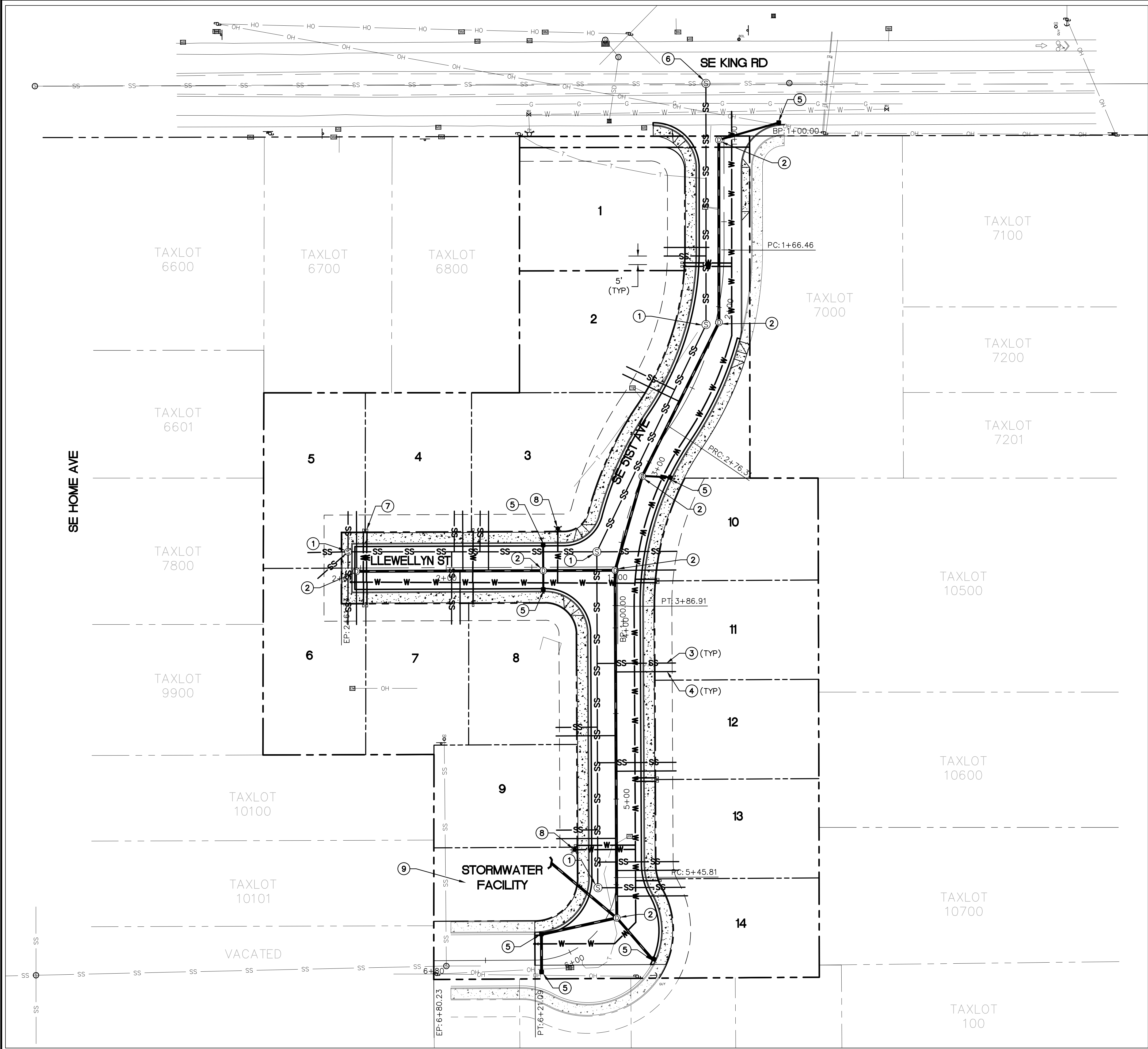
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CONSTRUCTION KEYNOTES:

- ① INSTALL 48" STANDARD SANITARY MANHOLE.
- ② INSTALL 48" STANDARD STORM MANHOLE.
- ③ INSTALL 4" SANITARY LATERAL.
- ④ INSTALL 4" STORM LATERAL.
- ⑤ INSTALL CATCH BASIN
- ⑥ CONNECT TO EXISTING SANITARY MAIN.
- ⑦ INSTALL WATER METER.
- ⑧ INSTALL FIRE HYDRANT
- ⑨ INSTALL LINED WO STORMWATER TREATMENT SWALE WITH INFILTRATION TRENCHES FOR DISPOSAL

MISSION PARK
CITY OF MILWAUKIE, OR
PRELIMINARY UTILITY PLAN

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FAX (503) 624-0157

November 1, 2016

Chuck Eaton, PE
Engineering Director/ADA Coordinator
City of Milwaukie
6101 SE Johnson Creek Boulevard
Milwaukie, OR 97206

RE: *Mission Park Subdivision Access Study*



321 SW 4th Ave., Suite 400
Portland, OR 97204
phone 503.248.0313
fax: 503.248.9251
lancasterengineering.com

Dear Mr. Eaton,

This access study addresses the traffic impacts for the proposed 14-lot Mission Park Subdivision located at 5126 SE King Road in Milwaukie, Oregon. Because there is an existing driveway that intersects SE King Road where the proposed public road, or site access, will intersect SE King Road, the City of Milwaukie's access spacing standard is not currently met and will not be changed by the proposed public road. Thus, the only difference that the public road will create is not a reduction in spacing between driveways to the north along SE King Road, but the number of expected vehicular trips entering and exiting the site from SE King Road. As this report explains, the additional trips are not expected to create an unsafe situation and the City can grant the deviation to access spacing standards. Impacts to the nearby Milwaukie Christian Church driveway intersection at SE King Road, just east of the proposed site access, were analyzed to address access spacing and any mitigations that may be necessary to ensure safe and efficient operation between the site access and church driveway.

The applicant of the proposed development is seeking to construct a new public road that will intersect SE King Road and will serve as the site access, replacing an existing driveway. There are three driveways across the street opposite the site frontage, including two driveways serving single-family homes and the driveway serving the nearby church. The new public road does not satisfy City of Milwaukie Code section 12.16.040 – *Access Requirements and Standards* regarding access spacing between the other three driveways; however, per City of Milwaukie Public Works Standards Section 1.0060 – *Approval of Alternate Materials or Methods*, this traffic study is submitted to provide support for a deviation from the standard requirements of section 12.16.040. This study analyzes the impacts of the proposed development and analyzes safety and operation of and between the church driveway and site access intersections.

Based on the analyses conducted within this access study, the impact created by the proposed 14-lot residential subdivision to the existing transportation network near the project site vicinity will be minimal. Additional site trips and the proposed access location are not expected to significantly alter the operation or safety of existing transportation facilities.



Chuck Eaton
November 1, 2016
Page 2 of 14

Location and Project Description

The project site is located north of SE Jackson Street, immediately south of SE King Road, east of SE Home Avenue, and west of SE 52nd Avenue in Milwaukie, Oregon. The site consists of tax lots 6900, 7400, 7700, 7701, 10300, and 10400 which encompass an approximate total of 2.66 acres. The site currently has two single-family detached homes built on-site, both of which will be removed upon construction of the proposed development. The proposed development will take access to SE King Road where the existing site access is located. The existing access currently serves two homes within the subject tax lots and one off-site home.

The subject site is located within a predominately residential area, with the Milwaukie Christian Church to the northeast and single-family detached homes surrounding the site in all other directions. Notable developments located within a half-mile walking/biking distance of the site include the Royaltown Place Independent Assisted Living Facility to the east, the King Road Shopping Center to the west, and Seth Lewelling Elementary School to the northeast.

SE King Road is classified as an Arterial by the City of Milwaukie. The roadway has a three-lane cross-section, with one travel lane in each direction and a center two-way left-turn lane, and has a posted speed of 35 mph. Curbs, sidewalks, and bicycle lanes are provided along both sides of the roadway.

The intersection of the Milwaukie Christian Church driveway at SE King Road is a three-legged intersection that is stop-controlled for the southbound driveway approach. The southbound approach has one left-turn lane and one right-turn lane. The eastbound approach has a two-way left-turn lane that serves left-turning vehicles, one through lane, and a bicycle lane to the right of the outermost standard travel lane. The westbound approach has one shared through/right-turn lane and a bicycle lane to the right of the standard travel lane. A sidewalk is provided across the northern intersection leg.

One bus line operates along SE King Road with bus stops located within 400 feet walking/biking distance of the project site. TriMet bus line #33 – *McLoughlin/King Rd* provides service between Clackamas Town Center Transit Center and the Clackamas Community College Park and Ride, with notable stops near Milwaukie City Center, Oregon City Shopping Center, Oregon City Transit Center, McLoughlin House, Clackamas County Historic Museum, and Oregon City Health Center. Weekday service is scheduled from approximately 4:15 AM to 2:00 AM with headways of approximately 15 to 30 minutes. Weekend service is scheduled from approximately 5:30 AM to 2:00 AM with headways of approximately 15 to 30 minutes.

Figure 1 presents an aerial image of the nearby vicinity with the subject site identified. A site plan is included as an attachment to this letter.



Chuck Eaton
November 1, 2016
Page 3 of 14

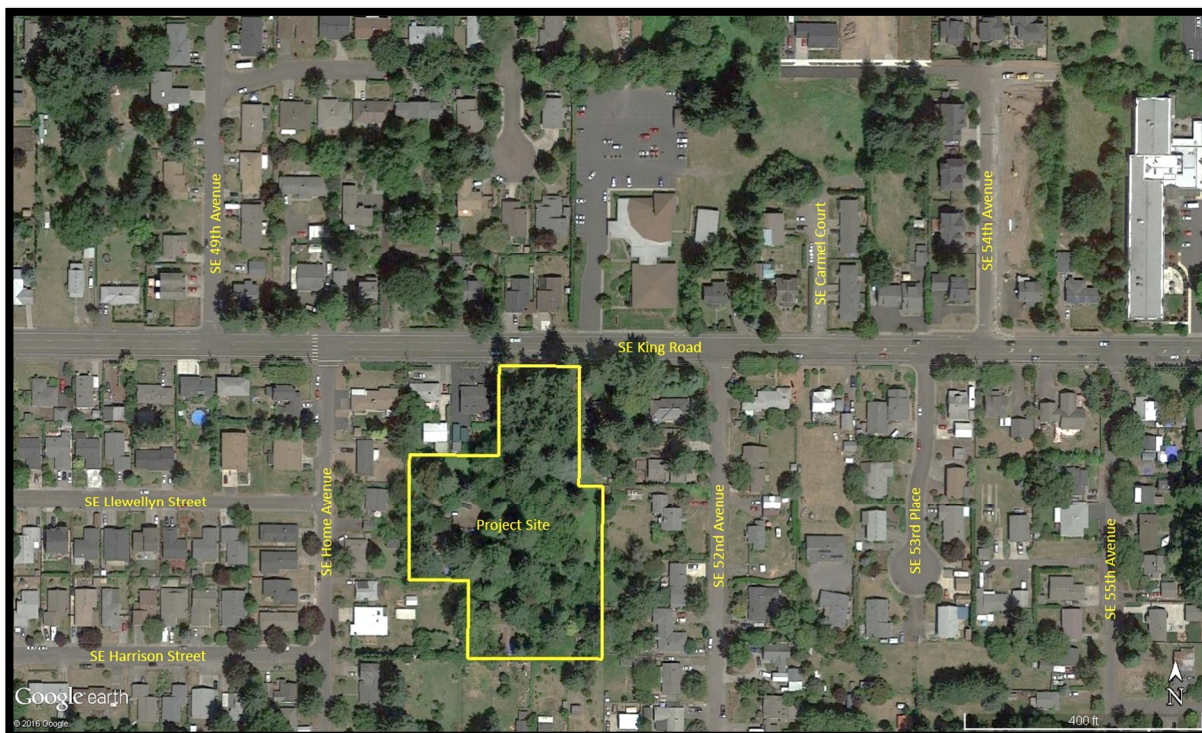


Figure 1: Aerial Image of Project Site – Image from Google Earth

Trip Generation & Distribution

The proposed Mission Park Subdivision will include the development of 14 single-family detached homes, removing two existing single-family dwellings for a net increase in 12 dwellings. To estimate the number of trips that will be generated by the proposed development, trip rates from the *TRIP GENERATION MANUAL*¹ were used. Data from land-use code 210, *Single-Family Detached Housing*, was used to estimate the proposed development's trip generation based on the number of dwelling units.

City of Milwaukie staff have indicated operational concerns between the proposed site access intersection and the Milwaukie Christian Church driveway intersection at SE King Road. To address these concerns additional analysis during the church's peak hour of generation on a typical Sunday

¹ Institute of Transportation Engineers (ITE), *TRIP GENERATION MANUAL*, 9th Edition, 2012.



Chuck Eaton
November 1, 2016
Page 4 of 14

is necessary. Therefore, a trip generation rate of the proposed development during the church's peak hour of generation was determined by collecting 24-hour volume data along SE Woodhaven Street, a nearby vicinity roadway that serves as the sole point of access between 28 single-family homes and the greater transportation system. Based on the church's peak hour of generation (refer to the *Traffic Counts* section), the recorded traffic volumes along SE Woodhaven Street, and the number of single-family homes served by the roadway, a trip generation rate of 0.357 vehicles per single-family detached house during the church peak hour was calculated. During this peak hour, a trip entering/exiting split of 30%/70% was determined.

The trip generation calculations show that the proposed development is projected to generate a net increase of nine site trips during the morning peak hour and twelve site trips during the evening peak hour of a typical weekday. For a typical Sunday, the proposed development is projected to generate a net increase of four site trips during the nearby church's peak hour of generation. The trip generation estimates are summarized in Table 1. Detailed trip generation calculations are included in the technical appendix to this report.

Table 1 - Trip Generation Summary

	ITE Code	Size	Weekday			Weekday			Sunday		
			Morning Peak Hour			Evening Peak Hour			Church Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Proposed Development	210	14 units	3	8	11	9	5	14	1	4	5
Existing Development		2 units	1	1	2	1	1	2	0	1	1
Net Total		12 units	2	7	9	8	4	12	1	3	4

The directional distribution of site trips to and from the proposed development was estimated based on locations of likely trip destinations, locations of major transportation facilities in the site vicinity, and existing travel patterns at the study intersections. It is estimated that approximately 50 percent of site trips will travel to/from the west and approximately 50 percent of site trips will travel to/from the east along SE King Road.



Chuck Eaton
November 1, 2016
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Operational Analysis

Traffic Counts

To ensure that the nearby transportation system is capable of supporting the additional trips from the proposed development, the proposed site access and church driveway intersections at SE King Road were analyzed using traffic volumes observed at the church driveway intersection. Traffic counts were conducted on Thursday, October 20th, 2015 from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM, and on Sunday, October 23rd, 2016 from 9:00 AM to 12:00 PM. Data was used from the intersection's respective morning and evening peak hours during the weekday counts (7:20 AM to 8:20 AM and 5:00 PM to 6:00 PM) and from the church's Sunday peak hour of generation (9:45 AM to 10:45 AM). The raw traffic count data is provided as an attachment to this letter.

To provide analysis of the impact of the proposed development on the nearby transportation facilities, an estimate of future traffic volumes is required. To calculate the future traffic volumes a compounded growth rate of two percent per year for an assumed build-out of two years was applied to the measured existing traffic volumes to approximately year 2018 background conditions.

Traffic volumes at the study intersections for existing conditions, background conditions, and background plus site conditions are summarized in Figure 2 on page 5 during the weekday morning and evening peak hours and in Figure 3 on page 6 during the Sunday church peak hour of generation.

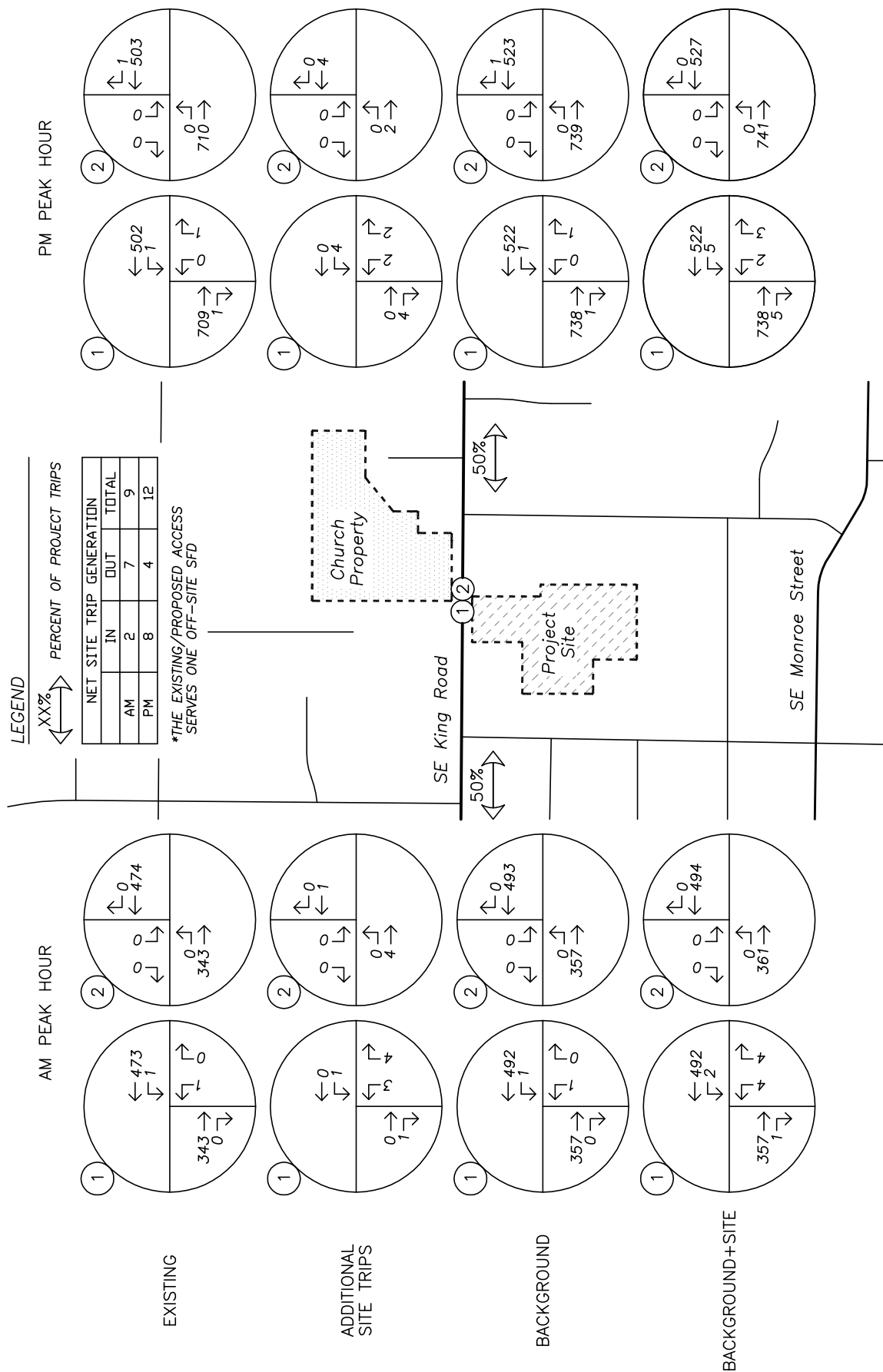


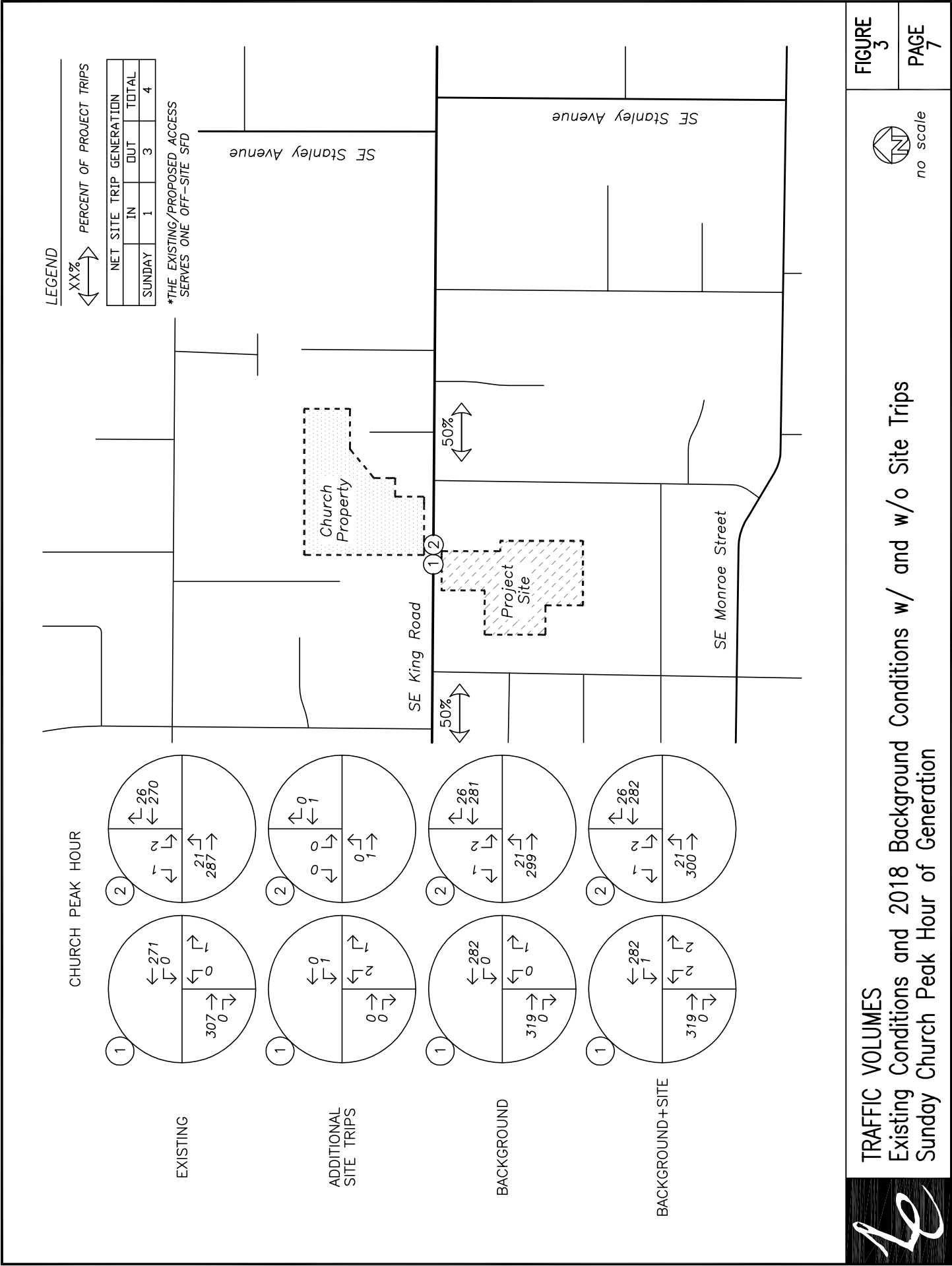
FIGURE
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PAGE
6



TRAFFIC VOLUMES
Existing Conditions and 2018 Background Conditions w/ and w/o Site Trips
Weekday AM & PM Peak Hours

1e





Chuck Eaton
November 1, 2016
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Capacity Analysis

To determine the capacity and level-of-service (LOS) at the study intersections, a capacity analysis was conducted. The analysis was conducted using the unsignalized intersection analysis methodologies in the *Highway Capacity Manual* (HCM), published by the Transportation Research Board. The LOS of an intersection can range from A, which indicates little or no delay, to F, which indicates a significant amount of congestion and delay. Per the City of Milwaukie's Transportation System Plan (TSP), intersections under City jurisdiction are required to operate at LOS D or better.

The intersection of the site access at SE King Road operates at LOS B with volume-to-capacity ratios (v/c) of 0.49 or less for all analysis scenarios through year 2018.

The intersection of the church driveway at SE King Road operates at LOS B with v/c ratios of 0.48 or less for all analysis scenarios through year 2018, except under 2018 background plus site conditions where the intersection is projected to operate at LOS C during the evening peak hour.

The v/c, delay, and LOS results of the capacity analysis are shown in Table 2 during the weekday morning and evening peak hours and the Sunday church peak hour of generation. Detailed calculations as well as tables showing the relationship between delay and LOS are included as an attachment to this memorandum.

Table 2 - Capacity and LOS Analysis Summary									
	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Sunday Church Peak Hour		
	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c
Site Access at SE King Road									
Existing Conditions	B	11	0.32	B	14	0.46	B	11	0.20
Background Conditions	B	12	0.33	B	15	0.48	B	11	0.21
Background plus Site Conditions	B	12	0.33	B	15	0.49	B	11	0.21
Church Driveway at SE King Road									
Existing Conditions	B	12	0.32	B	15	0.46	B	11	0.20
Background Conditions	B	12	0.33	B	15	0.48	B	11	0.20
Background plus Site Conditions	B	12	0.33	C	15	0.48	B	11	0.20

Queuing Analysis

An analysis of projected queuing was conducted for the two study intersections. The queue lengths for the intersection were projected based on the results of a Synchro/SimTraffic simulation with the reported values based on the 95th percentile queue length. This means that 95 percent of the time the queue length will be less than or equal to the reported values.



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The projected 95th percentile queue lengths under year 2018 background plus site conditions, as reported by the Synchro/SimTraffic simulation, are presented in Table 3 for the weekday morning and evening peak hours and for the Sunday church peak hour of generation. Detailed queuing analysis worksheets are included as an attachment to this memorandum.

Table 3 - 95th Percentile Queuing Analysis Summary			
	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Sunday Church Peak Hour
Site Access at SE King Road			
WB TWLTL Lane	4'	17'	0'
NB Lane	29'	21'	22'
Church Driveway at SE King Road			
EB TWLTL Lane	6'	4'	20'
SB LT Lane	9'	6'	8'
SB RT Lane	16'	13'	12'

The longest 95th percentile queue length simulated along SE King Road occurred during the Sunday church peak hour on the eastbound two-way left-turn lane at the church driveway intersection. The simulated queue length was 20 feet which can be equated to the length of a single queued vehicle. Since at least one vehicle can be queued at any given time while conducting a left turn at an intersection and no queuing was reported at the westbound two-way left-turn lane at the site access intersection, the likelihood of contemporaneous left-turning vehicles into the church driveway and the site access are expected to be rare.

Based on the calculated total eastbound left-turn delay experienced by 21 turning vehicles at the church driveway and the projected one westbound left-turning vehicle into the site access during the church peak hour, there is a 4.7 percent chance that a conflict between these turning movements may occur during the church peak hour. If simultaneous left-turns do occur it is reasonable to assume that the drivers of both vehicles would approach the conflict point at slower than posted speeds within the two-way left-turn lane and would continue decelerating to conduct their respective left-turns. The driver of the second vehicle to arrive at the conflict point would be expected to leave a gap between the two vehicles to allow the prior arriving vehicle the ability to turn. Since both vehicles will be within the two-way left-turn lane, through traffic along SE King Road would remain unimpeded. Accordingly, no queuing-related mitigation is necessary or recommended.



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Safety Analysis

Crash Data Analysis

Using data obtained from the Oregon Department of Transportation's (ODOT) Crash Analysis and Reporting Unit, a review was performed for the most recent five years of available crash data (January of 2010 through December of 2014) along SE King Road within 600 feet east and west of the project site. Crash data was evaluated based on the number of crashes, the type of collisions, the severity of the collisions, and the resulting crash rate for the intersection. Crash rates provide the ability to compare safety risks at different intersections by accounting for both the number of crashes that have occurred during the study period and the number of vehicles that typically travel through the intersection. Crash rates were calculated using the common assumption that traffic counted during the evening peak period represents 10 percent of the average daily traffic (ADT) at the intersection. Since only the through traffic volumes along the SE King Road approaches at each intersection are utilized in the calculations, crash rates at each intersection will be conservative. Crash rates in excess of one to two crashes per million entering vehicles (CMEV) may be indicative of design deficiencies and therefore may require a need for further investigation and possible mitigation.

The intersection of SE 49th Avenue at SE King Road had one reported crash during the analysis period. The crash was a turning-movement collision and was classified as "Possible Injury – Complaint of Pain" (*Injury C*). The crash rate at the intersection was calculated to be 0.05 CMEV.

The intersection of SE Home Avenue at SE King Road had one reported crash during the analysis period. The crash involved a pedestrian where the driver of a westbound passenger car failed to yield right-of-way to a northbound crossing pedestrian. The pedestrian sustained injuries consistent with *Injury C* classification. The crash rate at the intersection was calculated to be 0.05 CMEV.

The intersection of SE 52nd Avenue at SE King Road had one reported crash during the analysis period. The crash involved a pedestrian where the driver of a northbound right-turning passenger car failed to yield right-of-way to a westbound crossing pedestrian. It should be noted that the pedestrian was not visible to the driver and/or was not wearing reflective clothing under dusk driving conditions. The pedestrian sustained injuries consistent with *Injury C* classification. The crash rate at the intersection was calculated to be 0.05 CMEV.

The intersections of SE Carmel Court at SE King Road and SE 53rd Place at SE King Road had no reported crashes during the analysis period.



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SE King Road had four reported crashes within 600 feet of the project site that were unrelated to a specific public intersection. The crashes consisted of two rear-end collisions, one sideswipe collision, and one turning-movement collision. Of the crashes reported, one was classified as “Property Damage Only” (*PDO*), two were classified as *Injury C*, and one was classified as “Non-Incapacitating Injury” (*Injury B*).

Based on a review of the crash data, there do not appear to be any significant safety hazards at any of the public intersections or driveways along SE King Road. In addition, SE King Road appears to operate relatively safely and no significant safety hazards appear in either the crash data or based on an observation at the site. Accordingly, no safety-related mitigation is necessary or recommended as part of the proposed development.

Sight Distance

Intersection sight distance was evaluated for the proposed site access at SE King Road. Intersection sight distance was measured and evaluated in accordance with the standards established in *A Policy on Geometric Design of Highways and Streets*² per City of Milwaukie Code Section 12.24.040. Per AASHTO standards, the minor street approaching driver’s eye is assumed to be 15 feet from the near edge of the nearest travel lane of the intersecting street and at a height of 3.5 feet above the approach street pavement. The major street approaching vehicle height is assumed to be 3.5 feet above the cross-street pavement. Using a vehicle/object height equal to the driver’s eye height makes intersection sight distances reciprocal (if one driver can see another vehicle, then the driver of that vehicle can also see the first vehicle).

The proposed site access SE King Road will be located along the eastern edge of the site’s property line. Based on the posted speed limit of 35 mph, a minimum of 390 feet of intersection sight distance is required in both directions from the access to ensure relatively uninterrupted flow of through traffic. Intersection sight distance was measured to be 396 feet to the east and 418 feet to the west. Sight distances in both directions were limited by roadside foliage.

Based on the detailed analysis, adequate sight distance is available at the proposed site access intersection at SE King Road. No sight distance mitigation is necessary or recommended.

² American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Streets*, 6th Edition, 2011.



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Access Spacing Standards

According to City of Milwaukie Code section 12.16.040 – *Access Requirements and Standards*, due to the close proximity of the proposed site access to the existing Milwaukie Christian Church driveway along SE King Road a modification to access spacing is necessary. Per this code section an access study is required to address the following:

- Review site access spacing and design;
- Evaluate traffic impacts of the nearby church driveway intersection;
- Review all modes of transportation to the site; and
- Determine mitigation measures that may be necessary to ensure safe and efficient operation of the site access and church driveway.

Site Access Spacing and Design

The proposed site access will be constructed in the same location as the existing site access, which currently serves three single-family homes. There are no other locations along site frontage on SE King Road that an access can be built that would satisfy the City of Milwaukie's 600-foot access spacing standard. There are no other roadways that the project site fronts nor is access possible to any other roadway due to existing developments to the south, east, and west of the site.

Traffic Impacts to Church Driveway

Based on the capacity and queuing analyses conducted at the site access and church driveway intersections, upon development of the site both study intersections are projected to operate acceptably per City of Milwaukie standards. In addition, no significant queuing related issues are projected to occur between the site access and the church driveway intersection as part of the proposed development.

Modes of Travel to the Site

The project site has access to a variety of travel mode options that are easily accessible and provide adequate connectivity and safe travel between the project site and other locales both near and distant from the proposed development.

SE King Road is an Arterial roadway that provides an east/west connection to other major north/south roadways such as SE Linwood Avenue, SE Stanley Avenue, and SE 42nd/43rd Avenue. Beyond a one-mile radius of the site, easy access to intercity and interstate roadways such as OR-99E, OR-213, OR-224, and Interstate 205 are readily available. Based on the capacity, queuing, and safety analyses reported in this study, safe and timely travel between the site vicinity and the greater transportation system is expected for both proposed and existing land-uses.



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As described within the *Location and Project Description* section, the project site is located near TriMet bus line #33 – *McLoughlin/King Rd* which provides service to other major transit hubs/destinations such as Clackamas Town Center Transit Center, Clackamas Community College Park and Ride, Milwaukie City Center, and Oregon City Transit Center. From these locations, additional transit lines that provide service throughout the Portland Metro region may be accessed.

Dedicated bicycle facilities are provided along both sides of SE King Road near the project site. Though bicycle lanes are typically not provided on minor-street roadways that intersect SE King Road, such roadways typically serve residential land-uses and will generally have low travel speeds and low volumes of vehicular traffic allowing for a safe north/south connection for bicyclists. In addition, the project site is located within a one-mile walking/biking distance from the Springwater Corridor Trail to the north. Access to this trail may be provided via the low volume and low travel speed roadways of SE Stanley Avenue and SE Wichita Avenue. Upon inspection of the nearby bicycle facilities and roadways, cyclists can safely share the roadway with motorized vehicles in the site vicinity.

Continuous pedestrian facilities are in place along both sides of SE King Road within the vicinity of the project site. Marked crosswalks are occasionally provided across minor-street approach roadways that intersect SE King Road. Minor-street roadways may not always provide pedestrian facilities; however, such roadways typically serve residential land-uses and will generally have low travel speeds and low volumes of vehicular traffic allowing for a safe north/south path for pedestrians near the site. The nearest marked crosswalk crossing SE King Road is located approximately 400 feet west of the proposed site access. Based on the investigation of the nearby pedestrian facilities, the existing pedestrian facilities in the site vicinity are adequate to safely serve the needs of the proposed development in addition to the existing uses in the site vicinity.

Mitigation Measures

Based on the detailed analysis between the proposed site access and the church driveway intersections, the transportation system is capable of safely supporting the proposed development in addition to the existing uses in the site vicinity. No mitigations are necessary are recommended.



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Conclusions

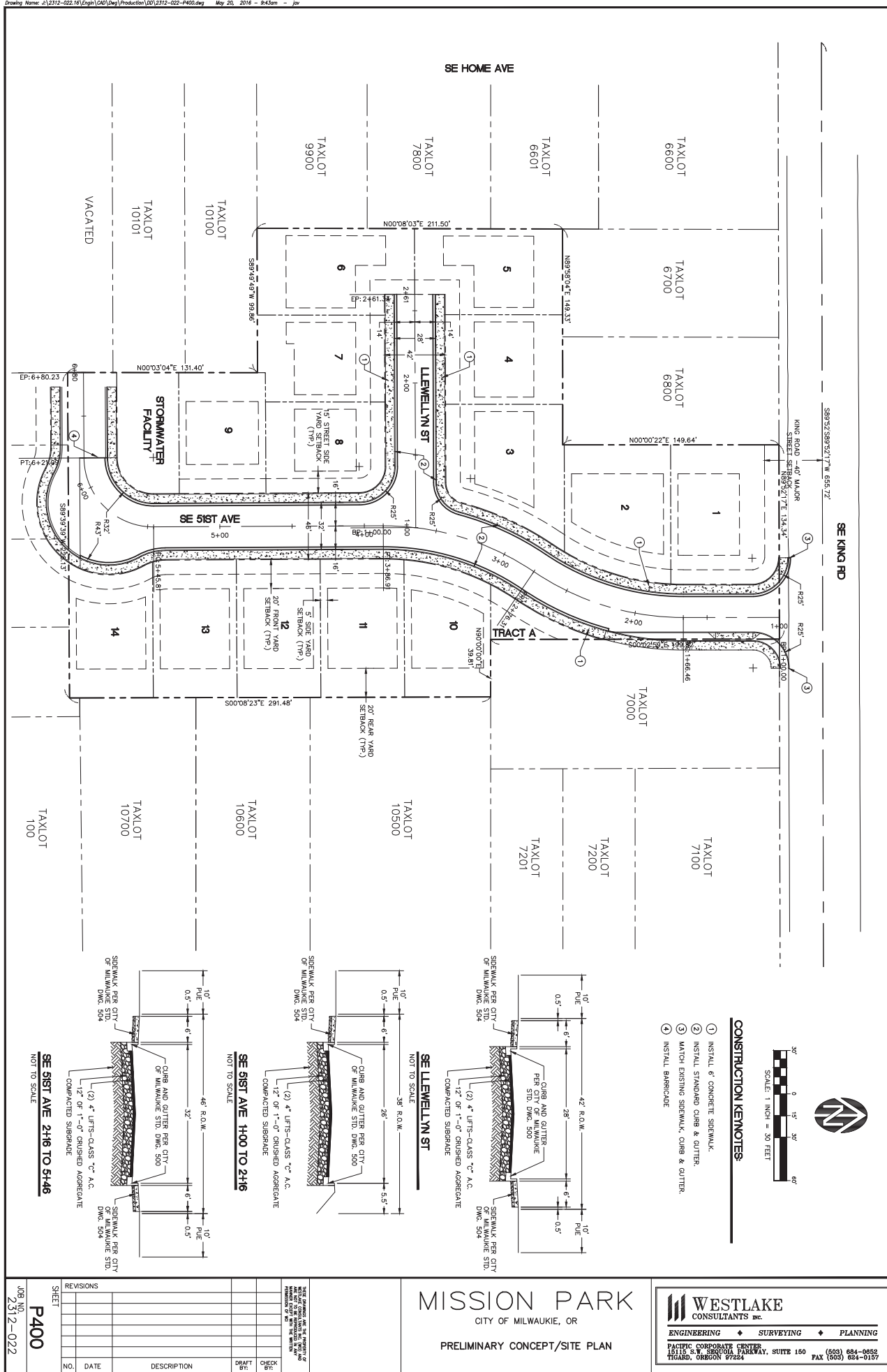
The impact to the existing transportation network near the project site vicinity created by the trips generated as a result of the proposed 14-lot residential subdivision will be minimal. Additional site trips and the proposed access location are not expected to significantly alter the operation or safety of existing transportation facilities.

If you have any questions regarding this analysis or need further assistance, please don't hesitate to contact us.

With Best Regards,



Daniel Stumpf, EI
Transportation Analyst



TRIP GENERATION CALCULATIONS

Land Use: Single-Family Detached Housing
Land Use Code: 210
Variable: Dwelling Units
Variable Value: 12

AM PEAK HOUR

Trip Rate: 0.75

	Enter	Exit	Total
Directional Distribution	25%	75%	
Trip Ends	2	7	9

PM PEAK HOUR

Trip Rate: 1.00

	Enter	Exit	Total
Directional Distribution	63%	37%	
Trip Ends	8	4	12

WEEKDAY

Trip Rate: 9.52

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	57	57	114

SATURDAY

Trip Rate: 9.91

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	59	59	118

Source: TRIP GENERATION, Ninth Edition

All Traffic Data
15105 SE 17th St.
Vancouver, WA. 98683
503-833-2740

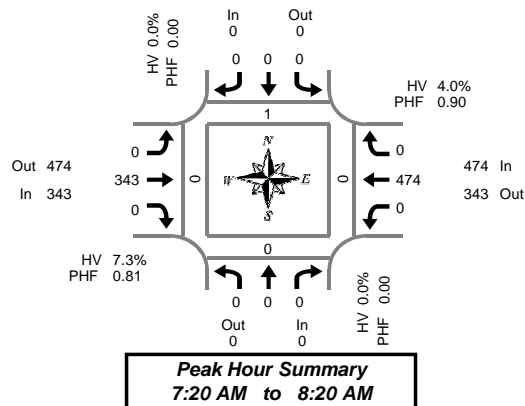
Site Code: 1
SE Woodhaven St W-O SE Wood Ave

Start Time	23-Oct-16 Sun	EB	WB							Total
12:00 AM		1	2							3
01:00		0	0							0
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		1	0							1
06:00		2	1							3
07:00		2	1							3
08:00		1	2							3
09:00		2	2							4
10:00		7	3							10
11:00		6	5							11
12:00 PM		7	9							16
01:00		7	4							11
02:00		4	10							14
03:00		6	4							10
04:00		8	6							14
05:00		1	6							7
06:00		5	5							10
07:00		3	5							8
08:00		3	11							14
09:00		2	4							6
10:00		1	1							2
11:00		0	0							0
Total		69	81							150
Percent		46.0%	54.0%							
AM Peak	-	10:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	7	5	-	-	-	-	-	-	11
PM Peak	-	16:00	20:00	-	-	-	-	-	-	12:00
Vol.	-	8	11	-	-	-	-	-	-	16
Grand Total		69	81							150
Percent		46.0%	54.0%							
ADT		ADT 150	AADT 150							

Total Vehicle Summary



Clay Carney
(503) 833-2740



Driveway Access & SE King Rd

Thursday, October 20, 2016

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	0	0	0	0	0	19	0	0	0	49	0	1	68	0	0	0	0
7:05 AM	0	0	0	0	1	0	0	0	0	16	0	0	0	25	0	0	42	0	0	0	0
7:10 AM	0	0	0	0	0	0	0	0	0	12	0	0	0	32	0	0	44	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	27	0	0	0	35	0	0	62	0	0	0	0
7:20 AM	0	0	0	0	0	0	0	0	0	23	0	0	0	35	0	0	58	1	0	0	0
7:25 AM	0	0	0	0	0	0	0	0	0	20	0	0	0	34	0	0	54	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	18	0	0	0	46	0	0	64	0	0	0	0
7:35 AM	0	0	0	0	0	0	0	0	0	32	0	0	0	39	0	0	71	0	0	0	0
7:40 AM	0	0	0	0	0	0	0	0	0	39	0	0	0	39	0	0	78	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	35	0	0	0	47	0	0	82	0	0	0	0
7:50 AM	0	0	0	0	0	0	0	0	0	23	0	0	0	45	0	1	68	0	0	0	0
7:55 AM	0	0	0	0	0	0	0	0	0	40	0	0	0	35	0	0	75	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	24	0	0	0	35	0	1	59	0	0	0	0
8:05 AM	0	0	0	0	0	0	0	0	0	38	0	0	0	43	0	0	81	0	0	0	0
8:10 AM	0	0	0	0	0	0	0	0	0	25	0	0	0	38	0	0	63	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	26	0	0	0	38	0	0	64	0	0	0	0
8:20 AM	0	0	0	0	0	0	1	0	0	15	0	0	0	30	1	0	47	0	0	0	0
8:25 AM	0	0	0	0	0	0	0	0	0	28	0	0	0	32	0	0	60	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	15	0	0	0	19	0	0	34	1	0	0	0
8:35 AM	0	0	0	0	0	0	0	0	0	24	0	0	0	16	0	0	40	2	0	0	0
8:40 AM	0	0	0	0	0	0	0	0	1	28	0	0	0	25	0	0	54	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	26	0	0	0	17	0	0	43	0	0	0	0
8:50 AM	0	0	0	0	0	0	0	0	1	24	0	0	0	37	0	0	62	0	0	0	0
8:55 AM	0	0	0	0	0	0	0	0	0	20	0	0	0	24	0	0	44	0	0	0	0
Total Survey	0	0	0	0	1	0	1	0	2	597	0	0	0	815	1	3	1,417	4	0	0	0

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	1	0	0	0	0	47	0	0	0	106	0	1	154	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	70	0	0	0	104	0	0	174	1	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	89	0	0	0	124	0	0	213	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	98	0	0	0	127	0	1	225	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	87	0	0	0	116	0	1	203	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	69	0	0	0	100	1	0	171	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	1	67	0	0	0	60	0	0	128	3	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	1	70	0	0	0	78	0	0	149	0	0	0	0
Total Survey	0	0	0	0	1	0	1	0	2	597	0	0	0	815	1	3	1,417	4	0	0	0

Peak Hour Summary

7:20 AM to 8:20 AM

By Approach	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	0	0	0	0	343	474	817	0	474	343	817	2	817	1	0	0	0
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.3%	0.0%	7.3%	0.0%	4.0%	0.0%	4.0%	5.4%				
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.81	0.00	0.90	0.00	0.90	0.88				

By Movement	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	0	0	0	343	0	343	0	474	0	474	817
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.3%	0.0%	7.3%	0.0%	4.0%	0.0%	4.0%	5.4%
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.81	0.00	0.90	0.00	0.90	0.88

Rolling Hour Summary

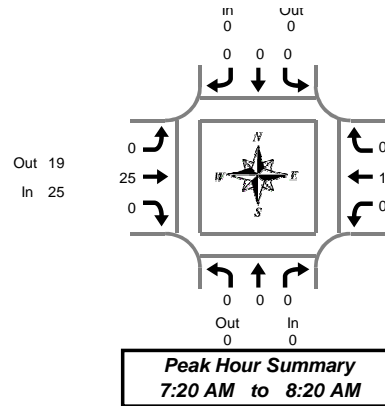
7:00 AM to 9:00 AM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	1	0	0	0	0	304	0	0	0	461	0	2	766	1	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	344	0	0	0	471	0	2	815	1	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	343	0	0	0	467	1	2	812	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	1	321	0	0	0	403	1	2	727	3	0	0	0
8:00 AM	0	0	0	0	0	0	1	0	2	293	0	0	0	354	1	1	651	3	0	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Driveway Access & SE King Rd

Thursday, October 20, 2016

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	3	0	3	5
7:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
7:15 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5
7:20 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
7:25 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	4	0	4	6
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
7:35 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4
7:40 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6
7:45 AM	0	0	0	0	0	0	0	0	0	5	0	5	0	2	0	2	7
7:50 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
7:55 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
8:05 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6
8:10 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
8:20 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
8:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
8:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:40 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6
8:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4
8:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
8:55 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
Total Survey	0	0	0	0	0	0	0	0	0	37	0	37	0	42	0	42	79

Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	6	0	6	8
7:15 AM	0	0	0	0	0	0	0	0	0	6	0	6	0	7	0	7	13
7:30 AM	0	0	0	0	0	0	0	0	0	7	0	7	0	5	0	5	12
7:45 AM	0	0	0	0	0	0	0	0	0	9	0	9	0	2	0	2	11
8:00 AM	0	0	0	0	0	0	0	0	0	5	0	5	0	6	0	6	11
8:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	4	0	4	6
8:30 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	5	0	5	8
8:45 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	7	0	7	10
Total Survey	0	0	0	0	0	0	0	0	0	37	0	37	0	42	0	42	79

Heavy Vehicle Peak Hour Summary

7:20 AM to 8:20 AM

By Approach	Northbound Driveway Access			Southbound Driveway Access			Eastbound SE King Rd			Westbound SE King Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	25	19	44	19	25	44	44
PHF	0.00			0.00			0.57			0.79			0.65

By Movement	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	0	0	0	25	0	25	0	19	0	19	44
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.00	0.57	0.00	0.79	0.00	0.79	0.65

Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	24	0	24	0	20	0	20	44
7:15 AM	0	0	0	0	0	0	0	0	0	27	0	27	0	20	0	20	47
7:30 AM	0	0	0	0	0	0	0	0	0	23	0	23	0	17	0	17	40
7:45 AM	0	0	0	0	0	0	0	0	0	19	0	19	0	17	0	17	36
8:00 AM	0	0	0	0	0	0	0	0	0	13	0	13	0	22	0	22	35

Peak Hour Summary

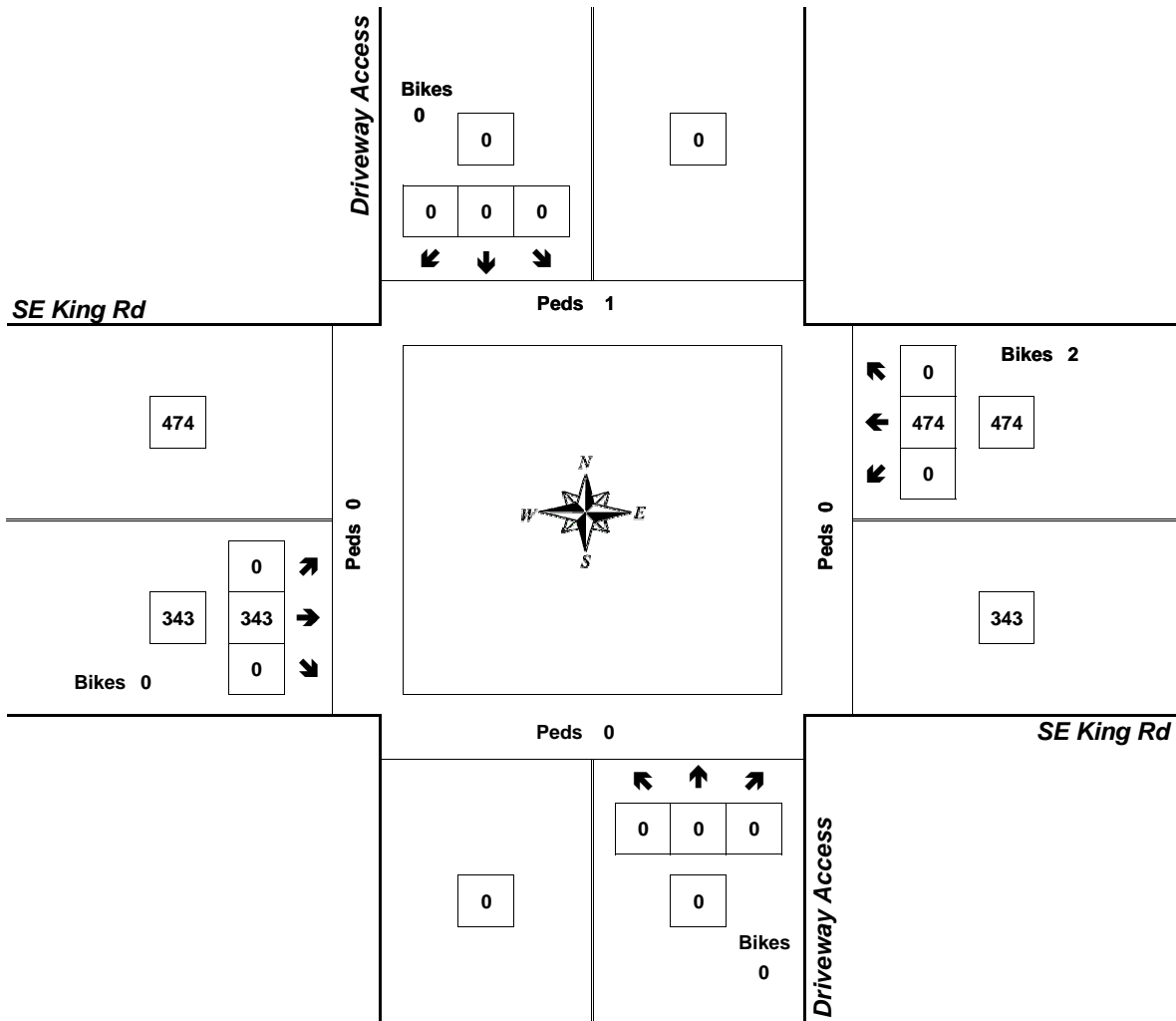


Clay Carney
(503) 833-2740

Driveway Access & SE King Rd

7:20 AM to 8:20 AM

Thursday, October 20, 2016



Approach	PHF	HV%	Volume
EB	0.81	7.3%	343
WB	0.90	4.0%	474
NB	0.00	0.0%	0
SB	0.00	0.0%	0
Intersection	0.88	5.4%	817

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740

Driveway Access & SE King Rd

Thursday, October 20, 2016

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	0	0	0	0	0	0	0	0	58	0	0	0	32	0	0	90	0	0	1	0
4:05 PM	0	0	0	0	0	0	0	0	0	64	0	0	0	44	1	0	109	0	0	0	0
4:10 PM	0	0	0	0	0	1	0	0	0	62	0	0	0	32	0	0	95	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	54	0	0	0	48	0	0	102	0	0	0	0
4:20 PM	0	0	0	0	0	0	0	0	0	47	0	0	0	34	0	0	81	0	0	0	0
4:25 PM	0	0	0	0	0	0	0	0	0	59	0	0	0	39	0	0	98	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	59	0	0	0	34	0	1	93	0	0	0	0
4:35 PM	0	0	0	0	0	0	0	0	0	53	0	0	0	40	0	0	93	0	0	0	0
4:40 PM	0	0	0	0	0	0	0	0	0	57	0	2	0	34	0	0	91	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	67	0	0	0	38	0	0	105	0	0	0	0
4:50 PM	0	0	0	0	0	0	0	0	0	53	0	0	0	29	0	0	82	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	0	43	0	0	0	40	0	0	83	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	53	0	0	0	47	0	0	100	0	0	0	0
5:05 PM	0	0	0	0	0	0	0	0	0	63	0	0	0	37	0	0	100	0	0	0	0
5:10 PM	0	0	0	0	0	0	0	0	0	55	0	0	0	43	0	0	98	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	71	0	0	0	44	0	0	115	0	0	0	0
5:20 PM	0	0	0	0	0	0	0	0	0	71	0	0	0	36	0	0	107	0	0	0	0
5:25 PM	0	0	0	0	0	0	0	0	0	67	0	0	0	47	0	0	114	1	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	54	0	0	0	40	0	0	94	0	0	0	0
5:35 PM	0	0	0	0	0	0	0	0	0	66	0	0	0	46	0	0	112	0	0	0	0
5:40 PM	0	0	0	0	0	0	0	0	0	62	0	0	0	38	0	0	100	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	50	0	0	0	44	0	0	94	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	49	0	0	0	43	0	0	92	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	49	0	0	0	38	1	0	88	0	0	0	0
Total Survey	0	0	0	0	1	0	0	0	0	1,386	0	2	0	947	2	1	2,336	1	0	1	1

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	0	0	0	1	0	0	0	0	184	0	0	0	108	1	0	294	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	160	0	0	0	121	0	0	281	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	169	0	2	0	108	0	1	277	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	163	0	0	0	107	0	0	270	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	171	0	0	0	127	0	0	298	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	209	0	0	0	127	0	0	336	1	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	182	0	0	0	124	0	0	306	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	148	0	0	0	125	1	0	274	0	0	0	0
Total Survey	0	0	0	0	1	0	0	0	0	1,386	0	2	0	947	2	1	2,336	1	0	1	1

Peak Hour Summary

5:00 PM to 6:00 PM

By Approach	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	0	1	1	0	710	503	1,213	0	504	710	1,214	0	1,214	1	0	0	1
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	1.3%	0.0%	1.8%	0.0%	1.8%	0.0%	1.5%				
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.00	0.85	0.00	0.95	0.25	0.95	0.90					

By Movement	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	0	0	0	710	0	710	0	503	1	504	1,214
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	1.3%	0.0%	1.8%	0.0%	1.8%	1.5%
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.00	0.85	0.00	0.95	0.25	0.95	0.90

Rolling Hour Summary

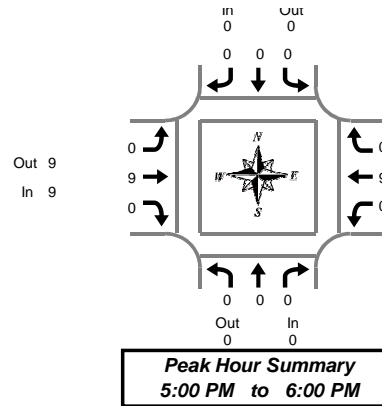
4:00 PM to 6:00 PM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	0	0	0	0	1	0	0	0	0	676	0	2	0	444	1	1	1,122	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	663	0	2	0	463	0	1	1,126	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	712	0	2	0	469	0	1	1,181	1	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	725	0	0	0	485	0	0	1,210	1	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	710	0	0	0	503	1	0	1,214	1	0	0	1

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Driveway Access & SE King Rd

Thursday, October 20, 2016

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4
4:05 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
4:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
4:20 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
4:25 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
4:35 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
4:40 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
4:50 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
4:55 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
5:20 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4
5:35 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:40 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:55 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
Total Survey	0	0	0	0	0	0	0	0	0	26	0	26	0	20	0	20	46

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	5	0	5	8
4:15 PM	0	0	0	0	0	0	0	0	0	6	0	6	0	2	0	2	8
4:30 PM	0	0	0	0	0	0	0	0	0	5	0	5	0	3	0	3	8
4:45 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
5:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	3	0	3	5
5:30 PM	0	0	0	0	0	0	0	0	0	4	0	4	0	3	0	3	7
5:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
Total Survey	0	0	0	0	0	0	0	0	0	26	0	26	0	20	0	20	46

Heavy Vehicle Peak Hour Summary

5:00 PM to 6:00 PM

By Approach	Northbound Driveway Access			Southbound Driveway Access			Eastbound SE King Rd			Westbound SE King Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	9	9	18	9	9	18	18
PHF	0.00			0.00			0.56			0.75			0.64

By Movement	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	0	0	0	9	0	9	0	9	0	9	18
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.56	0.00	0.75	0.00	0.75	0.64

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	17	0	17	0	11	0	11	28
4:15 PM	0	0	0	0	0	0	0	0	0	15	0	15	0	8	0	8	23
4:30 PM	0	0	0	0	0	0	0	0	0	11	0	11	0	9	0	9	20
4:45 PM	0	0	0	0	0	0	0	0	0	10	0	10	0	9	0	9	19
5:00 PM	0	0	0	0	0	0	0	0	0	9	0	9	0	9	0	9	18

Peak Hour Summary

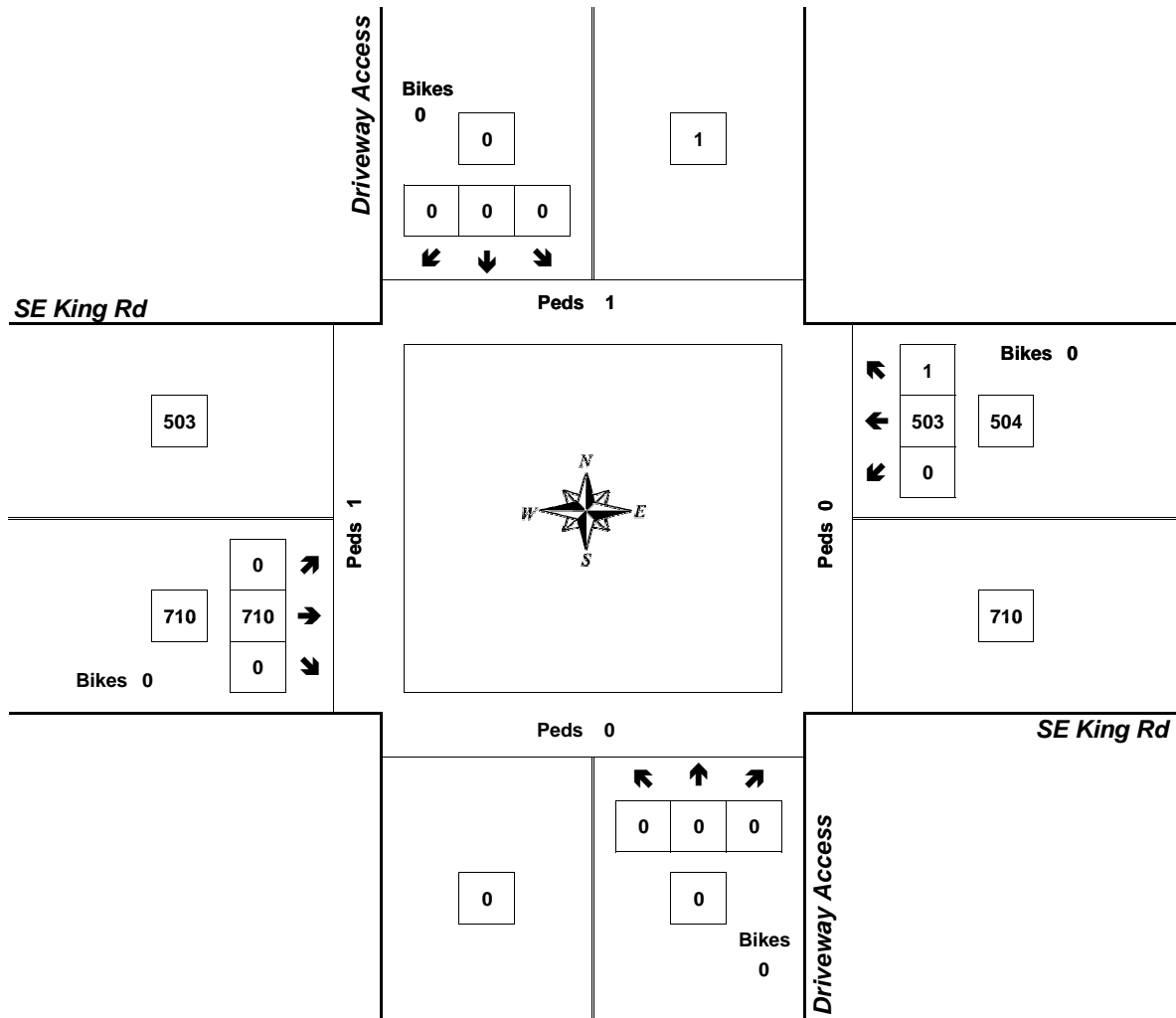


Clay Carney
(503) 833-2740

Driveway Access & SE King Rd

5:00 PM to 6:00 PM

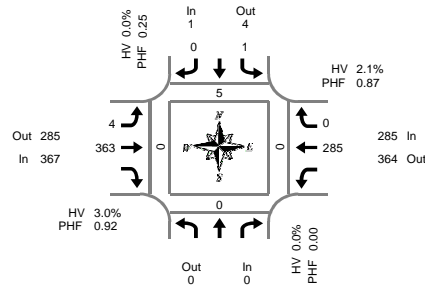
Thursday, October 20, 2016



Approach	PHF	HV%	Volume
EB	0.85	1.3%	710
WB	0.95	1.8%	504
NB	0.00	0.0%	0
SB	0.00	0.0%	0
Intersection	0.90	1.5%	1,214

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Driveway Access & SE King Rd

Sunday, October 23, 2016

9:00 AM to 12:00 PM

5-Minute Interval Summary

9:00 AM to 12:00 PM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
9:00 AM	0	0	0	0	0	0	0	0	2	13	15	0	20	1	0	21	36	0	0	0	0
9:05 AM	0	0	0	0	0	0	0	0	1	9	10	0	15	2	0	17	27	0	0	0	0
9:10 AM	0	1	1	0	0	0	0	0	18	0	18	0	15	1	0	16	35	1	0	0	0
9:15 AM	0	1	1	0	0	0	0	0	26	0	26	0	19	1	0	20	47	0	0	0	0
9:20 AM	0	0	0	0	0	0	0	0	14	0	14	0	23	0	1	24	37	0	0	0	0
9:25 AM	0	0	0	0	0	0	0	0	16	1	17	1	28	0	0	28	44	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	20	0	20	0	24	0	0	24	44	0	0	0	0
9:35 AM	0	0	0	0	0	0	0	0	26	0	26	0	20	0	0	20	46	0	0	0	0
9:40 AM	0	0	0	0	0	0	0	0	17	0	17	0	19	0	0	19	36	1	0	0	0
9:45 AM	0	1	1	0	0	0	0	0	19	0	19	0	31	0	0	31	51	0	0	0	0
9:50 AM	0	0	0	0	0	0	0	0	24	0	24	0	19	1	0	20	44	0	0	0	0
9:55 AM	0	0	0	0	0	0	0	1	19	1	20	1	15	0	0	15	35	0	0	0	0
10:00 AM	0	0	0	0	1	0	1	0	3	32	35	0	21	1	0	22	58	0	0	0	0
10:05 AM	0	0	0	0	0	0	0	1	25	0	25	0	32	3	0	35	61	0	0	0	0
10:10 AM	0	0	0	0	0	0	0	2	28	0	30	0	18	3	0	21	51	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	1	24	0	25	0	21	4	0	25	50	0	0	0	0
10:20 AM	0	0	0	0	0	0	0	5	21	0	26	0	29	2	0	31	57	0	0	0	0
10:25 AM	0	1	1	0	0	0	0	2	25	0	27	0	23	5	0	28	56	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	2	13	0	15	0	18	6	1	25	39	0	0	0	0
10:35 AM	0	0	0	0	0	0	0	1	25	0	26	0	22	1	1	24	49	1	0	0	0
10:40 AM	0	0	0	0	0	0	0	3	32	0	35	0	21	0	0	21	56	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	31	0	31	0	31	0	0	31	62	2	0	0	0
10:50 AM	0	0	0	0	0	0	0	1	29	1	30	1	30	0	0	30	60	1	0	0	0
10:55 AM	0	0	0	0	0	0	0	0	26	0	26	0	20	0	0	20	46	1	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	28	0	28	0	29	0	0	29	57	0	0	0	0
11:05 AM	0	0	0	0	0	0	0	0	30	0	30	0	22	0	0	22	52	0	0	0	0
11:10 AM	0	0	0	0	0	0	0	0	39	0	39	0	26	0	0	26	65	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	28	0	28	0	18	0	0	18	46	1	0	0	0
11:20 AM	0	1	1	0	0	0	0	0	33	0	33	0	18	0	1	19	52	0	0	0	0
11:25 AM	0	0	0	0	0	0	0	0	26	0	26	0	19	0	0	19	45	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	30	0	30	0	31	0	0	31	61	0	0	0	0
11:35 AM	0	0	0	0	0	0	0	0	31	0	31	0	20	0	0	20	51	0	0	0	0
11:40 AM	0	0	0	0	2	0	2	0	27	0	27	0	24	0	0	24	53	0	0	0	0
11:45 AM	0	3	3	0	0	0	0	0	29	0	29	0	34	0	0	34	69	0	0	0	0
11:50 AM	0	5	5	0	0	0	0	0	31	0	31	0	35	0	0	35	74	0	0	0	0
11:55 AM	0	4	4	0	5	0	5	1	23	0	23	0	39	0	0	39	72	0	0	0	0
Total Survey	0	17	17	0	14	0	14	0	26	887	913	3	849	31	4	884	1,824	8	0	0	0

15-Minute Interval Summary

9:00 AM to 12:00 PM

Interval Start Time	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
9:00 AM	0	1	1	0	0	0	0	0	3	40	43	0	50	4	0	54	98	1	0	0	0
9:15 AM	0	1	1	0	0	0	0	0	56	1	57	1	70	1	1	72	128	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	63	0	63	0	63	0	0	63	126	1	0	0	0
9:45 AM	0	1	1	0	0	0	0	1	62	1	63	1	65	1	0	66	130	0	0	0	0
10:00 AM	0	0	0	0	1	0	1	0	6	85	91	0	71	7	0	78	170	0	0	0	0
10:15 AM	0	1	1	0	0	0	0	8	70	0	70	0	73	11	0	84	163	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	6	70	0	70	0	61	7	2	68	144	1	0	0	0
10:45 AM	0	0	0	0	0	0	0	1	86	1	87	1	81	0	0	81	168	4	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	97	0	97	0	77	0	0	77	174	0	0	0	0
11:15 AM	0	1	1	0	0	0	0	0	87	0	87	0	55	0	1	56	143	1	0	0	0
11:30 AM	0	0	0	0	2	0	2	0	88	0	88	0	75	0	0	75	165	0	0	0	0
11:45 AM	0	12	12	0	11	0	11	1	83	0	83	0	108	0	0	108	215	0	0	0	0
Total Survey	0	17	17	0	14	0	14	0	26	887	913	3	849	31	4	884	1,824	8	0	0	0

Peak Hour Summary

10:40 AM to 11:40 AM

By Approach	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	1	4	5	0	367	285	652	1	285	364	649	1	653	5	0	0	0
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	0.0%	2.1%	2.1%	2.1%	0.0%	2.6%				
PHF	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.25	0.91	0.92	0.92	0.00	0.87	0.00	0.87	0.00	0.92				

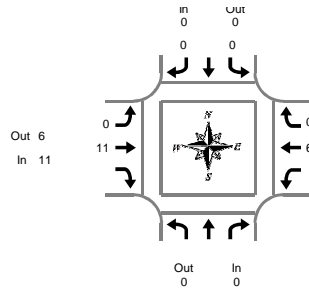
By Movement	Northbound Driveway Access				Southbound Driveway Access				Eastbound SE King Rd				Westbound SE King Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	1	1	0	0	0	0	0	4	363	367	1	285	0	285	1	653				
%HV	NA	NA	NA	0.0%	0.0%	NA	0.0%	0.0%	0.0%	3.0%	3.0%	0.0%	2.1%	0.0%	2.1%	0.0%	2.6%				
PHF	0.00	0.25	0.00	0.00	0.00	0.25	0.25	0.25	0.91	0.92	0.92	0.00	0.87	0.00	0.87	0.00	0.92				

Rolling Hour Summary

9:00 AM to 12:00 PM

Interval Start Time	Northbound Driveway Access			Southbound Driveway Access			Eastbound SE King Rd			Westbound SE King Rd			Interval Total	Pedestrians Crosswalk			
		Bikes		R	Bikes	L	T		Bikes	T	R	Bikes		North	South	East	West
9:00 AM		0	3		0	0	4	221	2	248	6	1	482	2	0	0	0
9:15 AM		0	2		1	0	7	266	2	269	9	1	554	1	0	0	0
9:30 AM		0	2		1	0	15	280	1	272	19	0	589	1	0	0	0
9:45 AM		0	2		1	0	21	287	1	270	26	2	607	1	0	0	0
10:00 AM		0	1		1	0	21	311	1	286	25	2	645	5	0	0	0
10:15 AM		0	1		0	0	15	323	1	292	18	2	649	5	0	0	0
10:30 AM		0	1		0	0	7	340	1	274	7	3	629	6	0	0	0
10:45 AM		0	1		2	1	358	358	0	288	0	1	650	5	0	0	0
11:00 AM		0	13		13	0	1	355	0	315	0	1	697	2	0	0	0

Heavy Vehicle Summary



Driveway Access & SE King Rd

Sunday, October 23, 2016

9:00 AM to 12:00 PM

Peak Hour Summary
 10:40 AM to 11:40 AM

Heavy Vehicle 5-Minute Interval Summary

9:00 AM to 12:00 PM

Interval Start Time	Northbound Driveway Access			Southbound Driveway Access			Eastbound SE King Rd			Westbound SE King Rd			Interval Total
		Total	L	R	Total	L	T	Total	T	R	Total		
9:00 AM		0	0		0	0	0	0	0	0	0	0	
9:05 AM		0	0		0	0	0	0	0	1	0	1	
9:10 AM		0	1		0	1	0	1	1	0	0	2	
9:15 AM		0	0		0	0	0	2	2	0	0	2	
9:20 AM		0	0		0	0	0	0	0	1	0	1	
9:25 AM		0	0		0	0	0	0	0	2	0	2	
9:30 AM		0	0		0	0	0	1	1	0	0	1	
9:35 AM		0	0		0	0	0	0	0	0	0	0	
9:40 AM		0	0		0	0	0	1	1	0	0	1	
9:45 AM		0	0		0	0	0	1	1	0	0	1	
9:50 AM		0	0		0	0	0	0	0	0	0	0	
9:55 AM		0	0		0	0	0	0	0	0	0	0	
10:00 AM		0	0		0	0	0	1	1	1	0	1	
10:05 AM		0	0		0	0	0	0	0	0	0	0	
10:10 AM		0	0		0	0	0	0	0	1	0	1	
10:15 AM		0	0		0	0	0	1	1	1	0	1	
10:20 AM		0	0		0	0	0	0	0	0	0	0	
10:25 AM		0	0		0	0	0	1	1	1	1	2	
10:30 AM		0	0		0	0	0	0	0	0	0	0	
10:35 AM		0	0		0	0	0	1	1	0	0	1	
10:40 AM		0	0		0	0	0	2	2	0	0	2	
10:45 AM		0	0		0	0	0	2	2	1	0	1	
10:50 AM		0	0		0	0	0	1	1	0	0	0	
10:55 AM		0	0		0	0	0	0	0	0	0	0	
11:00 AM		0	0		0	0	0	1	1	2	0	2	
11:05 AM		0	0		0	0	0	0	0	0	0	0	
11:10 AM		0	0		0	0	0	1	1	1	0	1	
11:15 AM		0	0		0	0	0	0	0	1	0	1	
11:20 AM		0	0		0	0	0	1	1	0	0	0	
11:25 AM		0	0		0	0	0	2	2	0	0	0	
11:30 AM		0	0		0	0	0	1	1	0	0	0	
11:35 AM		0	0		0	0	0	0	0	1	0	1	
11:40 AM		0	0		0	0	0	0	0	2	0	2	
11:45 AM		0	0		0	0	0	1	1	1	0	1	
11:50 AM		0	0		0	0	0	0	0	0	0	0	
11:55 AM		0	0		0	0	0	0	0	0	0	0	
Total Survey		0	1		0	1	0	22	22	18	1	19	42

Heavy Vehicle 15-Minute Interval Summary

9:00 AM to 12:00 PM

Interval Start Time	Northbound Driveway Access			Southbound Driveway Access			Eastbound SE King Rd			Westbound SE King Rd			Interval Total	
		Total	L	R	Total	L	T	Total	T	R	Total			
9:00 AM		0	1	0	0	1	0	1	1	1	0	0	1	3
9:15 AM		0	0	0	0	0	0	2	2	3	0	3	5	
9:30 AM		0	0	0	0	0	0	2	2	0	0	0	0	2
9:45 AM		0	0	0	0	0	0	1	1	0	0	0	0	1
10:00 AM		0	0	0	0	0	0	1	1	2	0	2	2	3
10:15 AM		0	0	0	0	0	0	2	2	2	1	3	3	5
10:30 AM		0	0	0	0	0	0	3	3	1	0	1	1	4
10:45 AM		0	0	0	0	0	0	3	3	1	0	1	0	4
11:00 AM		0	0	0	0	0	0	2	2	3	0	3	3	5
11:15 AM		0	0	0	0	0	0	3	3	1	0	1	0	4
11:30 AM		0	0	0	0	0	0	1	1	3	0	3	0	4
11:45 AM		0	0	0	0	0	0	1	1	1	0	1	0	2
Total Survey		0	1	0	1	0	22	22	22	18	1	19	19	42

Heavy Vehicle Peak Hour Summary

10:40 AM to 11:40 AM

By Approach	Northbound Driveway Access			Southbound Driveway Access			Eastbound SE King Rd			Westbound SE King Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	11	6	17	6	11	17	17
PHF	0.00			0.00			0.55			0.50			0.71

By Movement	Northbound Driveway Access			Southbound Driveway Access			Eastbound SE King Rd			Westbound SE King Rd			Total
	Total	L	R	Total	L	T	Total	T	R	Total			
Volume	0	0		0	0	11	11	6	0	6	17		
PHF	0.00	0.00		0.00	0.00	0.55	0.55	0.50	0.00	0.50	0.71		

Heavy Vehicle Rolling Hour Summary

9:00 AM to 12:00 PM

Interval Start Time	Northbound Driveway Access			Southbound Driveway Access			Eastbound SE King Rd			Westbound SE King Rd			Interval Total	
		Total	L	R	Total	L	T	Total		T	R	Total		
9:00 AM		0	1		0	1	0	6		6	4	0	4	11
9:15 AM		0	0		0	0	0	6		6	5	0	5	11
9:30 AM		0	0	0	0	0	0	6		6	4	1	5	11
9:45 AM		0	0	0	0	0	0	7		7	5	1	6	13
10:00 AM		0	0	0	0	0	0	9		9	6	1	7	16
10:15 AM		0	0		0	0	0	10		10	7	1	8	18
10:30 AM		0	0		0	0	0	11		11	6	0	6	17
10:45 AM		0	0		0	0	0	9		9	8	0	8	17
11:00 AM		0	0		0	0	0	7		7	8	0	8	15

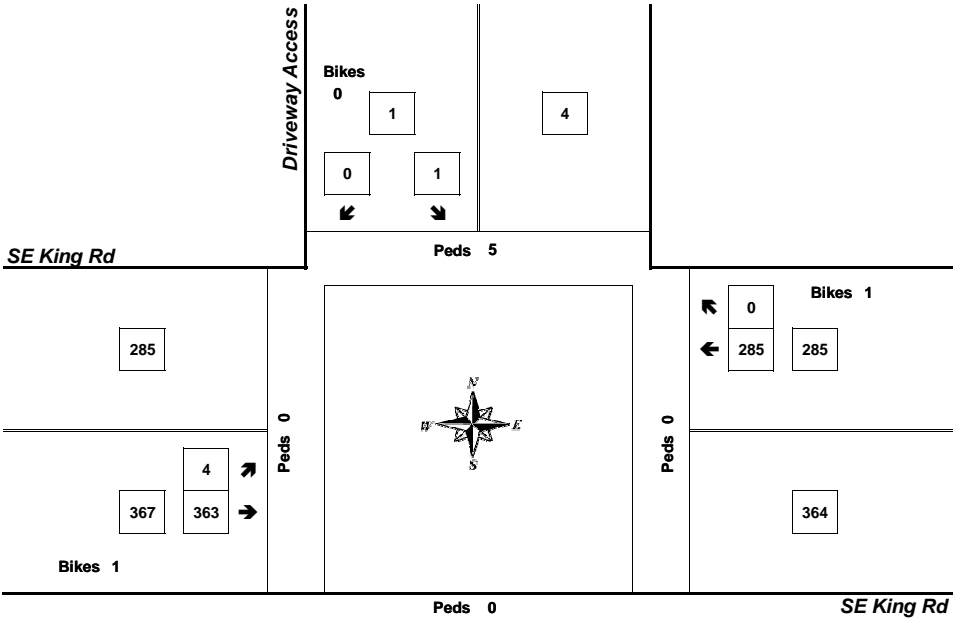
Peak Hour Summary



Clay Carney
(503) 833-2740

Driveway Access & SE King Rd

10:40 AM to 11:40 AM
Sunday, October 23, 2016



Approach	PHF	HV%	Volume
EB	0.92	3.0%	367
WB	0.87	2.1%	285
NB	0.00	0.0%	0
SB	0.25	0.0%	1
Intersection	0.92	2.6%	653

Count Period: 9:00 AM to 12:00 PM



LEVEL OF SERVICE

Level of service is used to describe the quality of traffic flow. Levels of service A to C are considered good, and rural roads are usually designed for level of service C. Urban streets and signalized intersections are typically designed for level of service D. Level of service E is considered to be the limit of acceptable delay. For unsignalized intersections, level of service E is generally considered acceptable. Here is a more complete description of levels of service:

Level of service A: Very low delay at intersections, with all traffic signal cycles clearing and no vehicles waiting through more than one signal cycle. On highways, low volume and high speeds, with speeds not restricted by other vehicles.

Level of service B: Operating speeds beginning to be affected by other traffic; short traffic delays at intersections. Higher average intersection delay than for level of service A resulting from more vehicles stopping.

Level of service C: Operating speeds and maneuverability closely controlled by other traffic; higher delays at intersections than for level of service B due to a significant number of vehicles stopping. Not all signal cycles clear the waiting vehicles. This is the recommended design standard for rural highways.

Level of service D: Tolerable operating speeds; long traffic delays occur at intersections. The influence of congestion is noticeable. At traffic signals many vehicles stop, and the proportion of vehicles not stopping declines. The number of signal cycle failures, for which vehicles must wait through more than one signal cycle, are noticeable. This is typically the design level for urban signalized intersections.

Level of service E: Restricted speeds, very long traffic delays at traffic signals, and traffic volumes near capacity. Flow is unstable so that any interruption, no matter how minor, will cause queues to form and service to deteriorate to level of service F. Traffic signal cycle failures are frequent occurrences. For unsignalized intersections, level of service E or better is generally considered acceptable.

Level of service F: Extreme delays, resulting in long queues which may interfere with other traffic movements. There may be stoppages of long duration, and speeds may drop to zero. There may be frequent signal cycle failures. Level of service F will typically result when vehicle arrival rates are greater than capacity. It is considered unacceptable by most drivers.

*LEVEL OF SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS*

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	<10
B	10-20
C	20-35
D	35-55
E	55-80
F	>80

*LEVEL OF SERVICE CRITERIA
FOR UNSIGNALIZED INTERSECTIONS*

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	<10
B	10-15
C	15-25
D	25-35
E	35-50
F	>50

HCM Unsignalized Intersection Capacity Analysis

1: Site Access & SE King Road

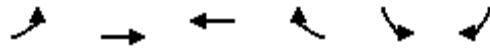
10/26/2016






	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↘	↗	↘	
Traffic Volume (veh/h)	343	1	1	473	1	1
Future Volume (Veh/h)	343	1	1	473	1	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	390	1	1	538	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLT			TWLT		
Median storage veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			391		930	390
vC1, stage 1 conf vol					390	
vC2, stage 2 conf vol					540	
vCu, unblocked vol			391		930	390
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1157		502	658
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	391	1	538	2		
Volume Left	0	1	0	1		
Volume Right	1	0	0	1		
cSH	1700	1157	1700	570		
Volume to Capacity	0.23	0.00	0.32	0.00		
Queue Length 95th (ft)	0	0	0	0		
Control Delay (s)	0.0	8.1	0.0	11.3		
Lane LOS		A		B		
Approach Delay (s)	0.0	0.0		11.3		
Approach LOS				B		
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			34.9%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: SE King Road & Church Driveway

10/26/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	343	474	1	1	1
Future Volume (Veh/h)	1	343	474	1	1	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	1	390	539	1	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLT	TL			
Median storage veh		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	540				932	540
vC1, stage 1 conf vol					540	
vC2, stage 2 conf vol					392	
vCu, unblocked vol	540				932	540
tC, single (s)	4.2				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.3				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1004				502	542
Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	
Volume Total	1	390	540	1	1	
Volume Left	1	0	0	1	0	
Volume Right	0	0	1	0	1	
cSH	1004	1700	1700	502	542	
Volume to Capacity	0.00	0.23	0.32	0.00	0.00	
Queue Length 95th (ft)	0	0	0	0	0	
Control Delay (s)	8.6	0.0	0.0	12.2	11.7	
Lane LOS	A			B	B	
Approach Delay (s)	0.0		0.0	11.9		
Approach LOS				B		
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			35.0%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

1: Site Access & SE King Road

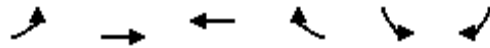
10/26/2016






	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱		↰	↱	↰	
Traffic Volume (veh/h)	709	1	1	502	1	1
Future Volume (Veh/h)	709	1	1	502	1	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	788	1	1	558	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLT			TWLT		
Median storage veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			789		1348	788
vC1, stage 1 conf vol					788	
vC2, stage 2 conf vol					560	
vCu, unblocked vol			789		1348	788
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			831		376	391
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	789	1	558	2		
Volume Left	0	1	0	1		
Volume Right	1	0	0	1		
cSH	1700	831	1700	383		
Volume to Capacity	0.46	0.00	0.33	0.01		
Queue Length 95th (ft)	0	0	0	0		
Control Delay (s)	0.0	9.3	0.0	14.4		
Lane LOS		A		B		
Approach Delay (s)	0.0	0.0		14.4		
Approach LOS				B		
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			47.4%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: SE King Road & Church Driveway

10/26/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	710	503	1	1	1
Future Volume (Veh/h)	1	710	503	1	1	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1	789	559	1	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLT	TWLT			
Median storage veh		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	560				1350	560
vC1, stage 1 conf vol					560	
vC2, stage 2 conf vol					791	
vCu, unblocked vol	560				1350	560
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1016				375	528
Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	
Volume Total	1	789	560	1	1	
Volume Left	1	0	0	1	0	
Volume Right	0	0	1	0	1	
cSH	1016	1700	1700	375	528	
Volume to Capacity	0.00	0.46	0.33	0.00	0.00	
Queue Length 95th (ft)	0	0	0	0	0	
Control Delay (s)	8.5	0.0	0.0	14.6	11.8	
Lane LOS	A			B	B	
Approach Delay (s)	0.0		0.0	13.2		
Approach LOS				B		
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			47.4%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

1: Site Access & SE King Road

10/26/2016






	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↘	↗	↘	
Traffic Volume (veh/h)	307	1	1	271	1	1
Future Volume (Veh/h)	307	1	1	271	1	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	345	1	1	304	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLT			TWLT		
Median storage veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			346		652	346
vC1, stage 1 conf vol					346	
vC2, stage 2 conf vol					306	
vCu, unblocked vol			346		652	346
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1213		616	697
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	346	1	304	2		
Volume Left	0	1	0	1		
Volume Right	1	0	0	1		
cSH	1700	1213	1700	654		
Volume to Capacity	0.20	0.00	0.18	0.00		
Queue Length 95th (ft)	0	0	0	0		
Control Delay (s)	0.0	8.0	0.0	10.5		
Lane LOS		A		B		
Approach Delay (s)	0.0	0.0		10.5		
Approach LOS				B		
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			26.2%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: SE King Road & Church Driveway

10/26/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	287	270	26	2	1
Future Volume (Veh/h)	21	287	270	26	2	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	24	322	303	29	2	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLT	TL			
Median storage veh		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	332				688	318
vC1, stage 1 conf vol					318	
vC2, stage 2 conf vol					370	
vCu, unblocked vol	332				688	318
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	100
cM capacity (veh/h)	1227				593	723
Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	
Volume Total	24	322	332	2	1	
Volume Left	24	0	0	2	0	
Volume Right	0	0	29	0	1	
cSH	1227	1700	1700	593	723	
Volume to Capacity	0.02	0.19	0.20	0.00	0.00	
Queue Length 95th (ft)	1	0	0	0	0	
Control Delay (s)	8.0	0.0	0.0	11.1	10.0	
Lane LOS	A			B	A	
Approach Delay (s)	0.6		0.0	10.7		
Approach LOS				B		
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			27.5%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

1: Site Access & SE King Road

10/26/2016






	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↘	↗	↘	
Traffic Volume (veh/h)	357	1	1	492	1	1
Future Volume (Veh/h)	357	1	1	492	1	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	406	1	1	559	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLT			TWLT		
Median storage veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			407		968	406
vC1, stage 1 conf vol					406	
vC2, stage 2 conf vol					561	
vCu, unblocked vol			407		968	406
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1141		490	644
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	407	1	559	2		
Volume Left	0	1	0	1		
Volume Right	1	0	0	1		
cSH	1700	1141	1700	556		
Volume to Capacity	0.24	0.00	0.33	0.00		
Queue Length 95th (ft)	0	0	0	0		
Control Delay (s)	0.0	8.2	0.0	11.5		
Lane LOS		A		B		
Approach Delay (s)	0.0	0.0		11.5		
Approach LOS				B		
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			35.9%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: SE King Road & Church Driveway

10/26/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	357	493	1	1	1
Future Volume (Veh/h)	1	357	493	1	1	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	1	406	560	1	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLT	TL			
Median storage veh		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	561				968	560
vC1, stage 1 conf vol					560	
vC2, stage 2 conf vol					408	
vCu, unblocked vol	561				968	560
tC, single (s)	4.2				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.3				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	986				489	527
Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	
Volume Total	1	406	561	1	1	
Volume Left	1	0	0	1	0	
Volume Right	0	0	1	0	1	
cSH	986	1700	1700	489	527	
Volume to Capacity	0.00	0.24	0.33	0.00	0.00	
Queue Length 95th (ft)	0	0	0	0	0	
Control Delay (s)	8.7	0.0	0.0	12.4	11.8	
Lane LOS	A			B	B	
Approach Delay (s)	0.0		0.0	12.1		
Approach LOS				B		
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			36.0%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

1: Site Access & SE King Road

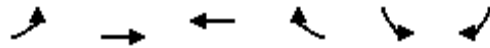
10/26/2016






	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↖	↗	↖	
Traffic Volume (veh/h)	738	1	1	522	1	1
Future Volume (Veh/h)	738	1	1	522	1	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	820	1	1	580	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLT			TWLT		
Median storage veh	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			821		1402	820
vC1, stage 1 conf vol					820	
vC2, stage 2 conf vol					582	
vCu, unblocked vol			821		1402	820
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			808		363	375
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	821	1	580	2		
Volume Left	0	1	0	1		
Volume Right	1	0	0	1		
cSH	1700	808	1700	369		
Volume to Capacity	0.48	0.00	0.34	0.01		
Queue Length 95th (ft)	0	0	0	0		
Control Delay (s)	0.0	9.5	0.0	14.8		
Lane LOS		A		B		
Approach Delay (s)	0.0	0.0		14.8		
Approach LOS				B		
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			48.9%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: SE King Road & Church Driveway

10/26/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	739	523	1	1	1
Future Volume (Veh/h)	1	739	523	1	1	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1	821	581	1	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLT	TL			
Median storage veh		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	582				1404	582
vC1, stage 1 conf vol					582	
vC2, stage 2 conf vol					823	
vCu, unblocked vol	582				1404	582
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	997				362	513
Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	
Volume Total	1	821	582	1	1	
Volume Left	1	0	0	1	0	
Volume Right	0	0	1	0	1	
cSH	997	1700	1700	362	513	
Volume to Capacity	0.00	0.48	0.34	0.00	0.00	
Queue Length 95th (ft)	0	0	0	0	0	
Control Delay (s)	8.6	0.0	0.0	15.0	12.0	
Lane LOS	A			B	B	
Approach Delay (s)	0.0		0.0	13.5		
Approach LOS				B		
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			48.9%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

1: Site Access & SE King Road

10/26/2016

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↖	↗	↖	
Traffic Volume (veh/h)	319	1	1	282	1	1
Future Volume (Veh/h)	319	1	1	282	1	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	358	1	1	317	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLT			TWLT		
Median storage veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			359		678	358
vC1, stage 1 conf vol					358	
vC2, stage 2 conf vol					319	
vCu, unblocked vol			359		678	358
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1200		605	686
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	359	1	317	2		
Volume Left	0	1	0	1		
Volume Right	1	0	0	1		
cSH	1700	1200	1700	643		
Volume to Capacity	0.21	0.00	0.19	0.00		
Queue Length 95th (ft)	0	0	0	0		
Control Delay (s)	0.0	8.0	0.0	10.6		
Lane LOS		A		B		
Approach Delay (s)	0.0	0.0		10.6		
Approach LOS				B		
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			26.9%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: SE King Road & Church Driveway

10/26/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	299	281	26	2	1
Future Volume (Veh/h)	21	299	281	26	2	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	24	336	316	29	2	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLT	TL			
Median storage (veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	345				714	330
vC1, stage 1 conf vol					330	
vC2, stage 2 conf vol					384	
vCu, unblocked vol	345				714	330
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	100
cM capacity (veh/h)	1214				581	711
Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	
Volume Total	24	336	345	2	1	
Volume Left	24	0	0	2	0	
Volume Right	0	0	29	0	1	
cSH	1214	1700	1700	581	711	
Volume to Capacity	0.02	0.20	0.20	0.00	0.00	
Queue Length 95th (ft)	2	0	0	0	0	
Control Delay (s)	8.0	0.0	0.0	11.2	10.1	
Lane LOS	A			B	B	
Approach Delay (s)	0.5		0.0	10.8		
Approach LOS				B		
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			27.5%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

1: Site Access & SE King Road

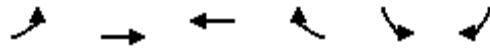
10/26/2016






	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↘	↗	↘	
Traffic Volume (veh/h)	357	1	2	492	4	4
Future Volume (Veh/h)	357	1	2	492	4	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	406	1	2	559	5	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLT			TWLT		
Median storage veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			407		970	406
vC1, stage 1 conf vol					406	
vC2, stage 2 conf vol					563	
vCu, unblocked vol			407		970	406
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			1141		488	644
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	407	2	559	10		
Volume Left	0	2	0	5		
Volume Right	1	0	0	5		
cSH	1700	1141	1700	556		
Volume to Capacity	0.24	0.00	0.33	0.02		
Queue Length 95th (ft)	0	0	0	1		
Control Delay (s)	0.0	8.2	0.0	11.6		
Lane LOS		A		B		
Approach Delay (s)	0.0	0.0		11.6		
Approach LOS				B		
Intersection Summary						
Average Delay		0.1				
Intersection Capacity Utilization		35.9%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

2: SE King Road & Church Driveway

10/26/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	361	494	1	1	1
Future Volume (Veh/h)	1	361	494	1	1	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	1	410	561	1	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLT	TL			
Median storage veh		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	562				974	562
vC1, stage 1 conf vol					562	
vC2, stage 2 conf vol					412	
vCu, unblocked vol	562				974	562
tC, single (s)	4.2				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.3				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	985				488	527
Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	
Volume Total	1	410	562	1	1	
Volume Left	1	0	0	1	0	
Volume Right	0	0	1	0	1	
cSH	985	1700	1700	488	527	
Volume to Capacity	0.00	0.24	0.33	0.00	0.00	
Queue Length 95th (ft)	0	0	0	0	0	
Control Delay (s)	8.7	0.0	0.0	12.4	11.8	
Lane LOS	A			B	B	
Approach Delay (s)	0.0		0.0	12.1		
Approach LOS				B		
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			36.1%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

1: Site Access & SE King Road

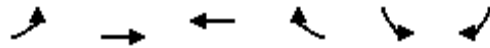
10/26/2016






	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↙	↗	↘	
Traffic Volume (veh/h)	738	5	5	522	2	3
Future Volume (Veh/h)	738	5	5	522	2	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	820	6	6	580	2	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLT			TWLT		
Median storage veh	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			826		1415	823
vC1, stage 1 conf vol					823	
vC2, stage 2 conf vol					592	
vCu, unblocked vol			826		1415	823
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	99
cM capacity (veh/h)			805		359	373
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	826	6	580	5		
Volume Left	0	6	0	2		
Volume Right	6	0	0	3		
cSH	1700	805	1700	368		
Volume to Capacity	0.49	0.01	0.34	0.01		
Queue Length 95th (ft)	0	1	0	1		
Control Delay (s)	0.0	9.5	0.0	14.9		
Lane LOS		A		B		
Approach Delay (s)	0.0	0.1		14.9		
Approach LOS				B		
Intersection Summary						
Average Delay		0.1				
Intersection Capacity Utilization		49.1%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

2: SE King Road & Church Driveway

10/26/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	741	527	1	1	1
Future Volume (Veh/h)	1	741	527	1	1	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1	823	586	1	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLT	TL			
Median storage veh		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	587				1412	586
vC1, stage 1 conf vol					586	
vC2, stage 2 conf vol					825	
vCu, unblocked vol	587				1412	586
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	993				360	510
Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	
Volume Total	1	823	587	1	1	
Volume Left	1	0	0	1	0	
Volume Right	0	0	1	0	1	
cSH	993	1700	1700	360	510	
Volume to Capacity	0.00	0.48	0.35	0.00	0.00	
Queue Length 95th (ft)	0	0	0	0	0	
Control Delay (s)	8.6	0.0	0.0	15.0	12.1	
Lane LOS	A			C	B	
Approach Delay (s)	0.0		0.0	13.5		
Approach LOS				B		
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			49.0%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

1: Site Access & SE King Road

10/26/2016






	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↖	↗	↖	
Traffic Volume (veh/h)	319	1	1	282	2	2
Future Volume (Veh/h)	319	1	1	282	2	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	358	1	1	317	2	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLT			TWLT		
Median storage veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			359		678	358
vC1, stage 1 conf vol					358	
vC2, stage 2 conf vol					319	
vCu, unblocked vol			359		678	358
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1200		605	686
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	359	1	317	4		
Volume Left	0	1	0	2		
Volume Right	1	0	0	2		
cSH	1700	1200	1700	643		
Volume to Capacity	0.21	0.00	0.19	0.01		
Queue Length 95th (ft)	0	0	0	0		
Control Delay (s)	0.0	8.0	0.0	10.6		
Lane LOS		A		B		
Approach Delay (s)	0.0	0.0		10.6		
Approach LOS				B		
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			26.9%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

2: SE King Road & Church Driveway

10/26/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	300	282	26	2	1
Future Volume (Veh/h)	21	300	282	26	2	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	24	337	317	29	2	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLT	TL			
Median storage veh		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	346				716	332
vC1, stage 1 conf vol					332	
vC2, stage 2 conf vol					385	
vCu, unblocked vol	346				716	332
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	100
cM capacity (veh/h)	1213				581	710
Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	
Volume Total	24	337	346	2	1	
Volume Left	24	0	0	2	0	
Volume Right	0	0	29	0	1	
cSH	1213	1700	1700	581	710	
Volume to Capacity	0.02	0.20	0.20	0.00	0.00	
Queue Length 95th (ft)	2	0	0	0	0	
Control Delay (s)	8.0	0.0	0.0	11.2	10.1	
Lane LOS	A			B	B	
Approach Delay (s)	0.5		0.0	10.8		
Approach LOS				B		
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			27.5%	ICU Level of Service		A
Analysis Period (min)			15			

Queuing and Blocking Report
 2018 Background plus Site Conditions - AM Peak Hour

10/26/2016

Intersection: 1: Site Access & SE King Road

Movement	WB	WB	NB
Directions Served	L	T	LR
Maximum Queue (ft)	6	6	36
Average Queue (ft)	0	0	7
95th Queue (ft)	4	4	29
Link Distance (ft)		72	105
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	1		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: SE King Road & Church Driveway

Movement	EB	EB	SB	SB
Directions Served	L	T	L	R
Maximum Queue (ft)	6	6	18	24
Average Queue (ft)	0	0	1	3
95th Queue (ft)	6	6	9	16
Link Distance (ft)		72	139	139
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	1			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 0

Queuing and Blocking Report

2018 Background plus Site Conditions - PM Peak Hour

10/26/2016

Intersection: 1: Site Access & SE King Road

Movement	WB	WB	NB
Directions Served	L	T	LR
Maximum Queue (ft)	24	25	31
Average Queue (ft)	3	3	4
95th Queue (ft)	17	17	21
Link Distance (ft)		72	105
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	1		
Storage Blk Time (%)	0		
Queuing Penalty (veh)	2		

Intersection: 2: SE King Road & Church Driveway

Movement	EB	EB	SB	SB
Directions Served	L	T	L	R
Maximum Queue (ft)	6	6	11	30
Average Queue (ft)	0	0	0	2
95th Queue (ft)	4	4	6	13
Link Distance (ft)		72	139	139
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	1			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 2

Queuing and Blocking Report

2018 Background plus Site Conditions - Church Peak Hour

10/26/2016

Intersection: 1: Site Access & SE King Road

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	4
95th Queue (ft)	22
Link Distance (ft)	105
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: SE King Road & Church Driveway

Movement	EB	EB	SB	SB
Directions Served	L	T	L	R
Maximum Queue (ft)	29	31	12	24
Average Queue (ft)	4	4	1	1
95th Queue (ft)	20	22	8	12
Link Distance (ft)		72	139	139
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	1			
Storage Blk Time (%)	0			
Queuing Penalty (veh)	0			

Network Summary

Network wide Queuing Penalty: 0



November 9, 2016

Daniel Stumpf, EI
Lancaster Engineering
321 SW 4th Ave, Suite 400
Portland, OR 97204

Dear Daniel:

Subject: Mission Park Subdivision
Access Study
Modification of Access Spacing

The City has reviewed the access study for the proposed intersection of 51st and King Road for compliance with 12.16.040.2. We have determined that the report is incomplete and does not adequately address 12.16.040 2b, 2c and 2d.

The report does not adequately address the new intersection and the requirements that accompany the construction of a new public road intersection. In several instances you refer to the new intersection as the modification of an existing access, you are required to analyze the intersection and the impacts the proposed location has on the existing accesses. The new intersection must comply with all the requirements of a new street connection. The analysis must also address 12.16.040.4 with respect to the creation of accessways that become non-compliant as a result of the proposed intersection.

The report also does not adequately address the pedestrian requirements created as a result of the new intersection. The creation of any intersection also creates a legal crosswalk on all legs of the intersection and the requirement for all legs to be ADA accessible. The study fails to demonstrate that this requirement can be met with the existing accessway locations and the relationship between the pedestrian crossings at the proposed new intersection to the existing accessways on King Road.

The study also failed to recognize that the center turn lane will no longer be present through the intersection upon completion of the new roadway connection and what affect that will have on the safe movement of traffic through the intersection and the left turn queuing for the new intersection and existing accessways taking into account the required crosswalks. The report suggests that the minimum storage length requirement is met between the new intersection and the commercial driveway. Please provide additional documentation on how this is in compliance with traffic standards for minimum storage lengths and the other requirements stated above.

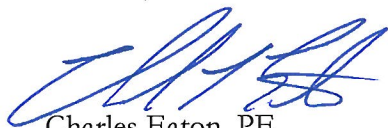
No mitigation measures were proposed. The requirements of the proposed new intersection indicate there is a requirement for mitigation measures. Please provide the proposed mitigation measures or details on how all the requirements can be met without mitigation. This includes all pedestrian and

Daniel Stumpf
Mission Park Subdivision
November 9, 2016
page 2

vehicular requirements. City Standard 1.0060 states "Any proposed mitigation must meet or exceed the minimum requirements set forth in the City design standards. Any deviations or special problems shall be review on a case-by-case basis and approved by the City Engineer. When requested by the City, full design calculations shall be submitted for review with the request for approval." Please provide a detailed layout showing that all pedestrian elements, including ADA ramps, vehicular left turn queuing requirements and the accessways can be accommodated without mitigation.

The report identifies several safety concerns with the proposed intersection that need to be resolved prior to approval. The report must be prepared and certified by a registered professional traffic engineer in the state of Oregon per MMC 12.16.040.2. Please provide a revised report addressing all the issues identified.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Charles Eaton', is written over the typed name.

Charles Eaton, PE
Engineering Director

Cc: Michael T Ard
Ken Sandblast

From: [O'Connell, Grant](#)
To: [Kolas, Vera](#)
Subject: VR-2016-007 (Master File #S-2016-001)
Date: Friday, October 28, 2016 2:35:58 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image005.png](#)

Colleagues,

Thank you for the opportunity to review this variance. TriMet has no comment on the variance request.

Regards,



GO ► GRANT O'CONNELL

Planner II

TriMet Capital Projects & Construction

1800 SW 1st Ave., Suite 300, Portland, OR 97201

Office: 503-962-6478 Email: o'connelg@trimet.org



From: [Amos, Matt](#)
To: [Kolas, Vera](#)
Subject: 5126 SE King Rd. VR-2016-007
Date: Thursday, October 27, 2016 7:05:29 AM

Good Morning Vera,

Clackamas Fire District #1 has no additional comments for this project regarding the variance request.

Matt Amos

Fire Inspector | Fire Prevention

direct: [503.742.2661](#)

main: [503.742.2600](#)



*To Safely Protect & Preserve
Life & Property*

CLACKAMAS FIRE DISTRICT #1

www.clackamasfire.com

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From: [Lars Campbell](#)
To: [Kolas, Vera](#)
Cc: [David Aschenbrenner](#)
Subject: Mission Park subdivision NDA comments
Date: Wednesday, August 10, 2016 12:29:27 PM
Attachments: [Mission Park Subdivision Notes HCNDA.docx](#)

Hi Vera--

Here are comments, suggestions and questions from the Hector Campbell NDA. Thanks!

Lars

Comments from Hector Campbell NDA about Mission Park Subdivision

1. Street connection to King Road, this should be designed to present standards with full sidewalks and right of way. Not to existing sidewalks as noted in the document drawing P400 #3.
2. We are concerned about how many trees are going to be taken out to make this subdivision. Have they been inventoried? Do we know that there are not any heritage trees? Is there a way to ensure that trees are planted to replace those being removed?
3. There is another suggestion to save the trees that are near the lot lines, since they don't need to be removed for structures to be built. This would help mitigate the loss of trees.
4. There are suggestions that with this development, there will be need to install a pedestrian activated flashing crosswalk at Home Ave. & King Road to help with the additional traffic and pedestrian needs. If not entirely out of this project, perhaps a large portion paid into FILOC ear-marked for this project?
5. Management of storm water facility P400 (bottom of drawing #4):
 - a. Will the proposed area be the amount needed for the fire turnaround?
 - b. Will the street be complete or just an open area that needs maintaining?
6. There are no plot maps showing driveways.
7. How will parking on one side of the street be enforced? Where is the street layout with parking and bike lanes included?
8. In the P400 drawing: Where is the property line to the south? Is the end of the project at the black line marked as #4?
9. How will the south property line be controlled? Fenced or left open? Who is responsible for the control?
10. Is the whole project going to be fenced and what controls are in place to protect adjacent property owners from dust, dirt and encroachment of the property line?
11. Is there a timeline for sale and construction? Or will the lots sit empty?

From: [Janet Cartmill](#)
To: [Kolas, Vera](#)
Subject: 51st and King Rd development
Date: Tuesday, September 13, 2016 1:48:49 PM

Re: Development at 51st and King Rd

I realize this is late for the August 10th deadline but since the planning commission hearing was postponed and I was unable to see the plan until last Thursday I would like to express my concern.

Considering the number of trees that have been removed this summer along Monroe and in this area, I'm concerned about the number of trees being removed for this development. I would hope that if they aren't able to save more trees, they are at least required to replace a significant number of the removed trees.

Sincerely,

Janet Cartmill
5466 SE Monroe
Milwaukie OR 97222
ldcjl@easystreet.net

From: [Aarisa S](#)
 To: [Kolas, Vera](#)
 Subject: Comments on Subdivision application S-2016-001
 Date: Tuesday, August 09, 2016 7:35:00 AM

I have several comments on this development application which I would like to put on record, and on the planning requirements in general.

Residents of the area have discussed our strong concerns over the tree removal and the inadequacy of and lack of management responsibility for the stormwater facilities on the site, as well as the lack of a proper emergency vehicle turnaround for the street. We also had questions regarding the requirement to show that it is not feasible to protect the existing single family homes that will be demolished. Additional information on the stormwater and demolition may be included in the plan, but I cannot find that plan available online to review it.

Looking over planning requirements, I see that the city has protections for trees in "water quality resource" zones and "habitat conservation areas", requires keeping "existing healthy trees" when possible and maintaining vegetation corridors for multifamily developments, and even requires tree protection, mitigation, and landscaping plans for flag lots. No similar requirements appear to exist for infill developments, where density increases markedly in an area with existing smaller-lot zoning, even when this development impacts adjacent lower density areas in much the same way that multifamily and flag lot development would. The importance of ALL surface areas to water quality and heat island effects is similarly not recognized. These considerations on private lots seem especially important when it is already formally recognized (in city code, no less) that Milwaukie has a lack of open space.

While it may not be possible to prevent this developer from removing trees with the existing rules, since this development does not appear to be in a WQR or HCA from the maps available online, I nonetheless hope that tree preservation might be encouraged in this case, and some consideration given to including more comprehensive canopy protection in the planning code. Without a legal or financial incentive, tree cover that will take decades to replace will disappear to the detriment of all of us.

Thanks for taking the time out of your busy day to read my comments!

Aarisa Smith
 Resident of Hector Campbell Neighborhood

--
 --

Aarisa Smith, LMT 15732
musclememoryoregon.com
 971-331-4913

"There is more wisdom in your body than in your deepest philosophy." -
 Nietzsche



MILWAUKIE
Dogwood City of the West

To: Planning Commission

Through: Dennis Egner, Planning Director

From: Brett Kever, Associate Planner

Date: November 15, 2016, for November 22, 2016, Public Hearing

Subject: **Master File:** CU-2016-001 (with NR-2016-001, TFR-2016-001, and VR-2016-003)
Applicant/Owner: Hans Thygeson
Addresses: 5945 & 5965 SE Harmony Rd
Legal Description (Map & Tax Lot): 1S2E31D, tax lots 1800 and 1900
NDA: NA (Milwaukie Business Industrial)

ACTION REQUESTED

Open the public hearing for master file #CU-2016-001, hear staff and applicant presentations (if time allows), and continue the hearing to December 13. Staff is still in the process of developing the draft Recommended Findings and Conditions of Approval for this application.

BACKGROUND INFORMATION

The applicant proposes to develop just over 1,000 enclosed mini-storage units contained in two buildings, occupying approximately 100,000 sq ft on the currently vacant 3-acre site. The site is separated into northern and southern halves by Minthorn Creek. A new bridge is proposed to provide access between the two buildings. Access to and from the site will be through shared driveways with the adjacent property to the west.

Figure 1. Vicinity



A. Site and Vicinity

The site is located at 5945 and 5965 SE Harmony Rd, within the Business Industrial zoned area between International Way and Railroad Avenue (see Figure 1, previous page). The property is currently undeveloped and is bisected by Minthorn Creek and three delineated wetlands (see Figure 2). Ingress into the site will be provided from International Way through a shared driveway on the adjacent property to the west; egress from the site will be through a shared driveway on the adjacent property to the west, with a right-turn-only exit onto Harmony Road.

The surrounding area consists of light industrial and professional office development within the Business Industrial zone to the west, as well as a 19-unit multifamily apartment complex to the east (see Figure 3).

B. Zoning Designation

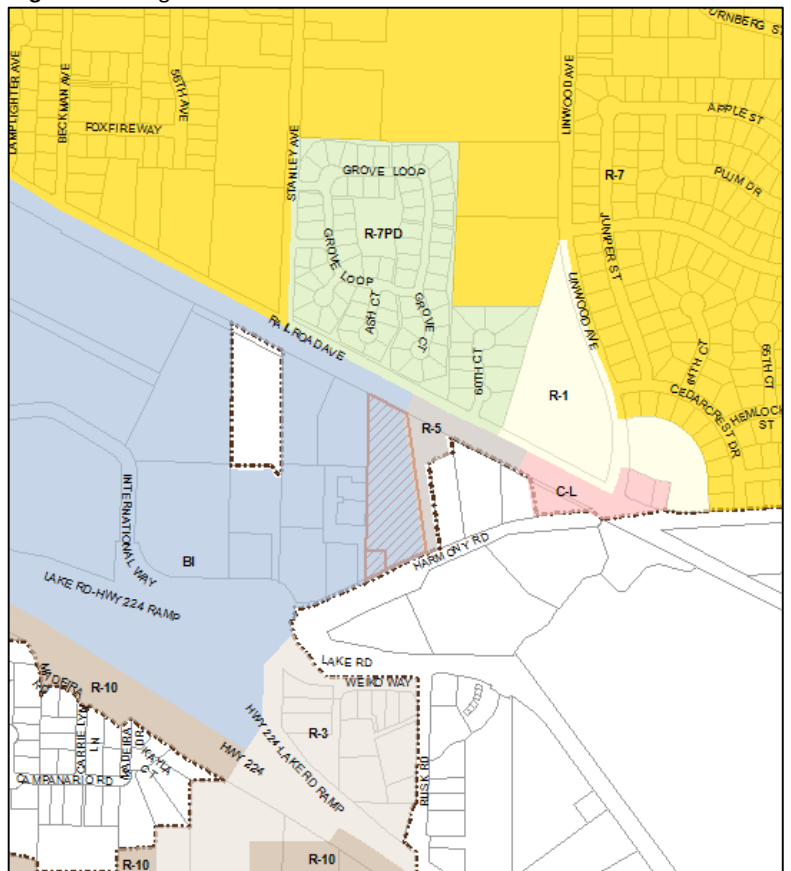
Business Industrial (B-I)

C. Comprehensive Plan Designation

Industrial (I)

D. Land Use History

- **2007:** Conditional Use approval for development of a mini-storage facility (master file #CU-07-02), with Water Quality Resource review (WQR-07-01), Transportation Plan Review (TPR-07-12), Variance Request (VR-07-06), and Transition Area Review (TAR-07-01). The project was very similar to the current proposal, though with a variance request to reduce the number of required parking spaces. The application package was approved but the

Figure 2. Site with natural resource designations**Figure 3.** Zoning

project was not built and the land use approval expired.

- **2007:** Annexation (A-07-02) to bring the site into the city limits, in conjunction with the proposed conditional use to allow mini-storage development. The annexation was processed and approved through the non-expedited process, as the property owner wished to adjust the new City zoning designation of the site from Manufacturing (M), which would have been the default designation from the County's Light Industrial (I2) and General Industrial (GI) designations at the time, to the City's Business Industrial (BI) designation. The adopting ordinance was Ord. 1984.

E. Proposal

The applicant is seeking land use approval for development of a commercial mini-storage facility on the subject property, with approximately 1,000 enclosed units in two 3-story buildings (see Figure 4). Mini-storage is a conditional use in the underlying Business Industrial (B-I) zone.

The project involves construction of a new bridge over Minthorn Creek to connect the northern and southern halves of the site. Impacts to the designated Water Quality Resource (WQR) and Habitat Conservation Area (HCA) will be mitigated with native tree and shrub plantings to restore the vegetated corridor along the creek.

Access to the site will be shared with the adjacent property to the west, including a right-turn-only exit onto Harmony Road. A variance is requested to reduce the required front yard setback from 20 ft to 15 ft, which would allow several small portions of the southernmost building to be situated closer to the front property line.

The project requires approval of the following applications:

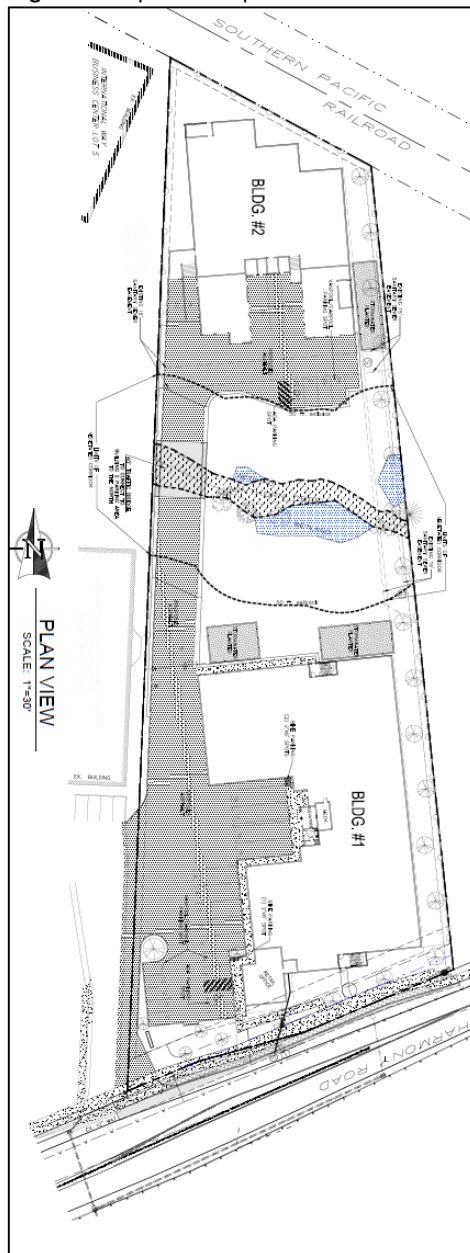
1. Conditional Use (master file #CU-2016-001)
2. Natural Resource review (file #NR-2016-001)
3. Transportation Facility Review (file #TFR-2016-001)
4. Variance Request (file #VR-2016-003)

The Applicant's Narrative and Supporting Documentation includes more information and detail about the proposed activity (see Attachment 1).

KEY ISSUES

As staff continues to develop the recommended findings and conditions of approval, key issues for the Planning Commission's deliberation are still being identified. To date, the following questions have surfaced for consideration by the Commission:

Figure 4. Proposed site plan



1. Are there any practicable alternatives to the proposed disturbance to the WQR and HCA, and if not, is the proposed mitigation adequate?
2. How well will the proposed shared access arrangement perform, given the existing development and uses on the adjacent properties to the west?

These and any additional key issues will be discussed further in the staff report for the December 13 continuation of this hearing. Staff recommends that the Commission not conduct any deliberations at the November 22 meeting.

CONCLUSIONS

Staff is offering no recommendations at this time. Recommendations for each of the application components, as well as key conditions of approval, will be provided for the December 13 continuation.

CODE AUTHORITY AND DECISION-MAKING PROCESS

The proposal is subject to the following provisions of the Milwaukie Municipal Code (MMC).

- MMC Section 19.310 Business Industrial zone (B-I)
- MMC Subsection 19.501.2 Yard Exceptions
- MMC Subsection 19.504.6 Transition Area Measures
- MMC Section 19.402 Natural Resources
- MMC Chapter 19.600 Off-Street Parking and Loading
- MMC Chapter 19.700 Public Facility Improvements
- MMC Section 19.905 Conditional Uses
- MMC Section 19.911 Variances
- MMC Section 19.1006 Type III Review

This application is subject to Type III review, which requires the Planning Commission to consider whether the applicant has demonstrated compliance with the code sections shown above. In Type III reviews, the Commission assesses the application against review criteria and development standards and evaluates testimony and evidence received at the public hearing.

Without recommended Findings and Conditions of Approval at this time, the Commission should continue the hearing to December 13, 2016. The final decision on these applications, which includes any appeals to the City Council, must be made by **January 25, 2017**, in accordance with the Oregon Revised Statutes and the Milwaukie Zoning Ordinance. The applicant can waive the time period in which the application must be decided.

COMMENTS

Notice of the proposed changes was given to the following agencies and persons: City of Milwaukie Building Department, City of Milwaukie Engineering Department, Clackamas Fire District #1, Clackamas County Transportation and Development, ESA (City's on-call consultant for natural resource review), Metro, Oregon Department of Transportation (ODOT), Linwood Neighborhood District Association (NDA) Chairperson and Land Use Committee (LUC). The following is a summary of the comments received by the City. See Attachment 2 for further details.

- **Matt Amos, Fire Inspector, Clackamas Fire District #1:** No additional comments beyond those provided to the applicant through the preapplication conference process.

Staff Response: *The District's preapplication comments were standard informational items related to requirements for visibility of address numbering and access for fire department vehicles, including a note that the proposed bridge must meet minimum apparatus access requirements. These comments can be addressed by the applicant during the building permit review process.*

- **Robert Hixson, Civil Engineering Associate, Clackamas County Department of Transportation and Development:** Various comments related to the 2007 and 2016 traffic studies, access, and street improvements.

Staff Response: *Comments have been incorporated into the recommended findings for MMC Chapter 19.700 and the recommended conditions of approval.*

- **Seth Brumley, Planner, ODOT Region 1:** The proposal appears to be consistent with the previously approved zone change. No additional comments.

- **Rick Buen, Civil Engineer, Milwaukie Engineering Department:** Confirmation of Clackamas County's authority over public improvements along Harmony Road, with information related to requirements for public facility construction.

Staff Response: *Comments have been incorporated into the recommended findings for MMC Chapter 19.700 and the recommended conditions of approval.*

- **Sarah Hartung, Senior Biologist, ESA:** Peer review of applicant's Natural Resource Report is provided in a memo dated November 8, 2016.

Staff Response: *Comments have been incorporated into the recommended findings for MMC Section 19.402 and the recommended conditions of approval.*

ATTACHMENTS

Attachments are provided as indicated by the checked boxes. All material is available for viewing upon request.

	Early PC Mailing	PC Packet	Public Copies	E- Packet
1. Applicant's Narrative and Supporting Documentation (received Sept. 27, 2016, unless otherwise noted)				
a. Narrative	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Natural Resource Review report (revised version received Nov. 10, 2016)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c. Landscaping and Lighting Plans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
d. Site Plan and Civil Sheets (incl. turning movements and site distance on Harmony Road, received Oct. 7, 2016)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
e. Building Elevations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
f. Preliminary Stormwater calculations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

	Early PC Mailing	PC Packet	Public Copies	E- Packet
g. Transportation Review documents (incl. 2016 update to 2007 traffic study)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
h. Preapplication Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
i. Modular bridge information (received Oct. 13, 2016) and Erosion Control plan and Bridge Embankment detail (received Oct. 20, 2016)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2. Comments Received				
a. Matt Amos (Clackamas Fire District #1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Robert Hixson (Clackamas County Department of Transportation and Development)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c. Seth Brumley (ODOT Region 1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
d. Rick Buen (Milwaukie Engineering Department)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
e. Sarah Hartung (ESA, City's on-call consultant for natural resource review)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

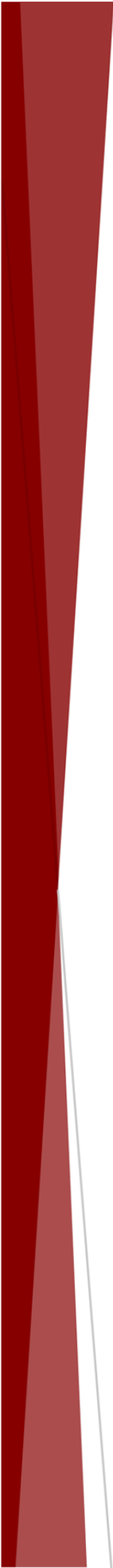
Key:

Early PC Mailing = paper materials provided to Planning Commission at the time of public notice 20 days prior to the hearing.

PC Packet = paper materials provided to Planning Commission 7 days prior to the hearing.

Public Copies = paper copies of the packet available for review at City facilities and at the Planning Commission meeting.

E-Packet = packet materials available online at <http://www.milwaukieoregon.gov/planning/planning-commission-162>.



Harmony Storage

Conditional Use Narrative

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Stormwater Management Report

Wetland Delineation

Appendix E – Preliminary Architectural and Civil Site Plans

GENERAL INFORMATION

Property Owner and Applicant: **HT Investment Properties, LLC**
1962 Wallace Road, NW
Salem, OR 97034
Contact: Hans Thygeson
Phone: (503) 485-1836
Email: hans@htpllc.com

Applicant's Representative: **3J Consulting, Inc.**
5075 SW Griffith Drive, Suite 150
Beaverton, OR 97005
Contact: Andrew Tull
Phone: 503-545-1907
Email: andrew.tull@3j-consulting.com

SITE INFORMATION

Parcel Number: 12E 31D 1900, 1990, & 1800
Address: 5900 & 6011 SE Harmony Road

Size: 2.96 acres

Neighborhood Association:

Zoning Designation: Business Industrial Zone BI

Existing Use: Residential (Vacant)

Street Functional Classifications: Harmony Road is classified as an arterial

Surrounding Zoning: The properties to the west are zoned BI, Business Industrial. The property to the east is zoned R5. The properties to the north are zoned R7PD. The properties to the south are not within the city limits of Milwaukie.

INTRODUCTION

APPLICANT'S REQUEST

The Applicant seeks approval of an application for a Conditional Use Permit and a Type II Variance for a property located at 5900 and 6011 SE Harmony Road in the Business Industrial Zone (BI). The Applicant is proposing to develop a warehouse storage facility consisting of enclosed storage units. The Applicant concurrently seeks the approval of a Natural Resource Review and Transit Facility Review of the subject property. This narrative has been prepared in order to document compliance with the relevant sections of Milwaukie's Municipal Code (MMC).

PROPOSAL

The intent of this application is to provide a warehouse storage facility of 1,005 enclosed storage units, a use permitted through a Conditional Use Permit. An additional intent of this development is to minimize impacts and provide mitigation for the Water Quality Resource Area (Minthorn Creek) that transverses the property.

The project site consists of a total of 2.96 acres. The property is located on SE Harmony Avenue west of SE Linwood Avenue and south of Railroad Avenue.

APPLICABLE CRITERIA

The following sections of Milwaukie's Municipal Code (MMC) have been extracted as they have been deemed to be applicable to the proposal. Following each **bold** applicable criteria or design standard, the Applicant has provided a series of draft findings. The intent of providing code and detailed responses and findings is to document, with absolute certainty, that the proposed development has satisfied the approval criteria for conditional use permit and variance.

City of Milwaukie Municipal Code (Chapter MMC 19):

MMC 19.310	BUSINESS INDUSTRIAL ZONE BI
MMC 19.402	NATURAL RESOURCES
MMC 19.501	GENERAL EXCEPTIONS
MMC 19.600	OFF STREET PARKING AND LOADING
MMC 19.700	PUBLIC FACILITY IMPROVEMENTS
MMC 19.905	CONDITIONAL USE PERMIT
MMC 19.911	VARIANCES

CHAPTER 19.300 BASE ZONES

19.310 BUSINESS INDUSTRIAL ZONE BI

19.310.5 CONDITIONAL USES

- A. Conditional uses may be established in a business industrial district subject to review and action on the specific proposal, pursuant to Section 19.905 Conditional Uses. Approval shall not be granted unless the proposal satisfies the criteria in Section 19.905; and, in addition, the proposed use:
 1. Will have minimal adverse impact on the appropriate development of uses permitted outright on abutting properties and the surrounding area considering location, size, design, and operating characteristics of the use;

Applicant's Finding:

The purpose of the Business Industrial (BI) Zone is to implement the policies of the Comprehensive Plan for industrial land uses providing a mix of clean, employee-intensive, industrial and offices uses with associated services in locations supportive of mass transit and the regional transportation network.

The Applicant has proposed to locate a Mini-Storage facility within a site that is zoned for Business Industrial Uses. The project will consist of two new public storage buildings, two parking areas, and a small bridge which will link the two parking areas to the site's primary access. The site is located adjacent to the international way business center to the west which contains a mixture of office and warehouse styled facilities. To the north

is right-of-way belonging to the Southern Pacific Railroad, and to the east is an existing residential neighborhood. The site is zoned for business industrial uses, within which mini-storage uses are a conditionally permitted use. The proposed development will be setback appropriately from surrounding uses. The proposed operation of the site as a mini-storage facility will be a relatively low generator of traffic. The Applicant has prepared and submitted a traffic impact statement which estimates that a total of 80 trips per day will be generated by the site (Appendix C).

The proposal considers the existing development within the area, has been sized in accordance with the requirements of the underlying zone, and will have no adverse impacts on the surrounding neighborhood.

2. Is compatible with the character and scale of uses allowed within the district and on a site no larger than necessary for the use and operational requirements of the use;

Applicant's Finding: The proposed development will meet the height and coverage standards allowed outright in the Business Industrial Zone.

The requirements of this section have been satisfied.

3. Will provide vehicular and pedestrian access, circulation, parking, and loading areas which are compatible with uses on the same site or adjacent sites; and

Applicant's Finding: The proposal will meet the requirements of the Business Industrial Zone and Clackamas County's requirements for pedestrian access, circulation, parking and loading areas.

The requirements of this section have been satisfied.

4. Is a needed service/product in the district, considering the mix of potential clientele and the need to maintain high-quality development in a highly visible area.

Applicant's Finding: The applicant is proposing to construct an attractive, high quality storage facility on the subject property. The Applicant previously submitted an application for the development of this site as a storage facility in 2008. That development was approved but never constructed due to market conditions.

The Applicant, as part of the 2008 submission, prepared a market analysis which estimated that based upon the existing number of residences and businesses within the area, a demand for approximately 452,000 sf of storage currently could be supported. The proposed development would respond to that demand through the provision of nearly 100,000 sf of consumer oriented, high quality secured storage.

The Applicant anticipates that this high quality facility will generate a significant amount

of use from the surrounding neighborhoods and businesses.

B. Uses allowed subject to the above conditions are:

1. **Public and private community buildings, indoor and outdoor recreational facilities, such as swimming pools, racquetball clubs, athletic clubs, health and exercise spas, gymnasiums, tennis courts, playground, and other similar uses, developed to serve primarily the recreational needs of clients and employees of the district;**
2. **Mini-warehousing, mini-storage, public storage, and similar commercial facilities that lease storage space to the general public;**
3. **A limited use or uses that exceed 25% of the building's square footage as per Subsection 19.310.4.B.2 above.**

**Applicant's
Finding:**

Under Section 2 above, mini-warehousing, mini-storage, public storage, and similar commercial facilities that lease storage space to the general public are allowed uses subject to the conditions listed in 19.310.5.A. The conditions listed in 19.310.5.A have been met.

The requirements of this section have been satisfied.

19.310.6. STANDARDS

In the BI district, the following standards shall apply to all uses:

- A. Lot size. None, except that lots created shall be of a size sufficient to fulfill the applicable standards of this district.**

**Applicant's
Finding:**

No new lots will be created as a part of the proposed development.

The requirements of this section have been satisfied.

- B. Front yard. A front yard shall be at least 20 ft unless additional setback is required in Subsection 19.501.2.A.**

**Applicant's
Finding:**

Section 19.501.2.A requires that properties along Harmony Road be provided with a special setback of 40 feet from the centerline. The Applicant has proposed a right-of-way dedication that will create a new half-width right-of-way width along the project's frontage of 40 feet. The proposed building has been located approximately 20 feet away from the new right-of-way line. Three small portions of the building project into the front setback but only for a few feet each. The Applicant has provided an application for a variance for the front yard setback encroachment and has addressed the applicable sections of 19.911 for a Type II variance.

The requirements of this section have been satisfied.

C. Side yard. No side yard shall be required except on corner lots where a side yard shall be at least 10 ft on the side abutting the street, unless additional setback is required in Subsection 19.501.2.A.

Applicant's Finding: The side yard setback for buildings within the BI district typically have no side yard setback. Because this site is adjacent to a lower density zone, the City's transition area measures apply (Section 19.504.6). A 20' foot side yard setback has therefore been applied to the site's eastern boundary, adjacent to the R-5 zoning district.

The requirements of this section have been satisfied.

D. Rear yard. No rear yard shall be required except as provided in Subsection 19.501.2.A.

Applicant's Finding: Zoning to the North of the property is R-7PD and requires a 10' setback. Even though Railroad Avenue runs between the subject property and the adjacent property Transitional Area Measures in MC Subsection 19.504.6 require the rear yard of the proposed development be at least as wide as the required front yard in the adjacent zone (10').

The requirements of this section have been satisfied.

E. Off-street parking and loading. As specified in Chapter 19.600.

Applicant's Finding: Off-street parking and loading has been addressed as part of the Applicant's response to section 19.600.

The requirements of this section have been satisfied.

F. Site Access

One curb cut (45 ft maximum) per 150 ft of street frontage, or fraction thereof, for industrial uses; and 1 curb cut per 100 ft of street frontage or fraction thereof, for business park, limited or conditional uses.

Applicant's Finding: The Applicant is proposing to widen an existing access driveway which is currently shared with the property to the west. No new access to the site will be proposed therefore the curb cut standard does not apply to this application.

G. Height restriction. Maximum height of a structure shall be 3 stories or 45 ft, whichever is less.

Applicant's Finding: The Applicant proposes two buildings which will be three stories each. The height of building 1 from the lowest elevation to the highest point of the site will be 42 feet. The height of building 2 from the lowest site point along the building to the highest point on

the roof will be 39 feet.

The requirements of this section have been satisfied.

H. Landscaping

15% of the site must be landscaped, except for sites adjacent to Hwy. 224, which shall provide landscaping to 20% of the site. This should consist of a variety of lawn, trees, shrubbery, and ground cover. Street trees must be provided along street frontages and within required off-street parking lots to help delineate entrances, provide shade, and permeable areas for stormwater runoff. A bond or financial guarantee for landscape completion shall be required.

Applicant's Finding: A total of 20% of the site or 26,000 sf of landscaping will be provided along the edges of the building and along the parking areas.

This standard has been met.

I. Screening and Outside Storage

Outside storage adjacent to International Way, Freeman Way, 37th Ave., Lake Road, or Hwy. 224 is prohibited. Outside storage in side or rear yards is allowed, provided it is enclosed by a sight-obscuring fence or vegetative screen.

Applicant's Finding: No outside storage has been proposed along any of the roadways which are restricted by this section. The Applicant has not proposed any outdoor storage on site therefore this standard does not apply.

J. Building Siting and Design

Buildings and sites shall be designed using the following principles:

- 1. Sites shall be developed to the maximum extent practicable, so that buildings have solar access and utilize other natural features in their design.**

Applicant's Finding: The proposed building configuration has been aligned to specifically avoid impacts to the small section of Minthorn creek which traverses the property. Both the creek and the buffers associated with the creek will be maintained in their current alignment. Due to the presence of the creek, a small bridge has been proposed in order to link the northern and southern ends of the site; however, the proposed crossing has been kept as small as possible to avoid impacts.

The proposed buildings will be industrial in nature and the buildings do not require or benefit from an orientation which maximizes solar access. The occupied portions of the building, the sales and maintenance offices have been

oriented toward the south, both to clearly define the retail front of the property. This alignment also maximizes solar orientation for the occupied portions of the buildings.

The requirements of this section have been satisfied.

2. Assure that building placement and orientation and landscaping allow ease of security surveillance.

**Applicant's
Finding:**

The Applicant has placed the buildings in an orientation which places the retail office for the facility near to the property's primary access location. This placement allows both convenience for users of the site and provides the opportunity for employees to monitor visitors to the site. With the primary office's southern orientation, security and surveillance will be passively available.

The requirements of this section have been satisfied.

3. Design buildings with shapes, colors, materials, textures, lines, and other architectural design features which enhance the character of the district and complement the surrounding area and development, considering, but not limited to, the following techniques:

- a. Use color, materials, and architectural design to visually reduce the scale and impact of large buildings;
- b. Use building materials and features that are durable and consistent with the proposed use of the building, level of exposure to public view, and exposure to natural elements.

**Applicant's
Finding:**

Elevations of the proposed buildings have been provided within the attached architectural plans. The structures have been proposed to be plain and split faced CMU walls with standing seam metal siding in earth tone colors of tans and browns. The materials proposed will be durable and attractive and will be consistent with the look of other modern storage facilities within the region. The buildings have been architecturally designed to provide a modern and well considered appearance.

The requirements of this section have been met.

4. To the extent possible, screen or mask roof-mounted mechanical equipment, except solar collection apparatus, from view.

Applicant's Finding: No Mechanical equipment will be located on any of the proposed rooftops. This section does not apply.

5. Orient major service activity areas (e.g., loading, delivery, and garbage collection, etc.) of the development away from major streets.

Applicant's Finding: The proposed service areas for the project's southernmost building will be located to face the west, with the major public street, Harmony Road, being located to the south of the site. The northern building's proposed access will be located to face the south however, this access area will be shielded from the street by distance, vegetation, and the other building. A single refuse collection facility will be located between the two buildings, near the eastern edge of the northern parking lot. The garbage collection facility will not be visible from the street.

The requirements of this section have been met.

6. Arrange use and buildings to maximize opportunities for shared circulation, access, parking, loading, pedestrian walkways and plazas, recreation areas, and transit-related facilities.

Applicant's Finding: The site will take access to Harmony Road via an access area that the project will share with the site located immediately west of the site. The functional classification of Harmony and the proximity of the existing access drive to the west to the site's frontage necessitates the shared connection. As a result of the shared access drive, the southern portion of the western site boundary will be shared with the property to the west, allowing ample opportunity for shared circulation and access between businesses. The Applicant will also be proposing a new sidewalk along Harmony Road. The new sidewalk will provide direct access to Trimet's Lake and Harmony Bus Lines (29 and 152) at the intersection of Harmony and Lake Road.

The requirements of this section have been met.

7. Provisions for bus shelters, bike racks, street furniture, kiosks, drinking fountains, art sculptures, and/or other pedestrian and transit amenities as required by Chapter 19.700.

Applicant's Finding: Section 19.700 describes the types of projects to which the provision of shelters, bike racks, street furniture, kiosks, drinking fountains, and other pedestrian and transit amenities apply. The proposed use does not trigger the need for the

installation of any such facilities along the project's frontage.

K. Nuisances

The use shall not be of a type or intensity which produces dust, odor, smoke, fumes, noise, glare, heat, or vibrations which are incompatible with other uses allowed in this zone; and the use does not produce off-site impacts that create nuisance as defined by the Oregon D.E.Q. and the City Noise Ordinance.

Applicant's Finding:

The finished state of the site will result in no greater amount of dust than is currently present. Sixty-one percent of the site will be covered with buildings and paved surfaces, which will not generate dust. The only dust that will occur will be the construction phase of the project, and that can be mitigated through the use of watering trucks. All areas that will be disturbed by the proposed improvements will eventually be returned to a near dust-free state through landscaping and paving.

No manufacturing processes of any type will be conducted on the property. Storage will be fully enclosed within buildings and dangerous or hazardous materials will not be allowed to be stored at this location. No outdoor storage will be permitted anywhere on the site.

The storage units will be semi-heated but will not contain electrical outlets except for a few ground level units. The absence of running water and power precludes users of the facility from creating noise and dust and limits the use of the storage units to storage only.

The presence of employee and user vehicles at the facility will generate only a small percentage of the emissions from vehicles in the area, and no odor should be generated from the property.

The buildings should minimize or altogether eliminate glare potential to the apartment buildings to the east. The painted metal roof, CMU and metal siding with earth tones and mat finish will serve to reduce glare rather than enhance it. No chrome or other reflective material will be affixed to the exterior of the buildings.

The requirements of this section have been satisfied.

CHAPTER 19.400 OVERLAY ZONES AND SPECIAL AREAS

19.402 NATURAL RESOURCES

19.402.11. DEVELOPMENT STANDARDS

A. Protection of natural resources during site development

During development of any site containing a designated natural resource, the following standards shall apply:

1. Work areas shall be marked to reduce potential damage to the WQR and/or HCA.

Applicant's Finding: The site contains a section of Minthorn Creek, a small group of wetlands, and a vegetative corridor. The natural resource area present on the site has been mapped by the City's Natural Resource Administrative Map. The site has been visited by a qualified wetland biologist and the resources on the property have been mapped by a qualified wetland biologist.

The Applicant has prepared a site plan which avoids the wetlands and creek to the greatest possible extent while providing a single two-way access bridge over the creek and wetlands which will connect the northern and southern buildable portions of the site.

The areas of the Water Quality Resources on site will be marked during construction to reduce the potential for damage to the Water Quality Resources.

The requirements of this section are met.

2. Trees in WQRs or HCAs shall not be used as anchors for stabilizing construction equipment.

Applicant's Finding: No trees or vegetation located within the Water Quality Resource area or the vegetative corridors will be used as anchors or for stabilizing construction equipment. These areas on site will be marked to prohibit entry.

The requirements of this section are met.

3. Native soils disturbed during development shall be conserved on the property.

Applicant's Finding: Native soils located within the Water Quality Resource areas shall not be disturbed during construction.

The requirements of this section are met.

4. **An erosion and sediment control plan is required and shall be prepared in compliance with requirements set forth in the City's Public Works Standards.**

Applicant's Finding: The Applicant has prepared a preliminary grading and erosion control plan. Prior to the start of any construction activities, the applicant will apply for a grading and erosion control permit, consistent with the standards required by the City's Public Works Department.

The requirements of this section are met.

5. **Site preparation and construction practices shall be followed that prevent drainage of hazardous materials or erosion, pollution, or sedimentation to any WQR adjacent to the project area.**

Applicant's Finding: The Applicant is prepared to implement best management practices on site to prevent the drainage of hazardous materials, erosion, pollution or sedimentation within the resources and the vegetative corridors.

The requirements of this section are met.

6. **Stormwater flows that result from proposed development within and to natural drainage courses shall not exceed predevelopment flows.**

Applicant's Finding: The Applicant has prepared a preliminary stormwater detention and water quality plan for the project which has been designed to prevent flows within and to natural drainage courses which might exceed pre-developed conditions. The stormwater management report has been attached hereto within Appendix D.

The requirements of this section are met.

7. **Prior to construction, the WQR and/or HCA that is to remain undeveloped shall be flagged, fenced, or otherwise marked and shall remain undisturbed. Such markings shall be maintained until construction is complete.**

Applicant's Finding: The Applicant has identified and mapped the site's Water Quality Resource overlays. While a portion of these areas will be impacted through the installation of a small bridge, the remaining portions of the resource will be fenced during construction to ensure that construction activities are not undertaken within the protected areas. The requirements of this section can be met.

8. **The construction phase of the development shall be done in such a manner as to safeguard the resource portions of the site that have not been approved for development.**

Applicant's Finding: The Applicant intends to avoid construction activities within the resource areas which are not approved for development through this application. The requirements of this section are met.

9. **Where practicable, lights shall be placed so that they do not shine directly into any WQR and/or HCA location. The type, size, and intensity of lighting shall be selected so that impacts to habitat functions are minimized.**

Applicant's Finding: No lighting is proposed which would shine directly into or at the vegetative corridor associated with the Minthorn Creek Water Quality Resource area. The requirements of this section are met.

10. **All work on the property shall conform to a construction management plan prepared according to Subsection 19.402.9.**

Applicant's Finding: The site contains a section of Minthorn Creek, a small group of wetlands, and a vegetative corridor. The natural resource area present on the site has been mapped by the City's Natural Resource Administrative Map. The site has been visited by a qualified wetland biologist and the resources on the property have been mapped by a qualified wetland biologist.

The Applicant has prepared a site plan which avoids the wetlands and creek to the greatest possible extent while providing a single two-way access bridge over the creek and wetlands which will connect the northern and southern buildable portions of the site. The Applicant has prepared a construction management plan which will conform to the requirements of 19.402.9. The Final Construction management plan will be provided to the City's Engineering Department prior to the commencement of construction activities.

The requirements of this section are met.

B. General Standards for Required Mitigation

Where mitigation is required by Section 19.402 for disturbance to WQRs and/or HCAs, the following general standards shall apply:

1. Disturbance

- a. **Designated natural resources that are affected by temporary disturbances shall be restored, and those affected by permanent disturbances shall be mitigated, in accordance with the standards provided in Subsection 19.402.11.C for WQRs and Subsection 19.402.11.D.2 for HCAs, as applicable.**

Applicant's Finding: Any temporary impacts associated with construction of the proposed bridge across Minthorn creek shall be restored. The proposed bridge crossing, which will require approximately 4,777 square feet of permanent impact through the establishment of the permanent crossing, will be mitigated for on site in accordance with the requirements of Section 19.402.11.C. The proposed mitigation area for the site is located along the northern side of the southern building, adjacent to the creek and vegetative corridor. The total area identified for mitigation is 5,442 square feet.

The requirements of this section are met.

b. Landscape plantings are not considered to be disturbances, except for those plantings that are part of a non-exempt stormwater facility; e.g., raingarden or bioswale.

2. Required Plants

Unless specified elsewhere in Section 19.402, all trees, shrubs, and ground cover planted as mitigation shall be native plants, as identified on the Milwaukie Native Plant List. Applicants are encouraged to choose particular native species that are appropriately suited for the specific conditions of the planting site; e.g., shade, soil type, moisture, topography, etc.

Applicant's Finding: The Applicant will only plant native plants, as identified on the Milwaukie Native Plant List, as mitigation plantings. The proposed plantings will be appropriately suited for the site's specific conditions.

The requirements of this section are met.

3. Plant Size

Replacement trees shall average at least a ½-in caliper—measured at 6 in above the ground level for field-grown trees or above the soil line for container-grown trees—unless they are oak or madrone, which may be 1-gallon size. Shrubs shall be at least 1-gallon size and 12 in high.

Applicant's Finding: The Applicant will incorporate the guidelines required by this section in selecting plants which are appropriately sized to satisfy the mitigation requirements.

The requirements of this section are met.

4. Plant Spacing

Trees shall be planted between 8 and 12 ft on center. Shrubs shall be planted between 4 and 5 ft on center or clustered in single-species groups of no more than 4 plants, with each cluster planted between 8 and 10 ft on center. When planting near existing trees, the dripline of the existing tree shall be the starting point for plant spacing measurements.

Applicant's Finding: A preliminary Landscaping plan has been provided. The Applicant will provide a final planting plan along with the final construction documents which will illustrate the required mitigation plantings. Within the final landscape plan, trees will be planted in the proposed mitigation area and will be spaced in accordance with the requirements of this section.

The requirements of this section are met.

5. Plant Diversity

Shrubs shall consist of at least 2 different species. If 10 trees or more are planted, then no more than 50% of the trees shall be of the same genus.

Applicant's Finding: The Applicant will provide a planting plan along with the final construction documents which will illustrate the required mitigation plantings. Within the final landscape plan, plantings meeting the City's diversity requirements will be provided.

The requirements of this section are met.

6. Location of Mitigation Area

a. On-Site Mitigation

All mitigation vegetation shall be planted on the applicant's site within the designated natural resource that is disturbed, or in an area contiguous to the resource area; however, if the vegetation is planted outside of the resource area, the applicant shall preserve the contiguous planting area by executing a deed restriction such as a restrictive covenant.

Applicant's Finding: The Applicant will provide a planting plan along with the final construction documents which will illustrate the required mitigation plantings. The proposed mitigation area is to be fully located on site and will consist of a total of 5,442 square feet. The proposed mitigation area will be planted immediately adjacent to the vegetative corridor adjacent to the resource. The proposed planting area will be provided with a deed restriction identifying the mitigation planting area as a restricted planting area.

The requirements of this section are met.

b. Off-Site Mitigation

- 1) For disturbances allowed within WQRs, off-site mitigation shall not be used to meet the mitigation requirements of Section 19.402.
- 2) For disturbances allowed within HCAs, off-site mitigation vegetation may be planted within an area contiguous to the subject-property HCA, provided there is documentation that the applicant possesses legal authority to conduct and maintain the mitigation, such as having a sufficient ownership interest in the mitigation site. If the off-site mitigation is not within an HCA, the applicant shall document that the mitigation site will be protected after the monitoring period expires, such as through the use of a restrictive covenant.

Applicant's Finding: All proposed mitigation planting areas are proposed to be located on-site. This section does not apply.

The requirements of this section are met.

7. Invasive Vegetation

Invasive nonnative or noxious vegetation shall be removed within the mitigation area prior to planting, including, but not limited to, species identified as nuisance plants on the Milwaukie Native Plant List.

Applicant's Finding: Any and all invasive plants will be removed from the mitigation planting area prior to planting.

The requirements of this section are met.

8. Ground Cover

Bare or open soil areas remaining after the required tree and shrub plantings shall be planted or seeded to 100% surface coverage with grasses or other ground cover species identified as native on the Milwaukie Native Plant List. Revegetation shall occur during the next planting season following the site disturbance.

Applicant's Finding: The Applicant will provide a planting plan along with the final construction documents which will illustrate the required mitigation plantings. Within the final landscape plan, any bare or open soil areas remaining after the required tree and shrub plantings shall be planted with ground covers selected from the City of Milwaukie's Native Plant List.

The requirements of this section are met.

9. Tree and Shrub Survival

A minimum of 80% of the trees and shrubs planted shall remain alive on the second anniversary of the date that the mitigation planting is completed.

a.Required Practices

To enhance survival of the mitigation plantings, the following practices are required:

- 1) Mulch new plantings to a minimum of 3-in depth and 18-in diameter to retain moisture and discourage weed growth.**
- 2) Remove or control nonnative or noxious vegetation throughout the maintenance period.**

**Applicant's
Finding:**

The Applicant will maintain the newly proposed plantings throughout the mitigation planting maintenance period, as required by this section.

The requirements of this section are met.

b.Recommended Practices

To enhance survival of tree replacement and vegetation plantings, the following practices are recommended:

- 1) Plant bare root trees between December 1 and April 15; plant potted plants between October 15 and April 30.**
- 2) Use plant sleeves or fencing to protect trees and shrubs against wildlife browsing and the resulting damage to plants.**
- 3) Water new plantings at a rate of 1 in per week between June 15 and October 15 for the first 2 years following planting.**

**Applicant's
Finding:**

The Applicant notes the planting recommendations and intends to follow the City's guidelines for recommended planting practices.

The requirements of this section are met.

c. Monitoring and Reporting

Monitoring of the mitigation site is the ongoing responsibility of the property owner. Plants that die shall be replaced in kind as needed to ensure the minimum 80% survival rate. The Planning Director may require a maintenance bond to cover the continued health and survival of all plantings. A maintenance bond shall not be required for land use applications related to

owner-occupied single-family residential projects. An annual report on the survival rate of all plantings shall be submitted for 2 years.

Applicant's Finding: The Applicant notes the City's monitoring and maintenance bond requirements and will comply with the City's requirements throughout the maintenance period.

The requirements of this section are met.

10. Light Impacts

Where practicable, lights shall be placed so that they do not shine directly into any WQR and/or HCA location. The type, size, and intensity of lighting shall be selected so that impacts to habitat functions are minimized.

Applicant's Finding: No lighting that will shine directly into the proposed Water Quality Resource area or the proposed mitigation planting areas has been proposed.

The requirements of this section have been met.

C. Mitigation Requirements for Disturbance within WQRs

- 1. The requirements for mitigation vary depending on the existing condition of the WQR on the project site at the time of application. The existing condition of the WQR shall be assessed in accordance with the categories established in Table 19.402.11.C.**
- 2. When disturbance within a WQR is approved according to the standards of Section 19.402, the disturbance shall be mitigated according to the requirements outlined in Table 19.402.11.C and the standards established in Subsection 19.402.11.B.**

Table 19.402.11.C Mitigation Requirements for WQRs	
Existing Condition of WQR	Requirements
Class A ("Good")	
Extent and character of existing vegetation provides good conditions for water quality and wildlife habitat	
Combination of trees, shrubs, and ground cover are 80% present, with more than 50% tree canopy coverage in vegetated corridor.	<ul style="list-style-type: none"> • Submit a plan for mitigating water quality impacts related to the development, including: sediments, temperature, nutrients, or any other condition that may have caused the protected water feature to be listed on DEQ's 303(d) list. • Inventory and remove debris and noxious materials.
Class B ("Marginal")	
Extent and character of existing vegetation provides marginal conditions for water quality and	

wildlife habitat	
Combination of trees, shrubs, and ground cover are 80% present, with 25-50% canopy coverage in vegetated corridor.	<ul style="list-style-type: none"> • Restore and mitigate disturbed areas with native species from the Milwaukie Native Plant List, using a City-approved plan developed to represent the vegetative composition that would naturally occur on the site. • Inventory and remove debris and noxious materials.
Class C ("Poor")	
Extent and character of existing vegetation provides poor conditions for water quality and wildlife habitat	
Combination of trees, shrubs, and ground cover are less than 80% present and/or less than 25% canopy coverage in vegetated corridor.	<ul style="list-style-type: none"> • Restore and mitigate disturbed areas with native species from the Milwaukie Native Plant List, using a City-approved plan developed to represent the vegetative composition that would naturally occur on the site. • Plant and/or seed all bare areas to provide 100% surface coverage. • Inventory and remove debris and noxious materials.

Applicant's Finding: The portion of Minthorn creek which will be impacted by the proposed development of a bridge crossing has been categorized by the project's wetland biologist as being in poor quality. The Applicant intends to mitigate for the proposed crossing through the establishment of a mitigation planting area located to the north of the southernmost building. The proposed mitigation planting area will be planted with plants selected from the Milwaukie Native Plant List and with ground covers which would be capable of providing 100% surface coverage. As part of this planting plan, any noxious materials or invasive plantings shall be inventoried and removed.

The requirements of this section have been met.

CHAPTER 19.500 SUPPLEMENTARY DEVELOPMENT REGULATIONS

19.501 GENERAL EXCEPTIONS

19.501.2. YARD EXCEPTIONS

- A.** In addition to yard requirements listed for each zoning district, buildings along certain major streets are subject to additional yard requirements as provided in Table 19.501.2.A below. Yards shall be measured so that the minimum distance from the center line of the right-of-

way to the closest point of any building is the distance listed in Table 19.501.2.A plus the yard requirement of the underlying zone.

Table 19.501.2.A Additional Yard Requirements	
Major Street	Distance from Centerline (plus yard requirements in zone)
Firwood Street (55th Ave. to Stanley Ave.)	25'
Harmony Road	40'
Harrison Street (Milwaukie expressway to 44 th Ave)	40'
Harrison Street (Milwaukie Expressway to McLoughlin Blvd.)	30'
Harvey Street (32nd Ave. to 42nd Ave.)	25'
Howe Street (42nd Ave. to 43rd Ave.)	30'
Johnson Creek Boulevard	30'
King Road	40'
Linwood Avenue	40'
Lake Road	30'
Logus Road	25'
Monroe Street (52 nd Ave. to Linwood Ave)	30'
Oak Street	30'
Oatfield Road	30'
Ochoco Street	30'
Olsen Street	25'
Railroad Avenue	30'
River Road (south of Lark St.)	30'
Roswell Street (32nd Ave. to 42nd Ave.)	25'
Washington Street (west of Railroad Ave.)	30'
Willow Street (Windsor Dr. to Stanley Ave.)	25'
17th Avenue (Ochoco St. to McLoughlin Blvd.)	40'
32nd Avenue (north of Harrison St.)	30'
37th Avenue (Lake Rd. to Grogan Ave.)	25'
40th Avenue (Harvey St. to Railroad Ave.)	30'
42nd Avenue (Johnson Creek Blvd. to Howe St.)	30'
42nd Avenue (Harrison St. to King Rd.)	30'
43rd Avenue (Howe St. to King Rd.)	30'
55th Avenue (Firwood St. to Johnson Creek Blvd.)	25'

**Applicant's
Finding:**

The Applicant is required to provide a special setback of 40 feet from the centerline of Harmony Road, along the project's frontage. This has resulted in the dedication of approximately 6 feet of property along the project's frontage. All setbacks and dimensional standards have been measured using the newly established right-of-way line as the new front property line.

The requirements of this section are met.

CHAPTER 19.600 OFF-STREET PARKING AND LOADING

19.605 VEHICLE PARKING QUANTITY REQUIREMENTS

The purpose of Section 19.605 is to ensure that development provides adequate, but not excessive, vehicle parking based on their estimated parking demand. Subsection 19.605.1 establishes parking ratios for common land uses, and Subsection 19.605.3 allows certain exemptions and reductions to these ratios based on location or on-site amenities. Modifications to the established parking ratios and determinations of parking requirements for unique land uses are allowed with discretionary review per Subsection 19.605.2.

The Downtown Storefront (DS) Zone and the portion of the Downtown Office (DO) Zone north of Washington Street and east of McLoughlin Boulevard are exempt from the requirements of Section 19.605.

19.605.1. MINIMUM AND MAXIMUM REQUIREMENTS

- A. Development shall provide at least the minimum and not more than the maximum number of parking spaces as listed in Table 19.605.1. Modifications to the standards in Table 19.605.1 may be made as per Section 19.605. Where multiple ratios are listed, the Planning Director shall determine which ratio to apply to the proposed development or use.**

**Applicant's
Finding:**

Table 19.605.1 states that mini-storage units are required to provide parking at a rate of 1 space per 45 storage units, plus 1 space per employee of the largest shift.

Building number one will have a total of 607 storage units. The second building will have a total of 398 units. The total number of units proposed is 1,005. A total of two staff members is the total number of employees anticipated for the largest shift.

The total number of spaces that are therefore required is 25; 23 spaces based upon the unit count plus two additional spaces for staff.

The applicant has provided a total of 29 parking spaces on site, exceeding the minimum number of spaces required by four spaces. This standard has been met.

- E. Parking spaces for disabled persons, and other improvements related to parking, loading, and maneuvering for disabled persons, shall conform to the Americans with Disabilities Act and shall be subject to review and approval by the Building Official. Spaces reserved for disabled persons are included in the minimum required and maximum allowed number of off-street parking spaces.**

Applicant's Finding: The Applicant has proposed to locate two separate ADA compliant stalls on site, one in front of each of the two buildings. This proposal is consistent with the standards of the Americans with Disabilities Act. The requirements of this section have been met.

CHAPTER 19.700 PUBLIC FACILITY IMPROVEMENTS

19.708 TRANSPORTATION FACILITY REQUIREMENTS

19.708.1 GENERAL STREET REQUIREMENTS AND STANDARDS

A. Access Management

All development subject to Chapter 19.700 shall comply with access management standards contained in Chapter 12.16.

Applicant's Finding: Access to the property has been proposed in accordance with the standards listed within Chapter 12.16 of the City's Municipal Code and in consultation with Clackamas County's Department of Transportation and Development.

B. Clear Vision

All development subject to Chapter 19.700 shall comply with clear vision standards contained in Chapter 12.24.

Applicant's Finding: The Applicant has provided several diagrams on plan sheet C4 which illustrate the proposed access to the property, the proposed improvements to the driveway and Harmony, and a section drawing illustrating the site distance available to the site at the proposed driveway location. The proposed plans comply with the clear vision requirements listed within Chapter 12.24 of the City's Municipal Code and are consistent with the requirements provided by Clackamas County's Department of Transportation and Development.

D. Development in Non-Downtown Zones

Development in a non-downtown zone that has frontage on a street section shown in the PAR is subject to the requirements of the Milwaukie Public Works Standards, which implements the street design standards and right-of-way dedication requirements contained in the PAR for that street frontage. The following general provisions apply only to street frontages that

are not shown in the PAR and for development that is not in any of the downtown zones listed in Subsection 19.708.1.C above:

1. Streets shall be designed and improved in accordance with the standards of this chapter and the Public Works Standards. ODOT facilities shall be designed consistent with State and federal standards. County facilities shall be designed consistent with County standards.

Applicant's Finding: Harmony Road falls adjacent to the site's southern boundary. Harmony is currently under the jurisdiction of Clackamas County. Limited improvements to Harmony have been proposed. The improvements along Harmony have been designed to be consistent with the County's requirements.

The requirements of this section have been met.

2. Streets shall be designed according to their functional classification per Figure 8-3b of the TSP.

Applicant's Finding: Clackamas County classifies Harmony Road as a Three Lane Major Arterial, requiring an 80 foot wide right-of-way. The Applicant's proposed development includes a dedication of several feet of property along the project's frontage to create a 40 foot wide half right-of-way as measured from the roadway's centerline. The proposed development has been designed in accordance with the County's requirements for three lane major arterials.

The requirements of this section have been met.

3. Street right-of-way shall be dedicated to the public for street purposes in accordance with Subsection 19.708.2. Right-of-way shall be dedicated at the corners of street intersections to accommodate the required turning radii and transportation facilities in accordance with Section 19.708 and the Public Works Standards. Additional dedication may be required at intersections for improvements identified by the TSP or a required transportation impact study.

Applicant's Finding: All required dedications along Harmony have been proposed by the Applicant.

The requirements of this section have been met.

4. The City shall not approve any development permits for a proposed development unless it has frontage or approved access to a public street.

Applicant's Finding: The subject property has access from and frontage along Harmony Road.

The requirements of this section have been met.

5. Off-site street improvements shall only be required to ensure adequate access to the proposed development and to mitigate for off-site impacts of the proposed development.

Applicant's Finding: The Applicant has worked in consultation with the County's Department of Transportation and Development to identify and design any required off-site improvements. At this time, it does not appear that off-site improvements, beyond the improvements required to facilitate driveway access, will be required.

The requirements of this section have been met.

19.709 PUBLIC UTILITY REQUIREMENTS

19.709.1 REVIEW PROCESS

The Engineering Director shall review all proposed development subject to Chapter 19.700 per Section 19.702 in order to: (1) evaluate the adequacy of existing public utilities to serve the proposed development, and (2) determine whether new public utilities or an expansion of existing public utilities is warranted to ensure compliance with the City's public utility requirements and standards.

A. Permit Review

The Engineering Director shall make every effort to review all development permit applications for compliance with the City's public utility requirements and standards within 10 working days of application submittal. Upon completion of this review, the Engineering Director shall either approve the application, request additional information, or impose conditions on the application to ensure compliance with this chapter.

B. Review Standards

Review standards for public utilities shall be those standards currently in effect, or as modified, and identified in such public documents as Milwaukie's Comprehensive Plan, Wastewater Master Plan, Water Master Plan, Stormwater Master Plan, Transportation System Plan, and Public Works Standards.

19.709.2 PUBLIC UTILITY IMPROVEMENTS

Public utility improvements shall be required for proposed development that would have a detrimental effect on existing public utilities, cause capacity problems for existing public utilities, or fail to meet standards in the Public Works Standards. Development shall be required to complete or otherwise provide for the completion of the required improvements.

- A. The Engineering Director shall determine which, if any, utility improvements are required. The Engineering Director's determination requiring utility improvements shall be based upon an analysis that shows the proposed development will result in one or more of the following situations:
1. Exceeds the design capacity of the utility.
 2. Exceeds Public Works Standards or other generally accepted standards.
 3. Creates a potential safety hazard.
 4. Creates an ongoing maintenance problem.
- B. The Engineering Director may approve one of the following to ensure completion of required utility improvements.
1. Formation of a reimbursement district in accordance with Chapter 13.30 for off-site public facility improvements fronting other properties.
 2. Formation of a local improvement district in accordance with Chapter 3.08 for off-site public facility improvements fronting other properties.

**Applicant's
Finding:**

The Applicant has received direction from the City's Engineering department that the site should take access to an existing eight inch water main located within Harmony. The proposed line has been designed within the plans to be extended to the east property line of the proposed development.

The Applicant notes that the property is entitled to a system development charge credit which will be based upon the size of the existing water meter serving the property.

Sewer has been provided to serve the two buildings on the site via the extension of a new sewer line which will connect the southernmost building to an existing sanitary line located within Harmony Road. These improvements are shown on Plan C1 within the preliminary development plans.

The proposed stormwater management system has been designed to capture, detain, and treat the stormwater which will be generated from the newly proposed impervious surfaces on the site. The system has been designed based upon the City's required stormwater manual and has been submitted for the City's review, along with a set of preliminary stormwater calculations, justifying the proposed design.

At no point during the Applicant's preliminary discussions with the City's Engineering Department have any concerns regarding capacity, safety, or hazardous conditions been raised. The Applicant has not requested the formation of a reimbursement district for the proposed improvements. The Applicant has requested System Development Charge credits for which the

development is entitled due to the presence of the recently demolished single family home on the property. The requirements of this section are met.

19.709.3 DESIGN STANDARDS

Public utility improvements shall be designed and improved in accordance with the requirements of this chapter, the Public Works Standards, and improvement standards and specifications identified by the City during the development review process. The applicant shall provide engineered utility plans to the Engineering Director for review and approval prior to construction to demonstrate compliance with all City standards and requirements.

Applicant's Finding: The Applicant has designed the proposed site improvement plans to be consistent with the City's Public Works Standards. The Applicant has provided the required preliminary engineering plans along with this submission and understands that the City's Engineering Department may require minor variations to ensure compliance with the City's standards and requirements. The requirements of this section have been met.

CHAPTER 19.900 LAND USE APPLICATIONS

19.905 CONDITIONAL USES

19.905.4. APPROVAL CRITERIA

A. Establishment of a new conditional use, or major modification of an existing conditional use, shall be approved if the following criteria are met:

- 1. The characteristics of the lot are suitable for the proposed use considering size, shape, location, topography, existing improvements, and natural features.**

Applicant's Finding: The buildings have been sized and situated on the lot to meet all applicable setbacks, parking, and turn radius requirements. The lot has access on Harmony Rd to allow easy ingress and egress for customers. The current use to the west is a commercial development that is similar in size and traffic type that is associated with the purposed use. The requirements of this section have been met.

- 2. The operating and physical characteristics of the proposed use will be reasonably compatible with, and have minimal impact on, nearby uses.**

**Applicant's
Finding:**

The lot has several different uses on the adjacent properties; there is a commercial development to the west with lots of truck traffic and business activity. To the south is Harmony Rd. a busy thoroughfare with moderate traffic during business hours. There is an apartment complex to the east that has the rear of their apartment buildings facing the property. To the North are railroad tracks running in-between the property line and SE Railroad Ave. The front building (building#1) was situated on the site with the entry facing the commercial development to the west as well as all parking and vehicle unloading areas located on the west side as far away from the residential use to the East as possible. The site has a very similar use as the commercial development to the West. Both have tenants entering and exiting during normal business hours and occasional small truck traffic arriving to load or unload. It will share the entry with this development. The commercial development to the West also receives larger Simi-trucks delivering goods; we do not anticipate Simi-trucks entering our business as it does not contain large enough storage units to warrant the use of a Simi-truck to fill. The building (building#2) at the rear of the lot has a commercial building located to the West, with railroad tracks and SE Railroad Ave to the North and undevelopable open space to the East. The requirements of this section have been met.

3. All identified impacts will be mitigated to the extent practicable.

**Applicant's
Finding:**

The proposed Self-storage facility will use the existing driveway to the West currently used by the commercial development to the West so ingress and egress should not create any increased nuisance. The building is situated to position all activity (loading and unloading) as far from the residential uses that the geography of the lot will allow.

The Applicant did meet with the neighbors of the property and the Linwood Neighborhood Association on March 12, 2015 and no significant issues were raised by the neighborhood as potential nuisances or impacts. The requirements of this section have been met.

4. The proposed use will not have unmitigated nuisance impacts, such as from noise, odor, and/or vibrations, greater than usually generated by uses allowed outright at the proposed location.

**Applicant's
Finding:**

The proposed use is a Self-storage facility that is very similar in use to the "Uses allowed outright". Specifically, item "C" of the MMC 19.310.2 "Warehousing and Distribution"; Self-storage is basically a Warehouse for the public to lease space in. Both require the entry and egress of trucks and vehicles that load and

unload at the facility on a short term basis. However the self-storage will not have large tractor-trailer type trucks using the site as a large warehouse would.

The site will not generate any unmitigated impacts to other properties within the immediate vicinity and is similar to other uses which are permitted outright within the zone. The requirements of this section have been met.

5. The proposed use will comply with all applicable development standards and requirements of the base zone, any overlay zones or special areas, and the standards in Section 19.905.

Applicant's Finding: The proposed development complies with the applicable development standards in that it meets the minimum required dimensional criteria for lot size, front, side and rear yards.

Off-street parking, per table 19.605.1, has been provided at a level which meets the requirements of the City's Codes.

The proposed building will not exceed the City's height limitations for structures within the BI zone and the project has been adequately buffered through the incorporation of a series of landscape plantings within the required buffers.

The requirements of this section have been met.

6. The proposed use is consistent with applicable Comprehensive Plan policies related to the proposed use.

Applicant's Finding: The proposed development is a use which is Conditionally permitted within the underlying zoning district. The Conditional approval of the proposed development would successfully implement the policies and goals of the City's Comprehensive Plan.

The requirements of this section have been met.

7. Adequate public transportation facilities and public utilities will be available to serve the proposed use prior to occupancy pursuant to Chapter 19.700.

Applicant's Finding: The proposed development will take access to Harmony Road via a shared driveway which will receive minor improvements to facilitate the required access. Harmony Road will be improved to the County's current standards for a three lane minor arterial, consistent with the County's requirements for

roadway improvements. All transportation access and public utilities will be improved prior to the Applicant's request for final occupancy.

The requirements of this section have been met.

19.911 VARIANCES

19.911.1 Purpose

Variances provide relief from specific code provisions that have the unintended effect of preventing reasonable development or imposing undue hardship. Variances are intended to provide some flexibility while ensuring that the intent of each development standard is met. Variances may be granted for the purpose of fostering reinvestment in existing buildings, allowing for creative infill development solutions, avoiding environmental impacts, and/or precluding an economic taking of property. Variances shall not be granted that would be detrimental to public health, safety, or welfare.

19.911.2 Applicability

A. Eligible Variances

Except for situations described in Subsection 19.911.2.B, a variance may be requested to any standard or regulation in Titles 17 or 19 of the Milwaukie Municipal Code, or any other portion of the Milwaukie Municipal Code that constitutes a land use regulation per ORS 197.015.

B. Ineligible Variances

A variance may not be requested for the following purposes:

1. To eliminate restrictions on uses or development that contain the word "prohibited."
2. To change a required review type.
3. To change or omit the steps of a procedure.
4. To change a definition.
5. To increase, or have the same effect as increasing, the maximum permitted density for a residential zone.
6. To justify or allow a Building Code violation.
7. To allow a use that is not allowed outright by the base zone. Requests of this nature may be allowed through the use exception provisions in Subsection 19.911.5, nonconforming use replacement provisions in Subsection 19.804.1.B.2, conditional use provisions in Section 19.905, or community service use provisions in Section 19.904.

C. Exceptions

A variance application is not required where other sections of the municipal code specifically provide for exceptions, adjustments, or modifications to standards either "by right" or as part of a specific land use application review process.

19.911.3 Review Process

A. General Provisions

1. Variance applications shall be evaluated through either a Type II or III review, depending on the nature and scope of the variance request and the discretion involved in the decision-making process.
2. Variance applications may be combined with, and reviewed concurrently with, other land use applications.
3. One variance application may include up to three variance requests. Each variance request must be addressed separately in the application. If all of the variance requests are Type II, the application will be processed through a Type II review. If one or more of the variance requests is Type III, the application will be processed through a Type III review. Additional variance requests must be made on a separate variance application.

Applicant's Finding: The Applicant has requested approval of a Type II variance application to allow for a small encroachment of a stairway and part of the front retail office into the front 20 yard setback on the property. The Applicant has shown that the requested variance qualifies for review as a Type II limited variation to the City's numerical standards and has provided responses to the City's approval criteria for a Type II review. The Applicant requests that this request for a variance to the front yard setback be considered concurrently with this request for a Conditional Use Permit for the property.

B. Type II Variances

Type II variances allow for limited variations to numerical standards. The following types of variance requests shall be evaluated through a Type II review per Section 19.1005:

1. A variance of up to 40% to a side yard width standard.
2. A variance of up to 25% to a front, rear, or street side yard width standard. A front yard width may not be reduced to less than 15 ft through a Type II review.

Applicant's Finding: The Applicant has requested an encroachment of 5 feet into the property's front yard setback in order to allow for a small encroachment by an external stairway and a small portion of the southernmost building's retail and sales office. Less than 25% of the required 20 foot setback will be impacted by this variance request, and the 5-foot encroachment represents 25% of the required 20-foot front yard setback. The small areas of encroachment into the front yard setback will not reduce the front yard width to less than 15 feet and, therefore, a Type II review is appropriate.

The requirements of this standard have been met.

3. A variance of up to 10% to lot coverage or minimum vegetation standards.

4. A variance of up to 10% to lot width or depth standards.
5. A variance of up to 10% to a lot frontage standard.
6. A variance to compliance with Subsection 19.505.1.C.4 Detailed Design, or with Subsection 19.901.1.E.4.c.(1) in cases where a unique and creative housing design merits flexibility from the requirements of that subsection.

19.911.4 Approval Criteria

A. Type II Variances

An application for a Type II variance shall be approved when all of the following criteria have been met:

1. The proposed variance, or cumulative effect of multiple variances, will not be detrimental to surrounding properties, natural resource areas, or public health, safety, or welfare.

Applicant's Finding:

The proposed variance for encroachment into the front yard setback is minor in nature and will not create any detrimental effects on any of the surrounding properties. The proposed variance allows the proposed improvements on the site to better avoid the natural resource areas located on site. The public's health, safety, and welfare will not in any way be affected through the approval of the requested setback reduction.

The requirements of this standard have been met.

2. The proposed variance will not interfere with planned future improvements to any public transportation facility or utility identified in an officially adopted plan such as the Transportation System Plan or Water Master Plan.

Applicant's Finding:

The City of Milwaukie requires a half right-of-way width of 40 feet along Harmony Road as does Clackamas County's Department of Transportation and Development. The proposed development has dedicated additional right-of-way along Harmony in response to this requirement. The proposed setback for development of the subject site is measured from the edge of the newly dedicated right-of-way and a front yard setback of 20 feet is typically required. The proposed variance would enable a small portion of southernmost building to encroach into the required front setback area but not into the right-of-way. The proposed width of the right-of-way has been specifically identified as necessary by the County's transportation system plan and the proposed variance for the front yard setback is not anticipated to interfere with any further planned improvements along Harmony.

The requirements of this standard have been met.

- 3. Where site improvements already exist, the proposed variance will sustain the integrity of, or enhance, an existing building or site design.**

Applicant's Finding: All site improvements are related to new improvements. This criteria does not apply.

- 4. Impacts from the proposed variance will be mitigated to the extent practicable.**

Applicant's Finding: The Applicant is unaware of any impacts associated with the proposed variance which may require mitigation.

SUMMARY AND CONCLUSION

Based upon the materials submitted herein, the Applicant respectfully requests a recommendation for approval from the City's Planning Department and a favorable decision from the City's Planning Commission for this application for a Conditional Use permit and for the requested Type II Variance.

Natural Resource Review for the Proposed Harmony Road Self Storage, Milwaukie, Oregon

(Township 1 South, Range 2 East, Section 31D, TL 1800 and 1900)

Prepared for

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Prepared by

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PHS Project Number: 6072

September 23, 2016

revised November 10, 2016



1.0 INTRODUCTION

The Applicant, HT Investment Properties, LLC, is proposing to develop a warehouse storage facility consisting of 1,005 enclosed storage units on the property located at 5945 and 5965 SE Harmony Road in the City of Milwaukie, Oregon (Township 1 South, Range 2 East, Section 31D, Tax Lots 1800 and 1900) and seeks approval of an application for a Conditional Use Permit and a Type II Variance for the proposed development. Pacific Habitat Services, Inc. (PHS) has prepared a Natural Resource Review in accordance with Milwaukie Municipal Code (MMC) Section 19.402 to support this application.

The project site consists of approximately 2.96 acres located on SE Harmony Avenue west of SE Linwood Avenue and south of Railroad Avenue. The approximate location of the site is shown on the USGS Gladstone, Oregon topographic quadrangle, which is included as Figure 1, and the tax lot map, which is included as Figure 2. All figures are in Appendix A. The site includes Minthorn Creek and associated wetlands. PHS delineated the jurisdictional limits of Minthorn Creek and associated wetlands in October 2014. The surveyed locations of Minthorn Creek and associated wetlands are depicted on Figure 3. The Oregon Department of State Lands (DSL) issued a letter of concurrence confirming the delineated wetlands and waters of the State on March 4, 2015. A copy of the concurrence is provided in Appendix B.

Minthorn Creek is a perennial tributary to Mount Scott Creek, which is located approximately 1,000 feet downstream of the project site, and therefore it and its associated wetlands are Primary Protected Water Features, as defined in the City of Milwaukie's Natural Resources Code (MMC 19.402). As stated in a letter from the City of Milwaukie dated September 13, 2016, this project is subject to discretionary review under MMC Subsections 19.402.8 and 19.402.12, and impact evaluation and alternatives analysis are required per MMC Subsection 19.402.12.A. This Natural Resource Review describes the existing Water Quality Resource (WQR) and Habitat Conservation Area (HCA) on the site and demonstrates project compliance with the applicable sections of the municipal code. This Natural Resource review includes an evaluation of the condition of the WQR on the site, an analysis of potential impacts from the proposed development on the WQR and the HCA, and a mitigation plan to compensate for those impacts.

2.0 EXISTING WQR AND HCA ON THE PROJECT SITE

Minthorn Creek and its associated wetlands are primary protected water features, and as described in Table 19.402.15, Determination of WQR Location in the MMC Subsection 19.402.15, primary protected water features have an associated vegetated corridor of 50 to 200 feet wide depending on the slopes adjacent to the resource. Because the slopes adjacent to Minthorn Creek and its associated wetlands within the Harmony Road Storage site are less than 25 percent, the associated vegetated corridor is 50 feet wide. The extent of the vegetated corridor on the project site, based on the surveyed boundaries of wetlands and waterways is depicted on Figure 4. The total area of WQR on the site (not including the stream and wetlands) is approximately 20,117 sq.ft. (0.46 ac.).

Minthorn Creek also has an associated HCA. The Milwaukie Interactive Zoning Map (<http://milwaukie.maps.arcgis.com/apps/webappviewer/index.html?id=48bfb9fc517446f9af954d4d1c4413af>) shows HCA extending onto the western portion of the site only. Discussions with Brett Kelter, Associate Planner with the City of Milwaukie Community Development, indicate that the City-mapped HCA can be used to comply with MMC 19.402. Therefore, the City's GIS-mapped HCA, as provided by the City of Milwaukie, is depicted on Figure 4. The total area of HCA on the project site is approximately 5,442 sq.ft. (0.12 ac.); however, the HCA boundaries closely correspond to the WQR boundaries such that only a very small portion of the HCA (approximately 257 sq.ft. (0.006 acres)) extends beyond the limits of the WQR. This HCA is used in the impact evaluation and alternatives analysis below.

3.0 COMPLIANCE WITH MILWAUKIE MUNICIPAL CODE

MMC 19.402.12 - General Discretionary Review

A. Impact Evaluation and Alternatives Analysis

An impact evaluation and alternatives analysis is required to determine compliance with the approval criteria for general discretionary review and to evaluate development alternatives for a particular property. A report presenting this evaluation and analysis shall be prepared and signed by a knowledgeable and qualified natural resource professional, such as a wildlife biologist, botanist, or hydrologist. At the Planning Director's discretion, the requirement to provide such a report may be waived for small projects that trigger discretionary review but can be evaluated without professional assistance.

The alternatives shall be evaluated on the basis of their impact on WQRs and HCAs, the ecological functions provided by the resource on the property, and off-site impacts within the subwatershed (6th Field Hydrologic Unit Code) where the property is located. The evaluation and analysis shall include the following:

1. *Identification of the ecological functions of riparian habitat found on the property, as described in Subsection 19.402.1.C.2.*

Subsection 19.402.1.C.2 of the Milwaukie Municipal Code (MMC) identifies seven functions and values that contribute to water quality and to fish and wildlife habitat in urban streamside areas. Descriptions of the functions and values provided by the riparian habitat on the project site are provided below.

Vegetated corridors to separate protected water features from development – The vegetated buffer south of Minthorn Creek provides a buffer that separates existing and former development on the southern part of the site from the primary protected water feature. Although tree cover is rather sparse south of the creek, the dense shrub and herbaceous vegetation provide wildlife habitat and water quality benefits to the stream. North of the stream, the vegetated corridor contains many trees, but there is no development on the northern portion of the site.

Microclimate and shade – Trees within the WQR provide shade to the stream and help to regulate the microclimate within the riparian corridor. However, this function is limited within the project site because tree cover on the south side of the stream, where it would most effectively shade the stream is rather sparse, as described below.

Streamflow moderation and water storage – Within the project area, Minthorn Creek has a relatively narrow floodplain. The floodplain on the north side of the creek is vegetated with a mixture of trees and shrubs, while the floodplain on the south side of the stream is vegetated primarily by various herbaceous species and Himalayan blackberry (*Rubus armeniacus*). During high flow events, vegetation within the floodplain helps to slow floodwaters and reduce downstream flooding. Because of the predominance of non-woody vegetation on the south side of Minthorn Creek and the relatively steep gradient of the stream within the project area, the riparian corridor within the project area provides limited streamflow moderation and water storage functions.

Water filtration, infiltration, and natural purification – Vegetation within the riparian corridor along Minthorn Creek slows runoff from adjacent areas and filters sediments and other pollutants from the runoff before it reaches the stream. By slowing the runoff, the vegetation also increases the potential for water to infiltrate into the soil before reaching the stream. However, the predominantly clay loam soils within the project area reduce the ability of the water to infiltrate into the soil.

Bank stabilization and sediment and pollution control – Streambanks within the project area are generally well-vegetated with trees, shrubs, and dense herbaceous vegetation. This vegetation helps to stabilize the banks, and there is little evidence of active bank erosion within the project site.

Large wood recruitment and retention and natural channel dynamics – Within the project area, trees occur primarily on the north side of Minthorn Creek. These trees have the potential to become large woody material. When these trees fall into the stream, they have the potential to affect the natural channel dynamics. However, because of the relatively small size of the stream, any large woody material that falls into the stream is likely to remain on the project site rather than be carried downstream.

Organic material resources – Vegetation within the riparian corridor provides organic material that serve as the basis for the aquatic food web. Under the existing conditions, the riparian corridor within the project site is vegetated with a mixture of native and non-native trees, shrubs, and herbaceous species, which contribute organic materials to the stream.

2. *An inventory of vegetation, sufficient to categorize the existing condition of the WQR per Table 19.402.11.C, including the percentage of ground and canopy coverage materials within the WQR.*

Plant communities within the vegetated corridor include a mixture of wooded and non-wooded communities. PHS identified two separate plant communities within the on-site vegetated corridor based on the predominance of woody species in the community. North of Minthorn Creek, the vegetated corridor has a well-developed forest canopy; while south of Minthorn Creek, the vegetated corridor is dominated by Himalayan blackberry with just a few scattered trees. PHS took two sample points to characterize the plant community north of the creek, and one sample point to characterize the plant community south of Minthorn Creek. A brief description and an evaluation of the condition of each of the communities are provided below.

North of Minthorn Creek

The WQR north of Minthorn Creek contains an open canopy formed by widely spaced trees, predominantly black cottonwoods (*Populus balsamifera*) and Oregon ash (*Fraxinus latifolia*). The area has a relatively dense understory of tree saplings and shrubs. Common species in the understory include Oregon ash, Portuguese laurel (*Prunus lusitanica*), Himalayan blackberry, snowberry (*Symphoricarpos albus*), English hawthorn (*Crataegus monogyna*), and clustered rose (*Rosa pisocarpa*). The groundcover contains a diverse mixture of native and non-native species. Himalayan blackberry and English ivy are listed as invasive, noxious weeds by the Oregon Department of Agriculture. Other non-native species are present within the plant community, but they are not listed as invasive or noxious weeds at this time. Tables 1 and 2 summarize the species composition at two sample points within the plant community.

Table 1. Plant Community North of Minthorn Creek as Characterized by Sample Point 1

Botanical Name	Common Name	Cover (%)
Trees		30
<i>Populus balsamifera</i>	Black cottonwood	30
Shrubs and Saplings		75
<i>Fraxinus latifolia</i>	Oregon ash	20
<i>Prunus lusitanica</i>	Portuguese laurel	20
<i>Rosa pisocarpa</i>	Clustered rose	20
<i>Prunus cerasifera</i>	Cherry plum	10
<i>Rubus discolor</i>	Himalayan blackberry	5
Ground Cover		32
<i>Rubus ursinus</i>	California dewberry	25
<i>Equisetum telmateia</i>	Giant horsetail	2
<i>Ranunculus repens</i>	Creeping buttercup	5

Table 2. Plant Community South of Minthorn Creek as Characterized by Sample Point 2

Botanical Name	Common Name	Cover (%)
Trees		90
<i>Populus trichocarpa</i>	Black cottonwood	60
<i>Fraxinus latifolia</i>	Oregon ash	20
<i>Prunus avium</i>	Sweet cherry	10
Shrubs		90
<i>Symphoricarpos albus</i>	Snowberry	50
<i>Prunus lusitanica</i>	Portuguese laurel	20
<i>Crataegus monogyna</i>	English hawthorn	10
<i>Rubus armeniacus</i>	Himalayan blackberry	10
<i>Corylus cornuta</i>	Beaked hazelnut	5
Ground Cover		100
<i>Hedera helix</i>	English ivy	60
<i>Equisetum arvense</i>	Field horsetail	20
<i>Poa</i> sp.	Bluegrass	20

The plant community north of Minthorn Creek has an open tree canopy with coverage that varies from 30 to 90 percent. Canopy coverage across the entire plant community exceeds 50 percent. The combined tree, shrub and ground cover layers provide coverage that exceeds 80 percent. As such, the existing condition of the WQR north of Minthorn Creek meets the definition of a Class A (“Good”) WQR, as defined in Table 19.402.11.C of the municipal code.

South of Minthorn Creek

Although several trees are present along the southern bank of the stream, the plant community south of Minthorn Creek is dominated by dense Himalayan blackberry and herbaceous vegetation. The sample point for this plant community was selected to represent the general absence of trees and characterize the major portion of the plant community. Himalayan blackberry is listed as invasive, noxious weeds by the Oregon Department of Agriculture. The majority of herbaceous species within the plant community are non-native; however, none of the other non-native species present within the plant community are not listed as invasive or noxious weeds at this time. Table 3 summarizes the species composition within the plant community south of Minthorn Creek.

Table 3. Plant Community South of Minthorn Creek as Characterized by Sample Point 3

Botanical Name	Common Name	Cover (%)
Shrubs		60
<i>Rubus armeniacus</i>	Himalayan blackberry	60
Ground Cover		110
<i>Agrostis stolonifera</i>	Spreading bentgrass	70
<i>Schedonorus arundinacea</i>	Tall fescue	20
<i>Poa</i> sp.	Bluegrass	10
<i>Equisetum arvense</i>	Field horsetail	5
<i>Galium aparine</i>	Cleavers	5

As described above and shown by Sample Point 3, the plant community south of Minthorn Creek has little or no tree canopy coverage. The combined tree, shrub and groundcover layers provide coverage that exceeds 80 percent; however, tree canopy coverage is less than 25 percent. Therefore, the existing condition of the WQR south of Minthorn Creek meets the definition of a Class C (“Poor”) WQR, as defined in Table 19.402.11.C of the municipal code.

3. *An assessment of the water quality impacts related to the development, including sediments, temperature and nutrients, sediment control, and temperature control, or any other condition with the potential to cause the protected water feature to be listed on DEQ’s 303(d) list.*

The proposed project will result in impacts to WQR and HCA associated with Minthorn Creek. A bridge will be constructed across Minthorn Creek along the western site boundary. This will result in impacts to approximately 4,520 sq.ft. (0.10 ac.) of WQR and 257 sq.ft. (0.006 ac.) of HCA beyond the limits of the WQR. The parking lot associated with the Building #2 in the northern part of the site will extend into the WQR, resulting in approximately 145 sq.ft. (0.003 ac.) of impact in the WQR. Additionally three stormwater outfalls will be constructed within the WQR. The construction of these outfalls will result in approximately 147 sq. ft. (0.003 ac.) of permanent impact for the construction of the outfall and rip rap pad and approximately 280 sq.ft.

(0.006 ac.) of additional disturbance to the WQR. The areas of permanent and temporary disturbance within the HCA and WQR are summarized in Table 4, below.

Table 5. Summary of Permanent and Temporary Disturbance in the WQR and HCA

Activity	Permanent Disturbance (sq.ft./ac.)		Temporary Disturbance (sq.ft./ac.)	
	WQR	HCA	WQR	HCA
Bridge Construction	4,520 / 0.10	257 / 0.006	0 / 0	0 / 0
Parking Lot Construction	145 / 0.003	0 / 0	0 / 0	0 / 0
Stormwater Outfalls	147 / 0.003	0 / 0	280 / 0.006	0 / 0
Total	4,812 / 0.11	257 / 0.006	280 / 0.006	0 / 0

The proposed project is not anticipated to have any adverse impacts to water quality. The use of erosion and sediment controls during construction will prevent sediment-related impacts to water quality. The proposed project is not anticipated to result in additional nutrient inputs to the stream, and the restoration of the riparian corridor on the south side of Minthorn Creek will increase shade on the stream as the riparian plantings mature, helping to reduce water temperatures in the stream. The stormwater outfalls will discharge treated stormwater to the WQR, and the riprap pads at the outfalls will dissipate flows preventing erosion and sedimentation downslope of the outfalls and prevent impacts to water quality.

4. *An alternatives analysis, providing an explanation of the rationale behind choosing the alternative selected, listing measures that will be taken to avoid and/or minimize adverse impacts to designated natural resources, and demonstrating that:*
 - a. *No practicable alternatives to the requested development exist that will not disturb the WQR or HCA.*

Minthorn Creek crosses the center of the site from west to east. Because of the location of the resources, it is not possible to access the northern portion of the site without crossing the vegetated corridor. It is not practicable to access the northern portion of the site from Railroad Avenue because of the railroad tracks between the site and street. There are no practicable alternatives for developing the northern portion of the site that avoids impacts to the WQR.

- b. *Development in the WQR and/or HCA has been limited to the area necessary to allow for the proposed use.*

Development within the WQR and HCA has been limited to the area necessary to allow for the proposed use. Development within the WQR and HCA is limited to a bridge needed for access to the northern portion of the site, minor disturbance for the construction of the parking area in the northern portion of the site, and three stormwater outfalls that will discharge treated stormwater from flow through planter boxes. Buildings, parking areas, and stormwater treatment facilities will be located entirely outside the WQR and HCA. The disturbance for the parking lot construction is necessary to accommodate required setbacks in the northern part of the site.

- c. *If disturbed, the WQR can be restored to an equal or better condition in accordance with Table 19.402.11.C; and the HCA can be restored consistent with the mitigation requirements of Subsection 19.402.11.D.2.*

Portions of the WQR temporarily disturbed for the construction of the three stormwater discharges will be restored to equal or better condition in accordance with Table 19.402.11.D.2. Mitigation is described in more detail below.

d. Road crossings will be minimized as much as possible.

The proposed project includes one road crossing to provide access to the northern portion of the site. The road crossing has been designed to minimize impacts to the WQR. The road crosses the WQR where the WQR is narrowest and where there are no wetlands adjacent to the creek. Additionally, the road will cross the WQR on a bridge, which will eliminate the need for sideslopes, which would increase the area of WQR impacted.

5. Evidence that the applicant has done the following, for applications proposing routine repair and maintenance, alteration, and/or total replacement of existing structures located within the WQR:

- a. Demonstrated that no practicable alternative design or method of development exists that would have a lesser impact on the WQR than the one proposed. If no such practicable alternative design or method of development exists, the project shall be conditioned to limit its disturbance and impact on the WQR to the minimum extent necessary to achieve the proposed repair/maintenance, alteration, and/or replacement.*
- b. Provided mitigation to ensure that impacts to the functions and values of the WQR will be mitigated or restored to the extent practicable.*

Not applicable. The proposed project does not include routine repair and maintenance, alteration, and/or total replacement of existing structures within the WQR.

6. A mitigation plan for the designated natural resource that contains the following information:

- a. A description of adverse impacts that will be caused as a result of development.*

The proposed project will result in impacts to WQR and HCA associated with Minthorn Creek. A bridge will be constructed across Minthorn Creek along the western site boundary. This will result in impacts to approximately 4,520 sq.ft. (0.10 ac.) of WQR and 257 sq.ft. (0.006 ac.) of HCA beyond the limits of the WQR. The parking lot associated with the Building #2 in the northern part of the site will extend into the WQR, resulting in approximately 145 sq.ft. (0.003 ac.) of impact in the WQR. Additionally three stormwater outfalls will be constructed within the WQR. The construction of these outfalls will result in approximately 147 sq. ft. (0.003 ac.) of permanent impact for the construction of the outfall and rip rap pad and approximately 280 sq.ft. (0.006 ac.) of additional disturbance to the WQR. The project will result in total permanent impact to approximately 4,812 sq.ft. of WQR and 257 sq.ft. of HCA and total temporary impact to approximately 280 sq.ft. of WQR/

- b. An explanation of measures that will be taken to avoid, minimize, and/or mitigate adverse impacts to the designated natural resource; in accordance with, but not limited to, Table 19.402.11.C for WQRs and Subsection 19.402.11.D.2 for HCAs.*

As discussed above, it is not possible to avoid impacts to the WQR. Adverse effects to the resources have been minimized by limiting impacts to one road crossing, which crosses the WQR on a bridge structure at the point where the WQR is the narrowest, and discharges from three flow-through stormwater planters. Mitigation for the unavoidable impacts will be provided through the inventory of man-made debris and noxious materials that might be present within the WQR and the removal of any such material present; the implementation of a stormwater plan that meets City requirements for runoff rates and water quality; the removal of non-native, invasive plants from the riparian corridor; and installation of tree and shrub plantings within Wetland Mitigation B on the south side of Minthorn Creek to restore a diverse, native plant community. Compliance with the mitigation requirements outlined in Table 19.402.11.C and

Subsection 19.402.11.D.2 to compensate for proposed impacts to the WQR and HCA are described below.

As depicted on Figure 4, the existing condition of WQR on the north side of Minthorn Creek is Class A (“Good”); the existing condition of the WQR on the south side of the creek is Class C (“Poor”). Mitigation requirements for disturbance in a Class A WQR, as listed in Table 19.402.11.C, are listed below, as are the components of the project design that have been incorporated to insure compliance with the mitigation requirements.

- ***Submit a plan for mitigating water quality impacts related to the development, including: sediments, temperature, nutrients, or any other condition that may have caused the protected water feature to be listed on DEQ’s 303(d) list.***

Sisul Engineering submitted Preliminary Storm Detention and Water Quality Calculations (dated July 21, 2015) with the conditional use permit application demonstrating that the proposed stormwater management facilities treat runoff to meet the City of Milwaukie’s water quality requirements and detain post-development runoff at or below pre-development release rates.

- ***Inventory and remove debris and noxious materials.***

At the time of site construction, the Applicant will identify man-made debris and noxious materials that may be present within the WQR. Any such debris or materials will be removed from the WQR. This will occur within Mitigation Areas A and B, as shown on Figure 6.

Mitigation requirements for disturbance in a Class C WQR, as listed in Table 19.402.11.C, are listed below, as are the components of the project design that have been incorporated to insure compliance with the mitigation requirements.

- ***Restore and mitigate disturbed areas with native species from the Milwaukie Native Plant List, using a City-approved plan developed to represent the vegetative composition that would naturally occur on the site.***

All disturbed areas within the WQR will be restored with native trees and shrubs and reseeded with a native seed mix. Trees and shrubs will be planted within Mitigation Area B on the south side of Minthorn Creek to restore a native plant community within the WQR.

The number of trees and shrubs to be planted in Mitigation Area B was determined in accordance with MMC Subsection 19.402.11.D.2. Six trees will be removed from the HCA and WQR, as shown on Figure 5. As prescribed by Table 19.402.11.D.2.a, 13 trees and 21 shrubs would be required under Mitigation Option 1 to mitigate for the trees to be removed. Under Mitigation Option 2, 53 trees (5,349 sq.ft. impact area x 5 trees per 500 sq.ft. of impact area = 53 trees) and 267 shrubs (5,349 sq.ft. impact area x 25 shrubs per 500 sq.ft. of impact area = 267 shrubs) would be planted to mitigate for impacts to 5,349 sq.ft. of WQR and HCA impact. Because Mitigation Option 2 results in more tree plantings, Mitigation Option 2 was used to determine the number of trees and shrubs to be planted in accordance with MMC Subsection 19.402.11.D.2. A list of trees and shrubs proposed for planting are provided in Table 5, below.

Table 5. Proposed Riparian Restoration Planting List

Species	Common Name	Quantity	Stock Type	Plant Size
Trees				
<i>Alnus rubra</i>	Red alder	17	Container or field-grown	½ in caliper
<i>Fraxinus latifolia</i>	Oregon ash	18	Container or field-grown	½ in caliper
<i>Thuja plicata</i>	Western redcedar	18	Container or field-grown	½ in caliper
Shrubs				
<i>Cornus alba</i>	Red-osier dogwood	89	1 gal.	12 in
<i>Rosa pisocarpa</i>	Clustered rose	89	1 gal.	12 in
<i>Sambucus racemosa</i>	Red elderberry	89	1 gal.	12 in
Herbaceous seed mix				
<i>Agrostis exarata</i>	Spike bentgrass	2.0 lbs/ac	Seed	n/a
<i>Bromus carinatus</i>	California brome	2.0 lbs/ac	Seed	n/a
<i>Deschampsia cespitosa</i>	Tufted hairgrass	3.0 lbs/ac	Seed	n/a
<i>Elymus glaucus</i>	Blue wildrye	3.0 lbs/ac	Seed	n/a
<i>Hordeum brachyantherum</i>	Meadow barley	2.0 lbs/ac	Seed	n/a
<i>Lupinus rivularis</i>	Riverbank lupine	3.5 lbs/ac	Seed	n/a

These mitigation plantings meet the requirements of MMC Subsection 19.402.11.D, as follows:

- All areas temporarily disturbed will be restored and permanent impacts will be mitigated by the tree and shrub plantings, as described above.
- All species proposed for planting are native species, as identified on the Milwaukie Native Plant List.
- Trees to be planted will average at least a ½-in caliper (measured at 6 inches above the ground level for field-grown trees or above the soil line for container-grown trees). Shrubs shall be at least 1-gallon size and 12 inches high.
- Trees will be planted between 8 and 12 feet on center. Shrubs will be planted between 4 and 5 feet on center or clustered in single-species groups of no more than 4 plants, with each cluster planted between 8 and 10 feet on center. When planting near existing trees, the dripline of the existing tree shall be the starting point for plant spacing measurements.
- More than two species of shrubs are proposed, and not more than 50 percent of the trees to be planted are of the same genus.
- All mitigation will occur on site.

- Invasive non-native or noxious vegetation will be removed within the mitigation area prior to planting, including, but not limited to, species identified as nuisance plants on the Milwaukie Native Plant List.
- Bare or open soil areas remaining after the required tree and shrub plantings will be seeded to 100% surface coverage with grasses or other ground cover species identified as native on the Milwaukie Native Plant List. Revegetation will occur during the next planting season following the site disturbance.

- *Plant and/or seed all bare areas to provide 100% surface coverage.*

All disturbed soil surfaces will be seeded with a native seed mix, as described in Table 4, above. Areas temporarily disturbed for the construction of stormwater outfalls and due to the removal of invasive plant species will be seeded with this seed mix.

- *Inventory and remove debris and noxious materials.*

At the time of site construction, the Applicant will identify man-made debris and noxious materials that may be present within the WQR. Any such debris or materials will be removed from the WQR. This will occur within Mitigation Areas A and B, as shown on Figure 6.

- c. *Sufficient description to demonstrate how the following standards will be achieved:*

- (1) *Where existing vegetation has been removed, the site shall be revegetated as soon as practicable.*

Following the completion of the construction of the proposed stormwater outfalls, disturbed soils will be reseeded with the native seed mix described in Table 4, above. Within Mitigation Area B, soils disturbed as a result of the removal of non-native invasive plants will be seeded with the native seed mix described in Table 4 as soon as practicable following the removal of the invasive plants. Woody material will be planted in Mitigation Area B in the fall/winter 2017 to maximize the survival of the plantings.

- (2) *Where practicable, lights shall be placed so that they do not shine directly into any WQR and/or HCA location. The type, size, and intensity of lighting shall be selected so that impacts to habitat functions are minimized.*

Lights will be placed so that they do not shine directly into the WQR. The type, size, and intensity of lighting will be selected so that impacts to habitat functions are minimized. The Lighting Plan, prepared by Creations Northwest and submitted with the conditional use application, shows the proposed lighting relative to the WQR.

- (3) *Areas of standing trees, shrubs, and natural vegetation will remain connected or contiguous; particularly along natural drainage courses, except where mitigation is approved; so as to provide a transition between the proposed development and the designated natural resource and to provide opportunity for food, water, and cover for animals located within the WQR.*

With the exception of the removal of invasive plants from Mitigation Area B, existing trees, shrubs, and natural vegetation within the WQR will remain undisturbed during the proposed construction.

- d. A map showing where the specific mitigation activities will occur. Off-site mitigation related to WQRs shall not be used to meet the mitigation requirements of Section 19.402.*

Figure 6 depicts the location of proposed mitigation activities. No mitigation is proposed to occur off site.

- e. An implementation schedule; including a timeline for construction, mitigation, mitigation maintenance, monitoring, and reporting; as well as a contingency plan. All in-stream work in fish-bearing streams shall be done in accordance with the allowable windows for in-water work as designated by ODFW.*

Construction of the proposed project is anticipated to occur in the spring and summer of 2017. Activities associated with the WQR/HCA mitigation are anticipated to begin in summer 2017. Removal of any existing man-made debris and noxious materials from the WQR will occur in summer 2017, as will the removal of invasive plants from Mitigation Area B (Figure 6). Restoration plantings will be installed in Mitigation Area B in fall/winter 2017.

Monitoring of the restoration area will be conducted in the late summer of 2017 and again in summer 2018. An annual monitoring report documenting the survival of the restoration plantings will be submitted to the City of Milwaukie by December 31 of each monitoring year. Plants that die shall be replaced in kind as needed to ensure the minimum 80% survival rate.

No in-stream work is proposed to occur as part of this project.

B. Approval Criteria

- 1. Unless specified elsewhere in Section 19.402, applications subject to the discretionary review process shall demonstrate how the proposed activity complies with the following criteria:*
 - a. Avoid*
The proposed activity avoids the intrusion of development into the WQR and/or HCA to the extent practicable. The proposed activity shall have less detrimental impact to the designated natural resource than other practicable alternatives, including significantly different practicable alternatives that propose less development within the resource area.

The proposed project avoids development within the WQR and HCA to the maximum extent practicable. The only impacts to the WQR and HCA result from the road crossing and stormwater outfalls. As discussed above, it is not possible to access the northern portion of the site and completely avoid impacts to the WQR.

- b. Minimize*
If the applicant demonstrates that there is no practicable alternative that will avoid disturbance of the designated natural resource, then the proposed activity within the resource area shall minimize detrimental impacts to the extent practicable.
 - (1) The proposed activity shall minimize detrimental impacts to ecological functions and loss of habitat, consistent with uses allowed by right under the base zone, to the extent practicable.*

Implementation of the proposed mitigation will ensure the proposed project minimizes adverse effects to the ecological functions of the WQR and loss of habitat, as follows:

- The minimization of areal impacts as well as the proposed plantings to restore a native plant community on the south side of Minthorn Creek will ensure that the WQR continues to provide a vegetated corridors that separates protected water features from development.

- As the proposed tree and shrub plantings south of Minthorn Creek mature, they will increasingly provide microclimate regulation and shade for the stream, and provide better microclimate regulation and shade as compared to the existing plant community on the south side of the creek.
 - As the proposed tree and shrub plantings south of Minthorn Creek mature they will provide more effective streamflow moderation during high flow events than the Himalayan blackberry and herbaceous plant community that is present under existing conditions.
 - The diverse plant community within the WQR will continue to provide water filtration, infiltration, and natural purification functions. The proposed project will not adversely affect these functions.
 - The proposed restoration plantings and the resulting diverse plant community within the WQR will continue to provide bank stabilization and sediment and pollution control functions. The proposed project will not adversely affect these functions.
 - Trees will remain within the vegetated corridor following construction, and therefore, the WQR will continue to provide the potential for large wood recruitment and retention functions. The proposed bridge will completely span the creek and this will not have an adverse impact on channel dynamics.
 - Because the WQR will continue to be vegetated with a diverse plant community, the proposed project will not adversely affect the resource's ability to provide organic inputs to the stream and riparian area.
- (2) *To the extent practicable within the designated natural resource, the proposed activity shall be designed, located, and constructed to:*
- (a) *Minimize grading, removal of native vegetation, and disturbance and removal of native soils; by using the approaches described in Subsection 19.402.11.A, reducing building footprints, and using minimal excavation foundation systems (e.g., pier, post, or piling foundation).*

In accordance with MMC Subsection 19.402.11.A, the following measures will be implemented to minimize impacts to the WQR on the site:

- Work areas will be marked to reduce potential damage to the WQR.
- Trees in the WQR will not be used as anchors for stabilizing construction equipment.
- Native soils disturbed during development shall be conserved on the property.
- The Applicant has prepared a preliminary grading and erosion control plan. Prior to the start of any construction activities, the applicant will apply for a grading and erosion control permit, consistent with the standards required by the City's Public Works Department.
- The Applicant will implement best management practices on site to prevent the drainage of hazardous materials, erosion, pollution or sedimentation within the resources and the vegetative corridors.

- The Applicant has prepared a preliminary stormwater detention and water quality plan for the project which has been designed to prevent flows within and to natural drainage courses which might exceed pre-developed conditions.
- Prior to construction, the WQR that is to remain undeveloped will be flagged, fenced, or otherwise marked and shall remain undisturbed. Such markings will be maintained until construction is complete.
- The construction phase of the development shall be done in such a manner as to safeguard the resource portions of the site that have not been approved for development.
- Lights will be placed so that they do not shine directly into the WQR.
- The Applicant has prepared a Preliminary Grading and Erosion Control Plan which will conform to the requirements of 19.402.9. The Final Construction Grading and Erosion Control Plan will be provided to the City's Engineering Department prior to the commencement of construction activities.

(b) Minimize adverse hydrological impacts on water resources.

The implementation of the proposed stormwater management plan, which detains post-development runoff at or below pre-development release rates will ensure that hydrologic impacts to the water resource are minimized. The construction of a bridge that completely spans the stream channel will ensure the project avoids hydraulic impacts to the stream channel.

(c) Minimize impacts on wildlife corridors and fish passage.

The construction of a bridge that completely spans the stream channel will ensure the project avoids impacts to fish passage along this reach of Minthorn Creek. Restoration of a diverse native plant community within the riparian corridor will ensure that impacts to wildlife habitat are minimized.

(d) Allow for use of other techniques to further minimize the impacts of development in the resource area; such as using native plants throughout the site (not just in the resource area), locating other required landscaping adjacent to the resource area, reducing light spill-off into the resource area from development, preserving and maintaining existing trees and tree canopy coverage, and/or planting trees where appropriate to maximize future tree canopy coverage.

Impacts to the on-site resources have been minimized to the extent practicable.

c. Mitigate

If the applicant demonstrates that there is no practicable alternative that will avoid disturbance of the designated natural resource, then the proposed activity shall mitigate for adverse impacts to the resource area. All proposed mitigation plans shall meet the following standards:

- (1) The mitigation plan shall demonstrate that it compensates for detrimental impacts to the ecological functions of resource areas, after taking into consideration the applicant's efforts to minimize such detrimental impacts.*

As described above, implementation of the proposed mitigation will ensure the proposed project minimizes adverse effects to the ecological functions of the WQR and loss of habitat, as follows:

- The minimization of areal impacts as well as the proposed plantings to restore a native plant community on the south side of Minthorn Creek will ensure that the WQR

continues to provide a vegetated corridors that separates protected water features from development.

- As the proposed tree and shrub plantings south of Minthorn Creek mature, they will increasingly provide microclimate regulation and shade for the stream, and provide better microclimate regulation and shade as compared to the existing plant community on the south side of the creek.
- As the proposed tree and shrub plantings south of Minthorn Creek mature, they will provide more effective streamflow moderation during high flow events than the Himalayan blackberry and herbaceous plant community that is present under existing conditions.
- The diverse plant community within the WQR will continue to provide water filtration, infiltration, and natural purification functions. The proposed project will not adversely affect these functions.
- The proposed restoration plantings and the resulting diverse plant community within the WQR will continue to provide bank stabilization and sediment and pollution control functions. The proposed project will not adversely affect these functions.
- Trees will remain within the vegetated corridor following construction, and therefore, the WQR will continue to provide the potential for large wood recruitment and retention functions. The proposed bridge will completely span the creek and this will not have an adverse impact on channel dynamics.
- Because the WQR will continue to be vegetated with a diverse plant community, the proposed project will not adversely affect the resource's ability to provide organic inputs to the stream and riparian area.

(2) Mitigation shall occur on the site of the disturbance, to the extent practicable. Off-site mitigation for disturbance of WQRs shall not be approved. Off-site mitigation for disturbance of HCAs shall be approved if the applicant has demonstrated that it is not practicable to complete the mitigation on-site and if the applicant has documented that they can carry out and ensure the success of the off-site mitigation as outlined in Subsection 19.402.11.B.5.

In addition, if the off-site mitigation area is not within the same subwatershed (6th Field Hydrologic Unit Code) as the related disturbed HCA, the applicant shall demonstrate that it is not practicable to complete the mitigation within the same subwatershed and that, considering the purpose of the mitigation, the mitigation will provide more ecological functional value if implemented outside of the subwatershed.

All mitigation will occur on site.

(3) All revegetation plantings shall use native plants listed on the Milwaukie Native Plant List.

Only native species will be installed in the revegetation plantings. A list of species to be planted is provided in Table 4, above.

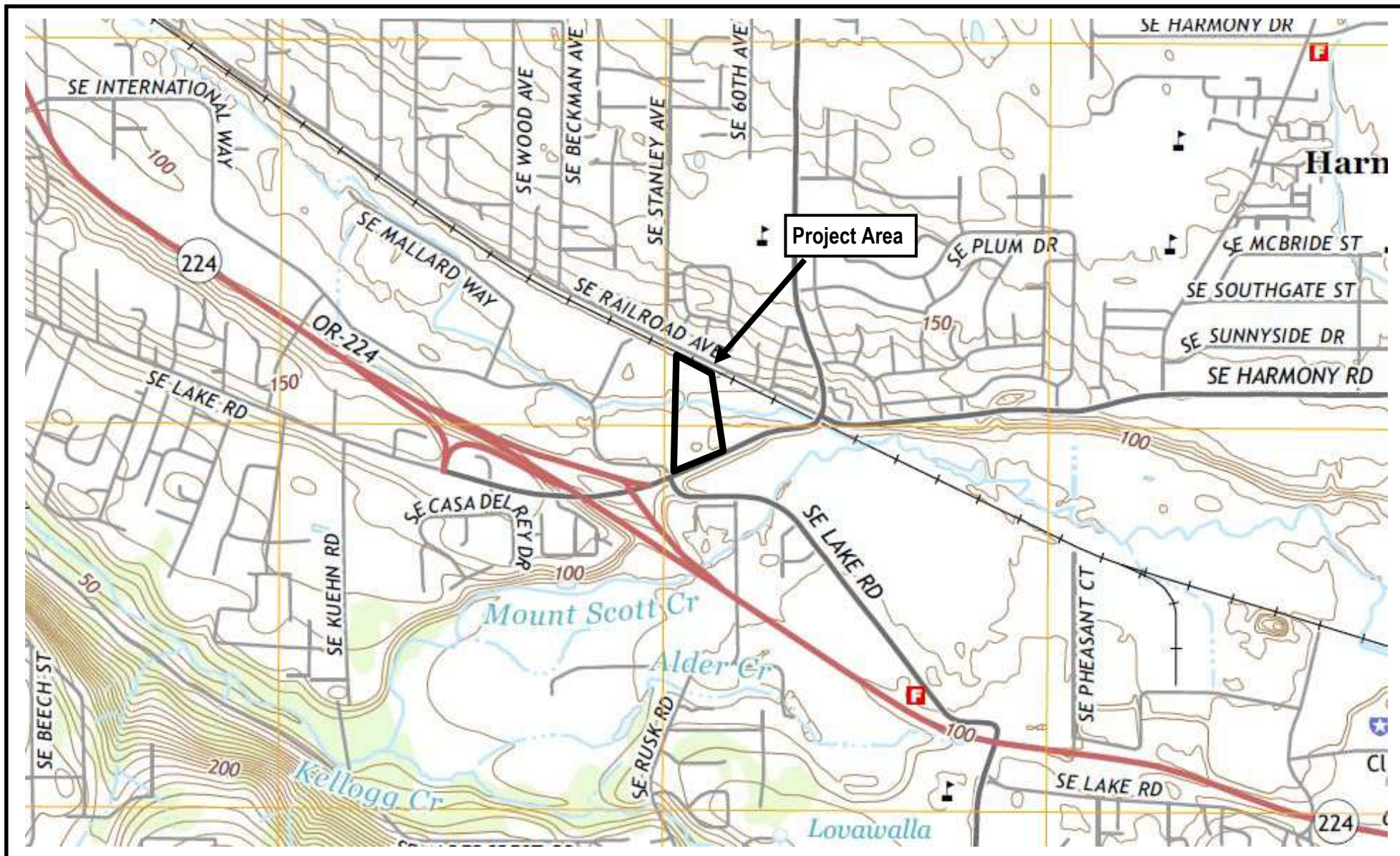
(4) All in-stream work in fish-bearing streams shall be done in accordance with the allowable windows for in-water work as designated by ODFW.

No in-stream work is proposed to occur with this project.

(5) A mitigation maintenance plan shall be included and shall be sufficient to ensure the success of the planting. Compliance with the plan shall be a condition of development approval.

The Applicant will undertake the following mitigation maintenance measures to ensure a minimum of 80 percent of the trees and shrubs planted remain alive two years after the mitigation planting is completed.

- New plantings will be mulched to a minimum of 3-inch depth and 18-inch diameter to retain moisture and discourage weed growth.
- Non-native or noxious vegetation will be removed or controlled throughout the maintenance period.
- Plant sleeves or fencing will be used to protect trees and shrubs against wildlife browsing and the resulting damage to plants.
- New plantings will be watered at a rate of 1 inch per week between June 15 and October 15 for the first two years following planting.



Project #6023
09/14/2016

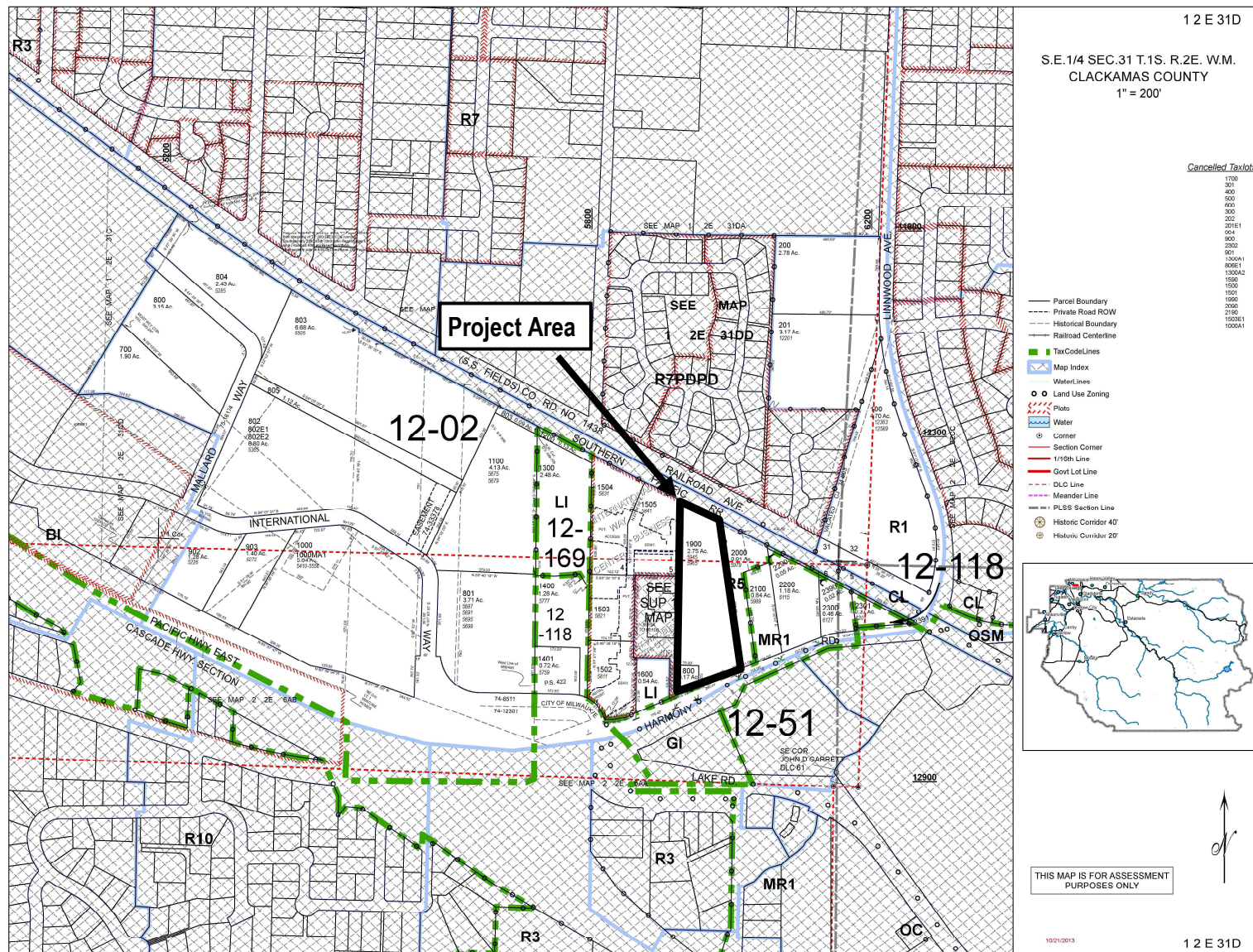


Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

General Location and Topography
Harmony Road Self Storage - Milwaukie, Clackamas County, Oregon
United States Geological Survey (USGS), Gladstone, OR, 7.5 Quadrangle, 2014

FIGURE

1



Project #6023
09/14/2016

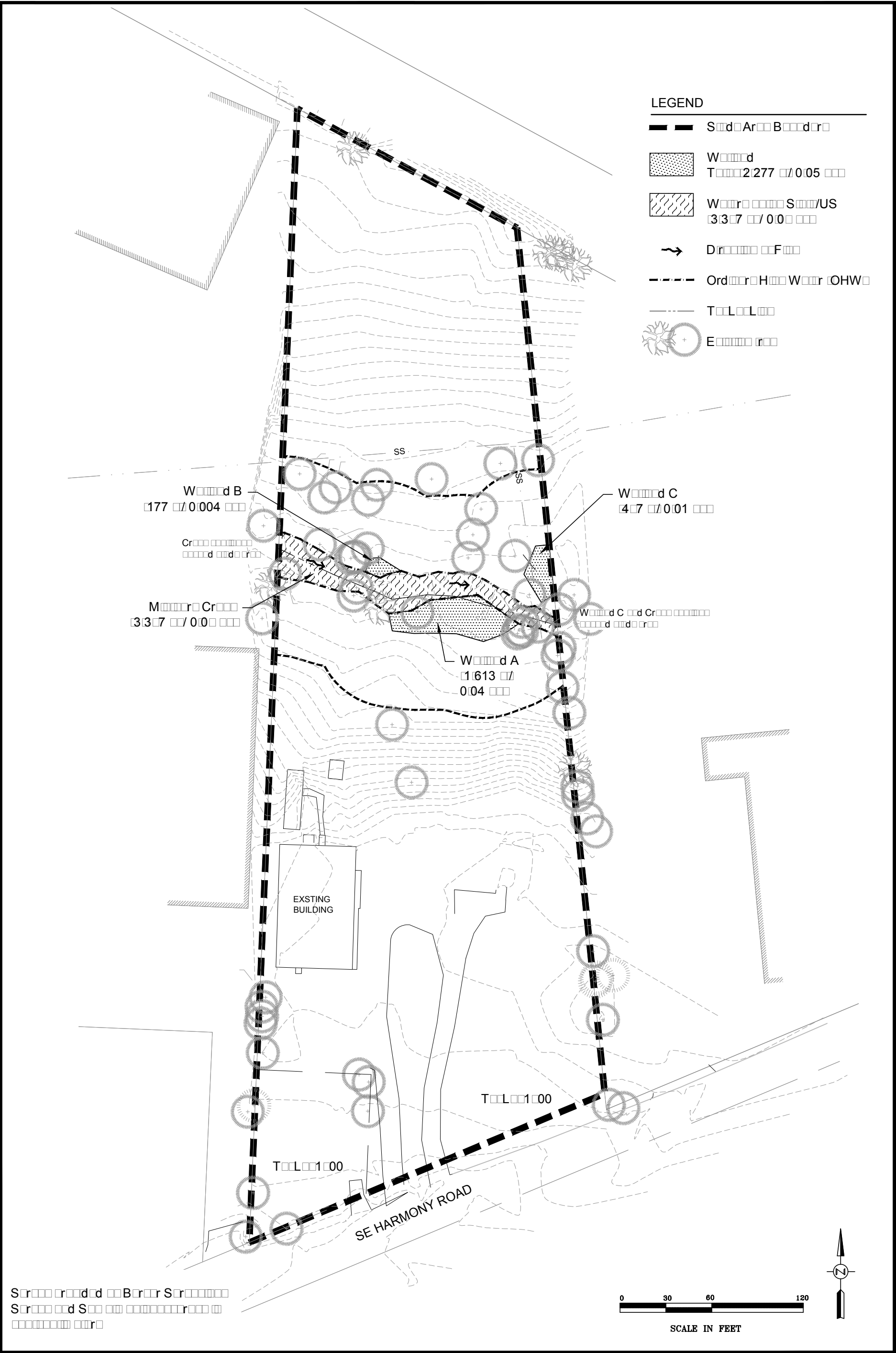


Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Tax Lot Map
Harmony Road Self Storage - Milwaukie, Clackamas County, Oregon
The Oregon Map (ormap.net)

FIGURE

2

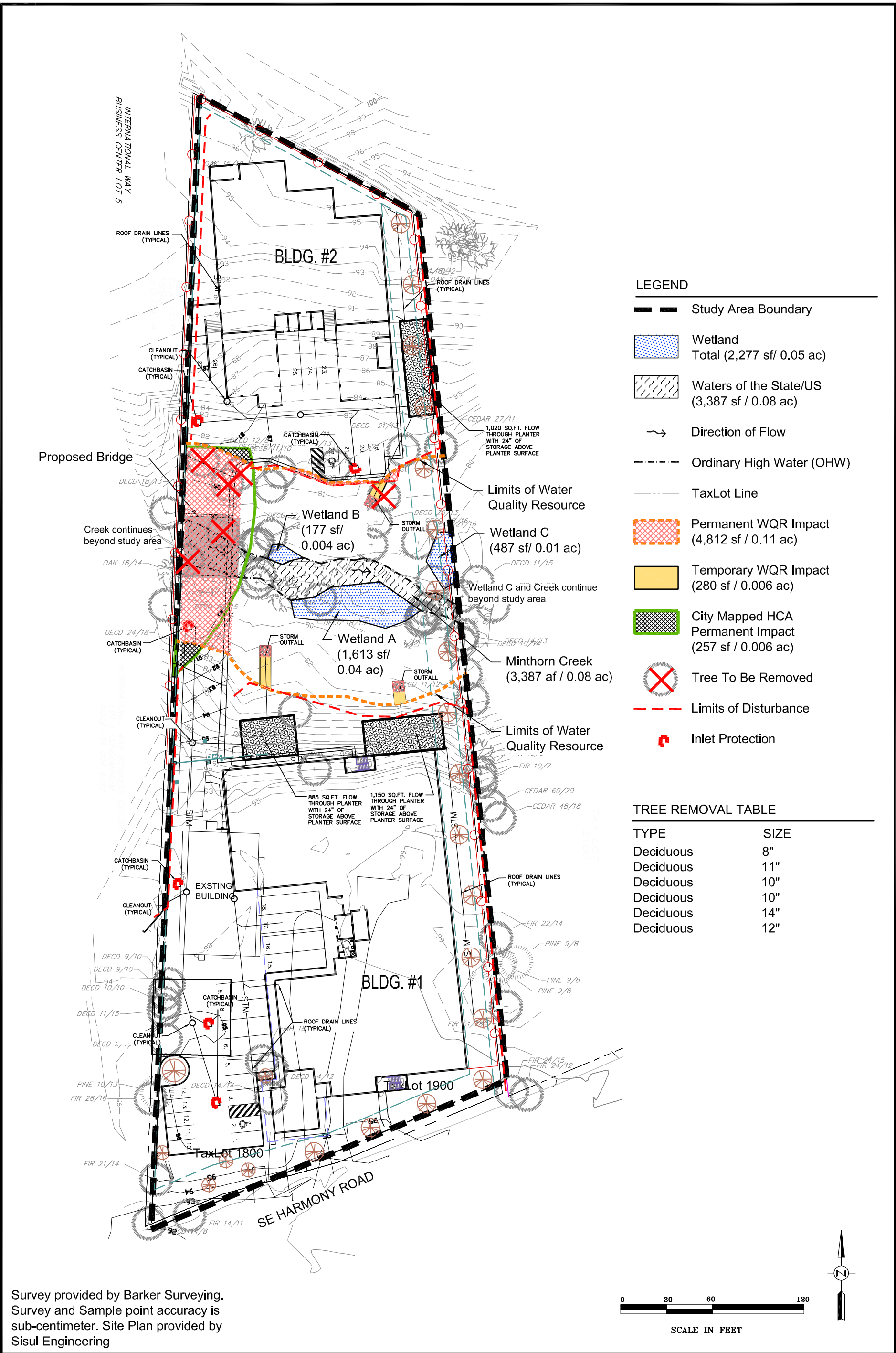


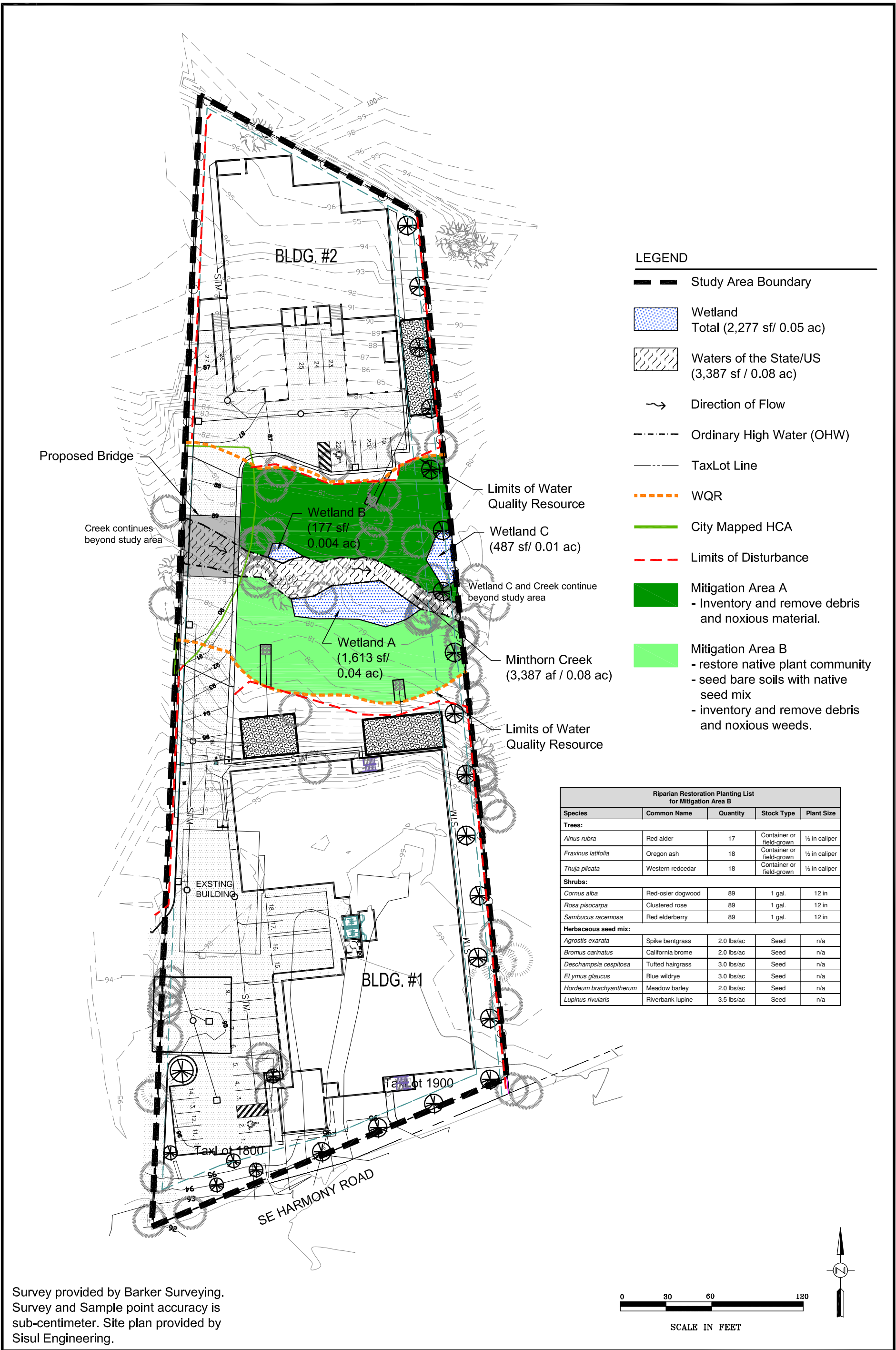
PHS
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
P 503.570.0.00 F 503.570.0.55

Environmental Condition
Harmon Road S... S... C... C... OR

FIGURE
3

21/2016







Oregon

Kate Brown, Governor

Department of State Lands

775 Summer Street NE, Suite 100

Salem, OR 97301-1279

(503) 986-5200

FAX (503) 378-4844

www.oregonstatelands.us

March 4, 2015

HT Investment Properties, LLC
Attn: Hans Thygeson
825 Harritt Dive Northwest
Salem, OR 97304

Re: WD #2014-0547 Wetland Delineation Report for a Proposed Commercial
Development at 6011 SE Harmony Road
Clackamas County; T1S R2E Sec. 31D, Tax Lots 1800 and 1900

Dear Mr. Thygeson:

The Department of State Lands has reviewed the wetland delineation report prepared by Pacific Habitat Services, Inc. for the site referenced above. Based upon the information presented in the report and additional information submitted upon request, we concur with the wetland and waterway boundaries as mapped in Figure 6 of the report. Within the study area, three wetlands (totaling approximately 0.054 acres) and a segment of Minthorn Creek were identified.

The wetlands and creek are subject to the permit requirements of the state Removal-Fill Law. Under current regulations, a state permit is required for cumulative fill or annual excavation of 50 cubic yards or more in wetlands or below the ordinary high water line (OHWL) of a waterway (or the 2 year recurrence interval flood elevation if OHWL cannot be determined).

This concurrence is for purposes of the state Removal-Fill Law only. Federal or local permit requirements may apply as well. The Army Corps of Engineers will review the report and make a determination of jurisdiction for purposes of the Clean Water Act at the time that a permit application is submitted. We recommend that you attach a copy of this concurrence letter to both copies of any subsequent joint permit application to speed application review.

Please be advised that state law establishes a preference for avoidance of wetland impacts. Because measures to avoid and minimize wetland impacts may include reconfiguring parcel layout and size or development design, we recommend that you work with Department staff on appropriate site design before completing the city or county land use approval process.

This concurrence is based on information provided to the agency. The jurisdictional determination is valid for five years from the date of this letter unless new information necessitates a revision. Circumstances under which the Department may change a determination are found in OAR 141-090-0045 (available on our web site or upon request). In addition, laws enacted by the legislature and/or rules adopted by the Department may result in a change in jurisdiction; individuals and applicants are subject to the regulations that are in effect at the time of the removal-fill activity or complete permit application. The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months of the date of this letter.

Thank you for having the site evaluated. Please phone me at 503-986-5232 if you have any questions.

Sincerely,



Peter Ryan, PWS
Jurisdiction Coordinator

Approved by



Kathy Verble, CPSS
Aquatic Resource Specialist

Enclosures

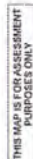
ec: Craig Tumer, PWS, Pacific Habitat Services
City of Milwaukie Planning Department
Dominic Yballe, Corps of Engineers
Anita Huffman, DSL



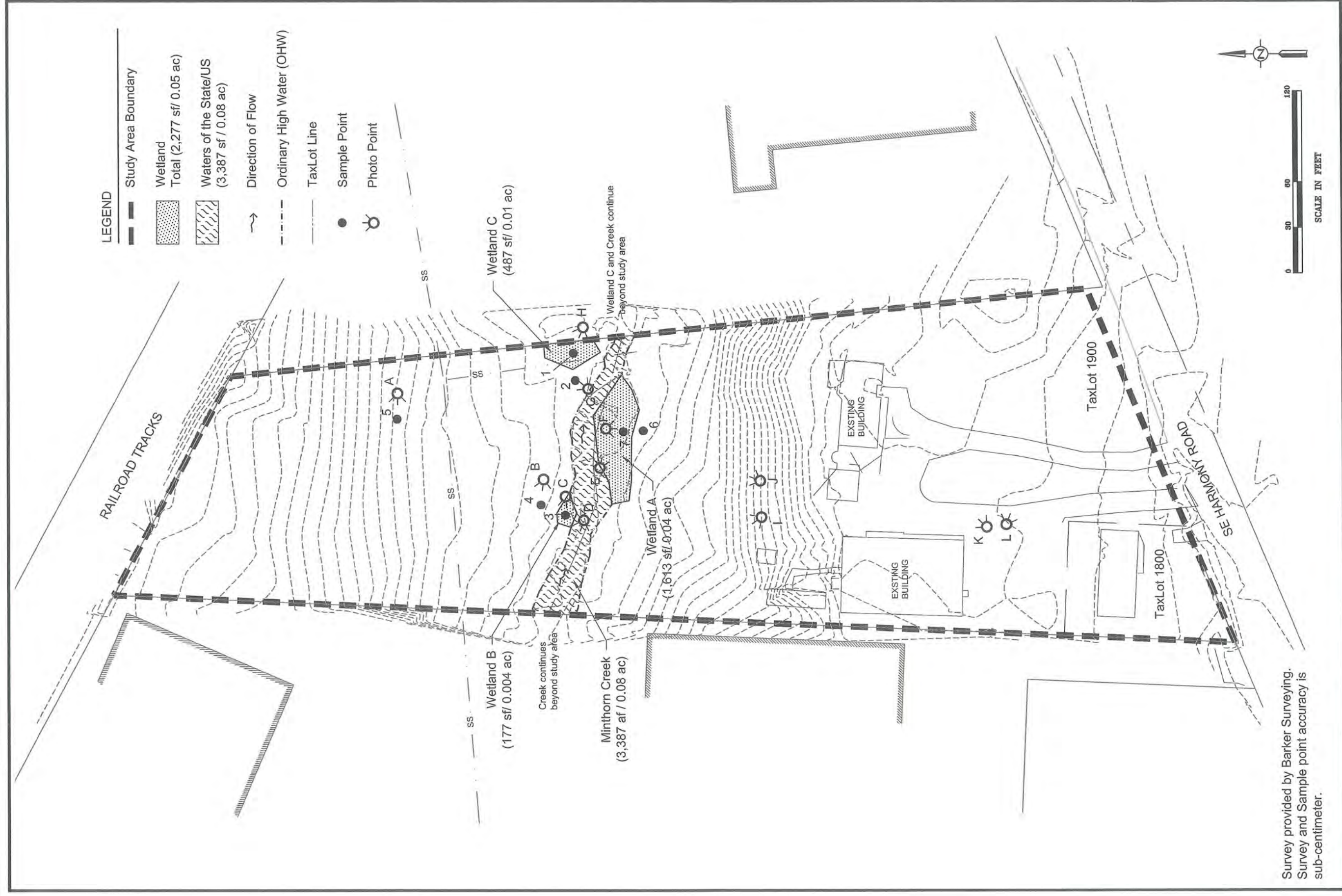
12/16/14



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070



Tax Lot Map 1 2 E 31D, lots 1800 & 1900 Clackamas County
6011 SE Harmony Road - Portland, Oregon
(ornmap.net, 2014)



Survey provided by Barker Surveying.
Survey and Sample point accuracy is sub-centimeter.

PHS
Pacific Habitat Services, Inc.
9459 SW Commerce Circle, Suite 100 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax: (503) 570-0655













DSL WD # 2014-0547
Approval Issued 3/4/2015
Approval Expires 3/4/2020

Wetland Delineation
6011 SE Harmony Road - Clackamas County, OR

FIGURE
6

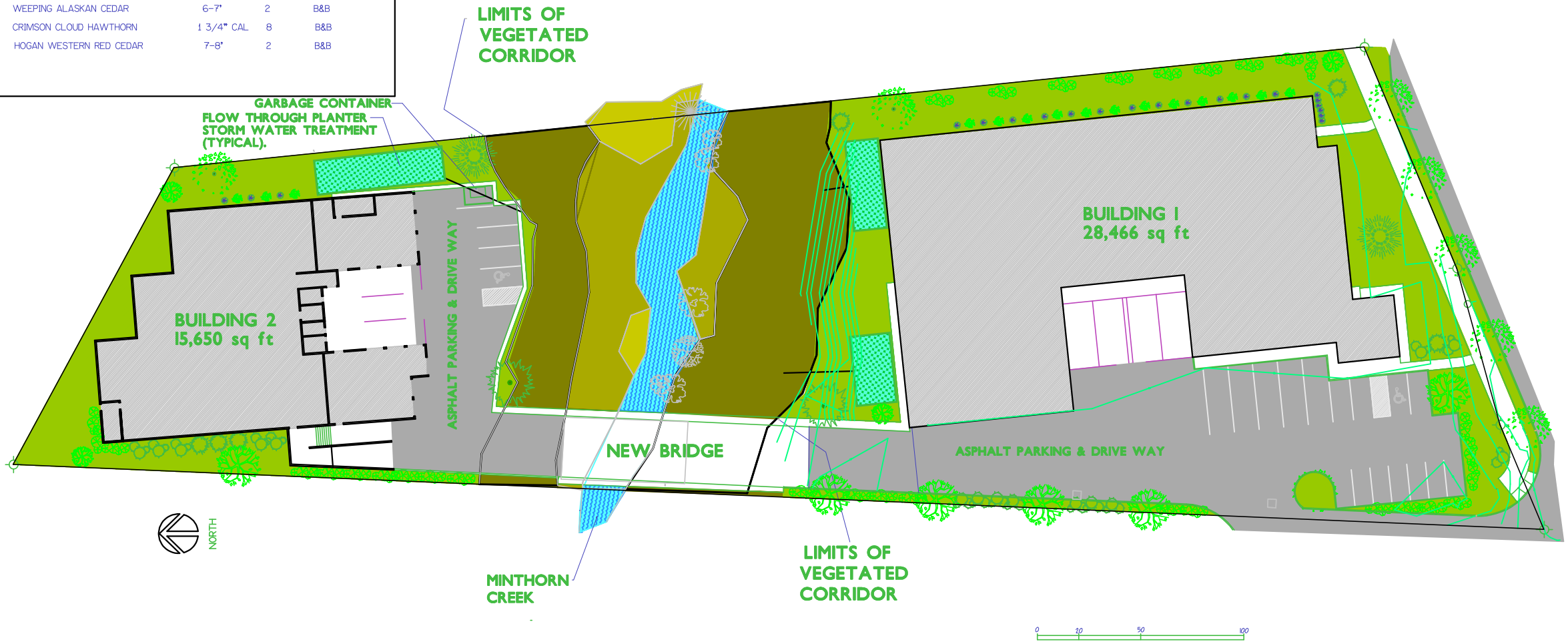
12-05-2014

LANDSCAPE LEGEND:

SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	QTY.	COMMENTS
	GROUNDCOVERS/ PERENNIALS				
	ACTOSTAPHYLOS UVA-URSI	KINNICKINICK	1 GAL.	3" O.C.	CONTAINER
	CAREX STIPATA	SAWBEAK SEDGE	1 GAL.	12" O.C.	CONTAINER
	IRIS SIBERIAN	SIBERIAN IRIS	1 GAL.	12" O.C.	CONTAINER
	MOHONIA REPENS	CREeping MAHONIA	1 GAL.	3" O.C.	CONTAINER
	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	1 GAL.	12" O.C.	CONTAINER
	RUBUS CALYCINOIDES	CREeping RASBERRY	4" POT	3" O.C.	CONTAINER
SHRUBS					
	CORNUS ALBA 'ELAGANTISSIMA'	VARIGATED REDTRIG DOGWOOD	3 GAL.	4	CONTAINER
	HOLODISCUS DISCOLOR	OCEANSPRAY	3 GAL.	16	CONTAINER
	MAHONIA AQUIFOLIUM	OREGON GRAPE	5 GAL.	35	CONTAINER
	ROSA RUGOSA	RUGOSA ROSE	3 GAL.	6	CONTAINER
	SPIRAEA DOUGLASII	DOUGLASII WESTERN SPIRAEA	3 GAL.	3	CONTAINER
	BERBERIS THUNDERGII	BAR BERRY	3 GAL.	30	CONTAINER
	BOXUS SINICA	BOXWOOD	3 GAL.	21	CONTAINER
TREES					
	ACER CIRCINATUM	VINE MAPLE	5-6"	5	B&B
	CHAMAECYPARIS NOOT 'PENDULA'	WEEPING ALASKAN CEDAR	6-7"	2	B&B
	CRATAEGUS LAEV. 'CRIMSON CLOUD'	CRIMSON CLOUD HAWTHORN	1 3/4" CAL.	8	B&B
	THUJA PLICATA 'HOGAN'	HOGAN WESTERN RED CEDAR	7-8"	2	B&B

APPROXIMATE AREAS:

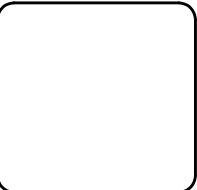
TOTAL LOT AREA :	124,843 SQ FT
(15% = 18,726.45 SQ FT)	
BUILDING AREA:	44,116 SQ FT
LANDSCAPED AREA:	
BARKDOUST AND BEDS:	26,000 SQ FT
PARKING & DRIVEWAYS:	22,010 SQ FT
BALANCE OF AREA IS CREEK AND BRIDGE	



PRELIMINARY LANDSCAPE PLAN

SCALE: 1" = 20'-0"

REVISIONS	DATE
5.3 Page 69	



CREATIONS
NORTHWEST

West Linn, Oregon

HARMONY ROAD
SELF STORAGE

5965 SE Harmony Rd
Milwaukie, Oregon

COMMERCIAL STORAGE BUILDINGS

PRELIMINARY
LANDSCAPE
PLAN

CADD NAME:	HARMONY LNDSKP
DATE:	7-15-15
SCALE:	AS SHOWN
DRAWN BY:	R L H
PROJECT	HARMONY

SHEET No.
4.1

of

REVISIONS	DATE

CREATIONS
NORTHWEST

West Linn, Oregon

HARMONY ROAD
SELF STORAGE

5965 SE Harmony Rd
Milwaukie, Oregon

COMMERCIAL STORAGE BUILDINGS

PRELIMINARY
LIGHTING
PLAN

CADD NAME:
HARMONY LITING

DATE: 9-26-16

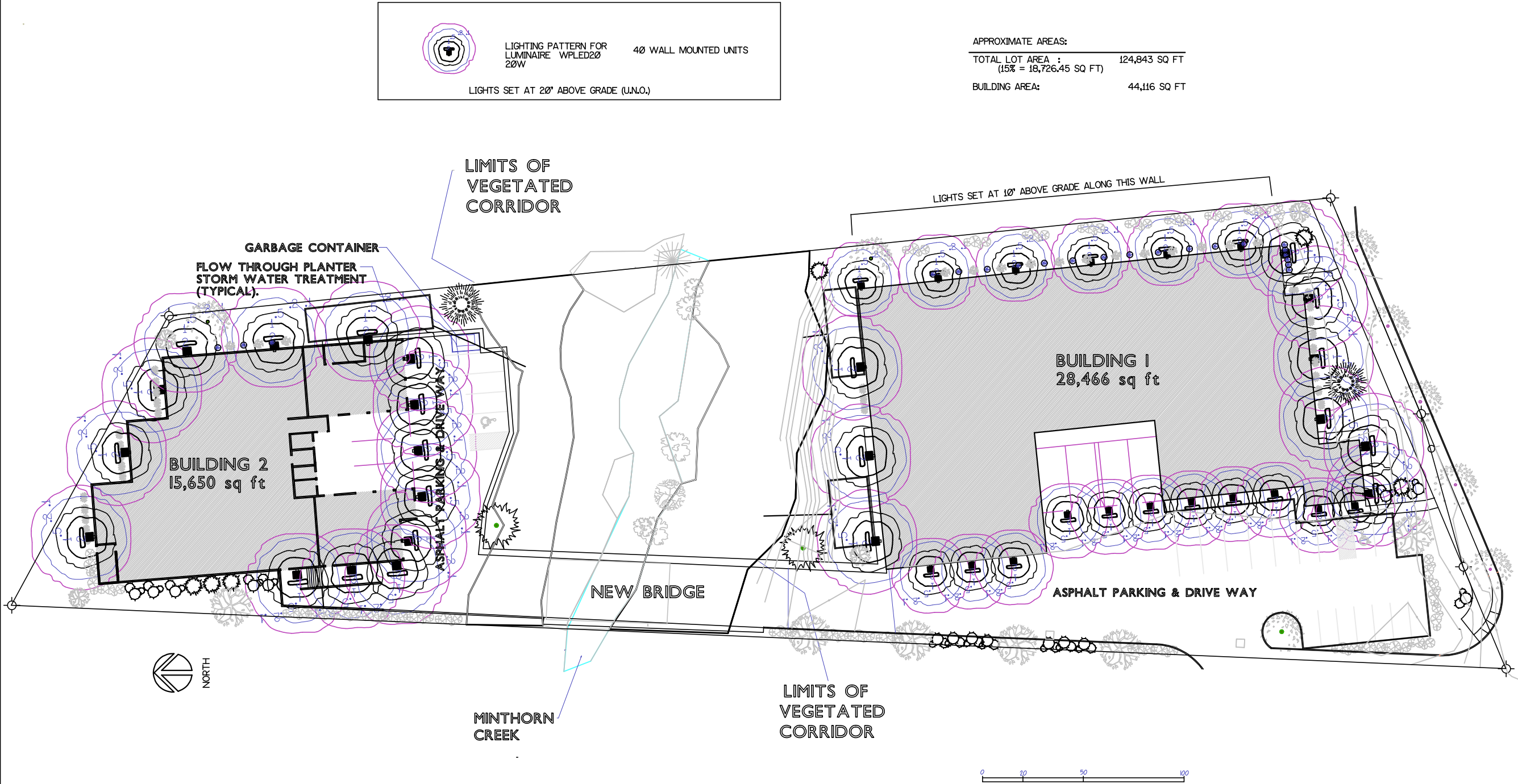
SCALE: AS SHOWN

DRAWN BY: R L H

PROJECT #HARMONY

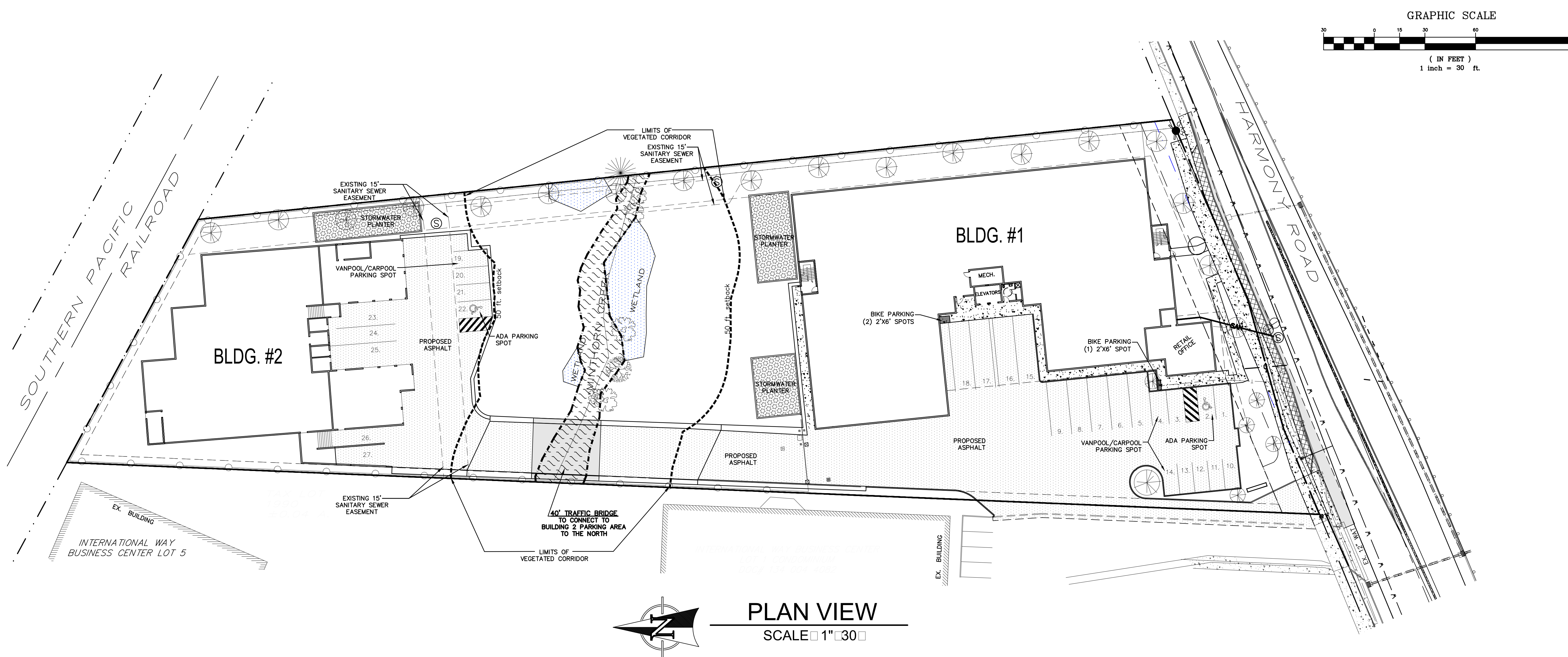
SHEET No.
4.2

of



PRELIMINARY LIGHTING PLAN

SCALE: 1" = 20'-0"



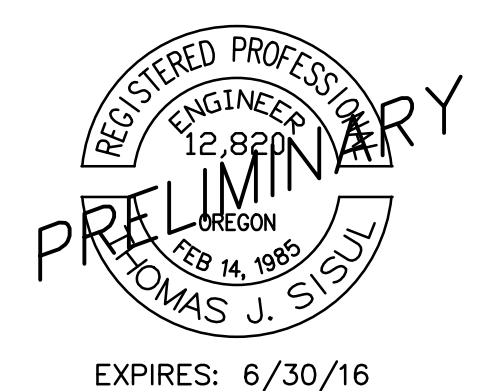
REVISIONS	BY

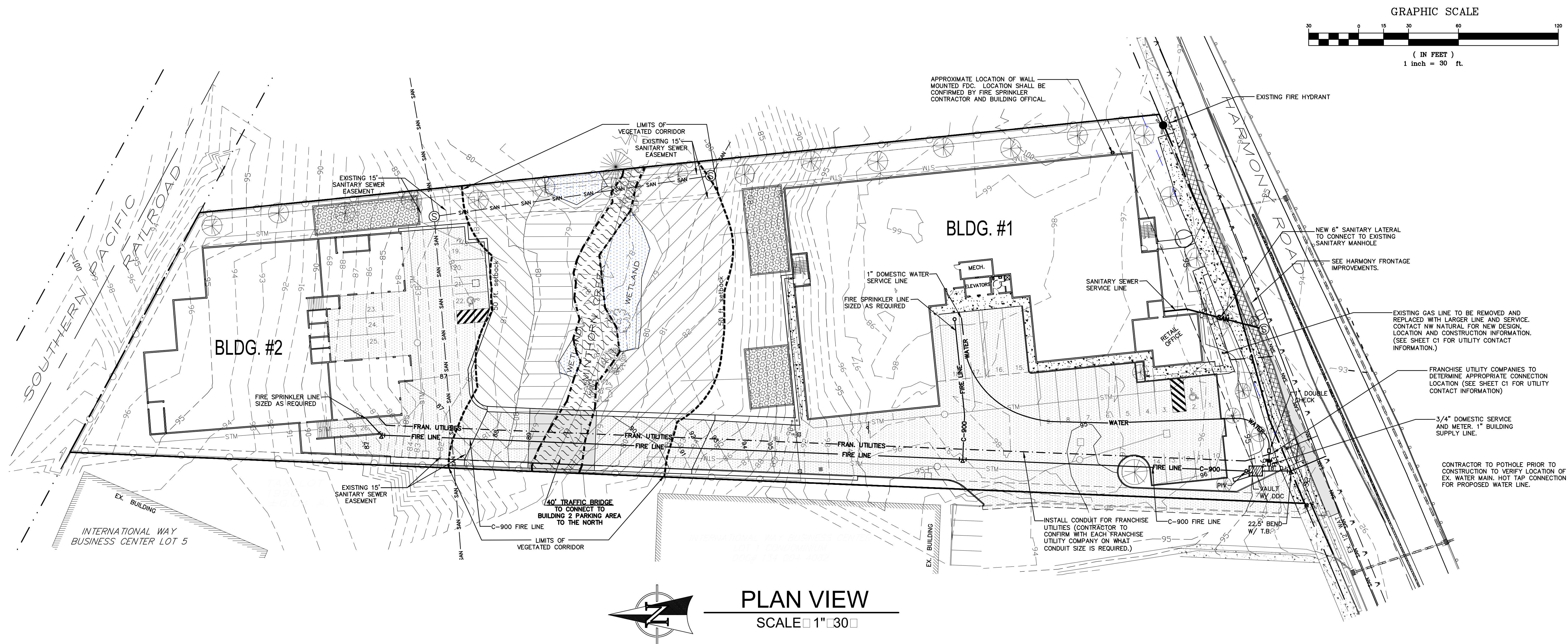
**HARMONY ROAD
SELF STORAGE**
H.T. INVESTMENTS, LLC.

Preliminary Site Plan

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188
DRAWING: c07-113-SITE.dwg

DATE	SEPT 2016
SCALE	NOTED
DRAWN	JVM
JOB	SQL 07-113
SHEET	C1
OF	6 SHEETS





PLAN VIEW

SCALE 1"=30'

**HARMONY ROAD
SELF STORAGE**

Preliminary Utility Plan

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DATE	JULY 2015
SCALE	NOTED
DRAWN	JEE
JOB	SGL 07-113
SHEET	
	C2
OF 6	SHEETS

REGISTERED PROFESSIONAL ENGINEER
12,820
OREGON
THOMAS J. SISUL
PRELIMINARY
EXPIRES: 6/30/16

REVISIONS	BY
REVISED PER CITY COMMENTS (8-26-16)	JMM

HARMONY ROAD
SELF STORAGE
H.T. INVESTMENTS, LLC.

Preliminary Storm Drain Plan

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188
DRAWING: c07-113-STORM.dwg

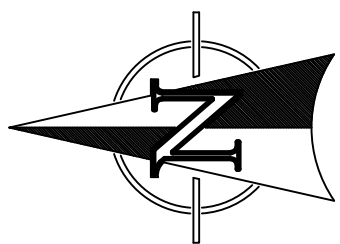
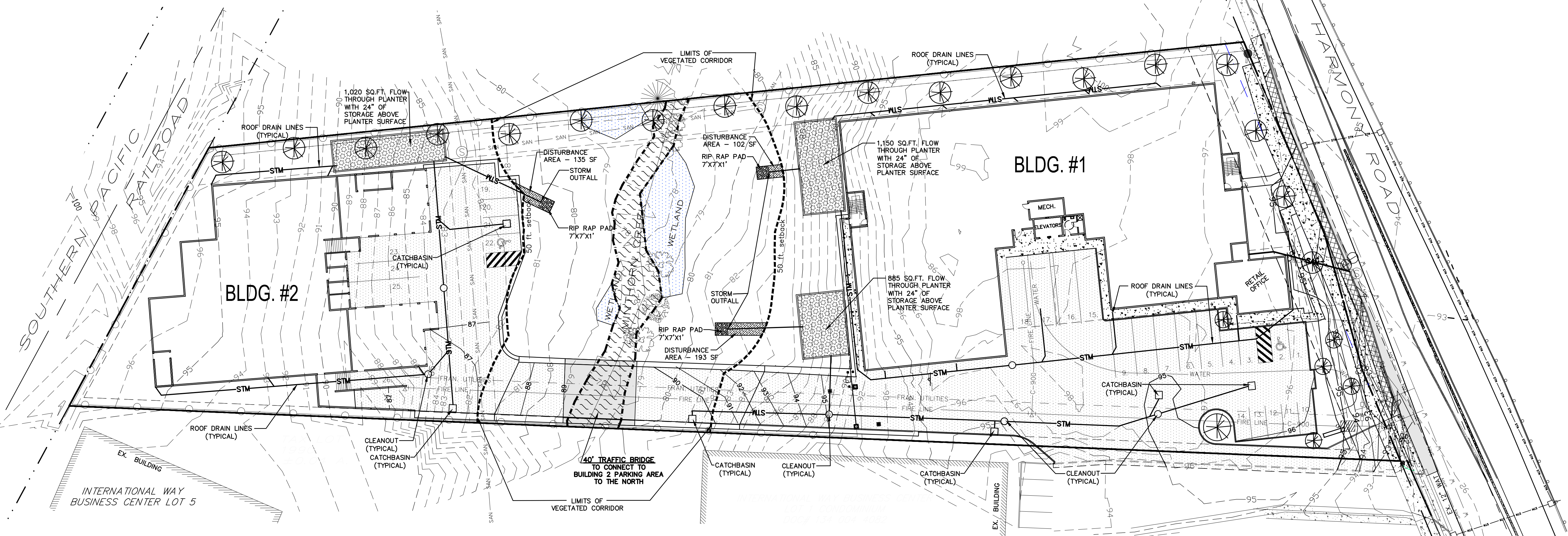
DATE	JULY 2015
SCALE	NOTED
DRAWN	JEE
JOB	SGL 07-113
SHEET	

C3
OF 6 SHEETS

GRAPHIC SCALE

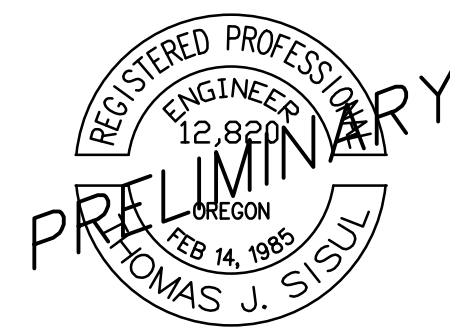


(IN FEET)
1 inch = 30 ft.

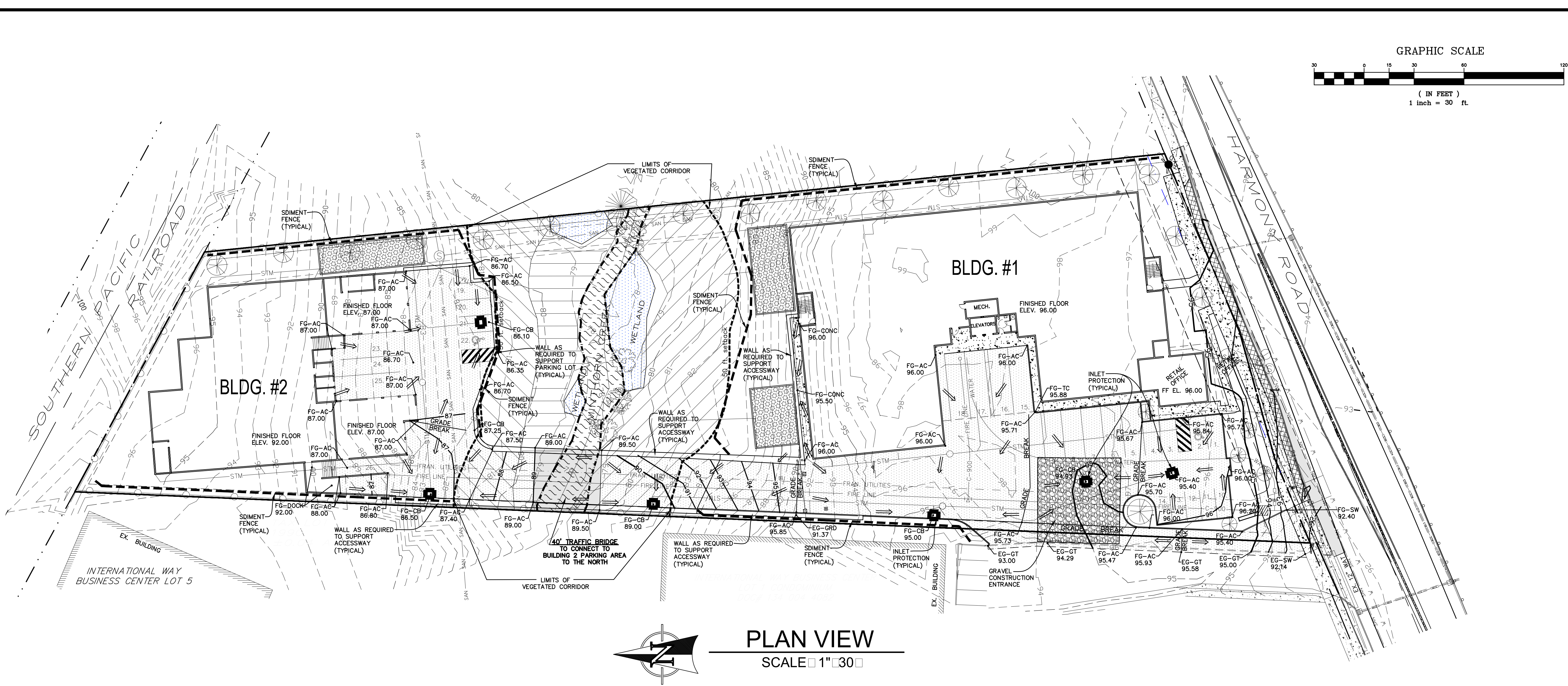


PLAN VIEW

SCALE 1" = 30'



EXPIRES: 6/30/16



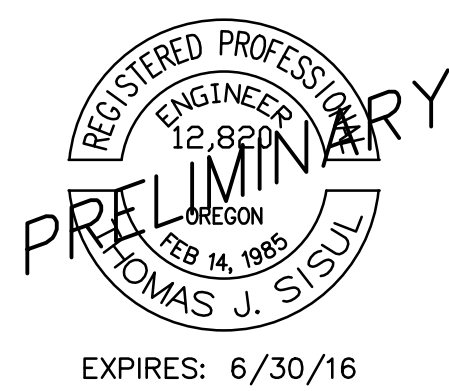
REVISIONS	BY
REVISED PER CITY COMMENTS (2-26-16)	JMM

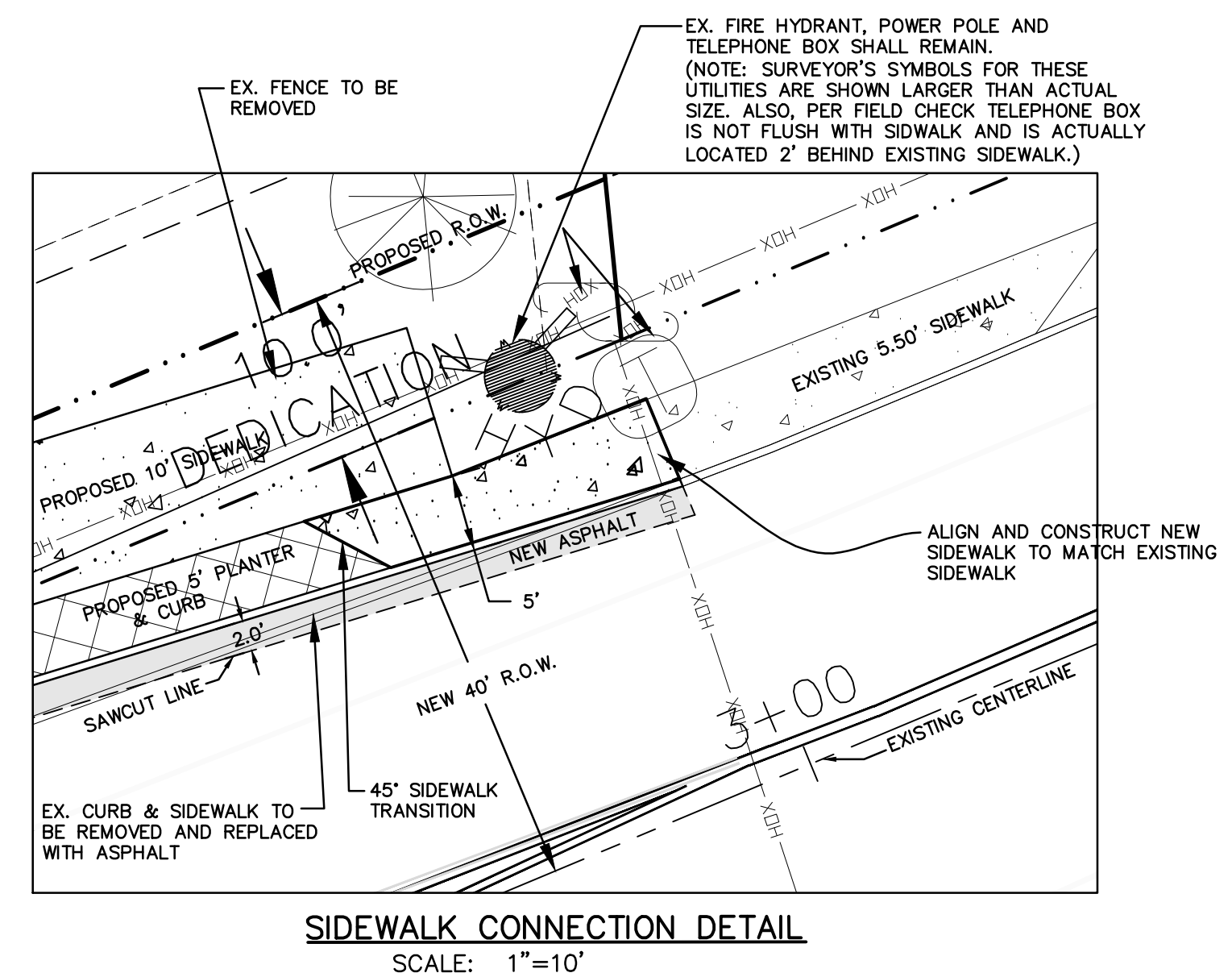
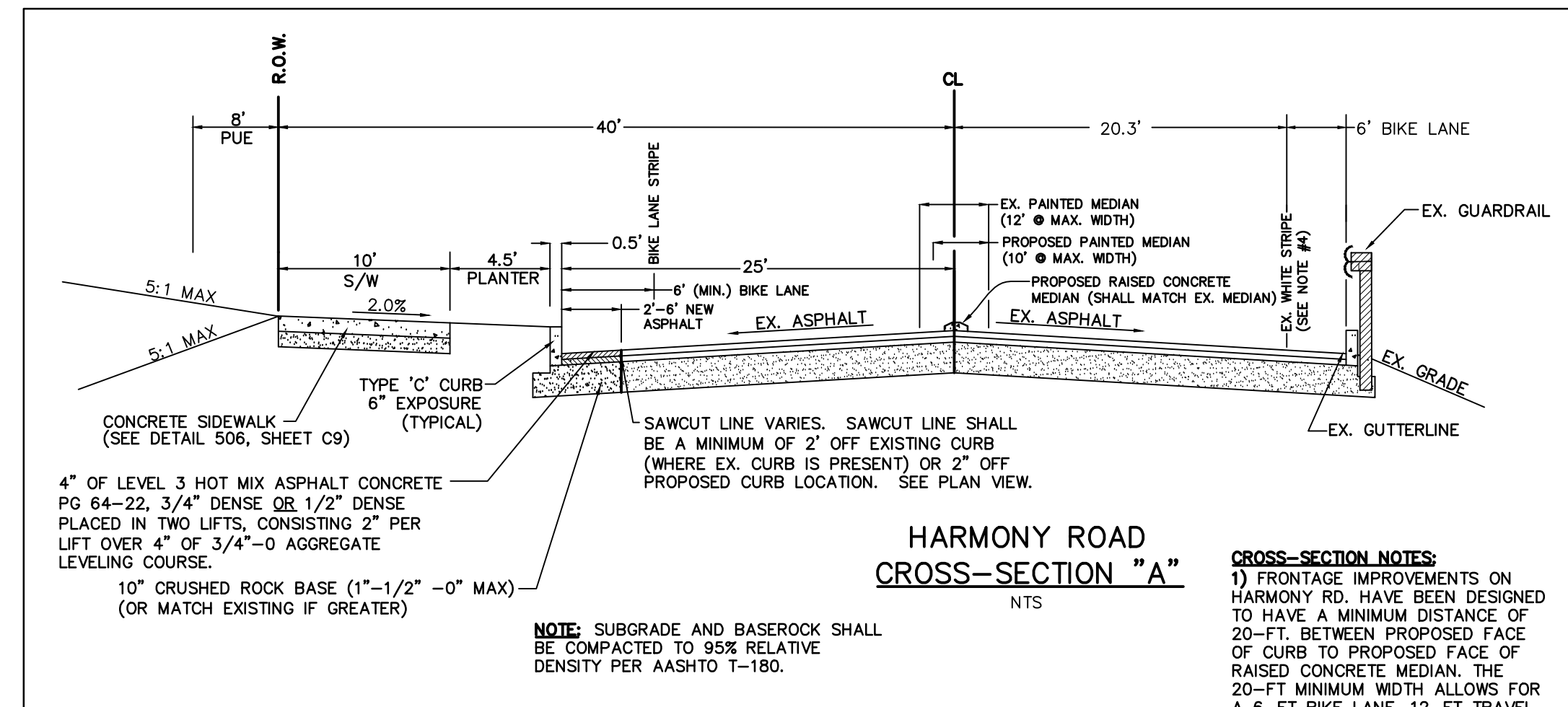
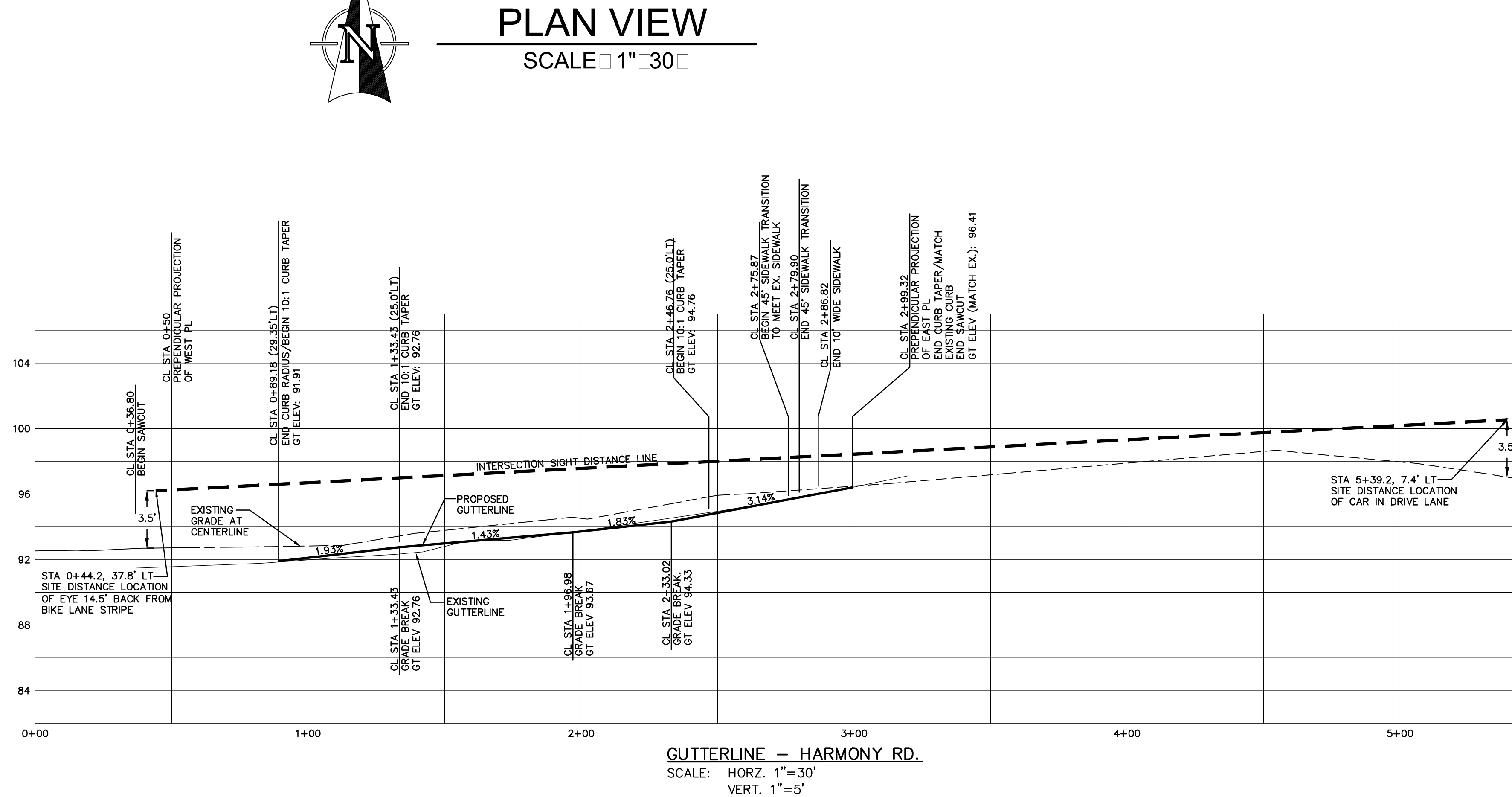
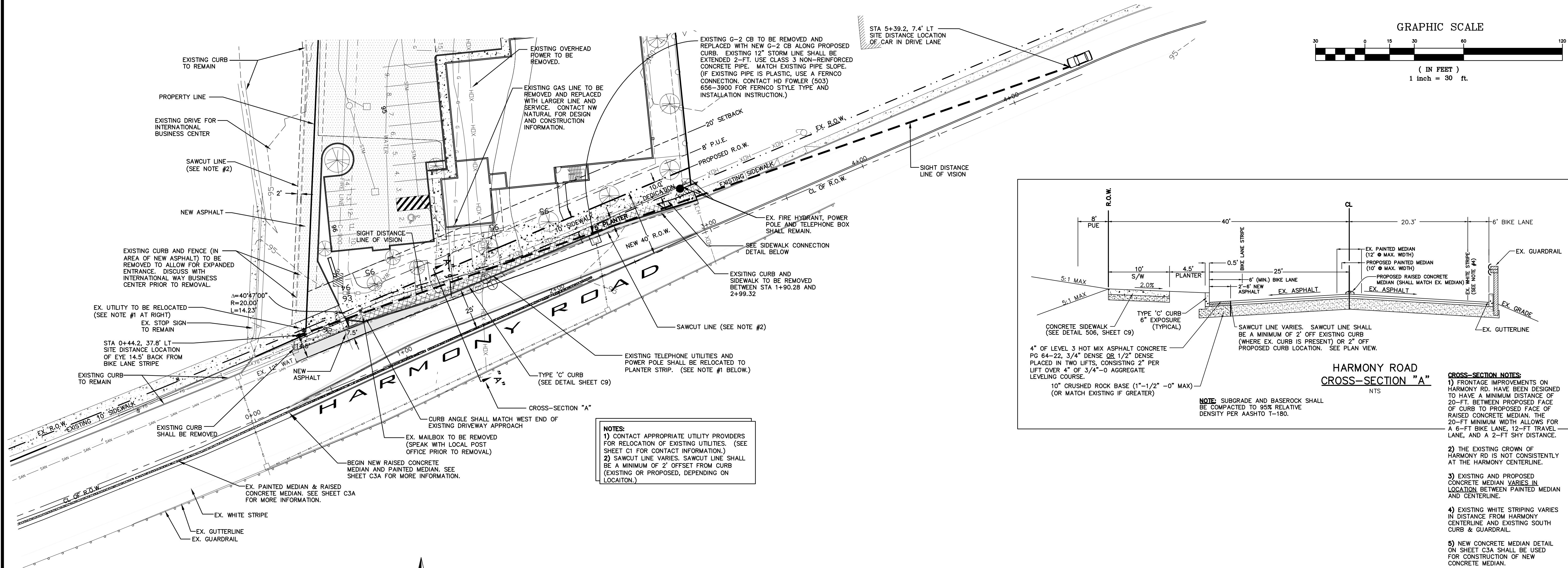
**HARMONY ROAD
SELF STORAGE**
H.T. INVESTMENTS, LLC.

**Preliminary Grading and
Erosion Control Plan**

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188
DRAWING: c07-113-GRADE.dwg

DATE	JULY 2015
SCALE	NOTED
DRAWN	JEE
JOB	SGL 07-113
SHEET	C4
OF	6 SHEETS



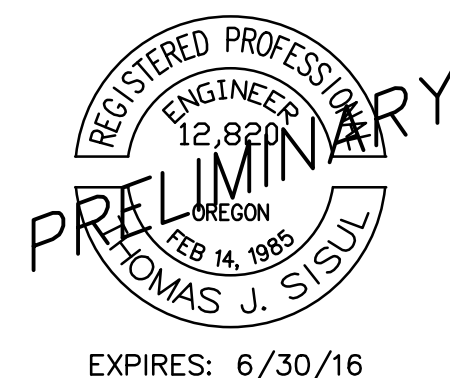


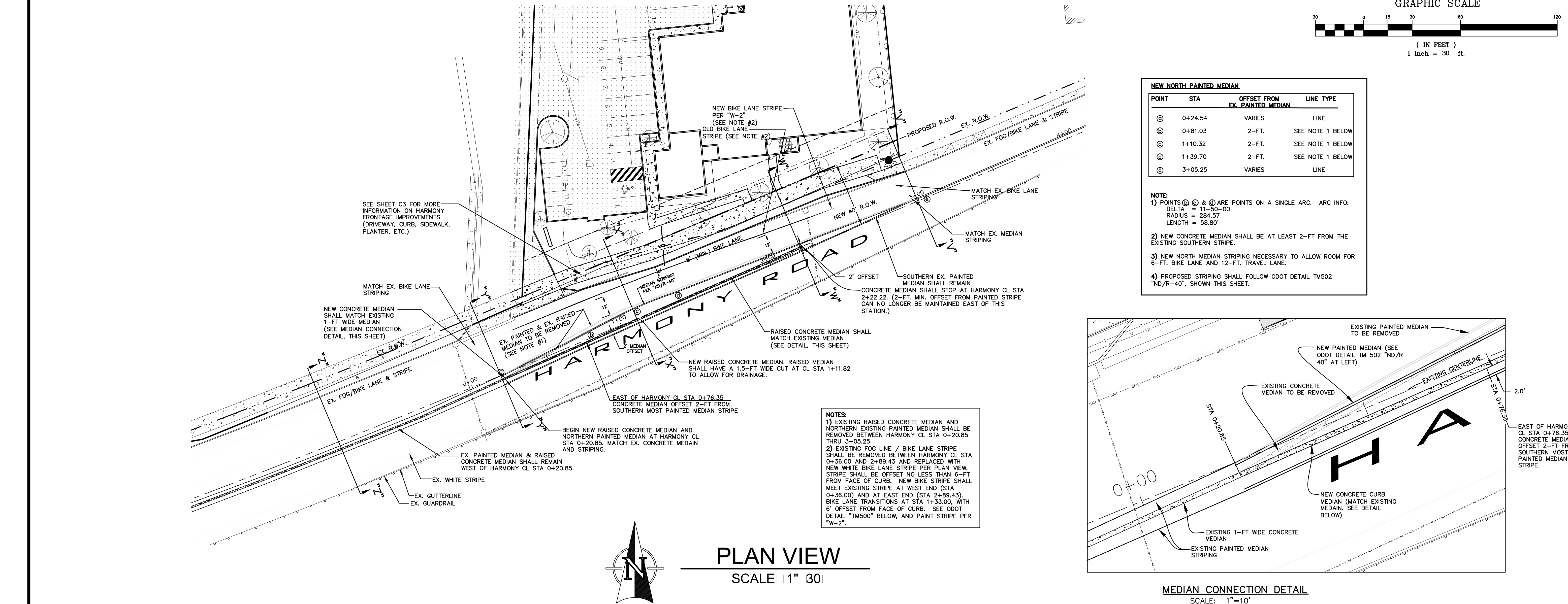
**HARMONY ROAD
SELF STORAGE**
H.T. INVESTMENTS, LLC.

Harmony Frontage Improvements

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188
DRAWING: c07-113-FRONTAGE.dwg

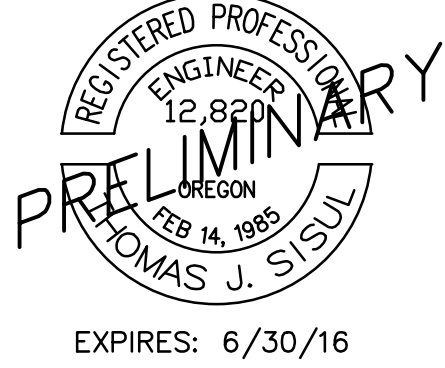
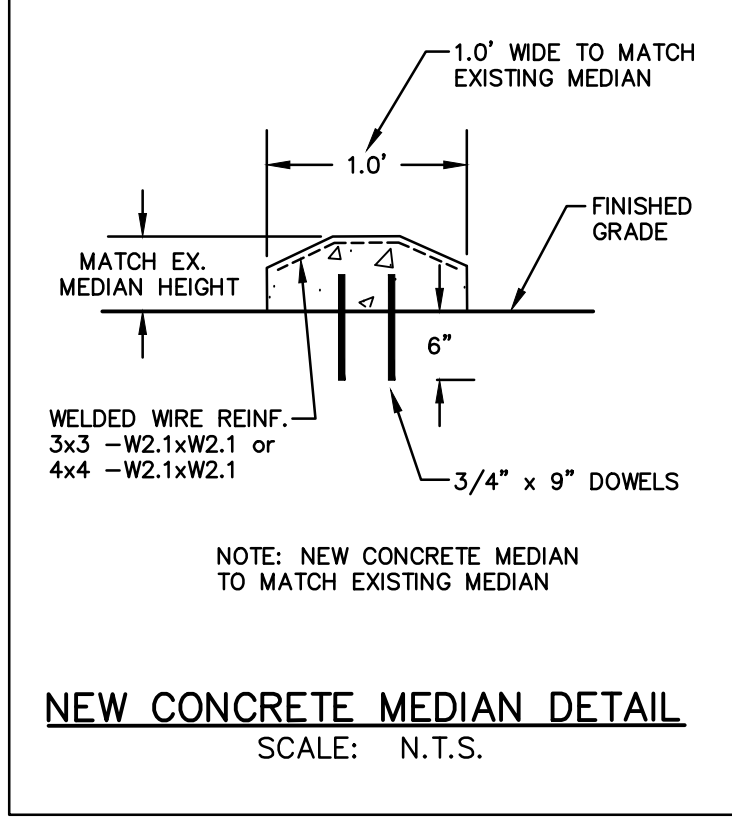
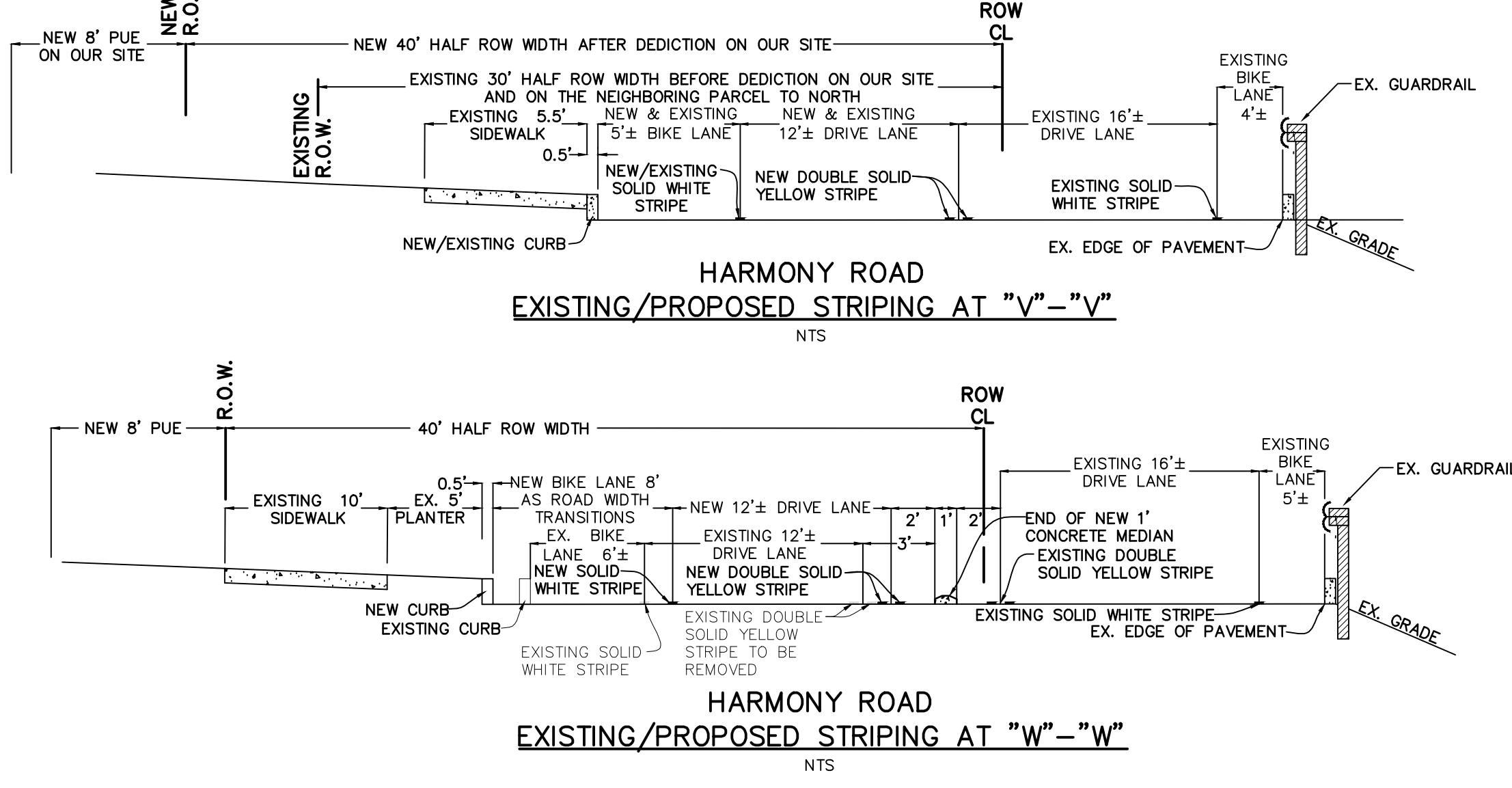
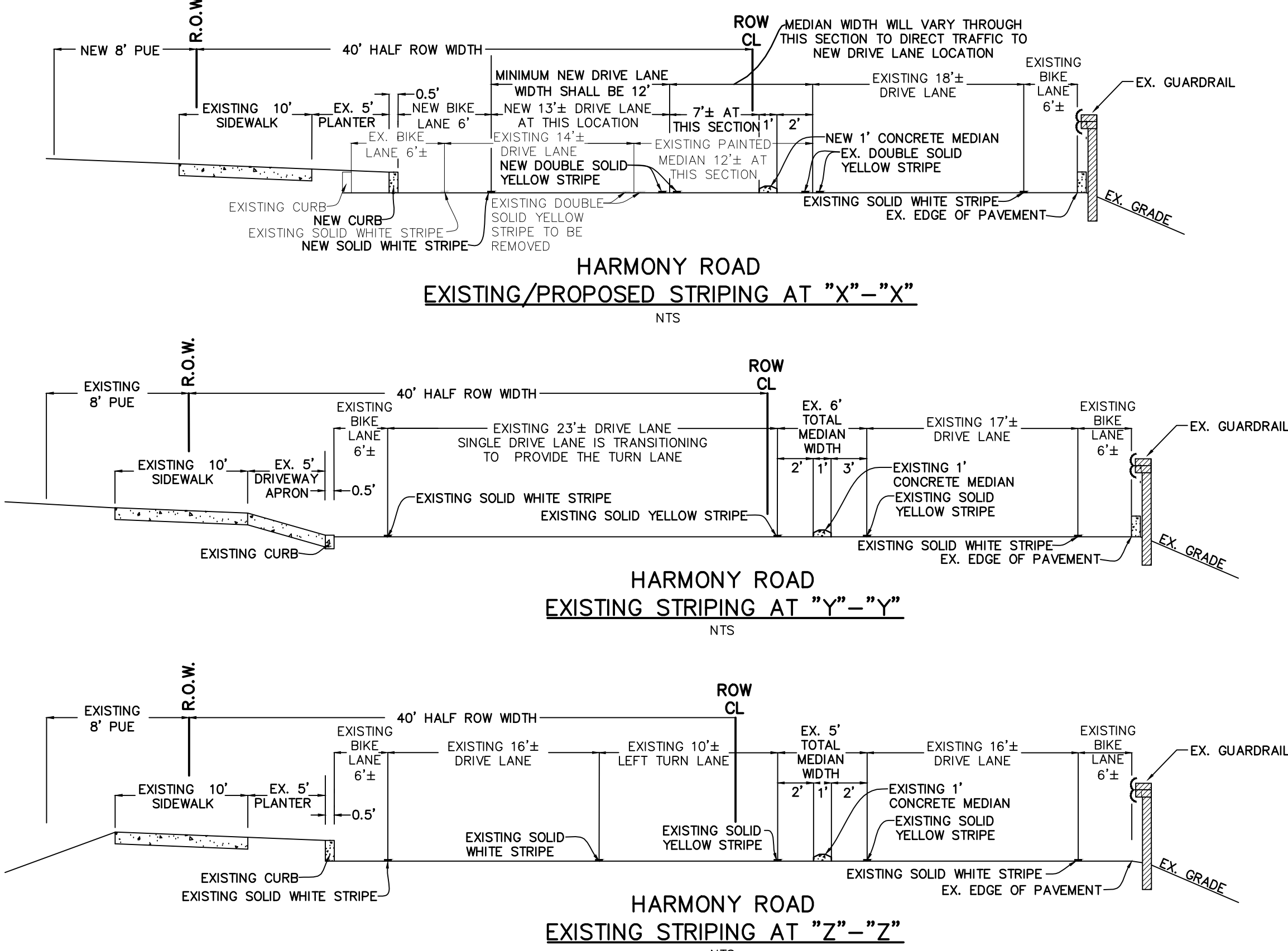
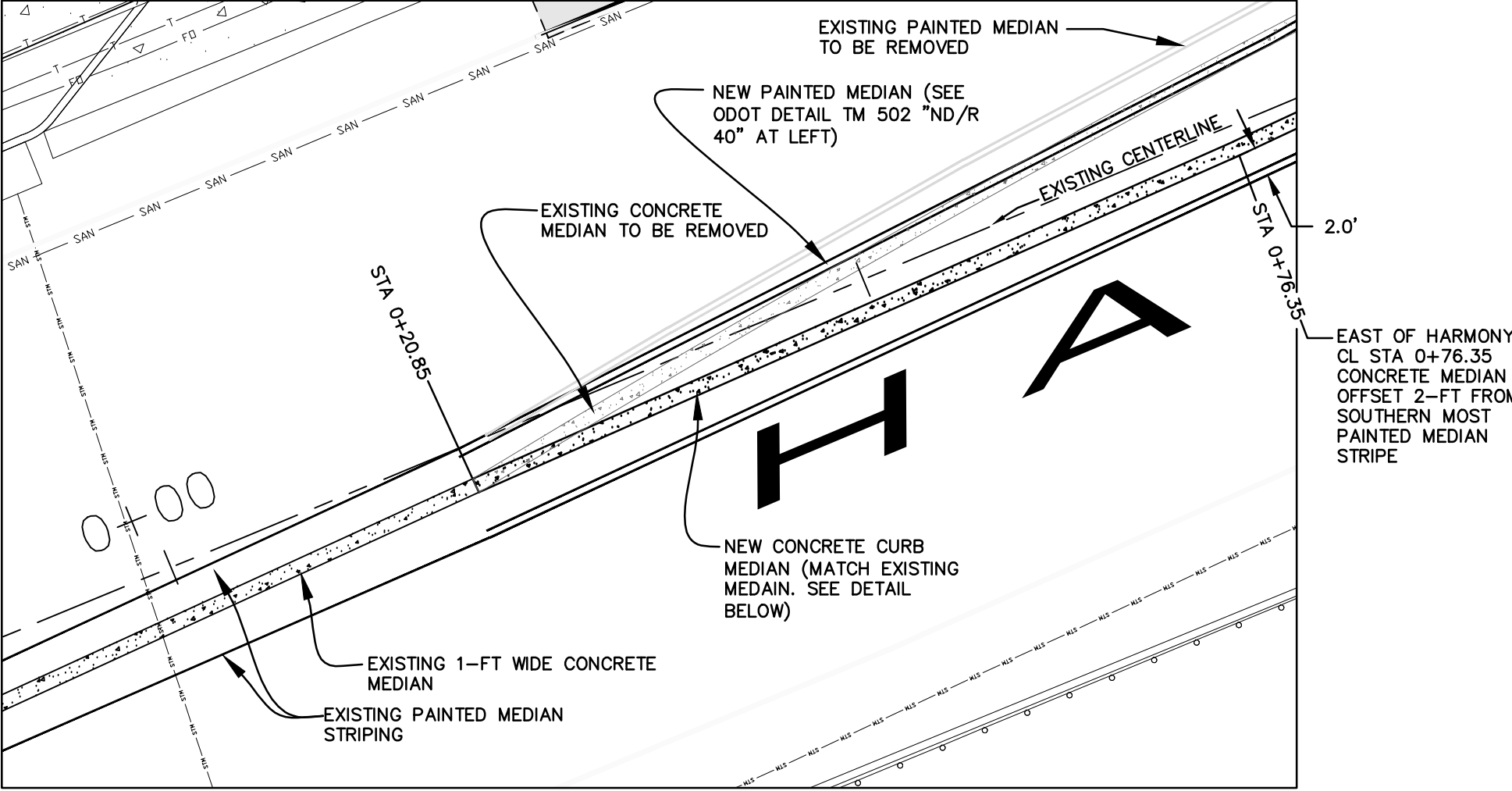
DATE: JULY 2015
SCALE: NOTED
DRAWN: JEE
JOB: SGL 07-113
SHEET: C5
OF 6 SHEETS





NEW NORTH PAINTED MEDIAN			
POINT	STA	OFFSET FROM EX. PAINTED MEDIAN	LINE TYPE
Ⓐ	0+24.54	VARIES	LINE
Ⓑ	0+81.03	2'-FT.	SEE NOTE 1 BELOW
Ⓒ	1+10.32	2'-FT.	SEE NOTE 1 BELOW
Ⓓ	1+39.70	2'-FT.	SEE NOTE 1 BELOW
Ⓔ	3+05.25	VARIES	LINE

NOTE:
1) POINTS Ⓑ, Ⓒ & Ⓓ ARE POINTS ON A SINGLE ARC. ARC INFO:
DELTA = 11-50-00
RADIUS = 284.57
LENGTH = 58.80'
2) NEW CONCRETE MEDIAN SHALL BE AT LEAST 2'-FT FROM THE EXISTING SOUTHERN STRIPE.
3) NEW NORTH MEDIAN STRIPING NECESSARY TO ALLOW ROOM FOR 6'-FT. BIKE LANE AND 12'-FT. TRAVEL LANE.
4) PROPOSED STRIPING SHALL FOLLOW ODOT DETAIL TM502 "ND/R-40", SHOWN THIS SHEET.



REVISIONS

BY

REVISED PER CITY COMMENTS (9-26-16)

JM

HARMONY ROAD

SELF STORAGE

H.T. INVESTMENTS, LLC.

Harmony Median & Striping Plan

SISUL ENGINEERING

375 PORTLAND AVENUE

GLADSTONE, OREGON 97027

(503) 657-0188

DRAWING: c07-113-FRONTAGE.dwg

DATE

JULY 2015

SCALE

NOTED

DRAWN

JEE

JOB

SGL 07-113

SHEET

C6

OF 6 SHEETS

REGISTERED PROFESSIONAL ENGINEER

12,820

OREGON

FEB 14, 1993

THOMAS J. SISUL

EXPIRES: 6/30/16

REVISIONS	BY

HARMONY ROAD
SELF STORAGE

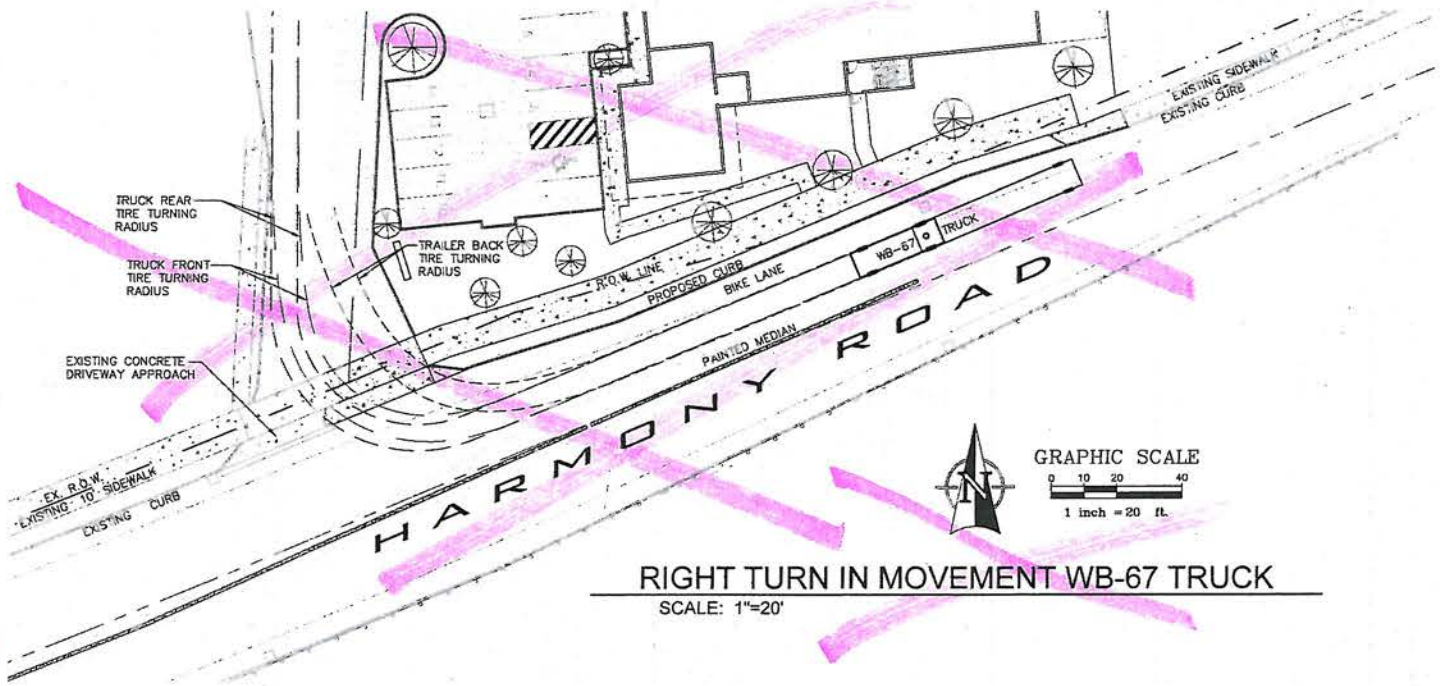
Harmony Truck Turning Motions

SISUL ENGINEERING
8706 PORTLAND AVENUE
CLATSOP, OREGON 97027
(503) 827-0100

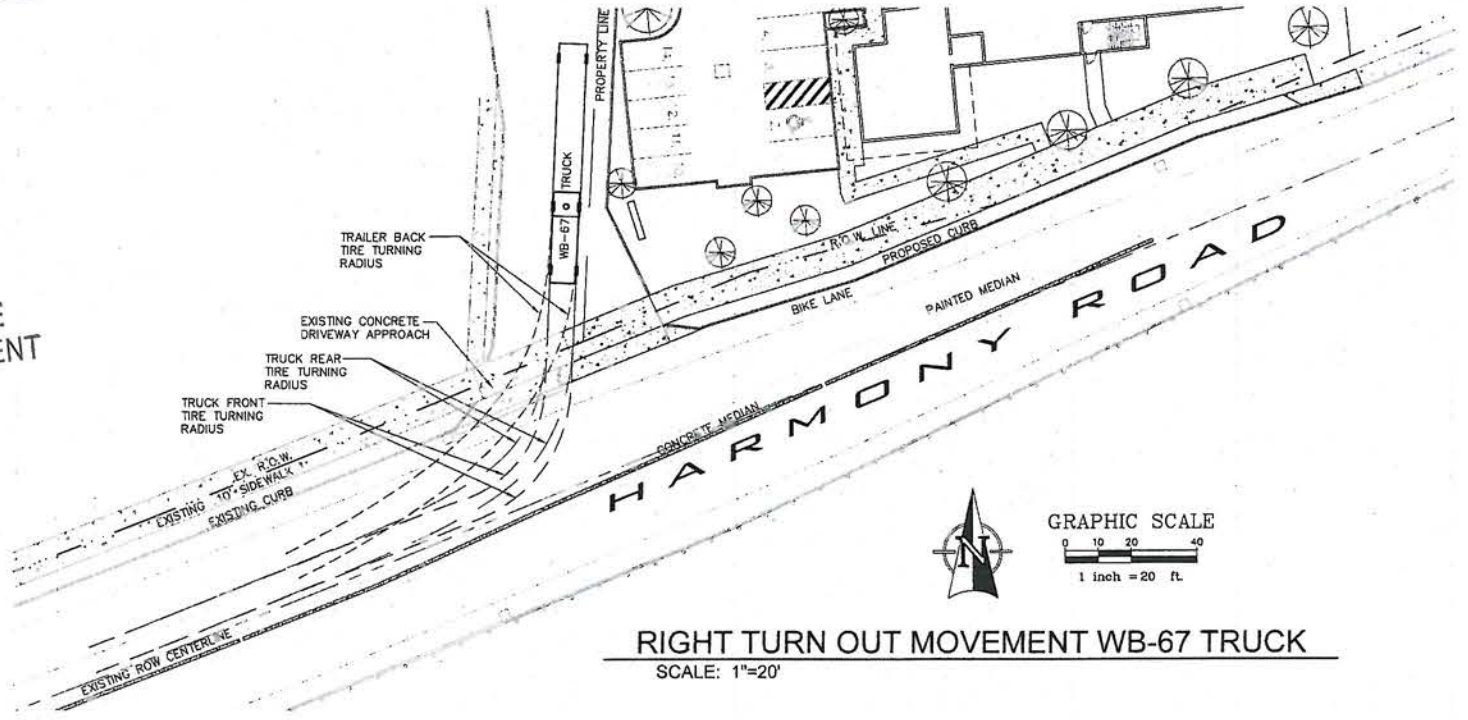
DATE	JULY 2016
SCALE	NOTED
DRAWN	JEE
JOB	SOL 07-113
SHEET	1
OF 1 SHEETS	

*Per applicant will be
right-out only. (bk)*

RECEIVED
OCT 07 2016
CITY OF MILWAUKIE
PLANNING DEPARTMENT

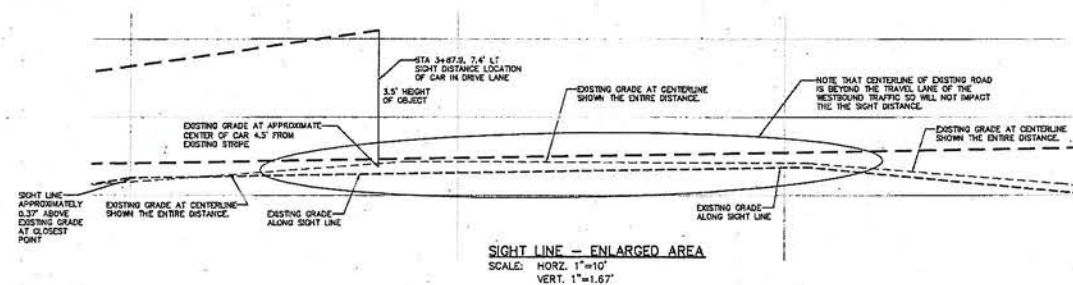
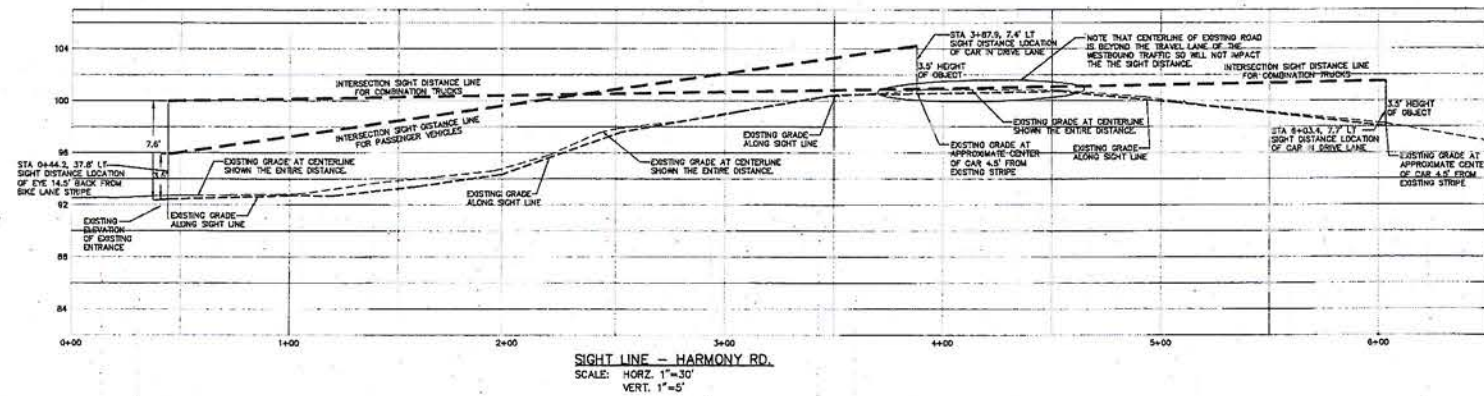
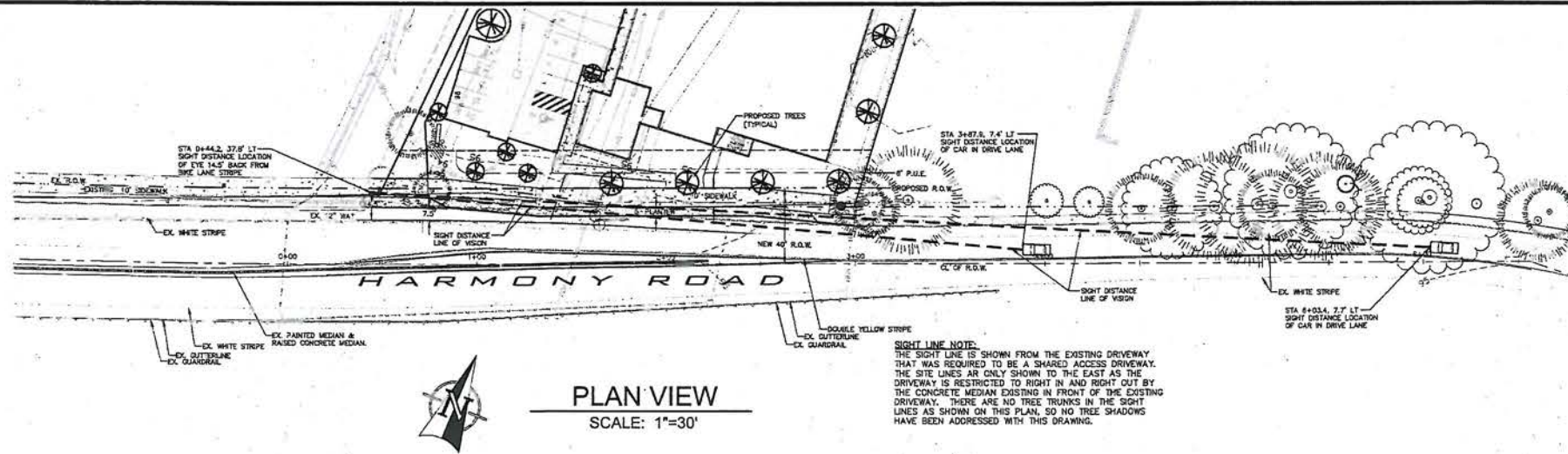


RIGHT TURN IN MOVEMENT WB-67 TRUCK
SCALE: 1"=20'



RIGHT TURN OUT MOVEMENT WB-67 TRUCK
SCALE: 1"=20'





RECEIVED
OCT 07 2016
CITY OF MILWAUKIE
PLANNING DEPARTMENT

REVISIONS	BY

**HARMONY ROAD
SELF STORAGE**

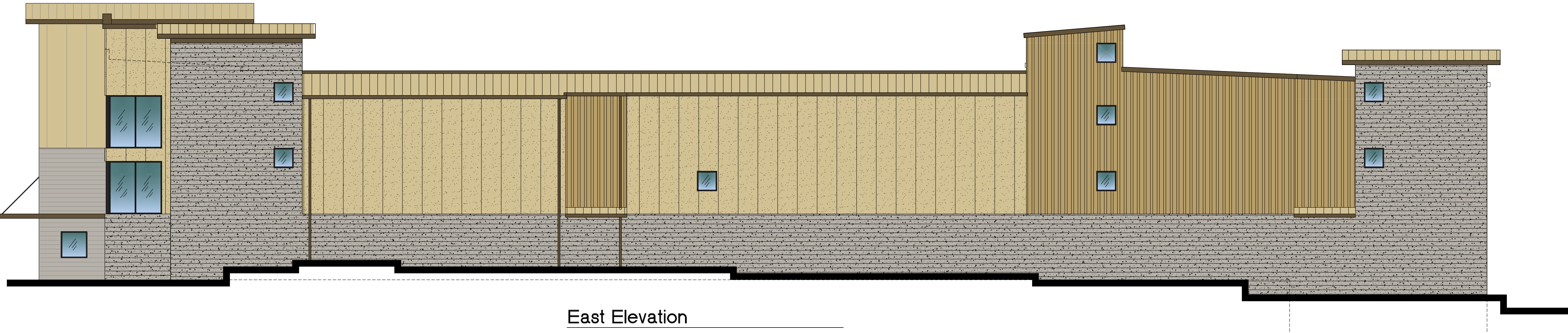
Harmony Sight Distance

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-1400

DATE	JUNE 2016
SCALE	NOTED
DRAWN	JEE
JOB	SGL 07-113
SHEET	1
OF 1	SHEETS



Building 1



Client:
HT Investment
Properties, LLC

825 Harritt Drive NW
Salem, Oregon 97304

Project:
Harmony Road
Self Storage

5965 SE Harmony Road
Milwaukie, Oregon

Sheet Title:
Building
Elevations

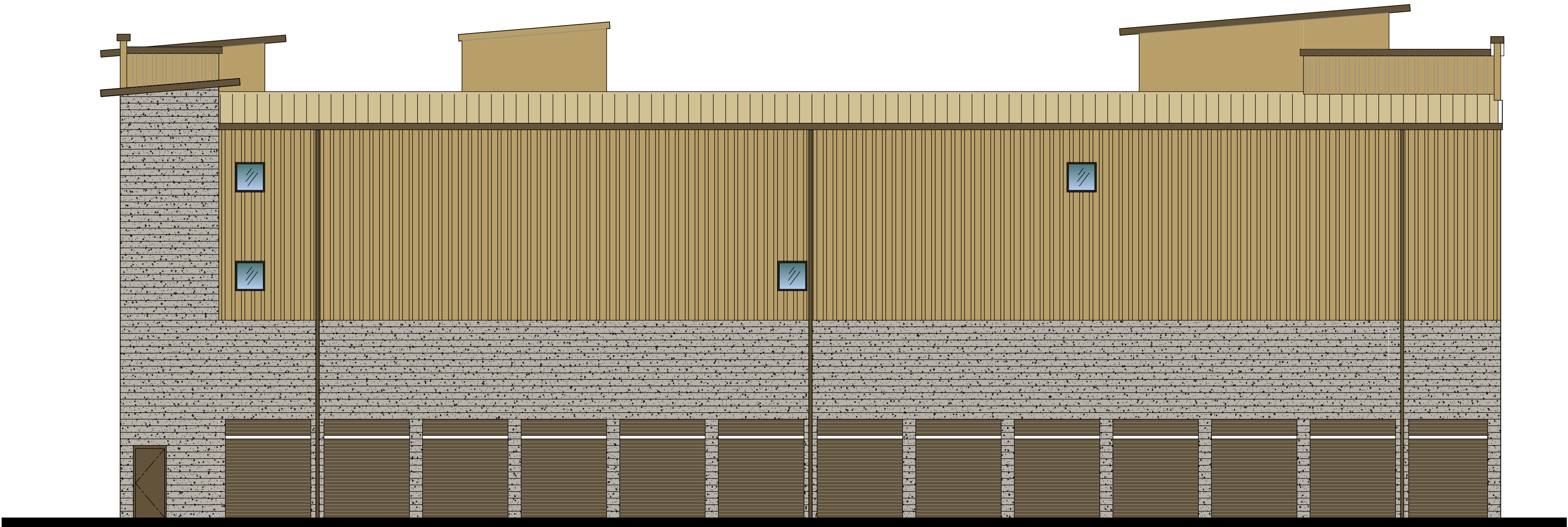
Revisions:

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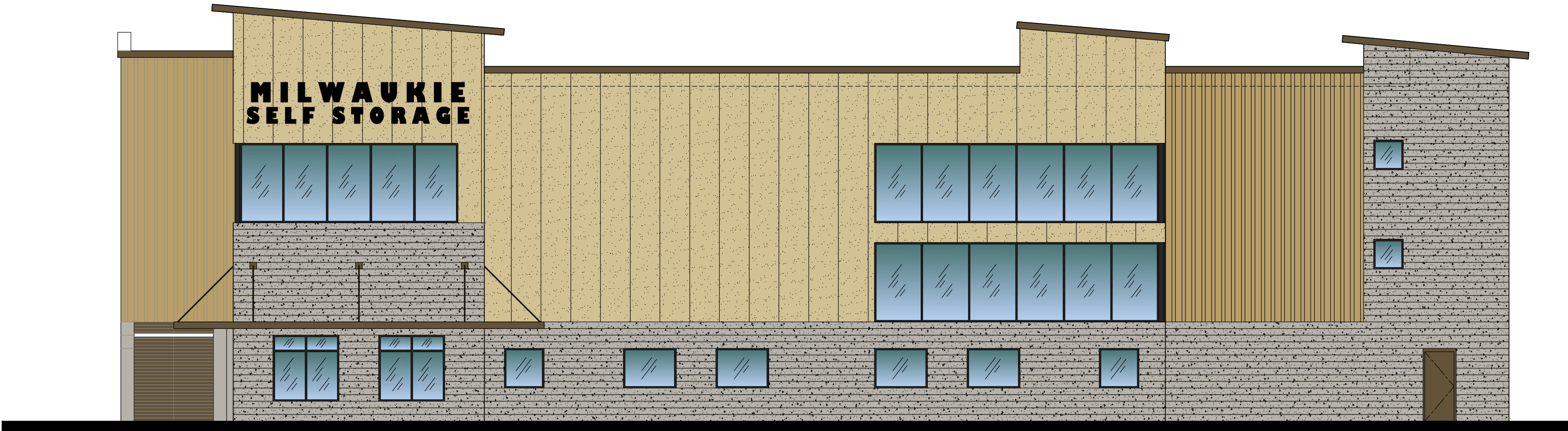
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Date:
Drawn by: Checked by:
CLT WEM
Job Number: 110021
Sheet

Building 1



North Elevation



South Elevation



Client:
HT Investment
Properties, LLC

825 Harritt Drive NW
Salem, Oregon 97304

Project:
Harmony Road
Self Storage

5965 SE Harmony Road
Milwaukie, Oregon

Sheet Title:
Building
Elevations

Revisions:

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PERMISSION OF MILDREN DESIGN GROUP, P.C.

Date:
Drawn by: Checked by:
CLT WEM
Job Number: 110021
Sheet

Harmony Road Self Storage

J.O. SGL 07-113

July 21, 2015

PRELIMINARY STORM DETENTION AND WATER QUALITY CALCULATIONS

SISUL ENGINEERING

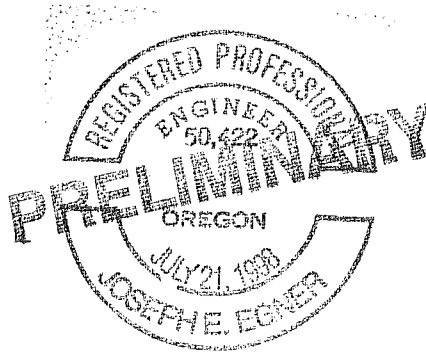
A Division of Sisul Enterprises, Inc.

375 PORTLAND AVE.

Gladstone, OR 97027

phone: (503) 657-0188

fax: (503) 657-5779



Harmony Road Self Storage (SGL 07-113)

DESIGN CONDITIONS:

This storm detention system is designed to limit the increase in runoff due to development of this property, to a level below that required by The City of Milwaukie. We have used the City of Portland's stormwater manual to design a system meets the required treatment and then detains the larger events to at or below undeveloped releases.

This project will be broken into three basins to accomplish this. The first basin (Basin A) will consist of the roof area for Building 1. The second basin (Basin B) will consist of the pavement and parking lot to the south of the creek. The third basin (Basin c) will consist of the roof of building 2 and the pavement and parking lot to the north of the creek. Because of the sites area restrictions, the steepness of the site and poor infiltrating soils we cannot use infiltration facilities to deal with the runoff from theses areas. We will use the City of Portland's PAC calculator to size flow through facilities for each of these basins. The PAC calculator looks only at the impervious areas being ran to a facility. To check the detention of the facility we will run the PAC calculator on the basins area with a CN number representing a pervious surface. This will ignore the existing structures that are on site but will give a release below the existing

AREAS:

Total Site Area = 2.87 acres

DEVELOPED SITE:

Basin A (See attached site plan):

Pervious Area = **0.68 acres (undeveloped site)**

Impervious Area = **0.68 acres (developed site)**

Basin B (See attached site plan):

Pervious Area = **0.52 acres (undeveloped site)**

Impervious Area = **0.52 acres (developed site)**

Basin C (See attached site plan):

Pervious Area = **0.60 acres (undeveloped site)**

Impervious Area = **0.60 acres (developed site)**

SOIL:

Per Clackamas County Soil Survey, most of the site is a Wapato silty clay loam. The soil is a classified in hydrologic group 'D'. (see attached sheet)

CURVE NUMBERS: (see attached sheet)

Undeveloped Basins

Pervious Surface (pasture)	=====>	89
----------------------------	--------	----

Developed Basins

Impervious (Pavement and Roofs)	=====>	98
---------------------------------	--------	----

STORM RUNOFF DETENTION DESIGN:

We will size flow thru planters for each basin to treat the required surfaces and reduce the flows to or below the undeveloped flow rates for each basin.

BASIN A:

Per the attached PAC Sheet for Basin A (Aun-undeveloped, Adev-developed) gives us the undeveloped flows and the developed flows for basin A.

BASIN A FLOW RATES:

STORM EVENT	Undeveloped Area Flows	Developed Area Flows	Planter Release Flow Rates
2yr	0.227 cfs	0.416 cfs	0.053 cfs
5yr	0.308 cfs	0.508 cfs	0.085 cfs
10yr	0.391 cfs	0.600 cfs	0.121 cfs
25yr	0.476 cfs	0.691 cfs	0.355 cfs

This shows that using a flow through planter with a storage depth of 24-inchs and a surface area of 1,150-SqFt will provide the required treatment and detention requirements for this basin. This shows the planter will reduce the developed flow release rates to be at or below the undeveloped flow rates.

BASIN B:

Per the attached PAC Sheet for Basin B (Bun-undeveloped, Bdev-developed) gives us the undeveloped flows and the developed flows for basin B.

BASIN A FLOW RATES:

STORM EVENT	Undeveloped Area Flows	Developed Area Flows	Planter Release Flow Rates
2yr	0.175 cfs	0.320 cfs	0.041 cfs
5yr	0.237 cfs	0.390 cfs	0.065 cfs
10yr	0.301 cfs	0.461 cfs	0.093 cfs
25yr	0.365 cfs	0.531 cfs	0.273 cfs

This shows that using a flow through planter with a storage depth of 24-inchs and a surface area of 885-SqFt will provide the required treatment and detention requirements for this basin. This shows the planter will reduce the developed flow release rates to be at or below the undeveloped flow rates.

BASIN C:

Per the attached PAC Sheet for Basin C (Cun-undeveloped, Cdev-developed) gives us the undeveloped flows and the developed flows for basin C.

BASIN A FLOW RATES:

STORM EVENT	Undeveloped Area Flows	Developed Area Flows	Planter Release Flow Rates
2yr	0.202 cfs	0.369 cfs	0.047 cfs
5yr	0.273 cfs	0.451 cfs	0.067 cfs
10yr	0.347 cfs	0.532 cfs	0.108 cfs
25yr	0.422 cfs	0.613 cfs	0.315 cfs

This shows that using a flow through planter with a storage depth of 24-inchs and a surface area of 1,020-SqFt will provide the required treatment and detention requirements for this basin. This shows the planter will reduce the developed flow release rates to be at or below the undeveloped flow rates.

SUMMARY:

This storm detention system is designed to limit the increase in runoff due to development of this property, to a level below that required by the City of Milwaukie. We have shown that by the use of flow through basins the water quality event is met for each basin and the developed storm events will be released at rates less than the corresponding undeveloped sites releases. We believe that we have shown the City of Milwaukie's stormwater requirements for water quality and quantity can be met by the use of the flow through planters.

SUPPORTING DOCUMENTS:

KING COUNTY, WASHINGTON, SURFACE WATER DESIGN MANUAL

TABLE 3.5.2B SCS WESTERN WASHINGTON RUNOFF CURVE NUMBERS

SCS WESTERN WASHINGTON RUNOFF CURVE NUMBERS (Published by SCS in 1982)					
Runoff curve numbers for selected agricultural, suburban and urban land use for Type 1A rainfall distribution, 24-hour storm duration.					
LAND USE DESCRIPTION		CURVE NUMBERS BY HYDROLOGIC SOIL GROUP			
		A	B	C	D
Cultivated land(1):	winter condition	86	91	94	95
Mountain open areas:	low growing brush and grasslands	74	82	89	92
Meadow or pasture:		65	78	85	89
Wood or forest land:	undisturbed or older second growth	42	64	76	81
Wood or forest land:	young second growth or brush	55	72	81	86
Orchard:	with cover crop	81	88	92	94
Open spaces, lawns, parks, golf courses, cemeteries, landscaping.					
good condition:	grass cover on 75% or more of the area	68	80	86	90
fair condition:	grass cover on 50% to 75% of the area	77	85	90	92
Gravel roads and parking lots		76	85	89	91
Dirt roads and parking lots		72	82	87	89
Impervious surfaces, pavement, roofs, etc.		98	98	98	98
Open water bodies: lakes, wetlands, ponds, etc.		100	100	100	100
Single Family Residential (2)		Separate curve number shall be selected for pervious and impervious portion of the site or basin			
Dwelling Unit/Gross Acre	% Impervious (3)				
1.0 DU/GA	15				
1.5 DU/GA	20				
2.0 DU/GA	25				
2.5 DU/GA	30				
3.0 DU/GA	34				
3.5 DU/GA	38				
4.0 DU/GA	42				
4.5 DU/GA	46				
5.0 DU/GA	48				
5.5 DU/GA	50				
6.0 DU/GA	52				
6.5 DU/GA	54				
7.0 DU/GA	56				
Planned unit developments, condominiums, apartments, commercial business and industrial areas.	% impervious must be computed				

- (1) For a more detailed description of agricultural land use curve numbers refer to National Engineering Handbook, Section 4, Hydrology, Chapter 9, August 1972.
- (2) Assumes roof and driveway runoff is directed into street/storm system.
- (3) The remaining pervious areas (lawn) are considered to be in good condition for these curve numbers.



TABLE 14.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Bedrock		Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness	Uncoated steel	Concrete
					<u>Ft</u>			<u>In</u>			
69*. Pits											
70B, 70C, 70D----- Powell	C	None-----	---	---	1.5-2.0	Perched	Dec-Apr	>60	---	Moderate	Moderate.
71A, 71B, 71C----- Quatama	C	None-----	---	---	2.0-3.0	Apparent	Dec-Apr	>60	---	Moderate	Moderate.
72D, 72E----- Ritner	C	None-----	---	---	>6.0	---	---	20-40	Hard	Moderate	Moderate.
73*. Riverwash											
74F*: Rock outcrop.											
Cryochrepts.											
75*. Rubble land											
76B, 76C, 77B----- Salem	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate.
78B, 78C, 78D, 78E----- Saum	C	None-----	---	---	>6.0	---	---	40-60	Hard	Moderate	Moderate.
79B, 79C----- Sawtell	C	None-----	---	---	1.5-3.0	Perched	Nov-Apr	>60	---	Moderate	Moderate.
80B, 80C, 80D, 80E----- Springwater	C	None-----	---	---	>6.0	---	---	20-40	Soft	Moderate	Moderate.
81D*, 81E*: Talapus-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate.
Lastance-----	B	None-----	---	---	>6.0	---	---	>60	---	High-----	High.
82*. Urban land											
83, 84----- Wapato	D	Frequent-----	Brief-----	Dec-Feb	+5-1.0	Apparent	Dec-Feb	>60	---	Moderate	Moderate.
85D*: Wilhoit-----	B	None-----	---	---	>6.0	---	---	40-60	Soft	Moderate	Moderate.
Zygore-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate.
86A, 86B, 86C, 87A----- Willamette	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate.
88A, 88B----- Willamette	C	None-----	---	---	2.5-3.5	Apparent	Dec-Mar	>60	---	Moderate	Moderate.
89D----- Witzel	D	None-----	---	---	>6.0	---	---	12-20	Hard	Moderate	Moderate.
90F*: Witzel-----	D	None-----	---	---	>6.0	---	---	12-20	Hard	Moderate	Moderate.
Rock outcrop.											
91A, 91B, 91C----- Woodburn	C	None-----	---	---	2.0-3.0	Perched	Dec-Apr	>60	---	Moderate	Moderate.

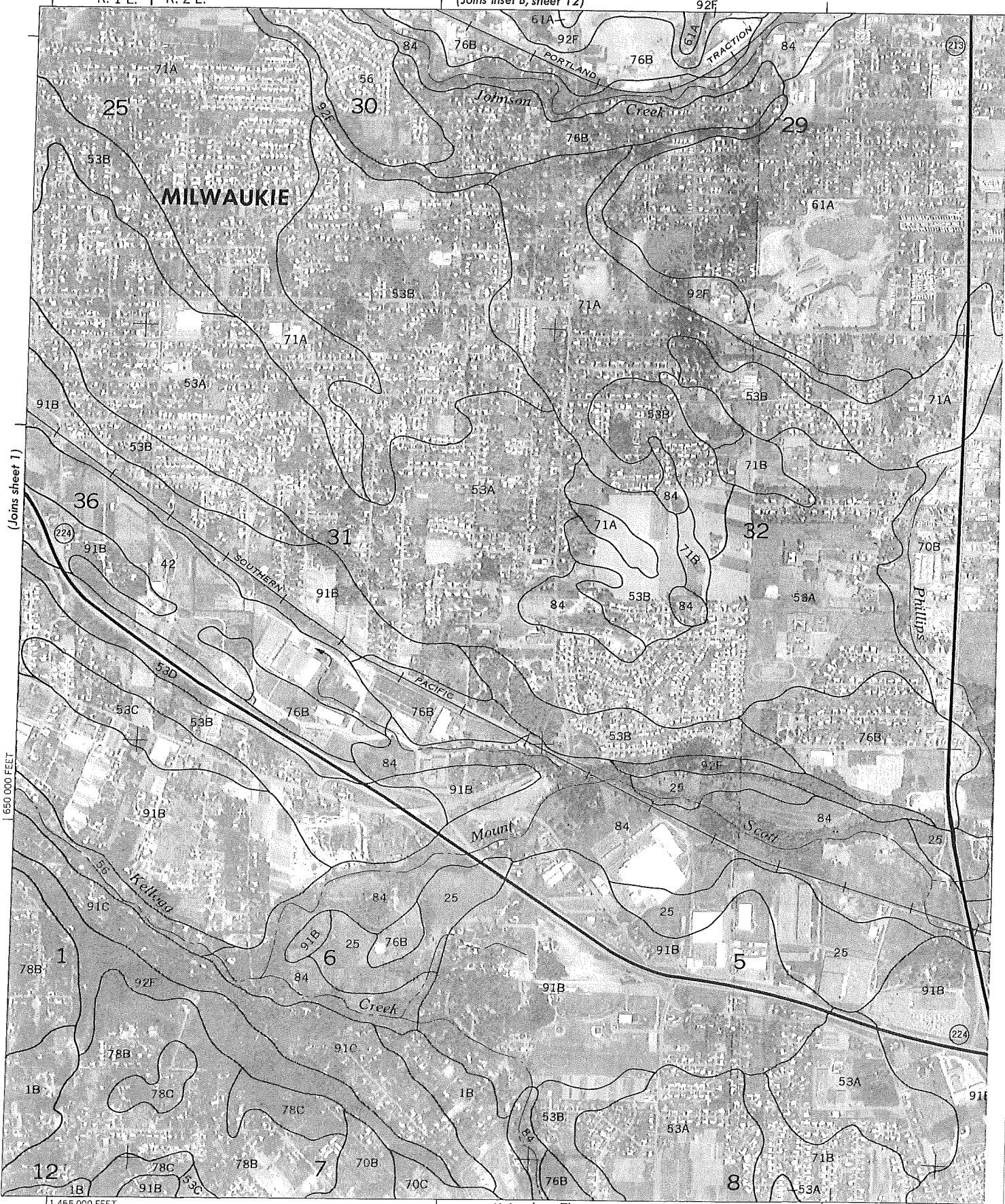
See footnote at end of table.



R. 1 E. | R. 2 E.

(Joins inset B, sheet 12)

92F



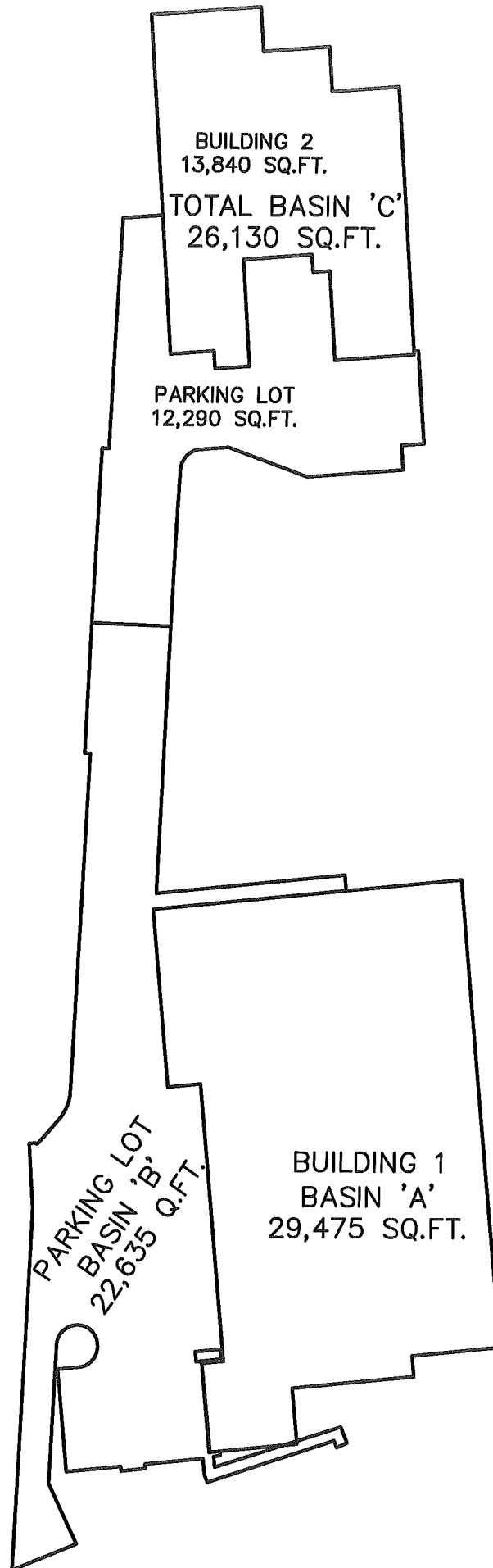
(Joins sheet 1)

650 000 FEET

1 455 000 FEET

(Joins sheet 7)







Presumptive Approach Calculator ver. 1.2

Catchment Data

Project Name: Harmony Road Self Stgorage
 Project Address: Harmony Road
Milwaukie, OR
 Designer: Joe Egner
 Company: Sisul Engineering

Catchment ID: Bun

Date: 07/21/15

Permit Number: 0

Run Time 7/22/2015 2:57:28 PM

Drainage Catchment Information

Catchment ID	Bun
Catchment Area	
Impervious Area	22,635 SF
Impervious Area	0.52 ac
Impervious Area Curve Number, CN_{imp}	89
Time of Concentration, T_c , minutes	10 min.

Site Soils & Infiltration Testing Data

Infiltration Testing Procedure:	Open Pit Falling Head
Native Soil Field Tested Infiltration Rate (I_{test}):	4 in/hr
Bottom of Facility Meets Required Separation From High Groundwater Per BES SWMM Section 1.4:	Yes

Correction Factor Component

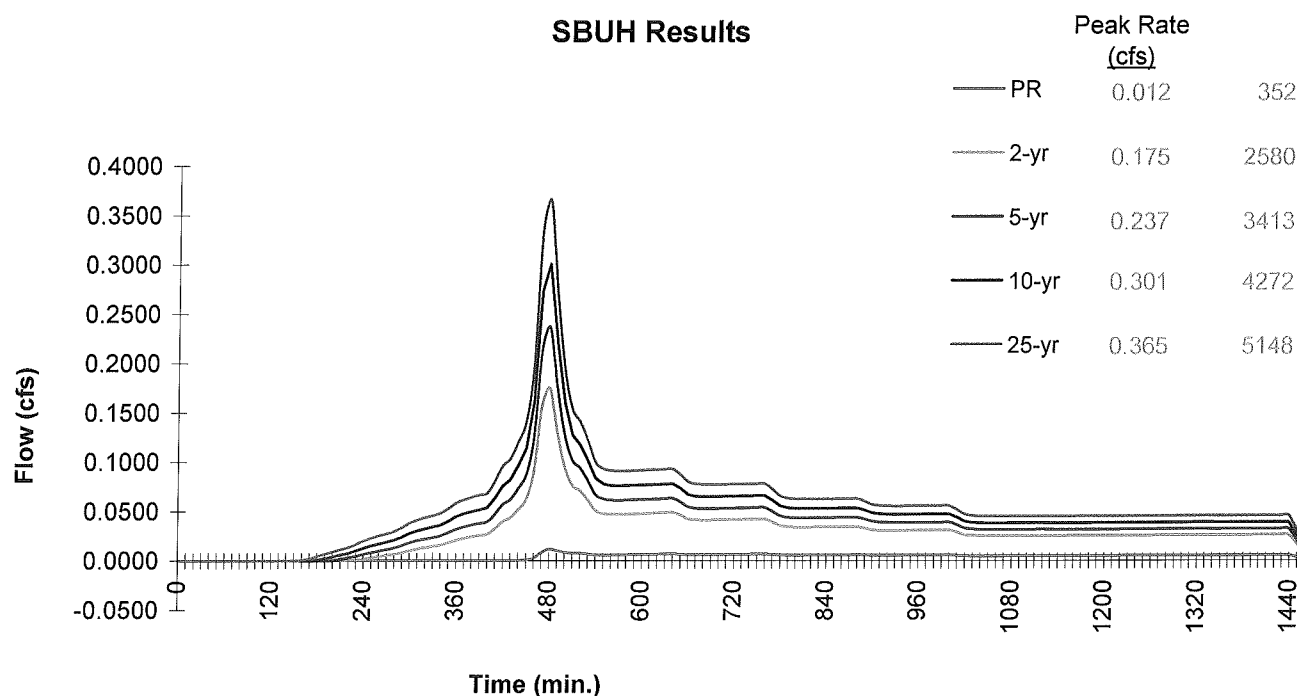
CF_{test} (ranges from 1 to 3)	2
----------------------------------	---

Design Infiltration Rates

I_{dsgn} for Native (I_{test} / CF_{test}):	2.00 in/hr
I_{dsgn} for Imported Growing Medium:	2.00 in/hr

Execute SBUH Calculations

SBUH Results





Presumptive Approach Calculator ver. 1.2

Catchment Data

Project Name: Harmony Road Self Storage
Project Address: Harmony Road
 Milwaukie, OR
Designer: Joe Egner
Company: Sisul Engineering

Catchment ID: Bdev

Date: 07/21/15

Permit Number: 0

Run Time 7/22/2015 3:02:10 PM

Drainage Catchment Information

Catchment ID	Bdev
Impervious Area	22,635 SF
Impervious Area	0.52 ac
Impervious Area Curve Number, CN_{imp}	98
Time of Concentration, T_c , minutes	5 min.

Site Soils & Infiltration Testing Data

Infiltration Testing Procedure:	Open Pit Falling Head
Native Soil Field Tested Infiltration Rate (I_{test}):	4 in/hr
Bottom of Facility Meets Required Separation From High Groundwater Per BES SWMM Section 1.4:	Yes

Correction Factor Component

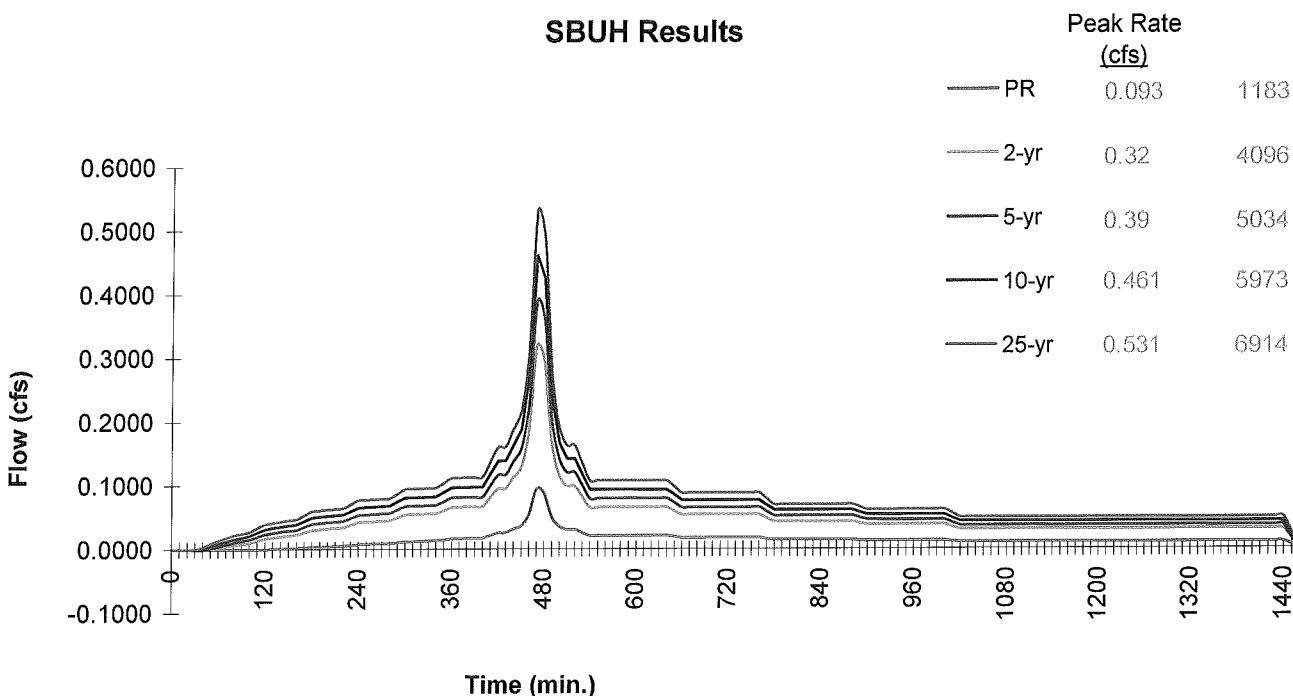
CF_{test} (ranges from 1 to 3)	2
----------------------------------	---

Design Infiltration Rates

I_{dsgn} for Native (I_{test} / CF_{test}):	2.00 in/hr
I_{dsgn} for Imported Growing Medium:	2.00 in/hr

Execute SBUH Calculations

SBUH Results





Presumptive Approach Calculator ver. 1.2

Catchment ID: **Bdev**

Run Time 7/22/2015 3:02:10 PM

Project Name: Harmony Road Self StorageCatchment ID: BdevDate: 7/21/2015

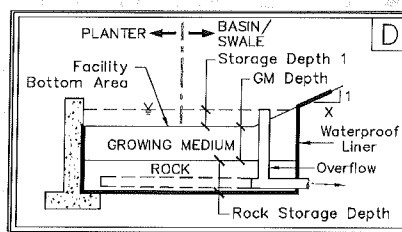
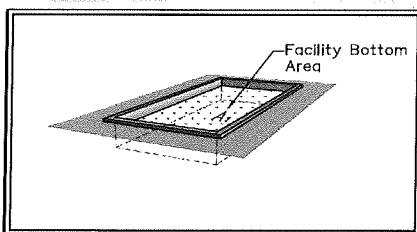
Instructions:

1. Identify which Stormwater Hierarchy Category the facility.
2. Select Facility Type.
3. Identify facility shape of surface facility to more accurately estimate surface volume, except for Swales and sloped planters that use the PAC Sloped Facility Worksheet to enter data.
4. Select type of facility configuration.
5. Complete data entry for all highlighted cells.

Catchment facility will meet Hierarchy Category: 4

Goal Summary:

Hierarchy Category	SWMM Requirement	RESULTS box below needs to display...	
		Pollution Reduction as a	10-yr (aka disposal) as a
4	Off-site flow to a combined sewer.	PASS	N/A

Facility Type = Planter (Flat)Facility Shape: Rectangle/SquareFacility Configuration: D

DATA FOR ABOVE GRADE STORAGE COMPONENT

Facility Bottom Area = 885 sf
 Bottom Width = 20.0 ft
 Facility Side Slope = 0 to 1
 Storage Depth 1 = 24 in
 Growing Medium Depth = 18 in
 Freeboard Depth = N/A in

<Warning

Surface Capacity at Depth 1 = 1,770 cf
 GM Design Infiltration Rate = 2.00 in/hr
 Infiltration Capacity = 0.041 cfs

BELOW GRADE STORAGE

Rock Storage Capacity = cf
 Native Design Infiltration Rate = in/hr
 Infiltration Capacity = cfs

Calculation Guide
 Max. Rock Stor.
 Bottom Area
 885 SF

RESULTS		Overflow Volume	
Pollution Reduction	PASS	0 CF	4% Surf. Cap. Used
Output File		Run PAC	
Peak cfs	<u>2-yr</u>	<u>5-yr</u>	<u>10-yr</u>
	0.041	0.058	0.093
			<u>25-yr</u>
			0.273

FACILITY FACTS	
Total Facility Area Including Freeboard =	885 SF
Sizing Ratio (Total Facility Area / Catchment Area) =	0.039



Presumptive Approach Calculator ver. 1.2

Catchment Data

Project Name: Harmony Road Self Stgorage
Project Address: Harmony Road
Milwaukie, OR
Designer: Joe Egner
Company: Sisul Engineering

Catchment ID: Cun
Date: 07/21/15
Permit Number: 0
Run Time 7/22/2015 3:10:23 PM

Drainage Catchment Information

Catchment ID	Cun
Catchment Area	
Impervious Area	26,130 SF
Impervious Area	0.60 ac
Impervious Area Curve Number, CN_{imp}	89
Time of Concentration, T_c , minutes	10 min.

Site Soils & Infiltration Testing Data

Infiltration Testing Procedure:	Open Pit Faling Head
Native Soil Field Tested Infiltration Rate (I_{test}):	2 in/hr
Bottom of Facility Meets Required Separation From High Groundwater Per BES SWMM Section 1.4:	Yes

Correction Factor Component

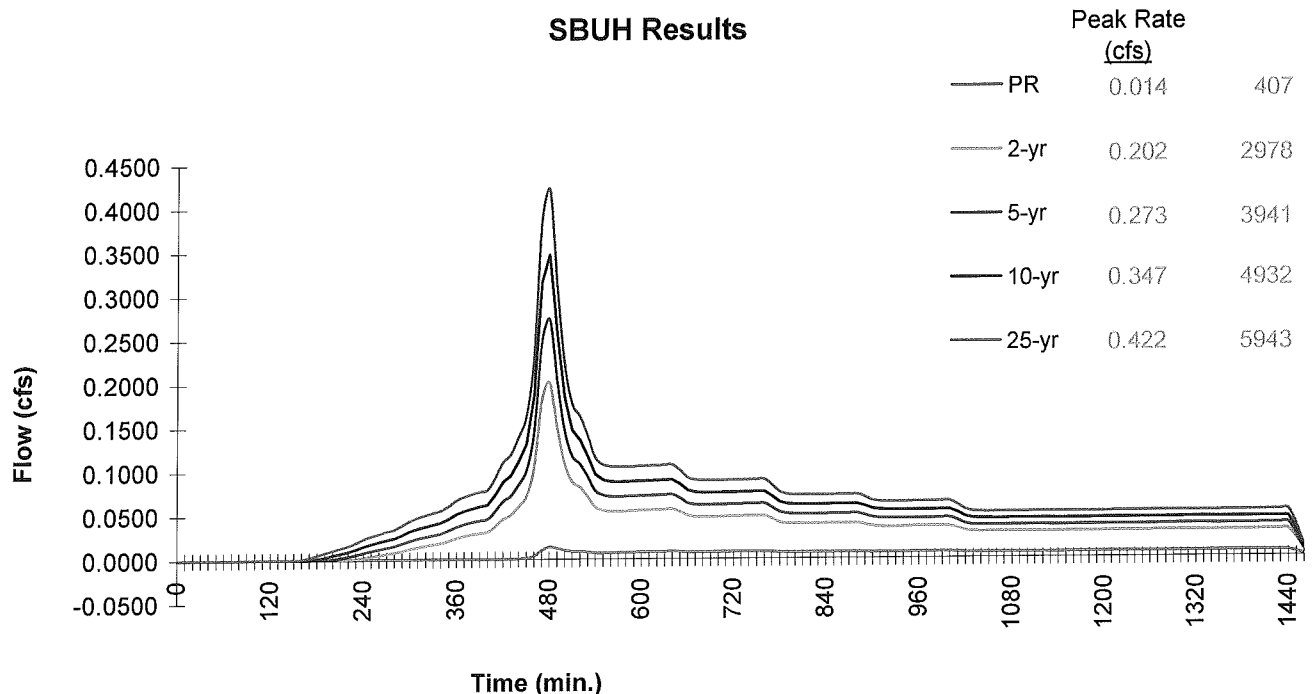
CF_{test} (ranges from 1 to 3)	2
----------------------------------	---

Design Infiltration Rates

I_{dsgn} for Native (I_{test} / CF_{test}):	1.00 in/hr
I_{dsgn} for Imported Growing Medium:	2.00 in/hr

Execute SBUH Calculations

SBUH Results





Presumptive Approach Calculator ver. 1.2

Catchment Data

Project Name: Harmony Road Self Storage
 Project Address: Harmony Road
Milwaukie, OR
 Designer: Joe Egner
 Company: Sisul Engineering

Catchment ID: Cdev

Date: 07/21/15

Permit Number: 0

Run Time 7/22/2015 3:10:23 PM

Drainage Catchment Information

Catchment ID	Cdev
Impervious Area	26,130 SF
Impervious Area	0.60 ac
Impervious Area Curve Number, CN_{imp}	98
Time of Concentration, T_c , minutes	5 min.

Site Soils & Infiltration Testing Data

Infiltration Testing Procedure:	Open Pit Falling Head
Native Soil Field Tested Infiltration Rate (I_{test}):	2 in/hr
Bottom of Facility Meets Required Separation From High Groundwater Per BES SWMM Section 1.4:	Yes

Correction Factor Component

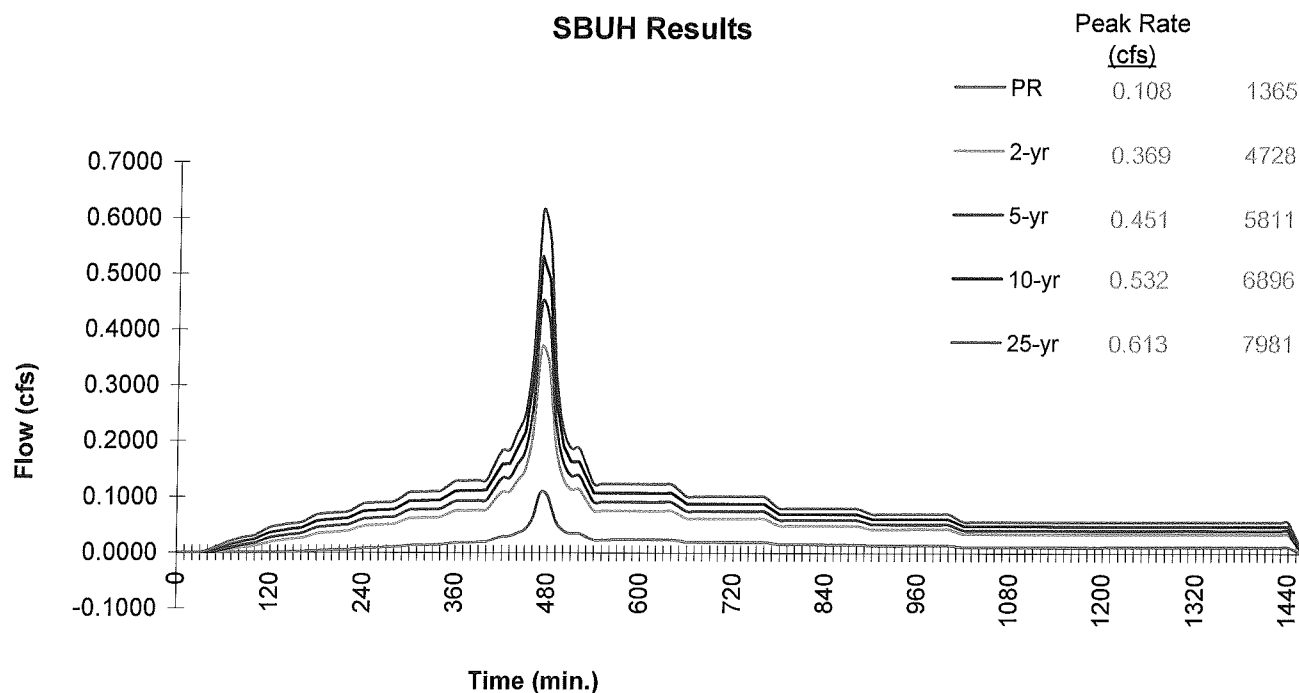
CF_{test} (ranges from 1 to 3)	2
----------------------------------	---

Design Infiltration Rates

I_{dsgn} for Native (I_{test} / CF_{test}):	1.00 in/hr
I_{dsgn} for Imported Growing Medium:	2.00 in/hr

Execute SBUH Calculations

SBUH Results





Presumptive Approach Calculator ver. 1.2

Catchment ID: **Cdev**

Run Time: 7/22/2015 3:16:16 PM

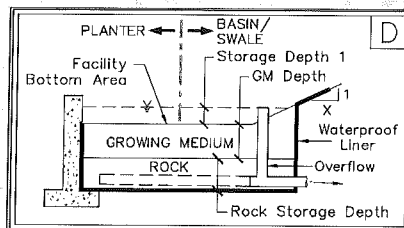
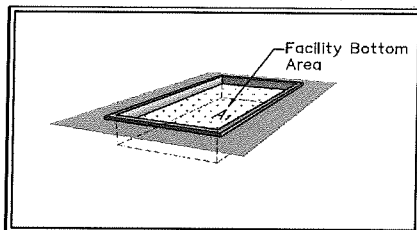
Project Name: Harmony Road Self StorageCatchment ID: CdevDate: 7/21/2015**Instructions:**

1. Identify which Stormwater Hierarchy Category the facility.
2. Select Facility Type.
3. Identify facility shape of surface facility to more accurately estimate surface volume, except for Swales and sloped planters that use the PAC Sloped Facility Worksheet to enter data.
4. Select type of facility configuration.
5. Complete data entry for all highlighted cells.

Catchment facility will meet Hierarchy Category: 4

Goal Summary:

Hierarchy Category	SWMM Requirement	RESULTS box below needs to display...	
		Pollution Reduction as a	10-yr (aka disposal) as a
4	Off-site flow to a combined sewer.	PASS	N/A

Facility Type = Planter (Flat)Facility Shape: Rectangle/SquareFacility Configuration: D**DATA FOR ABOVE GRADE STORAGE COMPONENT**

Facility Bottom Area = 1,020 sf
 Bottom Width = 20.0 ft
 Facility Side Slope = 0 to 1
 Storage Depth 1 = 24 in
 Growing Medium Depth = 18 in
 Freeboard Depth = N/A in

<Warning

Surface Capacity at Depth 1 = 2,040 cf
 GM Design Infiltration Rate = 2.00 in/hr
 Infiltration Capacity = 0.047 cfs

BELOW GRADE STORAGE

Rock Storage Capacity = _____ cf
 Native Design Infiltration Rate = _____ in/hr
 Infiltration Capacity = _____ cfs

Calculation Guide	
Max. Rock Stor.	
Bottom Area	
	1,020 SF

RESULTS		Overflow Volume		Run PAC	
Pollution Reduction	PASS	0 CF	4% Surf. Cap. Used		
Output File					
	2-yr	5-yr	10-yr	25-yr	
Peak cfs	0.047	0.067	0.108	0.315	

FACILITY FACTS

Total Facility Area Including Freeboard = **1,020 SF**
 Sizing Ratio (Total Facility Area / Catchment Area) = **0.039**

RECEIVED

SEP 27 2016

CITY OF MILWAUKIE
PLANNING DEPARTMENT**LANCASTER**
ENGINEERING321 SW 4th Ave., Suite 400
Portland, OR 97204
phone: 503.248.0313
fax: 503.248.9251
lanasterengineering.com

March 23, 2016

Robert Hixson
Clackamas County Department of Transportation and Development
150 Beaver Creek Road
Oregon City, OR 97045RE: *Sight Distance Analysis at 5945 SE Harmony Road*

Dear Robert,

This letter describes the results of our analysis of sight distance at the shared right-in, right-out access serving the proposed self-storage facility at 5945 SE Harmony Road in Clackamas County, Oregon.

The letter details the results of our sight distance measurements, speed data collection and associated analysis. It also includes a design modification request as allowed in Section 170.1 of the Clackamas County Roadway Standards.

Sight Distance at the Shared Right-In, Right-Out Driveway Location

Sight distance was measured for three distinct design vehicle movements at the shared driveway location on Harmony Road. These included measurement of Intersection Sight Distance (ISD) for passenger vehicles exiting the driveway onto Harmony Road, ISD for trucks exiting the driveway onto Harmony Road, and Stopping Sight Distance (SSD) for westbound vehicles turning into the site access from Harmony Road.

Stopping sight distance was measured from the position of the rear of a stopped vehicle waiting within the travel lane on SE Harmony Road, intending to make a westbound right turn into the shared access driveway. The measurements used an object height of 2.0 feet above the roadway within the westbound travel lane and an oncoming westbound driver's eye height of 3.5 feet above the roadway. The available stopping sight distance was measured to be 434 feet.

In order to determine the minimum required intersection sight distances and stopping sight distance for the shared access driveway, speed data was collected for westbound vehicles at the limits of sight distance. The actual measurements were made at a position approximately 485 feet east of the centerline of the shared access. Speed data was collected for 100 free-flowing vehicles during a mid-week day, and data collection was observed by Clackamas County staff to ensure that the collected data was collected in accordance with the standards established by Clackamas County and the American Association of State Highway and Transportation Officials.



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Based on the collected speed data, the 85th percentile speed of westbound vehicles on SE Harmony Road was measured to be 36 mph. Over the braking distance for westbound vehicles, there is a downhill grade of up to 3.5 percent. Based on these factors, the minimum required stopping sight distance for safety was calculated to be 275 feet. The measured available stopping sight distance of 434 feet is well in excess of the minimum required. Accordingly, the proposed site access can operate safely with respect to westbound vehicles entering the site and no sight distance mitigations are recommended for the future right-turn movement from SE Harmony Road into the site.

For passenger cars, intersection sight distance was measured from a position within the shared driveway 14.5 feet behind the edge of the traveled way, with a driver's eye height of 3.5 feet above the driveway surface elevation. The measurements were made to an oncoming driver's eye height of 3.5 feet above the roadway within the oncoming (westbound) travel lane on SE Harmony Road. The available intersection sight distance was measured to be 420 feet. Based on the measured 85th percentile speed of westbound traffic, the minimum intersection sight distance required to ensure minimal interruptions to the flow of through traffic was calculated to be 400 feet. Since the available intersection sight distance is in excess of the minimum required, passenger vehicles can turn from the shared driveway onto SE Harmony Road westbound without unduly impacting the flow of westbound through vehicles. No sight distance mitigations are recommended for future right-turn movements by passenger vehicles turning westbound onto SE Harmony Road.

For trucks, intersection sight distance was measured from a position within the shared driveway 14.5 feet behind the edge of the traveled way, with a driver's eye height of 7.6 feet above the driveway surface elevation. The measurements were made to an oncoming driver's eye height of 3.5 feet above the roadway within the oncoming (westbound) travel lane on SE Harmony Road. The available intersection sight distance was measured to be 263 feet, as limited by low branches on the trees immediately east of the shared driveway on the north side of the roadway. With clearing of the low branches, it is anticipated that sight distance for trucks can be improved to 585 feet. Based on the measured 85th percentile speed of westbound traffic, the minimum intersection sight distance required to ensure minimal interruptions to the flow of through traffic when trucks turn onto SE Harmony Road was calculated to be 610 feet.

The available intersection sight distance for trucks is marginally less than the minimum required by AASHTO and the Clackamas County Roadway Standards. Accordingly, it is anticipated that when heavy vehicles turn from the driveway onto SE Harmony Road, some additional delay to westbound through traffic may reasonably be anticipated. It should be noted, however, that the available intersection sight distance is well in excess of the minimum required stopping sight distance. Accordingly, trucks can safely exit the driveway and turn onto SE Harmony Road. The measured intersection sight distance for trucks was approximately 25 feet short of the desired minimum intersection sight distance. As vehicles approach the driveway at 36 mph, they will cover this distance in 0.5 seconds. Accordingly, the additional delay that would be anticipated in association



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with the limited truck intersection sight distance is 0.5 seconds when trucks are entering the roadway at the same time as vehicles are approaching at the limits of sight distance. This extremely small increase in potential delays to through traffic will have a negligible impact on operation of the adjacent roadway and the site access intersection.

Request for Design Modification

Section 170.1.2 of the Roadway Standards contains a list of conditions identifying when a modification may be requested. Since the driveway is located at the extreme west end of the subject property, the available intersection sight distance is at its maximum at the shared driveway location. Accordingly, there is no possible location for the driveway where all ISD minimums specified by the county can be satisfied. This specification therefore cannot be met without "undue hardship." Moreover, stopping sight distance (SSD) for the driveway can be achieved, indicating that the driveway can operate safely, and intersection sight distance for passenger cars is also available, indicating that most vehicles entering SE Harmony Road from the shared access will not unduly impact the flow of through traffic, and the potential impacts on through traffic that can occur when trucks turn onto SE Harmony Road are extremely minimal. For these reason, subsection (c.) of 170.1.2 is met, indicating that the County may grant a modification.

Per Section 170.1.1, the request for a design modification should include four items. These items are listed below, with the response to each following.

Desired Modification

The requested modification is to allow the use of the Modified ISD for trucks as provided in Section 240.7, despite the traffic volumes on SE 130th Avenue and the subject driveway not conforming to the traffic volume criteria in Table 2-5. Specifically, it is requested that the stopping sight distance for the 85th percentile of traffic speeds as measured in our speed study conducted on March 10, 2016 be used as the applicable standard, with the provision that truck intersection sight distance shall be improved to the maximum extent possible through clearing of the tree limbs and vegetation currently obstructing sight lines for truck eye heights of up to 7.6 feet.

Reason for the Request

The subject property is adjacent to SE Harmony Road and has no other site frontage. An existing access driveway onto SE Harmony Road is located on the adjacent parcel to the west. The maximum achievable sight distance for any location along the frontage of the subject property is at the extreme west end of the property, since this location maximizes the distance to the crest vertical curve to the east. Accordingly, providing an improved, shared access driveway on the property line achieves the maximum possible sight distance for the subject property.



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Comparison between Standard & Modification, for Performance, Function, Maintainability, Safety, etc.

At the 85th percentile speed of 36 mph, the minimum required stopping distance for safety is 275 feet. This includes the distance travelled as drivers see and react to potential conflicts as well as the distance necessary for braking. The available sight distance to the east for trucks entering the roadway from the site access currently does not meet this minimum. However, sight lines are restricted by low tree limbs and associated vegetation within the frontage of the subject property. With trimming of low limbs and vegetation, intersection sight distance well in excess of the minimum required for safety is attainable.

With clearing of low limbs and associated vegetation from the trees on the north side of SE Harmony Road immediately east of the shared driveway location, adequate intersection sight distance for passenger cars and single-unit trucks will be available. Accordingly, these vehicles will not significantly impact the flow of westbound through traffic along SE Harmony Road when exiting from the shared driveway. For tractor-trailer trucks, intersection sight distance to the east will be approximately 25 feet short of the desired minimum. Based on the speed of approaching traffic, it is anticipated that large trucks exiting the driveway as vehicles approach from the limits of sight distance may result in an added delay to westbound through traffic of up to 0.5 seconds. This impact to through traffic is minimal and essentially negligible.

Approval of the requested modification will have no negative impacts on the safety or maintainability of the shared driveway intersection on SE Harmony Road, and will have negligible impacts on the performance and function of SE Harmony Road.

References to Regionally or Nationally Accepted Specifications & Standards, Record of Successful use by other Agencies, etc.

The sight distance requirements in Section 240 of the Roadway Standards are based upon the sight distance standards in the 2011 AASHTO manual. This manual provides nationally-accepted standards for roadway design, including sight distance. The premise of the requested Design Modification is to accept the maximized truck ISD attainable at the shared access driveway upon clearing of vegetation within the frontage of the subject property and in excess of the minimum required SSD rather than the full truck ISD.

The AASHTO Manual contrasts SSD to ISD by stating that, "Intersection Sight Distance criteria for stop-controlled intersections are longer than stopping sight distance to ensure that the intersection operates smoothly. Minor road vehicle operators can wait until they can proceed safely without forcing a major road operator to stop." This indicates that providing ISD allows the major street traffic to flow smoothly and without interruptions.



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Additionally, "If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions. However, in some cases, this may require a major-road vehicle to stop or slow to accommodate the maneuver by a minor-road vehicle. To enhance operations, intersection sight distances that exceed stopping sight distances are desirable along the major road." Thus, the minimum requirement for safe operation of a proposed intersection or driveway is that SSD be available in each direction to ensure that oncoming vehicles have sufficient reaction time and space to stop to avoid collisions.

Lancaster Engineering has an extensive experience in evaluating sight distance in virtually all City, County, and State agencies in the Portland Metro area. Most jurisdictions require that ISD standards be met when feasible, with many (including Washington County) adhering to ISD standards as strictly as possible. Still, in each jurisdiction there have been instances where it was not possible to provide the full ISD in each direction and SSD standards were used as an alternative minimum standard to ensure safe operation.

In this instance, since truck intersection sight distance nearly matching the sight distance required for relatively uninterrupted flow of through traffic is attainable, it is anticipated that approval of the requested modification will result in no negative impacts to safety, and only negligible impacts to the flow of through traffic.

Summary & Conclusions

At the proposed new driveway location, the minimum intersection sight distance specified by the County for trucks entering the roadway from the shared site access is not available. However, the speed study conducted on March 10, 2016 confirms that the necessary stopping sight distance required for safe operation of the shared driveway is attainable for all movements and all vehicle types. Because truck intersection sight distance cannot reasonably be improved to achieve County standards, a Design Modification is recommended. Since adequate stopping sight distance is attainable, this modification is allowed by *Clackamas County Roadway Standards* and supported by *A Policy on Geometric Design of Highways and Streets* and will allow safe operation of the driveway.

The shared driveway location allows for stopping sight distances to be achieved in all cases without the necessary lines of sight crossing other properties. Therefore, no sight distance easements are necessary to accommodate safe operation of the driveway upon approval of the requested design modification. Interruptions to the flow of through traffic will also be minimized under the proposed design modification, since adequate intersection sight distance is already available for passenger vehicles and intersection sight distance for trucks will be improved to the maximum extent possible.

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March 23, 2016

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by appropriate clearing of tree limbs and associated vegetation within the frontage of the subject property.

If you have any questions or concerns regarding this analysis, please don't hesitate to contact us.

Sincerely,



Michael Ard, PE
Senior Transportation Engineer

p. 503.248.0313

e. mike@lanasterengineering.com



EXPIRES

12/31/17

APPENDIX

5945 SE Harmony Road - WB Speed Data (Sorted)

Speed Ranking	Speed (mph)	
100	45	
99	44	
98	42	
97	39	
96	39	
95	38	
94	38	
93	38	
92	38	
91	38	
90	37	
89	37	
88	36	
87	36	
86	36	
85	36	<-- 85th Percentile Speed
84	35	
83	35	
82	35	
81	35	
80	35	
79	35	
78	35	
77	34	
76	34	
75	34	
74	34	
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12	28
11	28
10	28

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5	27
4	27
3	26
2	25
1	22

Sight Distance Analysis Worksheet - 5945 SE Harmony Road

Stopping Sight Distance		Reaction Distance		Braking Distance	
Travel Speed	36 mph	Travel Speed	36 mph	Travel Speed	36 mph
Reaction Time	2.5 seconds	Travel Speed	52.9 fps	Acceleration	11.2 ft/sec ²
Acceleration	11.2 ft/sec ²	Reaction Time	2.5 seconds	Grade (percent)	-3.50%
Grade (percent)	-3.50%	Reaction Distance	132.3 feet	Braking Distance	138.1 feet

Distance	Required*	Measured*	Adequate?	Notes
ISD	270.4	434	Yes	
SU Truck ISD	396.9	420	Yes	
WB Truck ISD	502.7	263	No	Truck ISD can increase to 585' with clearing of vegetation
	608.6	263	No	Truck ISD can increase to 585' with clearing of vegetation

* All distances are in feet. Required sight lines are rounded up to the nearest 5-foot interval within the accompanying report.

The only sight distance requirement not projected to be met with clearing of vegetation is truck ISD for tractor-trailer trucks. Based on the projected deficiency of 25 feet, delays of up to 0.5 seconds may be expected when tractor-trailer trucks enter SW Harmony Road while vehicles are approaching westbound at the limits of sight distance.



KITTELSON & ASSOCIATES, INC.

TRANSPORTATION ENGINEERING / PLANNING

610 SW Alder Street, Suite 700, Portland, OR 97205 P 503.228.5230 F 503.273.8169

October 29, 2007

Project #: 8905.0

Mr. Robert Hixson
Clackamas County
9101 SE Sunnybrook Blvd.
Clackamas, OR 97015

Mr. Zachary Weigel
City of Milwaukie
6101 SE Johnson Creek Blvd.
Milwaukie, OR 97206

RE: Transportation Impact Analysis for Harmony Road Self Storage

Dear Robert & Zach:

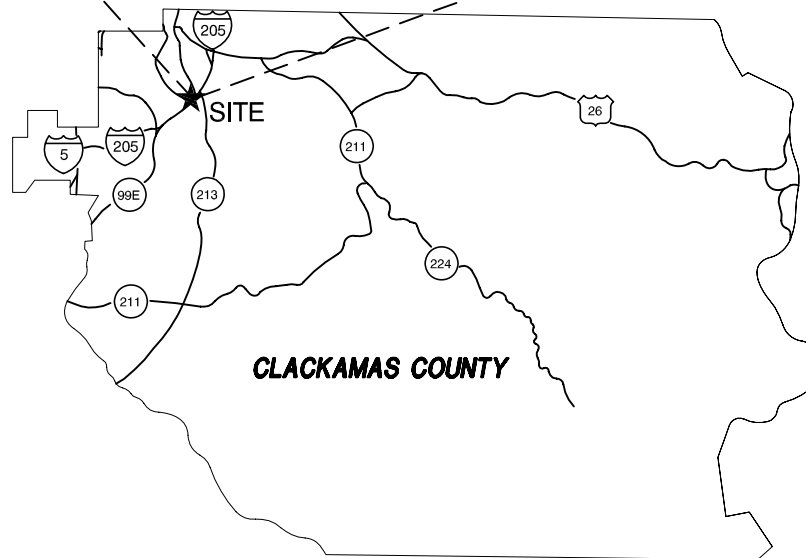
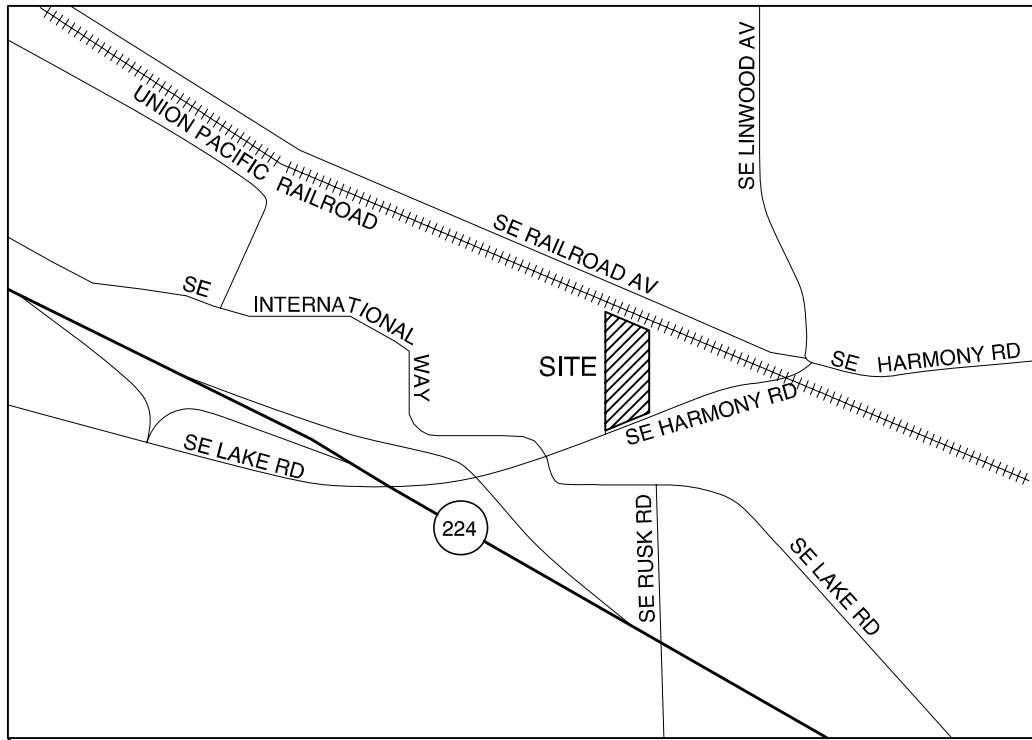
HT Investment Properties proposes to develop a self-storage facility on SE Harmony Road east of SE International Way in Milwaukie, Oregon. A site vicinity map is provided in Figure 1. Under the proposal, the 2.96-acre site, currently zoned Manufacturing (M), would be changed to Business Industrial (BI). Under the BI zoning, a self-storage facility would be allowed as a conditional use. The zone change is proposed to be contingent on approval and development of the self-storage facility. If the conditional use for the self-storage facility is not approved, the zoning would revert back to manufacturing.

Kittelison & Associates, Inc. (KAI) reviewed the traffic implications of the proposed rezone as they relate to the Oregon Transportation Planning Rule (TPR). The proposed zone change and conditional use is expected to decrease the weekday daily and peak hour trip generation potential of the overall site and, as a result, does not trigger a full transportation impact analysis of long-term future conditions. This report summarizes the analysis assumptions, methodology, and findings as well as a summary demonstrating the proposed rezone's compliance with the TPR.

KAI also reviewed the traffic impacts of the proposed self-storage facility, based on the scope of work identified in consultation with the City of Milwaukie, Clackamas County, and the Oregon Department of Transportation (ODOT). This report identifies the key assumptions, methodology, and findings of the analysis.



(NO SCALE)



**SITE VICINITY MAP
MILWAUKIE, OREGON**

FIGURE
1

H:\profile\8905 - Milwaukie Mini Storage\dwgs\figs\8905Fig01.dwg Oct 29, 2007 - 4:25pm - csemler Layout Tab: Fig01

TPR ANALYSIS FOR PROPOSED ZONE CHANGE

Oregon Statewide Planning Goals and the Oregon Administrative Rules (OAR) establish the parameters under which a rezone may be approved. OAR Chapter 660-012, the Transportation Planning Rule (TPR), establishes criteria under which a rezone's transportation impacts must be evaluated. If a proposed rezone is expected to result in an increase in traffic beyond that which would occur through development under the existing zoning, an operational analysis is required to assess whether the rezone will "significantly affect" the transportation needs.

The first step in assessing a given rezone's potential transportation impact is to compare the trip generation potential of the site assuming a reasonable "worst case" development scenario under the existing and proposed zoning. If the trip generation potential increases under the proposed zoning, additional analysis is required. Conversely, if the trip generation potential is reduced, the traffic impacts of site development are also reduced and no additional operational analysis is required to satisfy the TPR. The following sections document the study site's trip generation potential under the existing and proposed zoning.

Trip Generation Comparison for Potential Land Use Scenarios

In order to evaluate the potential traffic impacts of the proposed zone change, potential development scenarios were estimated for the project site under existing and proposed zone designations. Chapter 19.30 of the Milwaukie zoning code identifies allowable land uses under the M and BI zone designations. The reasonable worst case land use scenarios were estimated with assistance from the project team, as reported in the *Harmony Road Zone Analysis* (Reference 1) conducted by the project team. The report is being submitted with the application for this project. Based on a review of allowed uses, it was determined that the reasonable worst case scenario under existing M zoning would be a combination of manufacturing and office uses.

As was noted previously, the proposed rezone would be contingent upon development of the proposed self-storage facility as described in this report. If the self-storage facility is not approved and developed, the land will revert back to Manufacturing zoning. Therefore, the reasonable worst case development scenario under the proposed rezone would be the planned 100,000-square-foot self-storage facility.

Trip generation estimates for the office and manufacturing land uses were developed based on observations from similar land uses, as summarized in the standard reference manual, *Trip Generation*, (Reference 2), published by the Institute of Transportation Engineers (ITE). In order to estimate trip generation at the proposed mini-storage facility, a trip generation study was conducted at three similar facilities in the Milwaukie area. Trip counts were conducted on a mid-week day during the a.m. and p.m. peak periods (7:00-9:00 a.m. and 4:00-6:00 p.m.). Table 1 shows the "worst-case" trip generation under each zoning scenario as well as the net trip change between the existing and proposed zoning scenarios.

Table 1
Weekday Trip Generation Estimates, Reasonable Worst Case Development Scenarios

Land Use	ITE Code	Size	Daily Trips	AM Peak Hour			PM Peak Hour*		
				Total	In	Out	Total	In	Out
Existing Manufacturing Zone									
Manufacturing	140	25,000	100	20	15	5	20	10	10
General Office	710	75,000	820	115	100	15	110	20	90
Total			920	135	115	20	130	30	100
Business Industrial - Proposed Conditional Use									
Mini-Storage		450 units	80	5	<5	<5	10	5	5
Net Trips									
Difference (Existing – Proposed Conditional Use)			-850	-130	-110	-20	-120	-25	-100

As shown in Table 1, the proposed zone change, subject to the planned development of a 100,000-square-foot self-storage facility on the site, would significantly decrease the trip generation potential of the site compared to the existing zoning. *Traffic counts and calculations from the trip generation study are provided in Appendix "A".*

Transportation Planning Rule Compliance

OAR Section 660-12-0060 of the TPR sets forth the criteria for evaluating plan and land use regulation amendments. Table 2 below summarizes the criteria in Section 660-12-0060 and their applicability to the proposed rezone application.

Table 2
Summary of Criteria in OAR 660-012-0060

Criterion	Description	Applicable?
1	Describes how to determine if a proposed land use action results in a significant impact.	See response below
2	Describes measures for complying with Criterion #1 where a significant impact is determined.	No
3	Describes measures for complying with Criteria #1 and #2 without assuring that the allowed land uses are consistent with the function, capacity and performance standards of the facility	No
4	Determinations under Criteria #1, #2, and #3 are coordinated with other local agencies.	See response below
5	Indicates that the presence of a transportation facility shall not be the basis for an exception to allow development on rural lands.	No
6	Indicates that local agencies should credit developments that provide a reduction in trips.	No
7	Outlines requirements for a local street plan, access management plan, or future street plan.	No
8	Provides guidelines for mixed-use, pedestrian-friendly neighborhood	No

As noted in Table 2, there are eight criteria that apply to Plan and Land Use Regulation Amendments. Of these, Criteria #1 and #4 are applicable to the proposed land use action and Criterion #1(C) conveys the most significant aspect of the proposed land use as it relates to TPR; the reduction in site trip generation potential. The specific elements of the criterion are provided below in italics with our response shown in standard font.

(1) Where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation would significantly affect an existing or planned transportation facility, the local government shall put in place measures as provided in section (2) of this rule to assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility. A plan or land use regulation amendment significantly affects a transportation facility if it would:

(a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);

Response: The proposed rezone will not require changes to the functional classification of existing or planned transportation facilities, will not require a change to the standards implementing the comprehensive plan, and will not significantly affect a transportation facility as measured at the end of the planning period identified in the adopted transportation system plan.

(b) Change standards implementing a functional classification system; or

Response: The proposed rezone will not require changes to the standards implementing the functional classification system;

(c) As measured at the end of the planning period identified in the adopted transportation system plan:

(A) Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;

Response: The proposed rezone will not allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility.

(B) Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan; or

Response: The proposed rezone will not reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan.

(C) Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.

Response: The proposed rezone will lower the reasonable “worst-case” trip generation potential of the site and therefore reduce the impact of potential site development scenarios as it relates to transportation facilities.

(4) Determinations under sections (1)-(3) of this rule shall be coordinated with affected transportation facility and service providers and other affected local governments.

Response: The project team is coordinating the assessment of the proposed rezone with the City of Milwaukie, Clackamas County, and ODOT.

TRAFFIC IMPACT ANALYSIS

This section identifies the traffic impacts associated with the proposed self-storage facility.

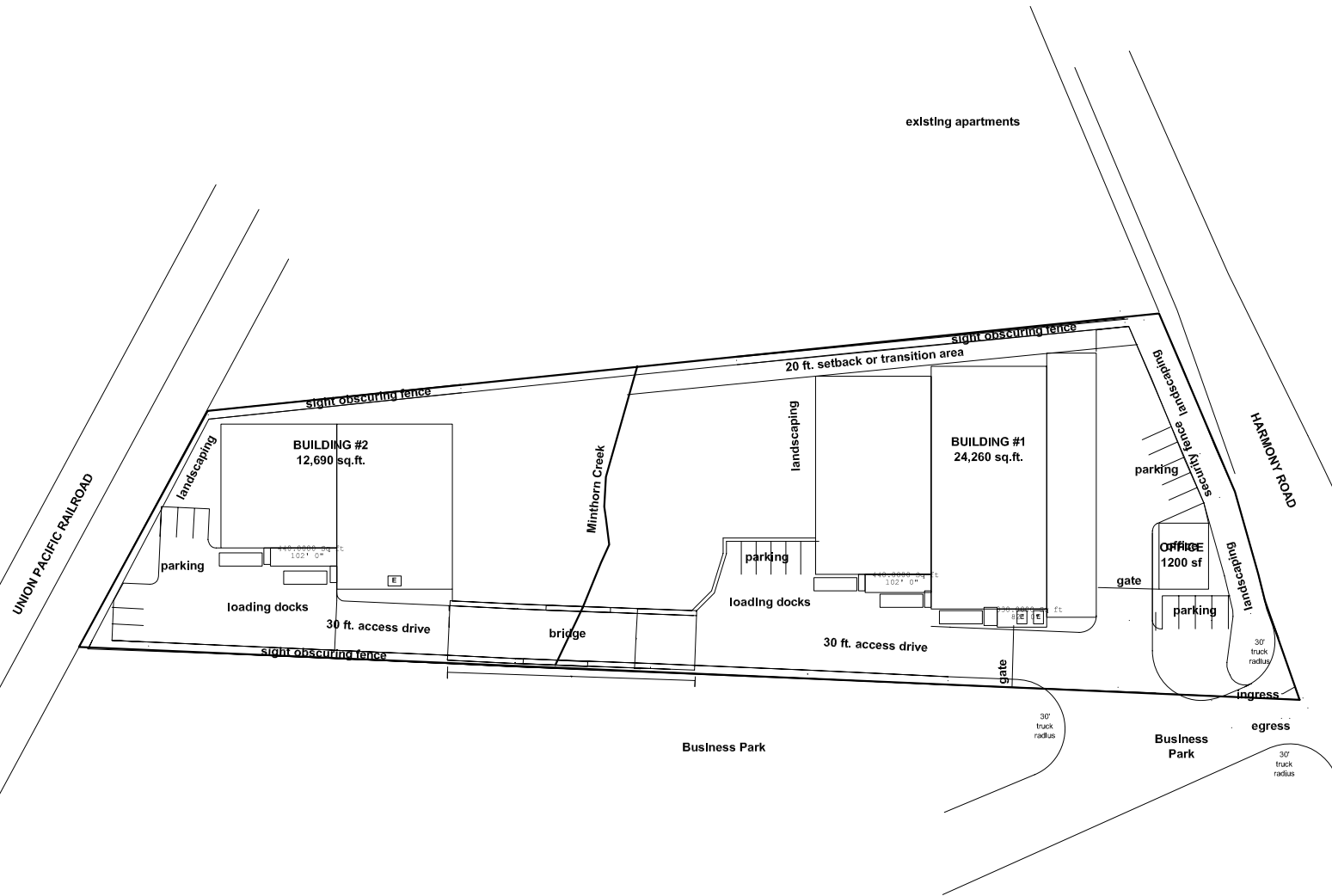
Project Description

The project is proposed to include approximately 100,000 square feet of self-storage space, including 450 units. The proposed site plan is shown in Figure 2. As the site plan shows, access is proposed via a right-in/right-out driveway on SE Harmony Road. The International Way Business Park, located directly west of the project site, currently has a right-out driveway on SE Harmony Road. The proposed project would augment this driveway to allow right turn ingress movements and would provide a single shared access point for the business park and the self-storage facility. This analysis addresses the following transportation issues:

- Year 2007 existing land use and transportation system conditions within the site vicinity;
- Planned developments and transportation improvements in the study area;
- Forecast year 2009 background traffic conditions during the weekday a.m. and p.m. peak hours;
- Trip generation and distribution estimates for the proposed development;
- Forecast year 2009 total traffic conditions with full build-out of the site during the weekday a.m. and p.m. peak hours;



H:\profile\8905 - Milwaukee Mini Storage\dwgs\figs\8905Fig01.dwg Oct 30, 2007 - 11:21am - csemler Layout Tab: Fig02



**PROPOSED SITE PLAN
MILWAUKIE, OREGON**

**FIGURE
2**

- An evaluation of the proposed site access, including Clackamas County access regulations;
- A review of on-site traffic operations and circulation; and,
- Conclusions and recommendations.

Scope of the Analysis

This analysis determines the transportation-related impacts associated with the proposed office building and was prepared in accordance with City of Milwaukie transportation impact analysis requirements. The study intersections and overall study area for this project were selected based on direction provided by staff from the City of Milwaukie and Clackamas County. Operational analyses were performed at the following intersections:

- SE International Way/SE Harmony Road
- SE Linwood Ave/SE Harmony Road
- Proposed site driveway/SE Harmony Road

Intersection Levels of Service

All level-of-service analyses described in this report were performed in accordance with the procedures stated in the 2000 *Highway Capacity Manual* (Reference 3). *A description of level of service (LOS) and the criteria by which they are determined is presented in Appendix "B." Appendix "B" also indicates how LOS is measured and what is generally considered the acceptable range of LOS.*

To ensure that the analyses were based on a reasonable worst-case scenario, the peak 15-minute flow rates were used in the evaluation of all intersection levels of service. For this reason, the analyses reflect conditions that are only likely to occur for 15 minutes out of each average peak hour. Traffic conditions during typical weekday hours are expected to operate under better conditions than those described in this report.

Signalized Intersections

The SE International Way/SE Harmony Road and SE Linwood Avenue/SE Harmony Road intersections are signalized. LOS analyses for signalized intersections are based on the average control delay per vehicle entering the intersection. The City of Milwaukie requires that LOS "D" or better be maintained at signalized intersections. Signal timing information used in the analysis of this intersection was based on field observations during typical weekday peak hours.

Unsignalized Intersections

Level-of-service analyses in this report for two-way stop-controlled intersections are based on the intersection's ability to accommodate the most difficult, or critical, approach as overall intersection level of service is not defined by the 2000 *Highway Capacity Manual*. The City of Milwaukie considers unsignalized intersections to be operating acceptably as long as the intersection operates at LOS "D" or better.

EXISTING CONDITIONS

The existing conditions analysis identifies site conditions and the current operational and geometric characteristics of roadways within the study area. The purpose of this section is to provide a basis of comparison for future conditions.

The site of the proposed self-storage facility was visited and inventoried several times, most recently in September 2007. Information was collected regarding site conditions, adjacent land uses, existing traffic operations, and transportation facilities in the study area.

Site Conditions & Adjacent Land Uses

The site is currently occupied by a single-family home and a 4,000 square foot light industrial cabinet shop. A second single family home at the site was demolished in July of 2007. Each property has a dedicated full-access driveway onto SE Harmony Road (total of three driveways). The International Way Business Park is located to the west and has a right-out only driveway onto SE Harmony Road. The proposed development site is bordered to the north by a railroad line and SE Railroad Avenue. An apartment complex is located to the east of the site.

Transportation Facilities

The site is located on SE Harmony Road near Highway 224 (see Figure 1). Table 3 provides a summary of the facilities in the immediate vicinity of the project site. The existing lane configurations and traffic control devices at the study intersections are shown in Figure 3.

Table 3
Existing Transportation Facilities and Roadway Designations

Roadway	Classification	Cross Section	Speed Limit	Side-walks	Bike Lanes	On-Street Parking
SE Harmony Road	Major Arterial	2-3 lanes	40 mph	Partial ¹	Yes	No
SE Linwood Avenue	Minor Arterial	3 lanes	40 mph	Yes	Yes	No
SE Lake Road	Minor Arterial	2 lanes	40 mph	No	Yes	No
SE Railroad Avenue	Collector	3 lanes	40 mph	Partial ²	No	No
SE International Way	Local	2 lanes	25 mph	Partial ³	No	No

¹Sidewalks only provided on north side and east of subject property.

²Sidewalks only provided on north side

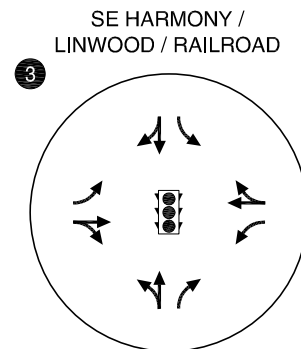
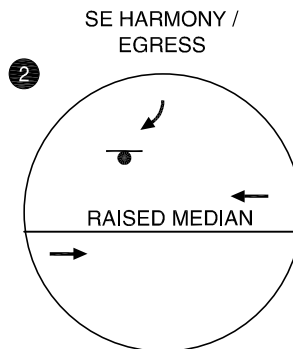
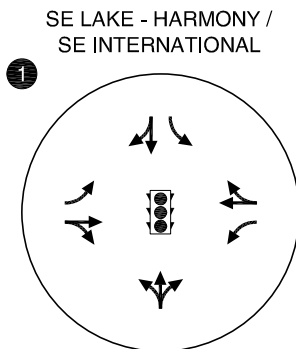
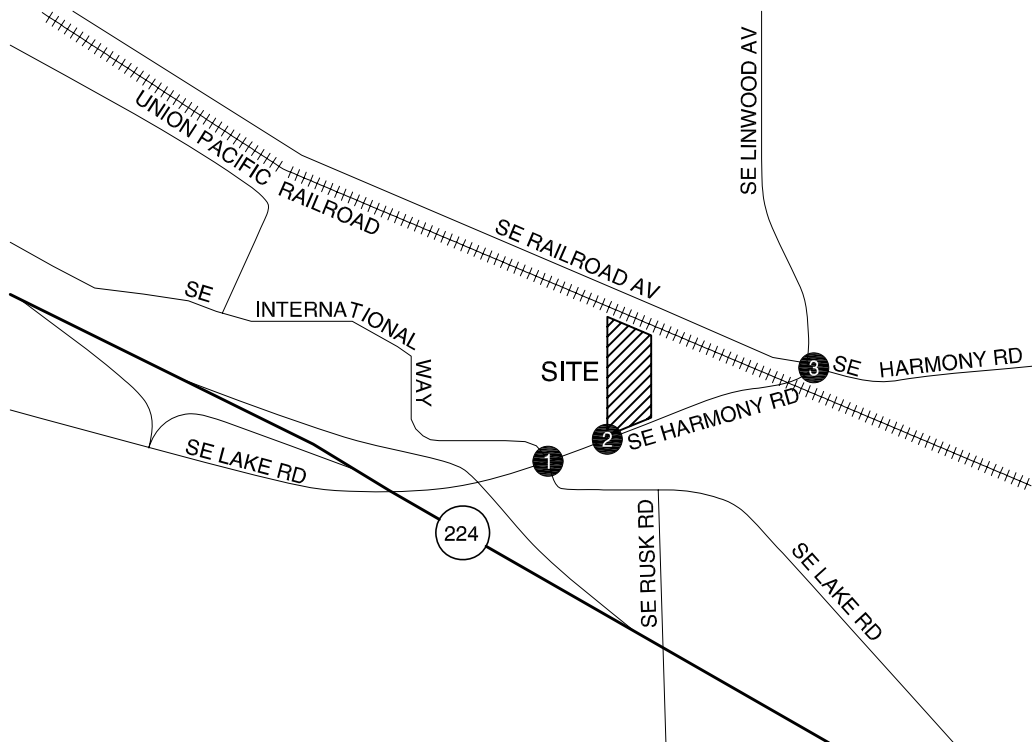
³Sidewalks only provided in front of the International Way Business Center

Pedestrian and Bicycle Conditions


Both of the signalized intersections have pedestrian crossing signals. Partial sidewalks are provided along the north side of SE Harmony Road, but in several locations are inaccessible due to overgrown foliage. There are currently no sidewalks along the site frontage. Field observations within the site vicinity revealed very low levels of pedestrian activity and bicycle activity along the study roadways.



(NO SCALE)



LEGEND

-  - STOP SIGN
-  - TRAFFIC SIGNAL

**EXISTING LANE CONFIGURATIONS AND TRAFFIC CONTROL DEVICES
MILWAUKIE, OREGON**

FIGURE
3

H:\profile\18905 - Milwaukie Mini Storage\dwgs\figs\18905Fig01.dwg Oct 30, 2007 - 11:21am - csemmler Layout Tab: Fig03

Transit Facilities

TriMet provides the following transit service in the site vicinity.

- Route 28-Linwood provides service between Milwaukie Transit Center and Clackamas Town Center. The route travels along SE Linwood Road and SE Harmony Road, with the nearest bus stop to the proposed development site at the intersection of SE Linwood Road/SE Harmony Road, approximately 1000 feet away. Service is provided on weekdays between approximately 6:30 a.m. and 7:30 p.m., nearly once every hour. There is no Saturday, Sunday, or holiday service.
- Route 29-Lake/Webster Rd also provides service between Milwaukie Transit Center and Clackamas Town Center. The route travels along SE Lake Road and south along SE Webster Road before traveling back north along SE Johnson Road and SE 82nd Avenue. The nearest bus stop is located at the SE Lake Road/SE Harmony Road intersection, approximately 500 feet from the proposed development site. Service is provided on weekdays between approximately 6:00 a.m. and 8:00 p.m., nearly once every hour. There is no Saturday, Sunday, or holiday service.
- Route 152-Milwaukie also provides service between Milwaukie Transit Center and Clackamas Town Center. The route travels along SE International Way and SE Lake Road. The nearest bus stop is shared with Route 29, and is located at the intersection of SE Lake Road/SE Harmony Road, approximately 500 feet from the proposed development site. Service is provided between approximately 6:45 a.m. and 5:15 p.m. at intervals of an hour and a half. There is no Saturday, Sunday, or holiday service.

All three of these routes provide access to the Milwaukie Transit Center, which provides connections to a wide variety of bus routes serving most of the region.

Traffic Volumes and Existing Peak Hour Operations

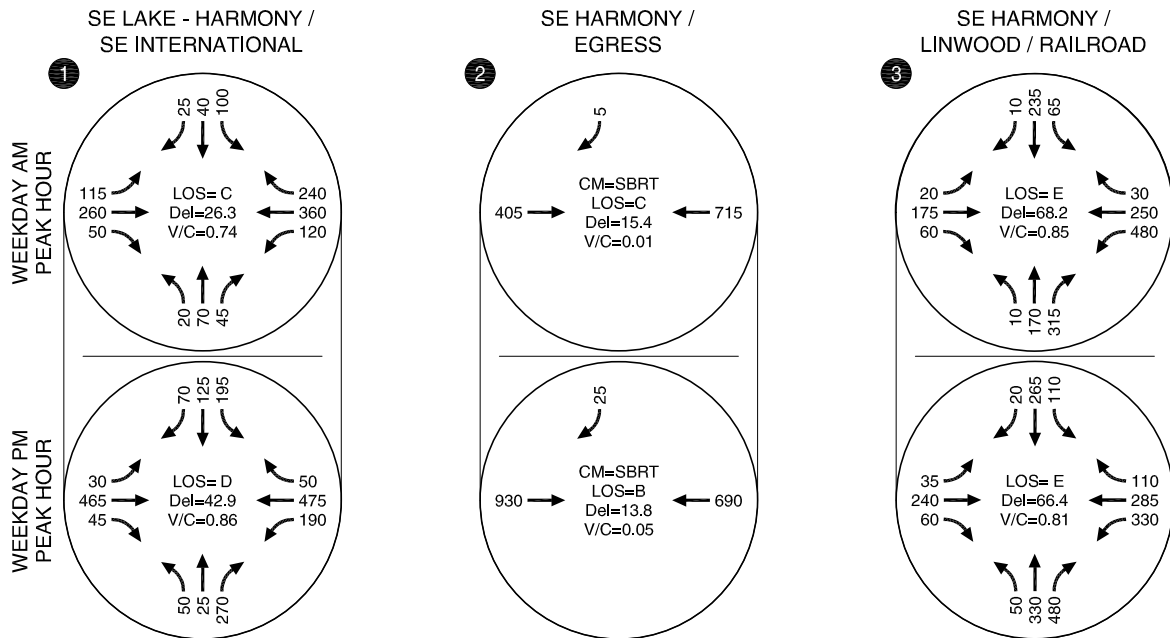
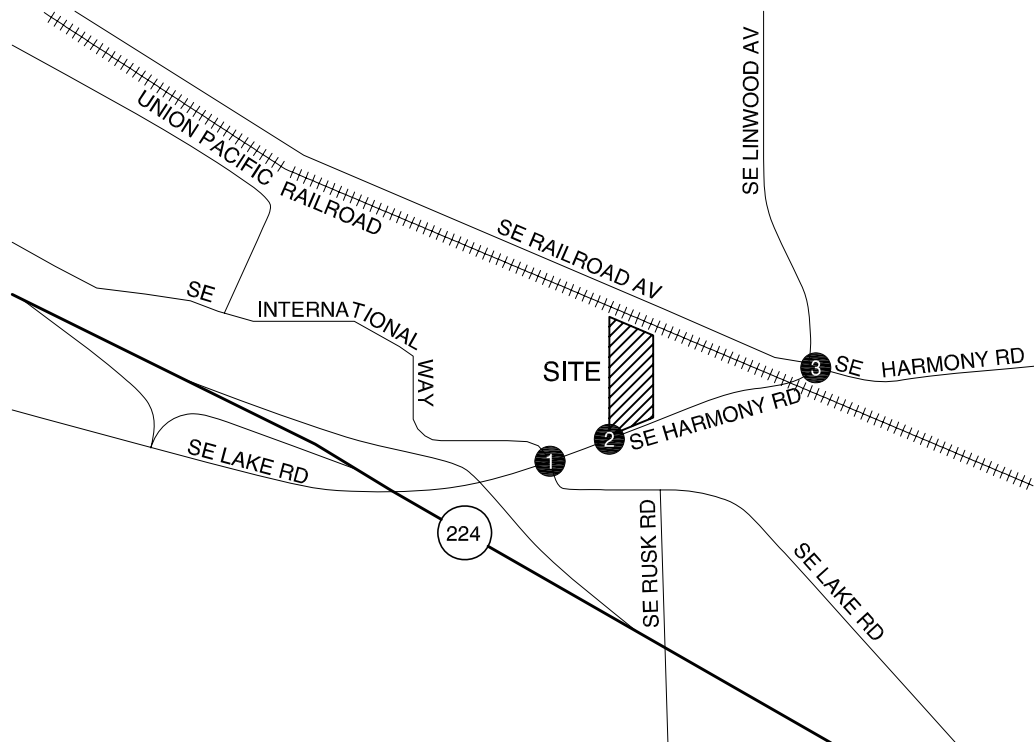
Manual turning movement counts were obtained at the study intersections on mid-week days in August 2007. These counts were conducted during the weekday morning (7:00 a.m. to 9:00 a.m.) and evening (4:00 p.m. to 6:00 p.m.) peak periods for the SE International Way/SE Harmony Road and site egress/SE Harmony Road intersections. Turning movement counts at SE Linwood Avenue/SE Harmony Road were collected in April 2006¹ and applied to this study. A historical examination of traffic volumes was performed which found that volumes in the area decreased between 2002 and 2006. In order to provide a conservative analysis, a one-percent annual growth rate was applied to the volumes at this intersection.

The turning movement counts from the weekday a.m. and p.m. peak hours were summarized and rounded to the nearest five vehicles per hour. The weekday morning peak hour was found to occur between 7:15 and 8:15 a.m., and the evening peak hour was found to occur between 4:10 and 5:10 p.m. Figure 4 summarizes the results of the intersection analysis for the three study intersections.

¹ Use of these counts was approved by Clackamas County staff via email on October 23, 2007.



(NO SCALE)

**LEGEND**

CM = CRITICAL MOVEMENT (UNSIGNALIZED)
 LOS = INTERSECTION LEVEL OF SERVICE
 (SIGNALIZED)/CRITICAL MOVEMENT LEVEL
 OF SERVICE (UNSIGNALIZED)
 Del = INTERSECTION AVERAGE CONTROL DELAY
 (SIGNALIZED)/CRITICAL MOVEMENT CONTROL
 DELAY (UNSIGNALIZED)
 V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

**2007 EXISTING TRAFFIC CONDITIONS
 WEEKDAY AM & PM PEAK HOURS
 MILWAUKIE, OREGON**

FIGURE
4

As shown in the figure, the SE International Way/SE Harmony Road intersection and the site access operate acceptably during both weekday a.m. and p.m. peak hours. The SE Linwood Avenue/SE Harmony Road intersection operates at LOS "E" during the weekday a.m. and p.m. peak hours. *Appendix "C" includes the year 2007 existing conditions analysis worksheets.*

SE Linwood Avenue/SE Harmony Road

The existing LOS "E" at the SE Linwood Avenue/SE Harmony Road intersection in part reflects a geometric constraint at the intersection. The unconventional intersection alignment precludes simultaneous northbound and southbound left-turn movements; as such, the signal utilizes split phasing for the northbound and southbound approaches, on an unusually long cycle length (up to 175 seconds).

In addition to the LOS "E" identified above, a major rail line crosses the northbound approach to the intersection approximately 20 feet south of the stop bar. The rail line is used by scheduled Amtrak passenger trains and multiple unscheduled freight trains on a daily basis. Depending on the speed of passing trains, the grade crossing gates can be closed for durations ranging from approximately one minute to three to five minutes. The rail crossing was not incorporated in the analysis.

Multiple field observations indicate that the crossings are not frequent during the weekday peak periods. Recent counts at the rail crossing identified three trains crossing during the weekday a.m. peak period (7:00 to 9:00 a.m.) and one train crossing during the weekday p.m. peak period (4:00 to 6:00 p.m.). The first two trains reported during the morning count occurred during the actual system peak hour, while the third morning train and the evening train were outside of the peak hour analysis period.

It is recognized that the reported train passage during the traffic count period represent only one day of field conditions and that variation occurs daily. During the course of three separate site visits, trains were observed to have caused extensive queuing along Harmony Road on one occasion and minimal train-related queuing was observed on the other two occasions.

Crash History

A five-year (2002-2006) crash history of the study intersections was obtained from the ODOT. There were no crashes reported during the analysis period at any of the study intersections. *Appendix "D" includes the crash data summary reports from ODOT.*

TRANSPORTATION IMPACT ANALYSIS

The transportation impact analysis identifies how the study area's transportation system will operate upon full build-out of the proposed development. The impact of traffic generated by the proposed self storage facility during typical weekday peak hours was examined as follows:

- Planned developments and transportation improvements in the site vicinity were identified and reviewed;

- Background traffic conditions (without site development) for the year 2009 were analyzed for the study intersections;
- Future peak hour site-generated trips were estimated for build-out of the proposed project;
- Site-generated traffic from proposed project were added to the background traffic volumes to evaluate year 2009 total traffic operations at the study intersections; and,
- Site access and circulation were examined.

2009 Background Traffic Volumes

The background traffic analysis identifies how the study area's transportation system will operate in the year the proposed self storage facility will be completed and occupied. The 2009 background traffic volumes include approved or in-process developments. Based on information obtained during a recent project in the area, the following approved/in-process projects were identified for inclusion in background conditions:

- Sunnybrook Office Development;
- Clackamas Town Center expansion;
- Causey Village; and,
- Clackamas Community College.

City staff did not identify any other developments for inclusion in the analysis.

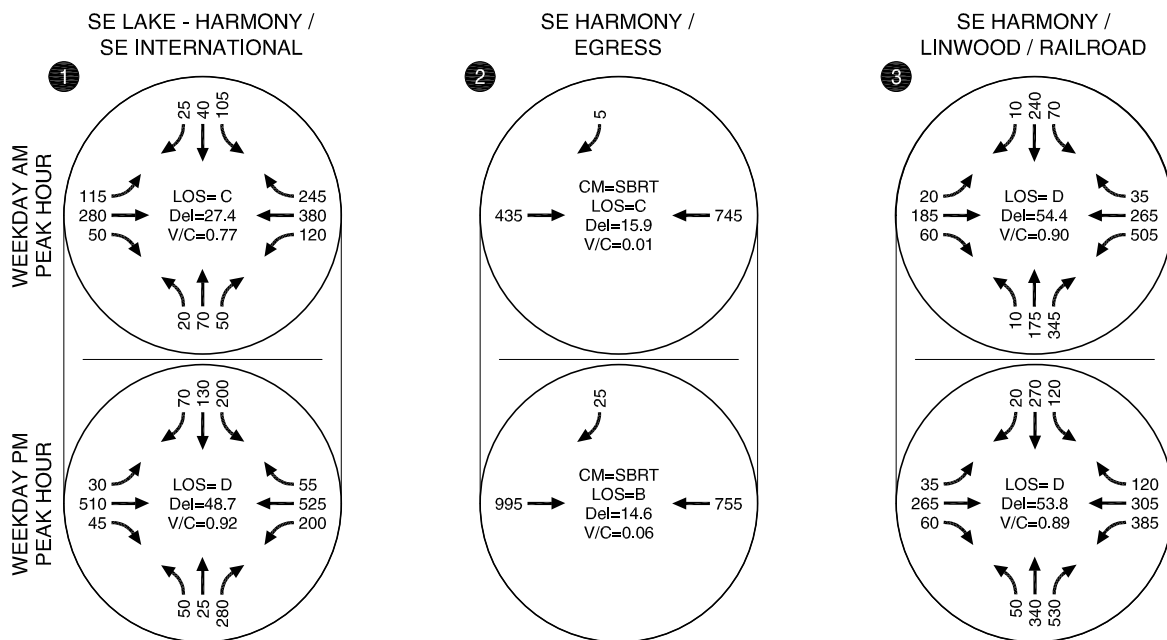
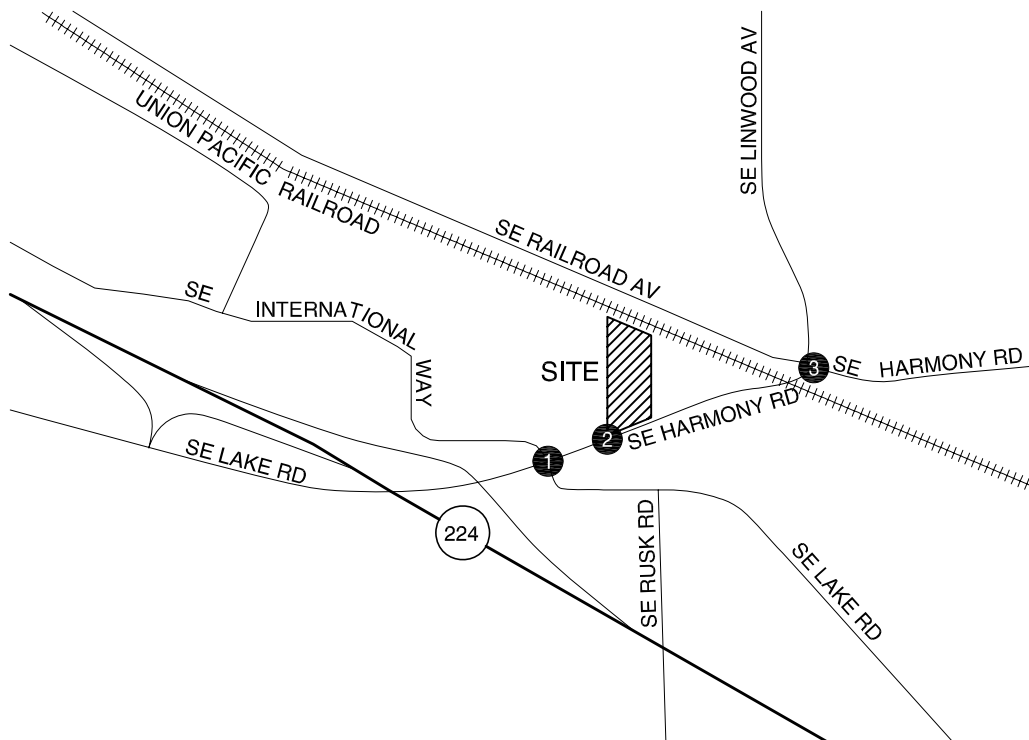
In addition to the increased traffic resulting from the identified in-process developments, traffic growth in the area was estimated based on a review of historic volumes at the study intersections. The historic volumes revealed that peak hour traffic volumes have been generally constant over the last several years, with a slight increase at the SE International Way/SE Harmony Road intersection which appear to be directly related to the International Way business park. A slight decrease in traffic at the SE Linwood Avenue/SE Harmony Road intersection has occurred. Although the review revealed generally stable or declining traffic volumes, a one-percent annual growth rate was applied to the 2007 traffic volumes in order to reflect a conservative analysis. *Appendix "E" contains the historic traffic volumes used in this analysis.*

Planned Transportation Improvements

The SE Harmony/Linwood/Railroad intersection is planned to be modified with installation of a northbound right-turn overlap phase. This change was incorporated in the analysis. In addition, the analysis shows that reducing the overall traffic signal cycle length from 175 to 130 seconds would result in acceptable level of service and volume-to-capacity ratio. The resulting weekday a.m. and p.m. peak hour traffic volumes and intersection operations for 2009 background conditions are summarized in Figure 5.



(NO SCALE)



LEGEND

CM = CRITICAL MOVEMENT (UNSIGNALIZED)
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 (SIGNALIZED)/CRITICAL MOVEMENT LEVEL
 OF SERVICE (UNSIGNALIZED)
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 DELAY (UNSIGNALIZED)
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**2009 BACKGROUND TRAFFIC CONDITIONS
WEEKDAY AM & PM PEAK HOURS
MILWAUKIE, OREGON**

FIGURE
5

As indicated in the figure, the study intersections are all forecast to operate acceptably during the weekday a.m. and p.m. peak hours with the planned improvements at the SE Harmony Road/SE Linwood Road intersection. Appendix "F" contains the year 2009 background level-of-service worksheets.

Proposed Development Plan

The project is proposed to include an approximately 100,000-square-foot mini-storage facility with approximately 450 storage units. Access is proposed to be via a right-in/right-out driveway on SE Harmony Road which will incorporate the existing right-out driveway serving the International Way Business Park directly west of the project site². A secondary ingress will be via a right-in driveway on SW International Way, under an access easement from the business park.

Trip Generation

As described earlier, trip generation estimates for the proposed mini-storage facility were developed from traffic counts conducted at three existing self-storage facilities in Milwaukie, Oregon. Mid-weekday counts were conducted during the weekday a.m. and p.m. peak periods (7:00-9:00 a.m. and 4:00-6:00 p.m.). Peak hour trip generation rates were developed as a function of the number of storage units at each site. Weekday daily trip generation was estimated based on the relationship of daily to peak hour trips, as summarized in the standard reference manual, *Trip Generation* (Reference 3). The trip generation estimate for the proposed mini-storage facility is summarized in Table 4. The table also shows the estimated trip generation for the existing land uses, based on data summarized in *Trip Generation*.

Table 4
Estimated Weekday Trip Generation

Land Use	ITE Code	Size	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Proposed Land Use									
Mini-Warehouse		450 units	80*	4	2	2	8	4	4
Existing Land Uses									
Single Family Home	210	2 homes	20	2	0	2	2	2	0
Light Industrial	110	4,000 s.f.	28	4	3	1	4	1	3
Total			48	6	3	3	6	3	3
Net Change									
Incremental Trips			32	-2	-1	-1	2	1	1

* A reduction to the ITE daily total trips was applied to match those measured for the a.m. and p.m. peak hours

² At the time that the International Way Business Park access was developed, there was not sufficient property width to provide a two-way driveway. The Harmony Road Mini Storage development proposes conversion of this driveway to allow right-in/right-out movements.

As Table 4 shows, the proposed redevelopment of the site is estimated to result in only slight changes in site-generated traffic during typical weekday a.m. and p.m. peak hours.

Trip Distribution

The trip distribution pattern for the site was estimated based on roadway facilities in the area, existing travel patterns, and the location and type of surrounding developments. Figure 6 shows the estimated trip distribution pattern. The trips were assigned to the study intersections according to the estimated distribution pattern, as shown in Figure 6. Figure 6 also illustrates anticipated re-routing of traffic entering the International Way Business Park; these trips currently utilize the driveway on SE International Way but with the development would be able to enter via the right-in/right-out driveway on SE Harmony Road. This new ingress opportunity is estimated to reduce westbound right turns at the SE Harmony/SE International Way intersection by approximately ten vehicles during the weekday a.m. peak hour and by approximately five vehicles during the weekday p.m. peak hour.

2009 Total Traffic Conditions

The total traffic conditions analysis forecasts how the study area's transportation system will operate with the inclusion of traffic from the proposed mini-storage facility and the re-routing of trips to the new driveway. The site-generated trips at the study intersections (Figures 7 and 8) were added to the 2009 background traffic volumes (Figure 5) to arrive at the total traffic volumes as shown in Figure 9. As indicated in the figure, the total traffic analysis determined that all of the study intersections will continue to operate acceptably upon site build-out during both the weekday a.m. and p.m. peak hours. Some intersection operations improved slightly due to the re-routed business park trips. *Appendix "G" contains the 2009 total traffic level-of-service worksheets.*

Sensitivity Analysis

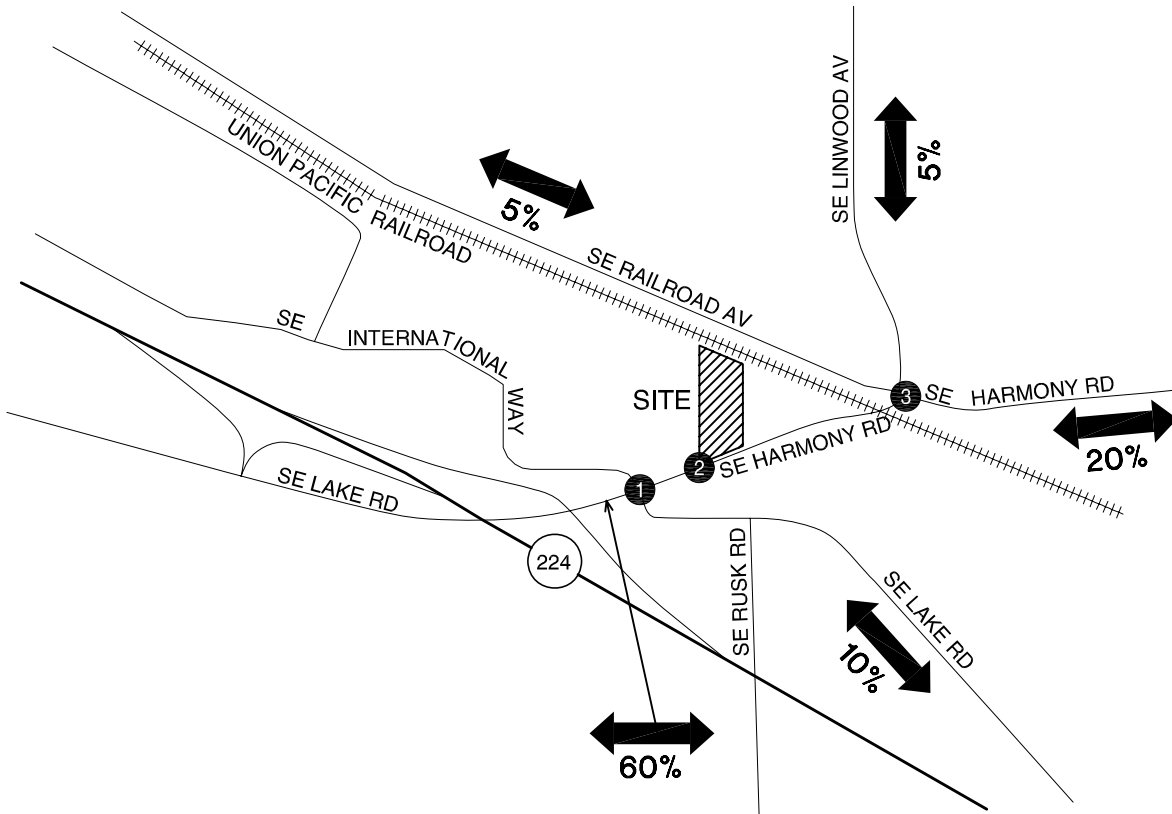
A sensitivity analysis was conducted to analyze traffic impacts using an alternative trip generation estimate requested by ODOT. The alternative trip generation estimate is based on building square footage instead of storage units and results in a higher trip estimate. Under this approach, the net new trips generated by the proposed development site is estimated to be two trips during the weekday a.m. peak hour, and nine trips during the weekday p.m. peak hour. The analysis found that each of the study intersections will operate acceptably under the alternative trip generation estimate. *Appendix "H" contains the sensitivity analysis level-of-service worksheets.*

CLACKAMAS COUNTY ACCESS MANAGEMENT PLAN

As described above, access to the site is proposed via a right-in/right-out driveway on SE Harmony Road. Under the proposed site plan, an existing right-out driveway serving the International Way Business Park will be modified to provide right-in/right-out access to both the existing business park and the proposed self-storage facility. This section addresses access spacing, intersection operations, including queuing, and sight distance.



(NO SCALE)



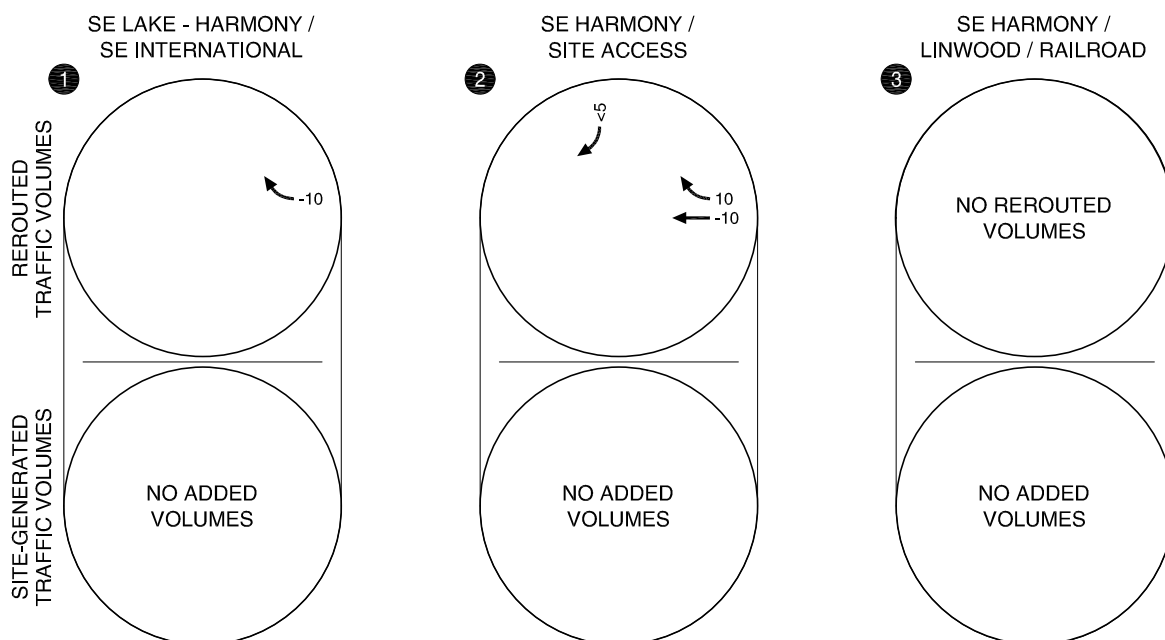
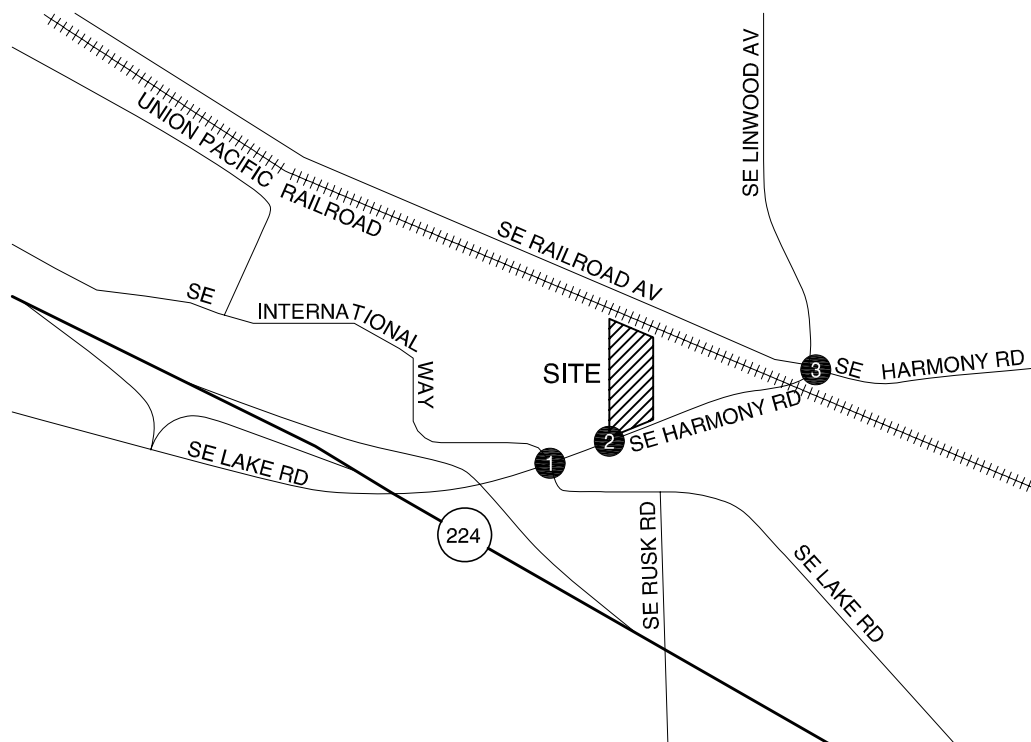
**ESTIMATED TRIP DISTRIBUTION PATTERN
MILWAUKIE, OREGON**

FIGURE
6

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(NO SCALE)



NOTE: TRAFFIC VOLUMES HAVE BEEN ROUNDED TO THE NEAREST FIVE TRIPS

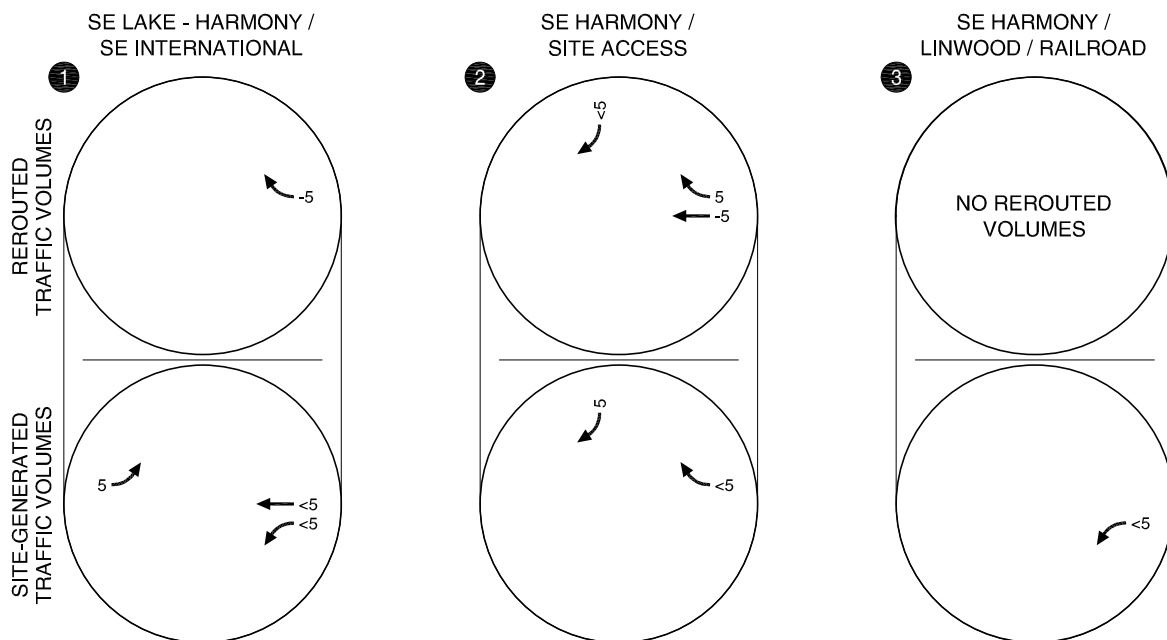
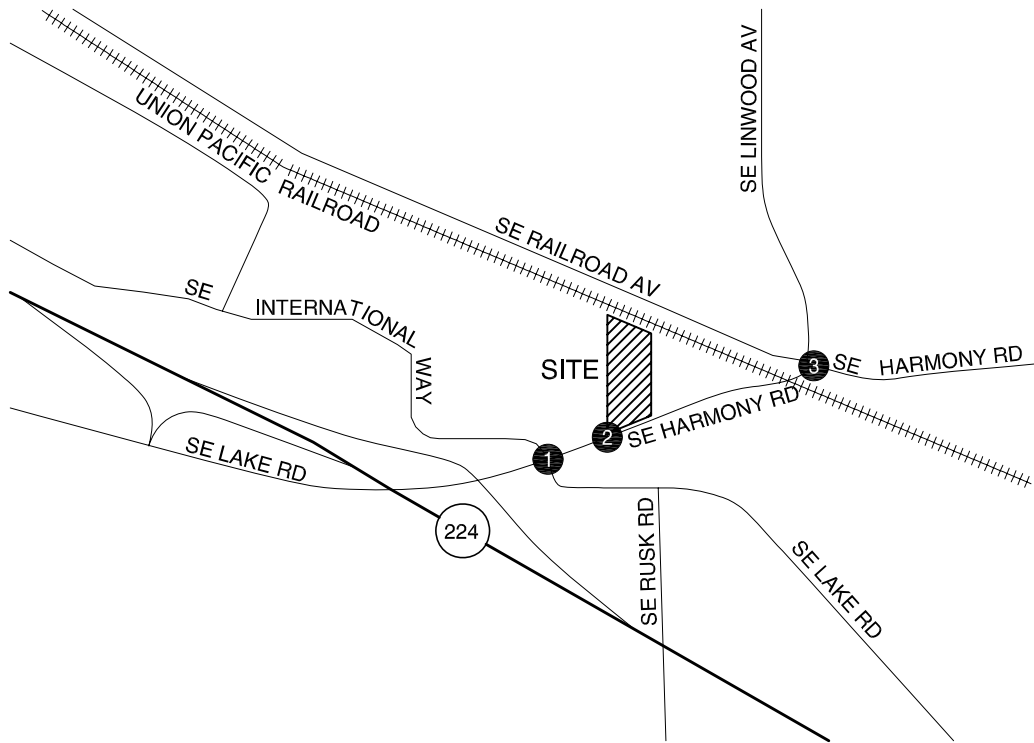
**SITE-GENERATED AND REROUTED BUSINESS PARK TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
MILWAUKIE, OREGON**

FIGURE

7



(NO SCALE)



NOTE: TRAFFIC VOLUMES HAVE BEEN ROUNDED TO THE NEAREST FIVE TRIPS

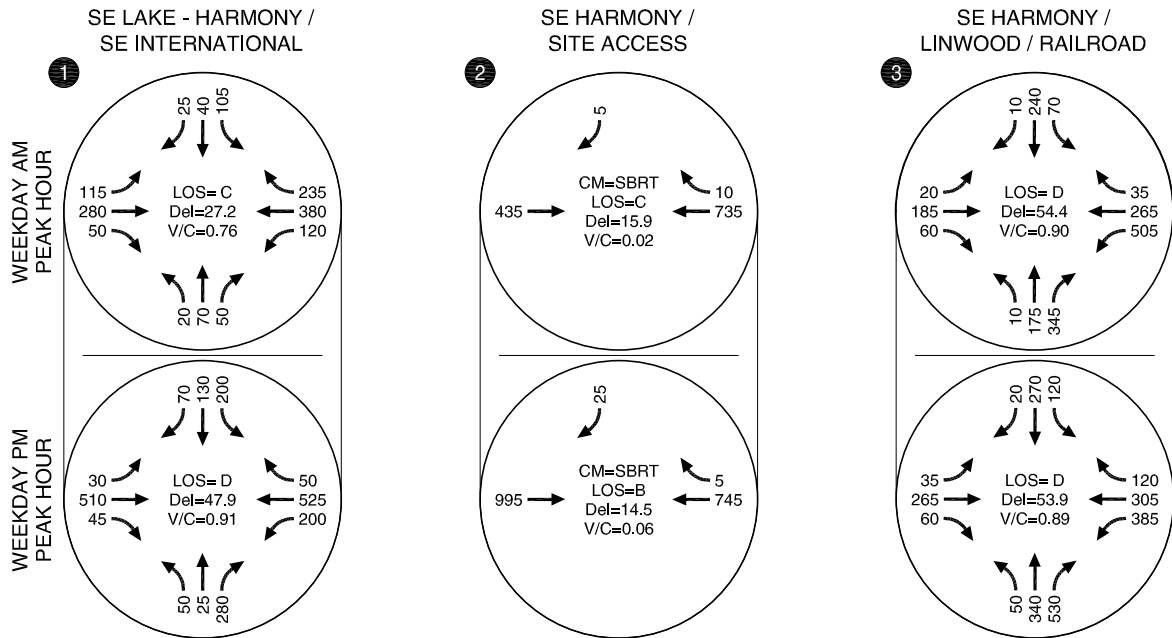
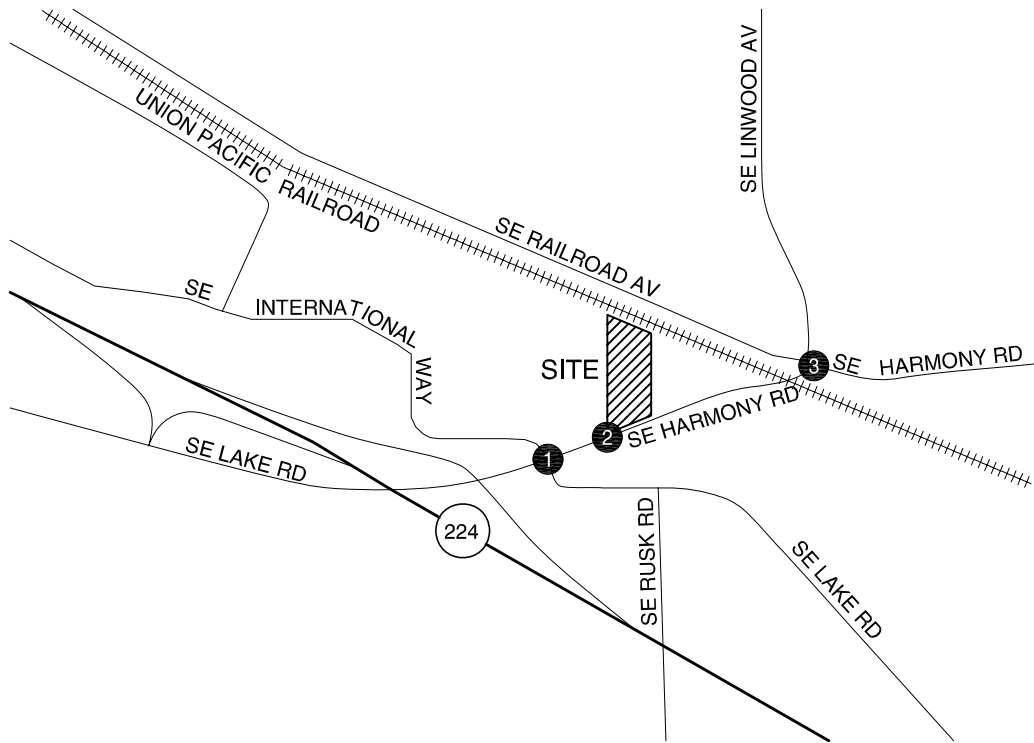
**SITE-GENERATED AND REROUTED BUSINESS PARK TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
MILWAUKIE, OREGON**

FIGURE

8



(NO SCALE)



LEGEND

CM = CRITICAL MOVEMENT (UNSIGNALIZED)
 LOS = INTERSECTION LEVEL OF SERVICE
 (SIGNALIZED)/CRITICAL MOVEMENT LEVEL
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**2009 TOTAL TRAFFIC VOLUMES
WEEKDAY AM & PM PEAK HOURS
MILWAUKIE, OREGON**

FIGURE
9

Intersection Operations/Queuing

As shown in Figure 9, the proposed driveway is expected to operate acceptably under 2009 total traffic conditions during both weekday a.m. and p.m. peak hours.

Queuing at the SE Harmony/SE International Way intersection has been identified as a concern by Clackamas County staff. Because of the very slight increase in traffic volumes associated with the proposed project, no measurable impacts on queuing are expected to result from the project. However, some slight benefits may be realized by allowing ingress to the International Way Business Park via the right-in/right-out driveway on SE Harmony Road.

A more significant improvement will result from the removal of conflicting left-turn movements that are currently allowed at the three existing site driveways.

Access Spacing

Clackamas County classifies SE Harmony Road as a major arterial. According to Table V-5 of the Clackamas County Comprehensive Plan, driveways on these facilities should be located to provide 400 feet spacing, except where no other alternatives exist. Figure 10 illustrates the existing access spacing along SE Harmony Road. Figure 10 shows the three driveways currently along the site frontage on SE Harmony Way, resulting in access spacing of 98 feet, 27 feet, 32 feet, and 177 feet (west to east, center-line to center-line).

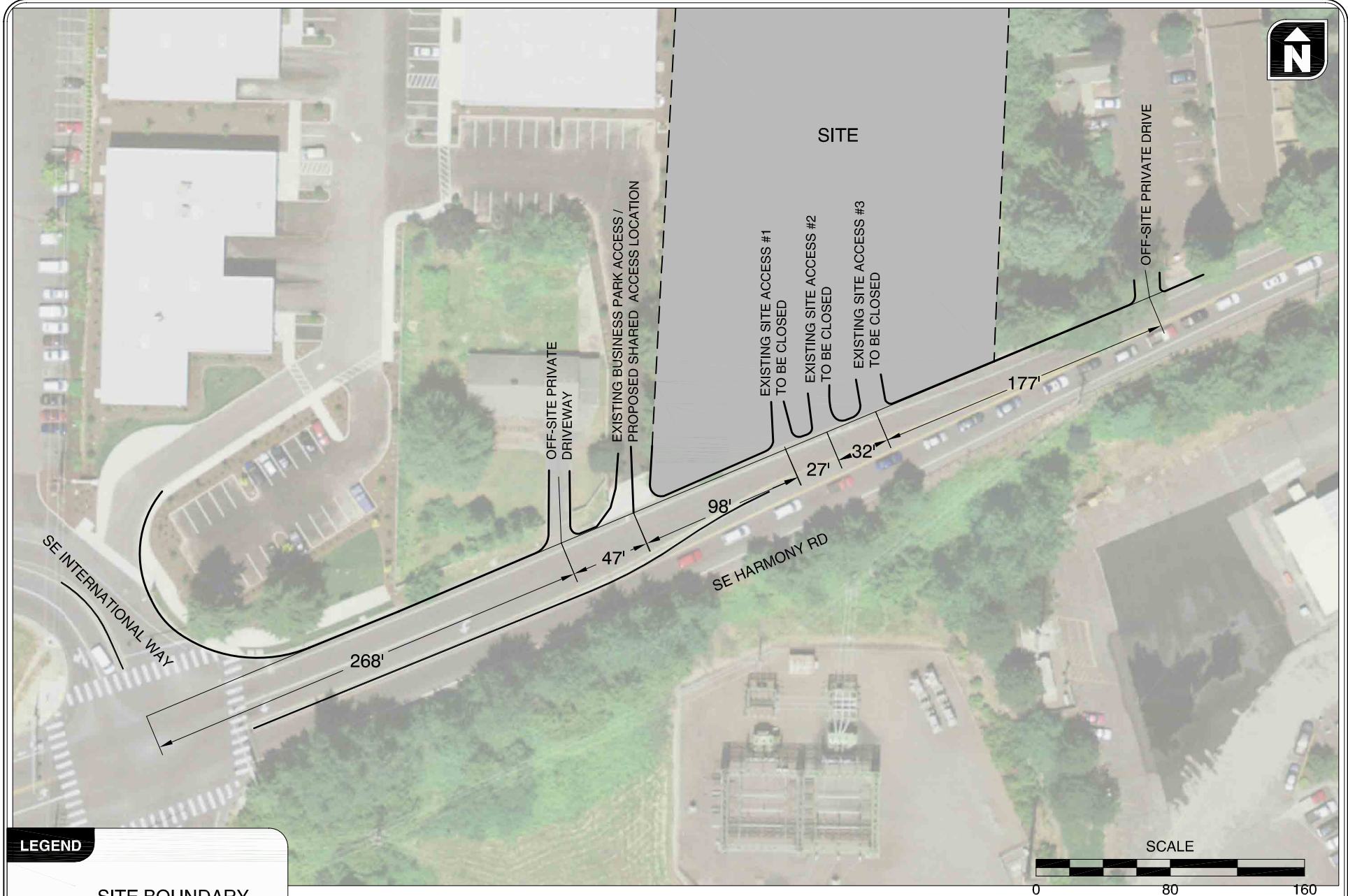
Figure 11 depicts the proposed access plan, which would close the three existing full-access driveways and modify the existing right-out driveway serving the International Way Business Park so that it would provide right-in/right-out access to the self-storage and the business park. As the figure shows, the proposed access plan would improve access spacing to 312 feet along the site frontage. Further, this plan would remove conflicting left turn movements that are currently permitted at the three private driveways serving the site.

Sight Distance

Intersection and stopping sight distance were evaluated at the proposed SE Harmony Road access. The sight distance evaluation was conducted according to the standard manual *A Policy on Geometric Design of Highways and Streets* (commonly referred to as the *Green Book*) published by the American Association of State Highway and Transportation Officials (AASHTO, Reference 4).

A speed study was conducted on SE Harmony Road to determine the 85th percentile travel speed. The speed study was conducted approximately 800 feet east of SE International Way for a 24-hour period in October 2007. The 85th percentile speed was found to be 37 miles per hour (mph) for westbound vehicles approaching the site. Table 5 summarizes the AASHTO guidelines according to travel speeds of 37 miles per hour as well as measured sight distances at the proposed driveway. The measured sight distances assume the removal of brush along the roadway frontage of the proposed development site.

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LEGEND

- — - SITE BOUNDARY
- — - EXISTING RAISED MEDIAN

EXISTING ACCESS SPACING ON HARMONY ROAD
MILWAUKIE, OREGON

FIGURE
10

H:\profile\8905 - Milwaukie Mini Storage\dwgs\figs\8905aerial.dwg Oct 30, 2007 - 11:25am - csemler Layout Tab: fig11



LEGEND

- - SITE BOUNDARY
- - EXISTING RAISED MEDIAN

PROPOSED ACCESS SPACING ON HARMONY ROAD
MILWAUKIE, OREGON

FIGURE
11

Table 5
Sight Distance Calculations at Existing Right-Out on SE Harmony Road

Vehicle	Intersection Sight Distance			Stopping Sight Distance		
	AASHTO	Measured	Adequate?	AASHTO	Measured ¹	Adequate?
Passenger Car ²	355'	540'	Yes	270'	460'	Yes
Single Unit Truck ³	465'	560'	Yes	270'	460'	Yes
Combination Truck ³	575'	560'	No	270'	460'	Yes

¹ Measured from 3.5' driver's eye height to 2.5' fender height

² Measured from 3.5' driver's eye height to 3.5' driver's eye height

³ Measured from 7.5' driver's eye height to 3.5' driver's eye height

As shown in Table 5, the existing right-out only access meets AASHTO requirements for both intersection and stopping sight distances for passenger cars and single-unit trucks. For combination trucks, 560 feet of intersection sight distance is available where 575 feet is considered desirable.

AASHTO also identifies the minimum sight distance as equal to the stopping sight distance for approaching vehicles. The calculated minimum stopping sight distance is 270 feet. The measured intersection sight distance of 560 feet is greater than the minimum sight distance standard identified by AASHTO and is therefore sufficient according to AASHTO standards.³ Further, vehicle counts revealed only one combination truck using the driveway during the weekday a.m. and p.m. peak hours. Therefore, for the vast majority of traffic, AASHTO's "desired" sight distance is available. *The speed study report and sight distance calculations are provided in Appendix "I"*

FINDINGS & CONCLUSION

The analysis described in this report resulted in the following key findings and recommendations:

TPR Compliance

- Comparing allowed uses, the proposed zone change and conditional use application results in a reduction of site trip generation potential from approximately 920 daily trips (under current zoning) to approximately 80 daily trips, with the proposed conditional use self-storage facility. The application is estimated to reduce peak period trips by approximately 130 and 125 trips during the a.m. and p.m. peak hours, respectively.

Existing Conditions

- The SE International Way/SE Harmony Road intersection and the site access operate acceptably during both weekday a.m. and p.m. peak hours. The SE Linwood Avenue/SE

³ The AASHTO *Green Book*, page 651, states that "if the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions."

Harmony Road intersection operates at LOS "E" during the weekday a.m. and p.m. peak hours.

- Based on ODOT data, there were no reported crashes at the study intersections over the most recent five-year period for which data are available.

2009 Future Conditions

- The study intersections are all forecast to operate acceptably during the weekday a.m. and p.m. peak hours under 2009 background conditions, with planned installation of a northbound right-turn overlap phase and assumed signal timing changes at the SE Harmony/Linwood/Railroad intersection.
- The proposed development is estimated to result in only minor changes in weekday trip generation when compared to the existing single family homes and industrial building on-site. Weekday trips are estimated to increase by approximately 30 daily trips, with a.m. peak hour trips declining slightly (approximately two trips) and p.m. peak hour trips increasing slightly (approximately two trips).
- The study intersections are all forecast to operate acceptably during the weekday a.m. and p.m. peak hours under 2009 total traffic conditions. Total volumes include site-generated trips and re-routed traffic resulting in the International Way Business Park vehicles using the new right-in access on SE Harmony Road.
- The proposed project is not expected to have a measurable impact on intersection queuing. However, removal of the left-turn movements at the existing site driveways will eliminate conflicting movements that currently can exacerbate queuing conditions. Further, some out of direction travel to the International Way Business Park will be reduced due to the new shared right-in access on SE Harmony Road.

Access Management

- The proposed access plan will result in closure of three full access driveways and will bring access spacing closer to Clackamas County desired standards.
- Adequate sight distance will be available at the proposed site driveway for passenger vehicles, single-unit trucks, and combination trucks, according to AASHTO standards.

Based on the analysis and findings documented in this report, the proposed zone change, contingent on the approval and development of the proposed self-storage facility, can be approved without negatively impacting the transportation system.

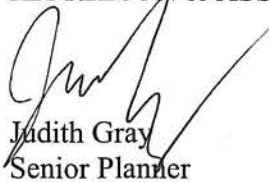
Recommendations


- Remove existing vegetation along the site frontage to improve sight lines at the proposed shared access driveway.

- Approval of the proposed zone change should be subject to a "trip cap" equivalent to the proposed 450-unit mini storage facility (80 daily trips, 5 a.m. peak hour trips, 10 p.m. peak hour trips)

We look forward to discussing this project with you at the earliest opportunity.

Sincerely,
KITTELSON & ASSOCIATES, INC.


Judith Gray
Senior Planner


Conor Semler
Transportation Analyst

References

1. LandDesignNW, *Harmony Road Zone Analysis*, 2007.
2. Institute of Transportation Engineers. *Trip Generation*, Seventh Edition. 2003
3. Transportation Research Board. *Highway Capacity Manual*. 2000
4. American Association of State Highway and Transportation Officials. *A Policy on Geometric Design of Highways and Streets*, 2004.

Appendices

- A. Traffic Count and Trip Generation Count Data
- B. Description of Level-of-Service Methods and Criteria
- C. 2007 Existing Conditions Analysis Worksheets
- D. Crash Data
- E. Historic Traffic Counts
- F. 2009 Background Conditions Analysis Worksheets
- G. 2009 Total Traffic Conditions Analysis Worksheets
- H. Sensitivity Analysis Worksheets
- I. Speed Study Report & Sight Distance Calculations





December 19, 2014

Andrew Tull
3J Consulting, Inc.
5075 SW Griffith Drive, Ste 150
Beaverton, OR 97005

Re: Preapplication Report

Dear Andrew:

Enclosed is the Preapplication Report Summary from your meeting with the City on December 4, 2014, concerning your proposal for action on property located at 5945 and 5965 SE Harmony Rd.

A preapplication conference is required prior to submittal of certain types of land use applications in the City of Milwaukie. Where a preapplication conference is required, please be advised of the following:

- Preapplication conferences are valid for a period of 2 years from the date of the conference. If a land use application or development permit has not been submitted within 2 years of the conference date, the Planning Director may require a new preapplication conference.
- If a development proposal is significantly modified after a preapplication conference occurs, the Planning Director may require a new preapplication conference.

If you have any questions concerning the content of this report, please contact the appropriate City staff.

Sincerely,

Blanca Marston
Administrative Specialist II

Enclosure

cc: Hans Thygeson
File

CITY OF MILWAUKIE

PreApp Project ID #: 14-013PA

PRE-APPLICATION CONFERENCE REPORT

This report is provided as a follow-up to a meeting that was held on **12/4/2014** at **10:00AM**

Applicant Name: Andrew Tull
Company: 3J Consulting, Inc.
Applicant 'Role': Contractor
Address Line 1: 5075 SW Griffith Drive, Ste 150
Address Line 2:
City, State Zip: Beaverton OR 97005
Project Name: Mini Storage
Description:
ProjectAddress: 5945 & 5965 SE Harmony Rd
Zone: BI zone with HCA and WQR overlays.
Occupancy Group:
ConstructionType:
Use: Current residential and industrial. Proposed public storage facility, which is a conditional use in th
Occupant Load:
AppsPresent: Andrew Tull, Hans Thygeson
Staff Attendance: Jason Rice, Li Alligood

BUILDING ISSUES**ADA:**

Structural: New plans will need to be submitted with updates for the new code version. Finished floor shall be located a minimum of one foot above the base flood elevation.
 Retaining walls over 4 feet in height measured from the bottom of the footing to the top of the wall, or that retain a surcharge are required to be engineered and permitted.

Mechanical:**Plumbing:****Plumb Site Utilities:****Electrical:**

Notes:

Please note all drawings must be individually rolled. If the drawings are small enough to fold they must be individually folded.

FIRE MARSHAL ISSUES

Fire Sprinklers:

Fire Alarms:

Fire Hydrants:

Turn Arounds:

Addressing:

Fire Protection:

Fire Access:

Hazardous Mat.:

Fire Marshal Notes: A Fire Access and water supply plan for commercial buildings over 1000 square feet in size or when required by Clackamas Fire District #1.

SEE ATTACHED COMMENTS.

The plan shall show fire apparatus access, fire lanes, fire hydrants, fire lines, available fire flow, fdc location if applicable, building square footage and type of construction. The applicant shall provide fire flow tests per NFPA 291 and shall be no older than 12 months. Work to be completed by experienced and responsible persons and coordinated with the local water authority. (Applicable for developments with potable water supply provided by a water authority.)

Following completion of site construction activities of buildings over 1000 square feet or when required by Clackamas Fire District #1, the applicant shall provide as-built Fire Access and Water Supply pdf plans to the local Fire District and the County. The pdf plans shall show fire apparatus access, fire lanes, fire hydrants, fire lines, available fire flow, fdc location if applicable, building square footage and type of construction. The plans shall include any supporting details of the access, circulation, water vaults, fire lines, valves, fdc, backflow devices, etc.

For this proposal, the pdf as-built plan sheets shall be transmitted to mike.boumann@clackamasfire.com (Deputy Fire Marshal Mike Boumann) and deanam@co.clackamas.or.us (Development Review Coordinator Deana Mulder)

PUBLIC WORKS ISSUES

Water:

There is an existing 8-inch water main that is available to serve the proposed development. The existing 8-inch main will need to be extended to the east property line of the proposed development property for future development. The City of Milwaukie Operations Department will install up to a 2-inch water service. Water service installation fees are due at issuance of building permits. Also, the most current water service installation fees are available on the City of Milwaukie website.

The water System Development Charge (SDC) is based on the size of water meter serving the property.

The corresponding water SDC will be assessed with installation of a water meter. Water SDC credit will be provided based on the size of any existing water meter serving the property removed from service. The water SDC will be assessed and collected at the time the building permits are issued.

Sewer:

Currently, the wastewater System Development Charge (SDC) is comprised of two components. The first component is the City's SDC charge of \$893.00 and the second component is the County's connection fee for treatment of \$5,670 that the City collects and forwards to the County. Both charges are per connection unit. The wastewater SDC and connection fee is assessed using a plumbing fixture count from Table 7-3 of the Uniform Plumbing Code. The wastewater SDC connection units are calculated by dividing the fixture count of new plumbing fixtures by sixteen. The wastewater SDC will be assessed and collected at the time the building permits are issued.

Storm:

Submission of a storm water management plan by a qualified professional engineer is required as part of the proposed development. The plan shall conform to Section 2 - Stormwater Design Standards of the City of Milwaukie Public Works Standards.

The storm water management plan shall demonstrate that the post-development runoff does not exceed the pre-development, including any existing storm water management facilities serving the development property. Also, the plan shall demonstrate compliance with water quality standards. The City of Milwaukie has adopted the City of Portland most current Stormwater Management Manual for design of water quality facilities.

All new impervious surfaces, including replacement of impervious surface with new impervious surfaces, are subject to the water quality standards. See City of Milwaukie Public Works Standards for design and construction standards and detailed drawings.

The storm SDC is based on the amount of new impervious surface constructed at the site. One storm SDC unit is the equivalent of 2,706 square feet of impervious surface. The storm SDC is currently \$823 per unit. The storm SDC will be assessed and collected at the time the building permits are issued.

Street:

The proposed development fronts the north side of SE Harmony Road, an arterial roadway. See Clackamas County requirements under the Notes section of this report.

Frontage:

Chapter 19.700 of the Milwaukie Municipal Code, hereafter referred to as "Code", applies to partitions, subdivisions, and new construction.

Transportation Facility Requirements, Code Section 19.708, states that all rights-of-way, streets, sidewalks, necessary public improvements, and other public transportation facilities located in the public right-of-way and abutting the development site shall be adequate at the time of development. See Clackamas County requirements under the Notes section of this report.

Right of Way:

Right-of-way shall be dedicated in accordance with Code Chapter 19.700, Code Table 19.708.2. See Clackamas County requirements under the Notes section of this report.

Driveways:

Code Section 12.16.040.A states that access to private property shall be permitted with the use of driveway curb cuts and driveways shall meet all applicable guidelines of the Americans with Disabilities Act (ADA). Driveway approaches shall be improved to meet the requirements of Milwaukie's Public Works Standards. The proposed development will not be able to meet the access spacing targets required on an arterial roadway in Code Section 12.16.040.C.

Erosion Control:

Per Code Section 16.28.020(C), an erosion control permit is required prior to placement of fill, site clearing, or land disturbances, including but not limited to grubbing, clearing or removal of ground vegetation, grading, excavation, or other activities, any of which results in the disturbance or exposure of soils exceeding five hundred square feet.

Code Section 16.28.020(E) states that an erosion control permit is required prior to issuance of building

permits or approval of construction plans. Also, Section 16.28.020(B) states that an erosion control plan that meets the requirements of Section 16.28.030 is required prior to any approval of an erosion control permit.

Traffic Impact Study: See Clackamas County Note #10.

PW Notes:

TRANSPORTATION SDC

The Transportation SDC is based on the increase in trips generated per the Trip Generation Handbook from the Institute of Transportation Engineers. The SDC for transportation is \$1,676 per trip generated. Credit is applied to any demolished structures and is based upon the existing use of the structures. The Transportation SDC is assessed and collected at the time the building permits are issued.

PARKS & RECREATION SDC

The Parks and Recreation SDC is based on an increase number of employees. Employee data is calculated using Table 5-4 of North Clackamas Parks & Recreation District System Development Charges Update Methodology Report dated September 28, 2007. The employment data of Table 5-4 is based on an increase in floor area and/or change in use for a proposed development. The SDC for parks and recreation is \$60.00 per additional employee. The Parks and Recreation SDC is assessed and collected at the time the building permits are issued.

PLANNING ISSUES

Setbacks:

The setbacks for the BI zone are as follows: front yard shall be at least 20 feet, rear and side yards shall be at least 0 feet. Cornices, eaves, canopies, sunshades, gutters, steps, unroofed landings, and flues may project up to 24 inches into a required side yard and up to 36 inches into a required front or rear yard.

Per MMC Table 19.501.2, Harmony Rd has been identified as a major street, and additional yard requirements apply. Buildings on site must be set back a minimum distance of 40 feet from the centerline of Harmony Rd, but in no case closer than 20 feet to the front property line. A survey will be required to verify that the setbacks from the centerline of Harmony Rd are met.

The proposed commercial or industrial project is adjacent to a lower density zone, and Transition Area Measures apply per Milwaukie Municipal Code (MMC) Subsection 19.504.6. This subsection requires a side yard setback of 20 ft on the east side to match the front yard setback of the adjacent R-5 zone. In addition, the east side yard setback must be maintained as open space and natural vegetation, landscaping, or fencing shall be provided to the 6-ft level to screen lower-density residential uses from direct view across the open space.

The proposed building is very close to the minimum 20-ft front yard setback from Harmony Rd and the minimum 20-ft east side yard transition area requirement. Given this location, a hub and tack survey or a field measurement of the south property line will be required prior to the foundation inspection to verify that the setbacks are met.

Landscape:

The minimum vegetation standards for the BI zone must be demonstrated at the time of land use application and met at the time of building permit submission. The BI zone requires that 15% of the total area of the lot be left or planted in trees, grass, shrubs, planting beds, etc. See 'Parking' for more information about parking lot landscaping requirements.

Parking:

Off-street parking standards contained in Milwaukie Municipal Code (MMC) Chapter 19.600 must be demonstrated at the time of land use application and met at the time of building permit submission. Perimeter and interior landscaping of parking areas must demonstrate compliance with the standards of

MMC 19.606.2. Parking lot landscaping may count toward the BI zone 15% landscaping requirement. A parking and landscaping plan is required at the time of building permit application. Modification to minimum and maximum parking space requirements are allowed through Type II review pursuant to MMC Section 19.605.2.

Per the applicant, the proposed use is a mini-storage. The minimum parking quantity ratio for mini-storage is 1 space/45 storage units, plus 1 space per employee of the largest shift. The maximum parking quantity ratio is 1 space/20 storage units, plus 1 space per employee of the largest shift. The number of bicycle parking spaces shall be at least 10% of the minimum required vehicle parking for the use; in no case shall less than 2 spaces be provided.

Transportation Review: The City's transportation requirements are located in MMC 19.700. The Engineering Department has determined that this chapter will be triggered by the proposed project. See 'Public Works' notes for details.

Application Procedures: The following applications must be submitted and approved before the development permits are submitted. Applications can be submitted concurrently; the applications will be processed according to the highest numbered review type. There is a 25% discount for the least expensive application(s). Fees listed below are effective July 1, 2014 to June 30, 2015.

Conditional Use (CU): Approval of a mini-storage facility in the BI zone is subject to Conditional Use review. The application is reviewed through a Type III review pursuant to MMC 19.1006, and the application fee is \$2,000. The application requirements and approval criteria for a CU application are in MMC 19.905. Upon CU approval, the applicant must record the CU permit with Clackamas County and provide a copy to the City.

Transportation Facilities Review (TFR): A Transportation Impact Study (TIS) is required, and TFR approval will be required to evaluate the impacts of the proposed development. The application is reviewed through a Type II review per MMC 19.1005, and the application fee is \$1,000. The approval criteria for TFR applications are in MMC 19.703.3. The Planning Director will determine the actual cost of a TIS scope of work preparation, and a reserve deposit in the amount of \$1,000 will be required. A reserve deposit of \$2,500 is required for a review of the TIS. The deposit amount beyond the actual cost will be refunded.

Natural Resource (NR): NR approval (boundary verification of the on-site wetlands) is required for the proposed development. The application is reviewed through a Type II review per MMC 19.1005, and the application fee is \$1,000. The procedures and approval criteria for NR boundary verification applications are in MMC 19.402.15.A.2.a.

Natural Resource (NR): NR approval is required because the proposal involves disruption of the mapped Water Quality Resource area on site for the construction of a crossing. The application is reviewed through a Type III review pursuant to MMC 19.1006, and the application fee is \$2,000. The application requirements and approval criteria for a NR application are in MMC 19.402.12. A reserve deposit in the amount of \$2,000 is required for review of the alternatives analysis and other submittals. The deposit amount beyond the actual cost will be refunded.

Additionally, the City may require proof of other jurisdictional approval or review of any proposed stream crossings and storm facilities, i.e. Army Corps, Department of State Lands (DSL), and Department of Environmental Quality (DEQ).

The following land use applications must be submitted prior to or concurrent with development permits:

Development (DEV): After approval of the CU/TFR/NR applications, and before start of construction,

DEV approval will be required. The application is reviewed through a Type II review per MMC 19.1005, and the application fee is \$1,000. The application requirements and approval criteria for a DEV application are in MMC 19.906. The proposal must meet the standards of MMC 19.310 Business Industrial zone BI.

Natural Resource (NR): Prior to commencement of construction, a Construction Management Plan (CMP) is required. The application is reviewed through a Type I review per MMC 19.1004, and there is no application fee. The application requirements and approval criteria for a NR CMP application are in MMC 19.402.9.

Type I applications are administrative in nature and are decided by the Planning Director. The timeline for review and approval is generally 10-15 business days.

Type II applications are administrative in nature and are decided by the Planning Director after a public notice period. The timeline for review and approval is 30 – 45 days.

Type III applications are discretionary in nature and require minor quasi-judicial review by the Planning Commission. The timeline for review and approval is generally 3-4 months. The Planning Commission hears land use applications on the second Tuesday of every month, and complete applications need to be submitted to the Planning Department no later than 45 days prior to the target Planning Commission hearing date. In general, staff recommends that an applicant submit at least 30 days prior to the 45-day deadline in order to ensure that there is time to make all applications complete if they are initially deemed incomplete.

Building permits will be accepted for review only after the appeal period for all land use decisions has expired.

Land use application submission materials are listed below for your convenience. Please refer to the handouts distributed in the meeting for more detailed information.

1. All applicable land use applications forms with signatures of property owners.
2. All applicable land use application fees.
3. Completed and signed "Submittal Requirements" form.
4. Completed and signed "Site Plan Checklist and Procedures" form.
4. 5 copies of an existing conditions and a proposed conditions site plan, both to scale. These two site plans can be combined onto one site plan.
5. 5 copies of a detailed narrative describing compliance with all applicable code sections.
6. Once the application is deemed complete, additional copies will be requested for neighborhood district distribution to City departments, applicable governmental agencies, and the association for review. 12 copies of the complete application will be required for Type II applications; 22 copies will be required for Type III applications.

Natural Resource Review: The site is bisected by Minthorn Creek and by an unnamed WQR area in the middle of the property. There is a small Habitat Conservation Area (HCA) on the western center of the site.

Lot Geography: The site consists of two tax lots and is generally rectilinear in shape.

Planning Notes:

- 1) The City will consider the two tax lots as a single site for the purposes of setbacks, lot coverage, minimum vegetation, etc.
- 2) A second preapplication conference will be required to the TIS. The cost for this conference is \$100.
- 3) The site is located within 300 ft of the Linwood NDA, and the NDA will have the opportunity to

review and comment on the application. The applicant may wish to present the proposal to the Linwood NDA in advance of application submittal in order to identify any potential concerns.

4) Public notice signs will need to be posted on site prior to any hearing or decision on a Type II or Type III land use application. Notice of the application will be sent to property owners within 300 ft of the subject property. The applicant may wish to communicate with these property owners prior to submittal of the zone change application in order to identify any potential concerns.

5) Many zoning ordinance references and standards have been renumbered, reorganized, updated, or completely revised since the previous mini-storage application (CU-07-02) was approved in 2007, including, but not limited to: 19.310 Business Industrial Zone BI; 19.402 Natural Resources; 19.600 Off-Street Parking and Loading; 19.700 Public Facility Improvements; and 19.905 Conditional Uses.

6) The preapplication conference is valid for purposes of submitting future land use applications as described in 19.1002.4. In general, a preapplication conference is valid for 2 years.

7) The Milwaukie Municipal Code is available online at <http://www.qcode.us/codes/milwaukie/>.

ADDITIONAL NOTES AND ISSUES

County Health Notes:

Other Notes:

CLACKAMAS COUNTY REQUIREMENTS (only applies to a partition of the proposed development property, a replat would not trigger the following requirements)

1. The subject property is located adjacent to the northerly side of Harmony Road, easterly from International Way. The subject property has been annexed into the City, so the land use review will be done through a City land use action.

However, Harmony Road is under the jurisdiction of Clackamas County and is classified as a major arterial roadway. Clackamas County has adopted roadway standards that pertain to the structural section, construction characteristics, minimum required right-of-way widths and access standards for major arterial roads.

2. This portion of Harmony Road is a section of the Essential Pedestrian Network identified in the Pedestrian Master Plan 2003 and is also a part of the Bicycle Master Plan 2003. Therefore, Harmony Road will require bike lanes and unobstructed sidewalks. As the road will likely be under City of Milwaukie jurisdiction in the future, Clackamas County recommends that the sidewalk width requirements and any landscape strip width requirements conform to City standards.

3. The Clackamas County Capital Improvement Plan identifies the section of Harmony Road from Highway 213 (82nd Avenue) to Highway 224 with project number 1022. Proposed improvements include modification of the intersection of Harmony Road/Linwood Avenue/Railroad Avenue, and construction of bicycle and pedestrian facilities. The previous CIP recommended widening to five lanes, but the updated CIP does not recommend widening to five lanes.

4. Clackamas County's Roadway Standards indicate that three lane major arterial roads with bike lanes shall have a minimum right-of-way width of 80 feet with eight-foot wide sign, slope, utility, and sidewalk easements on each side of the roadway.

5. The applicant has proposed the construction of a mini storage development, as a conditional use, in what is anticipated to be a City of Milwaukie Business Industrial zone. The subject property has frontage on Harmony Road, a Clackamas County facility, and the applicant has proposed a shared access to Harmony Road, with turning maneuvers restricted to right-in/right-out only turning movements.

The applicant is therefore subject to the provisions of Clackamas County Zoning and

Development Ordinance (ZDO) section 1007, pertaining to frontage improvements and section 1008 pertaining to surface water management. Additionally, the applicant is subject to other ZDO requirements, the Clackamas County Comprehensive Plan and Clackamas County Roadway Standards regarding issues within the Harmony Road right-of-way and onsite issues that would impact the County right-of-way and traffic operations on Harmony Road.

6. Minimum frontage improvements on the Harmony Road frontage include, but are not necessarily limited to, up to a half-street improvement, pavement widening, and storm drainage facilities. In addition, standard curb or curb and gutter when curblane slope is less than one percent, widened driveway approach (if sight distances are illustrated to meet County minimums), an unobstructed sidewalk meeting City of Milwaukie width requirements, behind a landscape strip meeting City of Milwaukie width requirements, and pavement tapers are required.

7. All curbs shall typically be type "C", or curb and gutter if curb line slope is less than one percent, if they carry, direct or channel surface water. Alternative curbs will be considered when it is determined by the Clackamas County Department of Transportation and Development that type "C" curbs or curb and gutter are not appropriate. Extruded curbs for carrying, directing, or channeling surface water shall not be allowed.

8. A 50-foot wide roadway section, curb to curb on Harmony Road, is the minimum desirable width at this location and would be consistent with the Clackamas County Roadway Standards. Typically, 12-foot wide travel lanes, a 14-foot wide center two way left turn lane and six foot bike lanes comprise the 50-foot wide section. However, in this case the required median and associated shy distances will increase the minimum pavement width to approximately 56 feet where the full three lane section is required. The additional six feet of width is comprised of a minimum

two-foot wide median curb and two feet of shy distance on each side of the median.

9. The County has adopted access control standards to provide positive impact on traffic safety and efficiency for County and State roads. These standards promote shared access points to comply with access control, spacing standards, and to promote safer operations. Applicable references include ZDO section 1007 and Clackamas County Roadway Standards subsection 220.2.

The applicant shall grant and record minimum 24-foot wide easements, granting access over the drive aisles and driveway on the site to the owners of Tax Lots 1501, 1502, 1503, 1504, and 1505 to the west, at locations determined by the previous approval of the International Way Business Center, provided, before the owners of Tax Lots 1501, 1502, 1503, 1504, and 1505 may use the easements over the site, those owners shall grant to the owner of the subject site a reciprocal easement for access purposes to and over the drive aisles on Tax Lots 1501, 1502, 1503, 1504, and 1505 so as to provide access for the site from International Way and to and from Harmony Road. Neither the grading plan for this site, nor the construction of any structures shall preclude the use of the easements. The applicant shall file the easements in the County records office before the County and City accepts the project and releases the performance surety. Since the crossover easements are needed to provide circulation between properties, the applicant shall improve those portions of the easements on the subject site as approved by the City of Milwaukie.

10. The proposed right-in/right-out only driveway to Harmony Road, to be shared with the existing development to the west, will be permitted by Clackamas County only if it provides adequate intersection sight distances and adequate stopping sight distances for both passenger vehicles and trucks in accordance with AASHTO requirements.

Previously, this access was partially evaluated based on a speed study.

That study is now dated and a new study is required to reflect current conditions. Prior to the scheduling of a new speed study, the applicant shall contact Clackamas County for speed study

requirements. For example, one requirement is that speed studies shall not be run during a week with a holiday in it. Therefore, the soonest a study could be run would be during the week of January 5-9, 2015. Please contact Engineering staff person Robert Hixson, at roberth@co.clackamas.or.us or 503-742-4708 for speed study requirements and coordination information.

The previously submitted speed study data, with an 85th percentile westbound approach speed of 37 miles per hour, indicated that a minimum of 575 feet of intersection sight distance was required to be provided for a combination truck exiting the driveway approach intersection with Harmony Road. Staff agreed that 575 feet of intersection sight distance would have been required with an 85th percentile speed of 37 miles per hour. Kittelson and Associates staff measured the existing sight distance and found it to be approximately 560 feet, which would have been inadequate since it did not meet the minimum requirement. However, Table 5 from the traffic impact analysis indicated that a driver's eye height of 7.5 feet was used, while the AASHTO standard height for this measurement is 7.6 feet. The additional tenth of a foot of eye height may have allowed for the provision of adequate intersection sight distance for trucks. This measurement should have been re-evaluated using the correct eye height. If the intersection sight distance was adequate with the 7.6-foot eye height, the existing road geometry may have been found to be adequate. If the sight distance measurements remain substandard, based on current speed study data, the applicant would need to propose improvements that would allow for the provision of adequate intersection sight distance for combination trucks. If no such improvements were proposed, the widened access would not be approved.

Table 5 of the traffic impact analysis also indicated that an object height of 2.5 feet was used for stopping sight distance measurements. The required object height for this measurement, according to AASHTO standards, is 2.0 feet. Using a 2.5-foot object height likely resulted in reported stopping sight distances which are longer than were actually available. Revised stopping sight distances shall be provided using the correct object height of 2.0 feet.

Prior to approval of a proposed driveway approach, the applicant shall provide plan and profile drawings, based on survey data, with sight lines, illustrating adequate intersection sight distances for passenger vehicles and trucks exiting the proposed Harmony Road driveway and adequate stopping sight distances for passenger vehicles and trucks on Harmony Road approaching the driveway from the east.

If this is unable to be provided, the access will not be approved.

11. If the proposed access to Harmony Road is unable to meet minimum sight distance standards, the site shall be provided access by the existing entrance only and exit only driveway approaches existing on the development to the west, as allowed by the crossover easements required through the approval of the development to the west.

12. Applicant shall comply with County Roadway Standards clear zone requirements in accordance with Roadway Standards section 245.

13. The submitted civil plan sheet submitted several years ago provided insufficient detail and dimensions to fully evaluate the proposed street and driveway design, including the median. Staff was in agreement with the concept for the street (right-in/right-out driveway and center median) and was able to recommend conditions that would provide for an appropriate street cross section.

In conjunction with the development of the site, the existing Harmony Road median shall be extended easterly to help prohibit inappropriate turning maneuvers associated with an approved widened driveway approach. Two feet of shy distance shall be provided on each side of the median. To insure that adequate maneuvering room is available at the site driveway intersection with Harmony Road, the applicant shall illustrate the turning maneuvers of WB-67

combination trucks at the site driveway. Visibility of the median will be an important issue to consider and the applicant shall propose features that will be associated with the median that will enhance its visibility to drivers. The ultimate configuration of the median and any associated features to enhance visibility shall be approved in writing by Clackamas County Traffic Engineering staff prior to the issuance of a Development permit for improvements to Harmony Road.

14. Plans submitted in anticipation of receiving a Development permit from Clackamas County, for road construction activities within the Harmony Road right-of-way, shall include additional detail, such as an illustration of the full width of Harmony Road, along the site frontage, and extending 200 feet beyond the limits of the property, both northeasterly and southwesterly. Any driveways within these limits shall also be illustrated. The right-of-way limits on each side of the road shall be illustrated. The additional detail shall also include a striping plan illustrating the existing and proposed striping on Harmony Road, also extending a minimum of 200 feet beyond the limits of the property. All illustrated features shall be to scale and dimensioned. A legend for various line work shall also be provided. Storm drainage features shall be illustrated and storm water runoff from the driveway shall not be permitted to flow onto Harmony Road. Ultimately, the applicant shall provide a set of construction plans to Clackamas County which are in conformance with Clackamas County Roadway Standards section 140.

15. Prior to the initiation of any construction activities on Harmony Road, the applicant shall submit plans and obtain a Development permit for improvements to Harmony Road. The cost of the permit will be in accordance with the current fee schedule and based on an approved cost estimate for the road improvements. A performance surety shall also be required in an amount equal to 125% of the approved cost estimate.

16. The use of public rights-of-way for construction vehicle staging is not authorized by the Roadway Standards and poses a potentially deleterious effect of the proposed use, because it contributes to congestion, reduces sight distance, and occupies shoulders intended for emergencies and other purposes. To protect the public from such effects, the applicant shall be required to submit a construction vehicle management plan for review and approval by the County DTD, Construction and Development Section, before the County issues a Development Permit. The plan shall show that the construction vehicles and materials will not be staged or queued up on improved public streets and shoulders without specific authority from DTD for that purpose.

Preface to recommended conditions of approval:

The following items are project requirements from the Department of Transportation and Development's Development Engineering Division. These conditions of approval are not intended to include every engineering requirement necessary for the successful completion of this project, but are provided to illustrate to the applicant specific details regarding the required improvements that may prove helpful in determining the cost and scope of the project. These conditions are based upon the requirements detailed in the County's Comprehensive Plan (Comp Plan), the County's Zoning and Development Ordinance (ZDO) and the County's Site Development and Roadway Construction Standards (Roadway Standards). Additional requirements, beyond those stated in the conditions of approval, may be required. The applicant may discuss the requirements of the project with staff at any time. The requirements specifically required by the Comp Plan and the ZDO cannot be modified by the Development Engineering Division. However, the requirements detailed in these conditions of approval, derived from the Roadway Standards, are based upon nationally accepted standards and engineering judgment and may be modified pursuant to Section 170 of the Roadway Standards. The applicant is required to provide sufficient justification to staff in the request.

Staff shall determine if a modification is warranted.

Clackamas County Conditions of Approval:

- 1) All frontage improvements in, or adjacent to Clackamas County right-of-way, shall be in compliance with Clackamas County Roadway Standards.
- 2) The applicant shall obtain a Development Permit from Clackamas County Department of Transportation and Development prior to the initiation of any construction activities associated with the project.
- 3) The applicant shall verify by a professional survey that adequate right-of-way width exists along the entire site frontage, on the northerly side of Harmony Road to permit construction of the required roadway and frontage improvements or shall dedicate additional right-of-way as necessary to provide it. At a minimum, a 40-foot wide one-half right-of-way width is required on the northerly side of Harmony Road.
Contact Deana Mulder for the dedication of right-of-way form and specifics of exhibits to be included with submittals.
- 4) The applicant shall grant an eight-foot wide public easement for signs, slopes, sidewalks and public utilities along the entire Harmony Road site frontage on the northerly side of Harmony Road. Contact Deana Mulder for the grant of easement form and specifics of exhibits to be included with submittals.
- 5) The applicant shall design and construct improvements along the entire site frontage of Harmony Road. These improvements shall consist of:
 - a) Up to a half-street improvement. Structural section for Harmony Road improvements shall consist of seven and one-half inches of Level 3 Hot Mix Asphalt Concrete (HMAC), Performance Grade (PG) 70-22, ¾" dense or ½" dense placed in lifts consisting of two and one-half inches per lift, over four inches of ¾"-0 aggregate leveling course, over 10 inches of 1-1/2"-0 aggregate base course, over geotextile fabric.
 - b) Standard curb, or curb and gutter if curb line slope is less than one percent, and appropriate pavement widening to accommodate the necessary improvements of bike lanes, travel lanes, turn lanes, median, and associated shy distances.
Lane widths, median widths, and shy distance shall be proposed by the applicant and shall be reviewed and approved by Clackamas County Traffic Engineering staff prior to the issuance of a Street Construction and Encroachment permit. Centerline of the right-of-way shall be established by a registered survey.
 - c) Drainage facilities in conformance with City of Milwaukie requirements, ZDO section 1008, and Clackamas County Roadway Standards Chapter 4.
Storm water runoff from the site driveway shall not flow onto Harmony Road.
 - d) An unobstructed sidewalk with a width consistent with City of Milwaukie requirements behind a landscape strip also consistent with City of Milwaukie requirements. The applicant shall relocate mailboxes, fire hydrants, utility poles, etc, when they are located within the limits of the sidewalk. Mailboxes shall be relocated or replaced in accordance with standards established by the local Post Office. Additional easement, as necessary, shall be granted to provide for any sidewalk eyebrows.
 - e) One driveway approach, generally in conformance with Roadway Standards Drawing D650, but modified as necessary to accommodate the turning maneuvers of combination trucks. Proposed driveway approach modifications require approval of County Traffic Engineering staff.
 - f) An extension of the existing median to approximately the easterly property line. Appropriate tapers shall be provided for the median curb or island. Two feet of shy distance shall be provided on each side of the median. The ultimate configuration of the median, including features to enhance visibility, shall be approved in writing by Clackamas County Traffic Engineering staff prior to the issuance of a Development permit for improvements to Harmony

Road.

g) Appropriate pavement tapers in accordance with Roadway Standards Section 250.6.4 for the transition from a wider to a narrower section of roadway.

6) The applicant shall grant and record minimum 24-foot wide easements, granting access over the drive aisles and driveway on the site to the owners of Tax Lots 1501, 1502, 1503, 1504, and 1505 to the west, at locations determined by the previous approval of the International Way Business Center, provided, before the owners of Tax Lots 1501, 1502, 1503, 1504, and 1505 may use the easements over the site, those owners shall grant to the owner of the subject site a reciprocal easement for access purposes to and over the drive aisles on Tax Lots 1501, 1502, 1503, 1504, and 1505 so as to provide access from the site to International Way and Harmony Road. Neither the grading plan for this site, nor the construction of any structures shall preclude the use of the easements. The applicant shall file the easements in the County records office before the County and City accepts the project and releases the performance surety. Since the crossover easements are needed to provide circulation between properties, the applicant shall improve those portions of the easements on the subject site as approved by the City of Milwaukie.

7) The applicant shall show the paths traced by the extremities of anticipated large vehicles (combination trucks, delivery trucks, garbage and recycling trucks, etc), including off-tracking, on the site plan to insure adequate turning radii are provided for the anticipated large vehicles entering and exiting the Harmony Road site driveway, if the driveway reconfiguration is approved.

8) The applicant shall provide a copy of the City of Milwaukie approved drainage study and Engineer's detention calculations to DTD Engineering, Deana Mulder.

9) The applicant shall provide adequate intersection sight distances and stopping sight distances (including appropriate adjustments for grades) at the driveway approach intersection with Harmony Road in accordance with AASHTO standards for both passenger vehicles and combination trucks or the approach will not be approved.

In addition, no plantings at maturity, retaining walls, embankments, fences or any other objects shall be allowed to obstruct vehicular sight distances.

Minimum intersection sight distances for passenger vehicles and combination trucks, at the driveway approach intersection with Harmony Road, shall be as calculated by County Engineering staff based on the 85th percentile speed of westbound vehicles, based on valid speed study data, collected at a location approximately 575 feet easterly from the proposed reconfigured Harmony Road driveway approach. Intersection sight distances shall be measured 14.5 feet back from the edge of the travel lane. If passenger vehicle and combination truck sight distances, both intersection and stopping, do not meet County Roadway Standards minimums, the access will not be approved.

10) The applicant shall provide an Engineer's cost estimate to Clackamas County Engineering, to be reviewed and approved, for the asphalt concrete, aggregates, curbs, sidewalks and any other required public improvement associated with Harmony Road.

11) The applicant shall provide Clackamas County a performance surety in an amount equal to 125% of the Clackamas County approved cost estimate for the Harmony Road improvements.

12) The applicant shall install and maintain a 30-inch "STOP" sign, behind the sidewalk, with the bottom of the sign positioned seven feet above the surface of the sidewalk, at the driveway intersection with Harmony Road. (Manual on Uniform Traffic Control Devices)

13) All traffic control devices on private property, located where private driveways intersect County facilities shall be installed and maintained by the applicant, and shall meet standards set forth in the Manual on Uniform Traffic Control Devices and relevant Oregon supplements.

14) Prior to the issuance of a building permit, the applicant shall submit to Clackamas County Engineering Office:

a) Written approval from the local Fire District for the planned access, circulation, and fire

lanes. The approval shall be in the form of site and utility plans stamped and signed by the Fire Marshal.

b) Written approval from City of Milwaukie for surface water detention facilities and erosion control measures.

c) A set of street improvement construction plans for review, in conformance with Clackamas County Roadway Standards Section 140, to Deana Mulder in Clackamas County's Engineering Office and obtain written approval, in the form of a Development Permit. The permit will be for road, driveway approach, curb, median, sidewalk, and drainage improvements. The permit fee will be calculated in accordance with the current fee structure and will be based on the approved cost estimate for the Harmony Road improvements.

The submitted plans shall provide plan and profile data and sight lines illustrating adequate intersection sight distances for passenger vehicles and combination trucks exiting the Harmony Road driveway. In addition, the submitted plans shall provide plan and profile data and sight lines illustrating adequate stopping sight distances for passenger vehicles and combination trucks on Harmony Road approaching the Harmony Road driveway from the east. The submitted plans shall also include a detailed striping plan. The applicant shall have an Engineer, registered in the state of Oregon, design and stamp the construction plans for all required improvements.

15) Before the County issues a Development Permit, the applicant shall submit a construction vehicle management and staging plan for review and approval by the County DTD, Construction and Development Section. That plan shall show that construction vehicles and materials will not be staged or queued-up on public streets and shoulders without specific authority from DTD for the purpose.

This is only preliminary preapplication conference information based on the applicant's proposal and does not cover all possible development scenarios. Other requirements may be added after an applicant submits land use applications or building permits. City policies and code requirements are subject to change. If you have any questions, please contact the City staff that attended the conference (listed on Page 1). Contact numbers for these staff are City staff listed at the end of the report.

Sincerely,

City of Milwaukie Development Review Team

BUILDING DEPARTMENT

Samantha Vandagriff - Building Official - 503-786-7611

Bonnie Lanz - Permit Specialist - 503-786-7613

ENGINEERING DEPARTMENT

Jason Rice - Engineering Director - 503-786-7605

Brad Albert - Civil Engineer - 503-786-7609

Adriana Slavens - Civil Engineer - 503-786-7602

Chrissy Dawson - Engineering Technician II - 503-786-7610

Alex Roller - Engineering Technician I - 503-786-7695

COMMUNITY DEVELOPMENT DEPARTMENT

Stephen Butler - Comm. Dev. Dir. - 503-786-7652

Marcia Hamley - Admin Specialist - 503-786-7656

Alicia Martin -Admin Specialist - 503-786-7600

Blanca Marston -Admin Specialist - 503-786-7600

PLANNING DEPARTMENT

Dennis Egner - Planning Director - 503-786-7654

Brett Kelter - Associate Planner - 503-786-7657

Li Alligood - Associate Planner - 503-786-7627

Vera Kolias - Associate Planner - 503-786-7653

CLACKAMAS FIRE DISTRICT

Mike Boumann - Lieutenant Deputy Fire Marshal - 503-742-2673

Clackamas County Fire District #1

Fire Prevention Office



E-mail Memorandum

To: City of Milwaukie Planning

From: Mike Boumann, Deputy Fire Marshal, Clackamas Fire District #1

Date: 12/11/2014

Re: Preliminary review for Mini Storage @ 5945 SE Harmony Road

This review is based upon the current version of the Oregon Fire Code (OFC), as adopted by the Oregon State Fire Marshal's Office. The scope of review is typically limited to fire apparatus access and water supply, although the applicant must comply with all applicable OFC requirements. When buildings are completely protected with an approved automatic fire sprinkler system, the requirements for fire apparatus access and water supply may be modified as approved by the fire code official. The following items should be addressed by the applicant:

COMMENTS:

FD Apparatus Access

- 1) Provide address numbering that is clearly visible from the street.
- 2) No part of a building may be more than 150 feet from an approved fire department access road.
- 3) Provide an approved turnaround for dead end access roads exceeding 150 feet in length.
- 4) When building height exceeds 30' from lowest level of fire department access then arial provisions will apply.
- 5) Fire Lane signage or curb striping per CFD#1. Parking restrictions for access roads less than 32' in width. Minimum 20' clear width for access roads and 26' adjacent to fire hydrants. Vertical height requirement is 13'-6".
- 6) Traffic bridge shall meet minimum apparatus access requirements.

Water Supply

- 1) Fire Hydrants, Commercial Buildings: Where a portion of the building is more than 400 feet from a hydrant on a fire apparatus access road, as measured in an approved route around the exterior of the building, on-site fire hydrants and mains shall be provided.

Note: This distance may be increased to 600 feet for buildings equipped throughout with an approved automatic sprinkler system.

- 2) All new buildings shall have a firefighting water supply that meets the fire flow requirements of Appendix B the Fire Code.
- 3) Fire Department Connection (FDC) shall be within 100' of a public fire hydrant.
- 4) Fire hydrant locations shall meet the requirements of Appendix C of the Oregon Fire Code.

*Comments may not be all inclusive. Review of full set of scaled plans will be required.

Call Deputy Fire Marshal Mike Boumann with any questions, 503-742-2673

Feel free to use the below document for reference.

<http://www.clackamasfire.com/documents/fireprevention/firecodeapplicationguide.pdf>

*Contact Clackamas Fire District #1 at 503-742-2660 for any questions.

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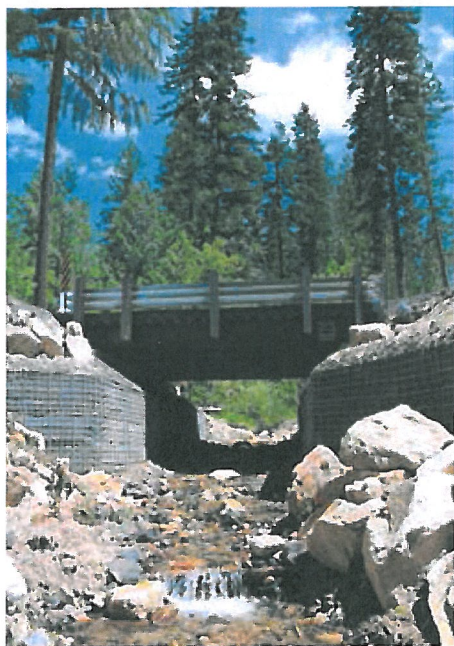


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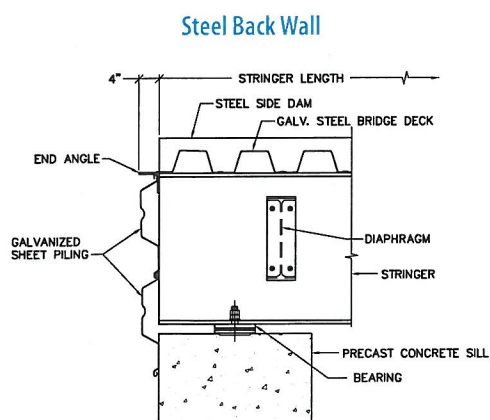


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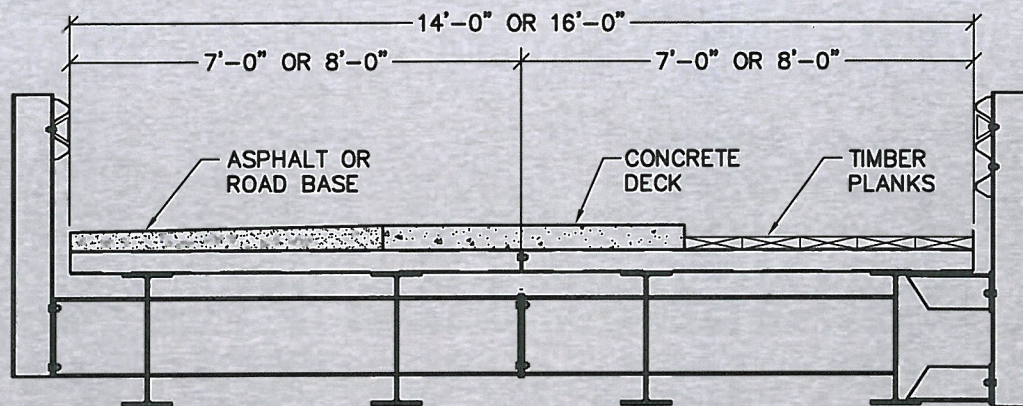


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70'	28,200	29,100
80'	36,100	37,100

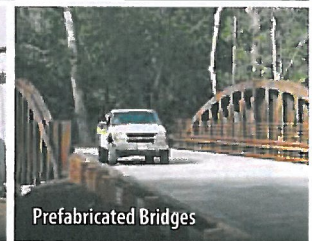
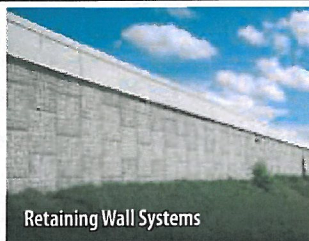
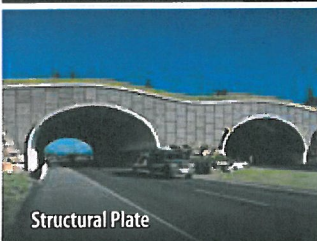
* Bridge weights are approximate. Weight will vary based on the design vehicle, railing system and decking options.



The information, suggested applications and tables in this brochure are accurate and correct to the best of our knowledge, and are intended for general information purposes only. These general guidelines are not intended to be relied upon as final specifications, and we do not guarantee specific results for any particular purpose. We strongly recommend consultation with a Big R Bridge sales professional before making any design and purchasing decisions.

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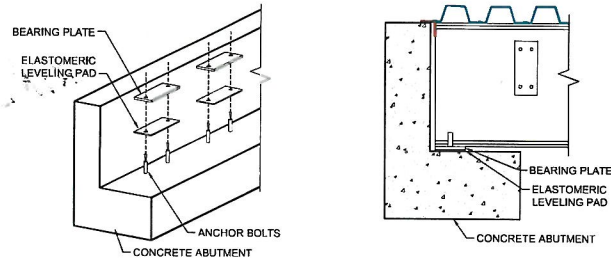
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Santiago, Chile
+56-99-871-5828



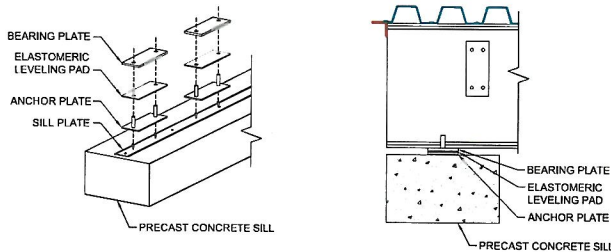
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BEARING PREPARATION

- ALL BEARING PLATES, ELASTOMERIC LEVELING PADS AND ANCHOR PLATES (IF REQUIRED) WILL BE DELIVERED LOOSE ALONG WITH THE BRIDGE. THE BEARING PLATES WILL HAVE HOLES FOR THE FIXED END AND SLOTS FOR THE EXPANSION END OF THE BRIDGE WHICH MUST BE CENTERED ON THE ANCHOR BOLTS TO ALLOW FOR PROPER EXPANSION.
- FOR ABUTMENT APPLICATIONS PLACE THE ELASTOMERIC LEVELING PAD ALONG WITH A BEARING PLATE DIRECTLY ON THE ABUTMENT SEAT AT EACH BEARING LOCATION. FOR PRECAST SILL APPLICATIONS, AN ANCHOR PLATE MUST BE POSITIONED ON THE EMBEDDED SILL PLATE AND WELDED IN PLACE PRIOR TO PLACING THE ELASTOMERIC PAD AND BEARING PLATE.
- ASSURE THAT ALL BEARING PLATES ARE AT THE CORRECT ELEVATION, AND THAT THERE IS GOOD BEARING BETWEEN THE ABUTMENT AND THE LEVELING PAD. IF NECESSARY, SHIM THE PLATE OR USE NON-SHRINK GROUT UNDER THE ENTIRE BEARING PAD IN ORDER TO ASSURE 100% BEARING AND PROPER FINAL ELEVATION.
- REFER TO THE SHOP DRAWINGS FOR ANY SPECIAL INSTRUCTIONS RELATED TO BEARINGS.



TYPICAL ABUTMENT DETAIL



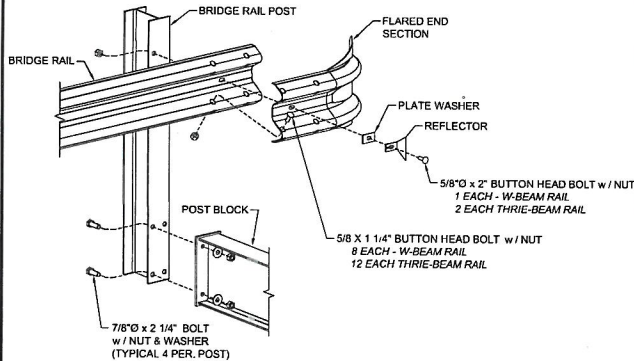
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RAIL ASSEMBLY INSTRUCTIONS (WHEN REQUIRED)

THE BRIDGE RAIL AND POSTS WILL BE DELIVERED LOOSE ALONG WITH THE BRIDGE SECTIONS AND MAY BE INSTALLED PRIOR TO, OR AFTER SETTING THE BRIDGE SECTIONS. THE JOB SITE WILL DETERMINE WHICH METHOD IS PREFERABLE.

- EACH BRIDGE RAIL POST SHALL BE FASTENED TO A BRIDGE SECTION POST BLOCK WITH HEX HEAD BOLTS. EACH OF THE FOUR HOLE LOCATIONS ON THE LOWER END OF THE POST WILL RECEIVE ONE BOLT, ONE WASHER, AND ONE NUT.
- THE BRIDGE RAIL IS ATTACHED TO THE POSTS WITH EITHER ONE BUTTON HEAD BOLT FOR W-BEAM RAIL OR TWO BUTTON HEAD BOLTS FOR THRIE-BEAM RAIL. EACH HOLE LOCATIONS WILL RECEIVE ONE BUTTON HEAD OVAL SHOULDERED BOLT, ONE REFLECTOR, ONE PLATE WASHER, AND ONE RECESSED NUT.
- THE OVERLAPPING RAIL SPLICE AND FLARED END SECTIONS SHALL BE FASTENED TOGETHER WITH BUTTON HEAD BOLTS. EACH HOLE LOCATION, EIGHT EACH FOR W-BEAM AND TWELVE EACH FOR THRIE-BEAM, SHALL RECEIVE ONE BUTTON HEAD OVAL SHOULDERED BOLT AND ONE RECESSED NUT.
- REFER TO THE SHOP DRAWINGS FOR ANY SPECIAL INSTRUCTIONS RELATED TO BRIDGE RAIL.

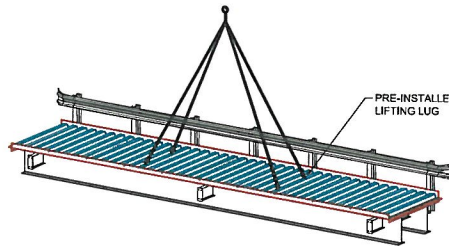


TYPICAL BRIDGE RAIL ASSEMBLY

LIFTING INSTRUCTIONS

IT IS RECOMMENDED THAT EACH BRIDGE SECTION BE LIFTED FROM THE PRE-INSTALLED LIFTING LUGS. EACH LIFTING LUG HAS A CAPACITY OF 24,000 POUNDS AT A 45-DEGREE LIFT ANGLE. LIFTING MAY ALSO BE DONE AT THE ENDS OF THE BRIDGE AT THE BEARING PLATE LOCATIONS.

- ALTERNATIVELY, BRIDGES WITHOUT PRE-INSTALLED DECK PANELS MAY BE LIFTED FROM A MINIMUM OF (4) POINTS THAT ARE AT LEAST 1/4 TO 1/3 OF THE BRIDGE SPAN FROM THE END OF THE BRIDGE.
- IF BRIDGE HAS MORE THAN 2 SECTIONS, SECTIONS ARE TO BE SET IN NUMERICAL ORDER AS SHOWN ON THE SHOP DRAWINGS STRUCTURAL DETAIL.



SETTING INSTRUCTIONS

- AFTER PLACING THE BRIDGE, ADJUST STRUCTURE ON THE FOUNDATIONS SO THAT SPACING IS EQUAL AT BOTH ENDS OR AS DIRECTED IN NOTES ON THE SHOP DRAWINGS. IF AN EXPANSION END GAP IS DESIGNATED IN THE SHOP DRAWINGS IT MUST MAINTAINED FOR PROPER EXPANSION. IF THE BRIDGE HAS AN ELEVATION DIFFERENCE, BE SURE TO SET THE HIGH END OF THE BRIDGE ON THE HIGHER FOUNDATION. REFER TO THE SHOP DRAWINGS FOR CORRECT ALIGNMENT.
- DIAPHRAGM SPLICE PLATES AND CENTER SPLICE PLATES SHALL BE CONNECTED WITH HEX HEAD BOLTS. EACH OF THE HOLE LOCATION ON THE SPLICE PLATES WILL RECEIVE ONE BOLT, ONE WASHER, AND ONE NUT.
- FIELD WELD ALL BEARING PLATES TO THE BRIDGE STRINGERS AS DIRECTED IN THE SHOP DRAWINGS.
- EACH ANCHOR BOLT WILL RECEIVE (1) WASHER AND (2) NUTS. ONE END OF THE BRIDGE IS DESIGNED TO BE FIXED AND THE NUTS ARE TO BE INSTALLED TIGHT. THE EXPANSION END WILL HAVE THE FIRST NUT TIGHTENED FINGER TIGHT TO THE WASHER PLACED ON THE BEARING PLATE. THE SECOND NUT WILL BE INSTALLED TIGHT TO THE FIRST.
- WHEN INSTALLING PAINTED BRIDGES CARE MUST BE TAKEN TO MINIMIZE DAMAGE TO THE FINISH DURING INSTALLATION. IT WILL BE THE RESPONSIBILITY OF THE ONSITE CONTRACTOR TO PERFORM ALL TOUCH-UP PAINTING AS NECESSARY. A NOMINAL AMOUNT OF TOUCH-UP PAINT WILL BE SUPPLIED.
- TIGHTENING OF THE BOLTS SHALL BE IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" BY RCSC. WE RECOMMEND USING THE TURN-OF-NUT PROCEDURE DESCRIBED BELOW:

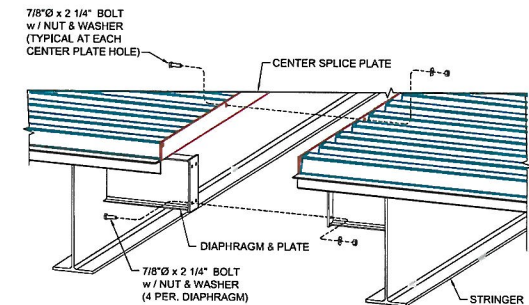
BRING ALL BOLTS TO A 'SNUG TIGHT' CONDITION TO INSURE THAT THE PARTS OF THE JOINT ARE BROUGHT INTO GOOD CONTACT WITH EACH OTHER. SNUG TIGHT IS DEFINED AS THE TIGHTNESS ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH. FOLLOWING THIS INITIAL OPERATION ALL BOLTS SHALL THEN BE TIGHTENED ADDITIONALLY BY THE APPLICABLE AMOUNT OF NUT ROTATION AS SPECIFIED IN THE TABLE BELOW, WITH THE TIGHTENING PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID PART OF THE JOINT TO ITS FREE EDGES. DURING THIS OPERATION, THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH.

NUT ROTATION FROM SNUG TIGHT CONDITION

BOLT LENGTH (AS MEASURED FROM UNDERSIDE OF HEAD TO EXTREME END OF POINT)	DISPOSITION OF OUTER FACES OF BOLTED PARTS BOTH FACES NORMAL TO BOLT AXIS
NOT MORE THAN 4 DIAMETERS	1/3 TURN
MORE THAN 4 DIAMETERS BUT NOT MORE THAN 8 DIAMETERS	1/2 TURN
MORE THAN 8 DIAMETERS BUT NOT MORE THAN 12 DIAMETERS	2/3 TURN

NUT ROTATION IS RELATIVE TO BOLT, REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR BOLTS INSTALLED BY 1/2 TURN AND LESS, THE TOLERANCE SHOULD BE PLUS OR MINUS 30°; FOR BOLTS INSTALLED BY 2/3 TURN AND MORE, THE TOLERANCE SHOULD BE PLUS OR MINUS 45°.

- IF ANY NUTS CANNOT BE TIGHTENED, GRIT MAY HAVE BECOME LODGED IN THE THREADS. REMOVE THE GRIT AND RETIGHTEN.



TYPICAL DIAPHRAGM SPLICE

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LIMITS OF
VEGETATED
CORRIDOR

EROSION CONTROL PLAN

1" = 30'

REVISIONS	DATE

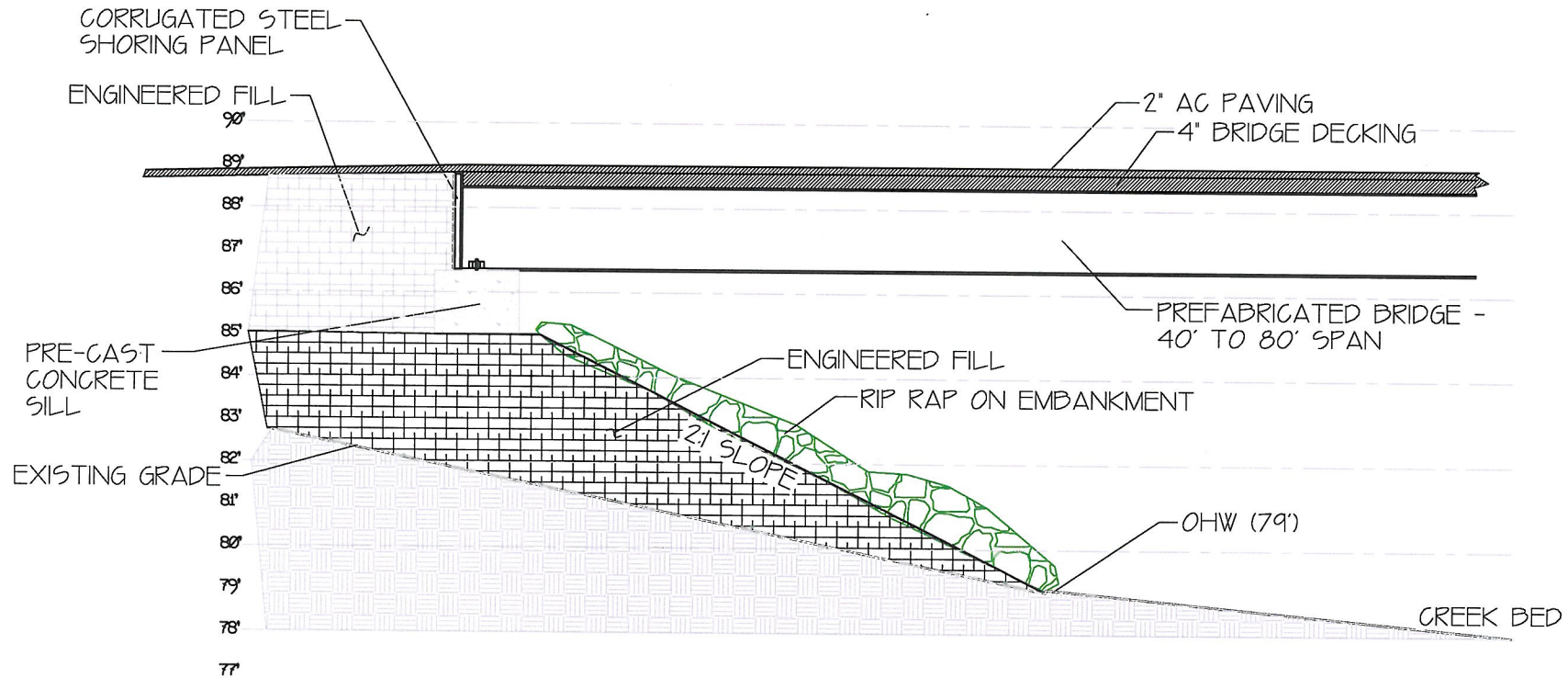
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CREATION
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Office: 503-908-0563

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COMMERCIAL STORAGE BUILDINGS
**BRIDGE
CONSTRUCTION
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DATE: 10-20-16
SCALE: AS SHOWN
DRAWN BY: R L H
PROJECT #HARMONY

SHEET No.
B.2
of



BRIDGE EMBANKMENT DETAIL

1/4" = 1'-0"

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Creations Northwest, LLC
2500 Wilamette Falls Drive
West Linn, Oregon 97131
Office: 503-668-0553

**HARMONY ROAD
SELF STORAGE**
5965 SE Harmony Rd
Milwaukie, Oregon

COMMERCIAL STORAGE BUILDINGS
**ON SITE BRIDGE
EMBANKMENT
DETAIL**

CADD NAME:
HARMONY BE
DATE: 10-20-16
SCALE: AS SHOWN
DRAWN BY: RLH
PROJECT: HARMONY

SHEET No.
B.1
of

Kelver, Brett

From: Amos, Matt <Matt.Amos@clackamasfire.com>
Sent: Friday, October 14, 2016 2:14 PM
To: Kelver, Brett
Subject: 5945 & 5965SE Harmony Rd.

Good afternoon Brett,

Clackamas Fire has no additional comments for this project.

Please ensure the applicants designs show the items addressed in the pre-application notes, and comments from the fire district.

Thank you,

Matt Amos

Fire Inspector | Fire Prevention

direct: [503.742.2661](tel:503.742.2661)

main: [503.742.2600](tel:503.742.2600)



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DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DEVELOPMENT SERVICES BUILDING
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Memorandum

TO: Brett Kelter, Associate Planner
City of Milwaukie

FROM: Development Engineering, Robert Hixson *Robert Hixson*

DATE: October 18, 2016

RE: CU-2016-001, NR-2016-001, TFR-2016-001, VR-2016-003
Harmony Road mini-storage
T1S., R2E., Section 31D, Tax Lots 1900, 1990 and 1800

Development Engineering staff has been requested by City of Milwaukie staff to evaluate this proposal in regards to issues associated with Harmony Road, which is under County jurisdiction. We have visited the site, reviewed the submitted materials, and have the following comments based on our understanding of the proposal:

Facts and Findings:

1. The subject property is located adjacent to the northerly side of Harmony Road, easterly from International Way. The subject property has been annexed into the City requiring that the land use review be done through a City land use action. However, Harmony Road is under the jurisdiction of Clackamas County which results in Clackamas County providing requirements for Harmony Road frontage improvements and onsite operations which could impact Harmony Road safety and operations. Clackamas County has adopted roadway standards that pertain to the structural section, construction characteristics, minimum required right-of-way widths and access standards for major arterial roads. Harmony Road is classified as a major arterial roadway adjacent to the subject property.
2. The submitted materials include site plans which were developed for a right-in/right-out shared private road approach intersection with Harmony Road. Recently received materials indicate that the access point will remain as a right-out only. In addition, the traffic impact study for the proposal is dated from 2007 and also evaluates operations based on the right-in/right-out access scenario. Traffic Engineering staff has evaluated the 2007 traffic impact study, applied appropriate adjustments where needed, and finds that the right-out only shared private road approach will comply with current operational standards. A speed study was also done in 2016, providing valid data for determining appropriate sight distance requirements for the access

CU-2016-001, Harmony mini-storage

October 18, 2016

Page 2

intersection with Harmony Road. This was needed as the speed data from 2007 was too dated to be considered valid.

3. This portion of Harmony Road, adjacent to the subject property, is a section of the Essential Pedestrian Network. This information is illustrated on *Comprehensive Plan* Map 5-3 (March 1, 2014). In addition, Harmony Road is also a part of the Planned Bikeway Network, shown on *Comprehensive Plan* Map 5-2a (March 1, 2014). Therefore, Harmony Road will require bike lanes and unobstructed sidewalks. Since Harmony Road is under Clackamas County jurisdiction, Clackamas County requires that the sidewalk width requirements and any landscape strip width requirements and street trees conform to County standards.
4. The Clackamas County Capital Improvement Plan identifies the section of Harmony Road from Highway 213 (82nd Avenue) to Highway 224 with project number 1022. Proposed improvements include construction of bicycle and pedestrian facilities. This project, if approved and constructed, will provide for these desired improvements along the subject property frontage.
5. *Clackamas County's Roadway Standards* indicate that three lane major arterial roads with bike lanes shall have a minimum right-of-way width of 80 feet with eight-foot wide sign, slope, public utility, and sidewalk easements on each side of the roadway. The applicant shall demonstrate that a minimum 40-foot wide one-half right-of-way exists along the entire Harmony Road site frontage or dedicate additional right-of-way to provide it. In addition, the applicant shall grant an eight-foot wide sign, slope, sidewalk, and public utility easement along the entire Harmony Road site frontage.
6. The applicant has proposed the construction of a mini-storage business, as a conditional use, in a City of Milwaukie Business Industrial zone. The subject property has frontage on Harmony Road, a Clackamas County facility, and the applicant proposes adding traffic to an existing shared private road access to Harmony Road, with turning maneuvers at the intersection of the shared private road with Harmony Road restricted to right-out only turning movements. The right-out only exit to Harmony Road is what was previously approved and constructed to serve the development to the west.
7. When the development to the west was approved, it was required to provide access easements to the subject property to provide for shared access opportunities when the subject property developed. This now allows for this current proposed development to utilize the existing right-in only ingress from International Way and the existing right-out only egress to Harmony Road if it is approved.
8. The applicant is subject to the provisions of *Clackamas County Zoning and Development Ordinance (ZDO)* section 1007, pertaining to frontage improvements

and section 1008 and Roadway Standards chapter 4, pertaining to surface water management associated with Harmony Road. Additionally, the applicant is subject to other ZDO requirements, the *Clackamas County Comprehensive Plan* and *Clackamas County Roadway Standards* regarding issues within the Harmony Road right-of-way and onsite issues (principally with the shared private road throat, signing, and pavement markings and legends) which would impact the County right-of-way and traffic operations on Harmony Road.

9. Minimum frontage improvements on the Harmony Road frontage include, but are not necessarily limited to, up to a half-street improvement, pavement widening if necessary, and storm drainage facilities. In addition, standard curb or curb and gutter when curb line slope is less than one percent, a minimum seven-foot wide unobstructed sidewalk behind a minimum five-foot wide landscape strip with street trees and a pavement taper if necessary, are required.
10. All curbs shall typically be type "C", or curb and gutter if curb line slope is less than one percent, if they carry, direct or channel surface water. Alternative curbs will be considered when it is determined by the Clackamas County Department of Transportation and Development that type "C" curbs or curb and gutter are not appropriate. Extruded curbs for carrying, directing, or channeling surface water shall not be allowed.
11. A 50-foot wide roadway section, curb to curb on Harmony Road, is the usual minimum desirable width for this type of roadway and would be consistent with the *Clackamas County Roadway Standards*. Typically, 12-foot wide travel lanes, a 14-foot wide center two way left turn lane and six foot bike lanes comprise a 50-foot wide street cross section. However, in this case the required median and associated shy distances will increase the minimum pavement width to approximately 56 feet where the full three lane section is required. The additional six feet of width is typically comprised of a minimum two-foot wide median curb and two feet of shy distance on each side of the median.

The existing right-out only shared private road approach intersecting with Harmony Road shall be retained as currently constructed. No widening is required or will be permitted. The minimum throat length for the shared private road intersecting with Harmony Road shall be 50 feet, per Roadway Standards subsection 330.1 f, measured from the back of the sidewalk. Therefore, no drive aisles shall intersect with the shared private road within 50 feet of the back of the sidewalk.

12. The proposed right-out only shared private road approach to Harmony Road shall provide adequate intersection sight distances and adequate stopping sight distances for both passenger vehicles and trucks in accordance with *Clackamas County Roadway Standards* and AASHTO requirements. Since the approach will remain as a

CU-2016-001, Harmony mini-storage
October 18, 2016
Page 4

right-out only, intersection sight distance measurements requiring evaluation are for right turns of passenger vehicles, single unit trucks and combination trucks exiting the site and entering onto Harmony Road. In addition, the stopping sight distance requiring evaluation is for westbound vehicles approaching the Harmony Road approach.

The 2016 speed study data indicates that an 85th percentile speed of 36 miles per hour was observed and recorded for westbound vehicles. Based on this speed, the intersection sight distance requirements for passenger vehicles, single unit trucks, and combination trucks is 345 feet, 450 feet, and 560 feet, respectively. In addition, 275 feet of stopping sight distance is required for westbound traffic approaching the Harmony Road access, based on an analysis prepared by Lancaster Engineering staff and confirmed by Clackamas County Engineering staff. Based on field measurements made by Lancaster Engineering staff and preliminary drawings prepared by Sisul Engineering, the intersection sight distances are feasible to provide for the shared private road right-out only intersection with Harmony Road.

Prior to approval of the use of the existing shared private road approach for the mini-storage business, the applicant shall provide plan and profile drawings, based on survey data, with sight lines, illustrating adequate intersection sight distances for passenger vehicles and trucks exiting the proposed Harmony Road access and adequate stopping sight distances for passenger vehicles and trucks on Harmony Road approaching the shared private road access from the east.

13. Applicant shall comply with County Roadway Standards clear zone requirements in accordance with Roadway Standards section 245 along the entire Harmony Road site frontage.
14. The submitted preliminary civil plan sheets, illustrating Harmony Road improvements, are again based on a widened shared private road approach intersection with Harmony Road allowing for both right-in and right-out turning maneuvers. Since the current proposal does not include a right-in/right-out approach, the civil plans will understandably require revisions.

For example, the raised median will not require extension easterly and the existing shared private road approach intersecting with Harmony Road will not be required or be permitted to be widened. Easterly from the easterly terminus of the raised median, along the entire site frontage easterly, Harmony Road shall provide for a minimum 12-foot wide westbound travel land and a six-foot wide westbound bike lane. Northerly from the westbound bike lane, type "C" curb, or curb and gutter when curb line slope is less than one percent, minimum five-foot wide landscape strip with street trees and a minimum seven foot wide unobstructed sidewalk shall be constructed

easterly from the existing shared private road approach intersection with Harmony Road to the easterly property line. Obstructions within the limits of the sidewalk shall be relocated. The fire hydrant illustrated on the civil drawings near the easterly property line adjacent to Harmony Road shall be relocated and the seven-foot wide unobstructed sidewalk extended to the easterly property line.

15. Currently, the shared private road approach intersection with Harmony Road is provided with a "STOP" sign and a "RIGHT TURN ONLY" sign behind the sidewalk. Additional improvements, including a stop bar behind the sidewalk, an arrow pavement legend indicating traffic is restricted to southbound only and a "DO NOT ENTER" sign facing Harmony Road and angled towards westbound traffic are also required by Clackamas County.

16. Plans submitted in anticipation of receiving a Development permit from Clackamas County, for road and frontage construction activities within the Harmony Road right-of-way, shall include additional detail, such as an illustration of the full width of Harmony Road, along the site frontage, and extending 200 feet beyond the limits of the property, both northeasterly and southwesterly. Any existing driveway approaches within these limits shall also be illustrated. The right-of-way limits on each side of the road shall be illustrated. The additional detail shall also include a striping plan illustrating the existing and proposed striping on Harmony Road, also extending a minimum of 200 feet beyond the limits of the property.

All illustrated features shall be to scale and dimensioned. A legend for various line work shall also be provided. Storm drainage features shall be illustrated and storm water runoff from the shared private road shall not be permitted to flow onto Harmony Road. Installation of a slotted drain would be one method to address this storm water runoff from the shared private road. Ultimately, the applicant shall provide a set of construction plans to Clackamas County which are in conformance with Clackamas County *Roadway Standards* section 140.

17. Prior to the initiation of any construction activities within the Harmony Road right-of-way, the applicant shall submit plans and obtain a Development permit for improvements to Harmony Road or the frontage. The cost of the permit will be in accordance with the current fee schedule and based on an approved cost estimate for the road and frontage improvements. A performance surety shall also be required in an amount equal to 125% of the approved cost estimate.
18. The use of public rights-of-way for construction vehicle staging is not authorized by the Roadway Standards and poses a potentially deleterious effect of the proposed use, because it contributes to congestion, reduces sight distance, and occupies shoulders intended for emergencies and other purposes. To protect the public from such effects,

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the applicant shall be required to submit a construction vehicle management plan for review and approval by the County DTD, Construction and Development Section, before the County issues a Development Permit. The plan shall show that the construction vehicles and materials will not be staged or queued up on improved public streets and shoulders under County jurisdiction without specific authority from DTD for that purpose.

Preface to recommended conditions of approval:

The following items are project requirements from the Department of Transportation and Development's Development Engineering Division. These conditions of approval are not intended to include every engineering requirement necessary for the successful completion of this project, but are provided to illustrate to the applicant specific details regarding the required improvements that may prove helpful in determining the cost and scope of the project. These conditions are based upon the requirements detailed in the County's Comprehensive Plan (Comp Plan), the County's Zoning and Development Ordinance (ZDO) and the County's Site Development and Roadway Construction Standards (Roadway Standards). Additional requirements, beyond those stated in the conditions of approval, may be required. The applicant may discuss the requirements of the project with staff at any time.

The requirements specifically required by the Comp Plan and the ZDO cannot be modified by the Development Engineering Division. However, the requirements detailed in these conditions of approval, derived from the Roadway Standards, are based upon nationally accepted standards and engineering judgment and may be modified pursuant to Section 170 of the Roadway Standards. The applicant is required to provide sufficient justification to staff in the request. Staff shall determine if a modification is warranted.

Recommended Conditions of Approval:

- 1) All frontage improvements in, or adjacent to Clackamas County right-of-way, shall be in compliance with *Clackamas County Roadway Standards*.
- 2) The applicant shall obtain a Development Permit from Clackamas County Department of Transportation and Development prior to the initiation of any construction activities associated with the project.
- 3) The applicant shall verify by a professional survey that adequate right-of-way width exists along the entire site frontage, on the northerly side of Harmony Road to permit construction of the required roadway and frontage improvements or shall dedicate additional right-of-way as necessary to provide it. At a minimum, a 40-foot wide one-half right-of-way width is required on the northerly side of Harmony Road.

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Contact Deana Mulder for the dedication of right-of-way form and specifics of exhibits to be included with submittals.

- 4) The applicant shall grant an eight-foot wide public easement for signs, slopes, sidewalks and public utilities along the entire Harmony Road site frontage on the northerly side of Harmony Road. Contact Deana Mulder for the grant of easement form and specifics of exhibits to be included with submittals.
- 5) The existing shared private road approach intersection with Harmony Road shall be retained in its current configuration from the face of the existing curb to the back of the existing sidewalk. A minimum 50-foot long throat width, measured from the back of the sidewalk, without intersecting drive aisles within the 50-foot length, per Roadway Standards subsection 330.1 f, shall be provided and maintained.
- 6) The applicant shall design and construct improvements along the entire site frontage of Harmony Road. These improvements shall consist of:
 - a) Up to a half-street improvement. Structural section for Harmony Road improvements shall consist of seven and one-half inches of Level 3 Hot Mix Asphalt Concrete (HMAC), Performance Grade (PG) 70-22, $\frac{3}{4}$ " dense or $\frac{1}{2}$ " dense placed in lifts consisting of two and one-half inches per lift, over four inches of $\frac{3}{4}$ "-0 aggregate leveling course, over 10 inches of 1-1/2"-0 aggregate base course, over geotextile fabric.
 - b) Standard curb, or curb and gutter if curb line slope is less than one percent, and appropriate pavement widening to accommodate the necessary improvements of bike lanes (minimum six feet wide), travel lanes (minimum 12 feet wide), turn lanes, median lengths and widths, and associated shy distances (minimum two feet). Lane widths, median lengths and widths, and shy distances shall be proposed by the applicant and shall be reviewed and approved by Clackamas County Traffic Engineering staff prior to the issuance of a Development permit. Centerline of the right-of-way shall be established by a registered survey.
 - c) Drainage facilities in conformance with City of Milwaukie requirements, ZDO section 1008, and *Clackamas County Roadway Standards* chapter 4. Storm water runoff from the site driveway shall not flow onto Harmony Road and shall be intercepted by a slotted drain or an alternate method approved by County Engineering staff.
 - d) A minimum seven-foot wide unobstructed sidewalk behind a minimum five-foot wide landscape strip with appropriate street trees. The applicant shall relocate mailboxes, fire hydrants, utility poles, etc, when they are located within the limits of the sidewalk. Mailboxes shall be relocated or replaced in accordance with

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standards established by the local Post Office. Additional easement, as necessary, shall be granted to provide for any sidewalk eyebrows.

- e) Appropriate pavement tapers, where required, in accordance with *Roadway Standards* Section 250.6.4 for transitions.
- 7) The applicant shall provide a copy of the City of Milwaukie approved drainage study and Engineer's detention calculations to DTD Engineering, Deana Mulder.
- 8) The applicant shall provide adequate intersection sight distances and stopping sight distances (including appropriate adjustments for grades) at the shared private road approach intersection with Harmony Road in accordance with Clackamas County *Roadway Standards* and AASHTO requirements for passenger vehicles, single unit trucks, and combination trucks. In addition, no plantings at maturity, retaining walls, embankments, fences or any other objects shall be allowed to obstruct vehicular sight distances. Minimum intersection sight distances for passenger vehicles, single unit trucks, and combination trucks, all making right turns, shall be 345 feet, 450 feet, and 560 feet respectively, at the shared private road approach intersection with Harmony Road. Intersection sight distances shall be measured 14.5 feet back from the edge of the travel lane. In addition, minimum stopping sight distance for westbound vehicles shall be 275 feet.
- 9) Applicant shall comply with County Roadway Standards clear zone requirements in accordance with Roadway Standards section 245 along the entire Harmony Road site frontage.
- 10) The applicant shall provide an Engineer's cost estimate to Clackamas County Engineering, to be reviewed and approved, for the asphalt concrete, aggregates, curbs, sidewalks and any other required public improvement associated with Harmony Road.
- 11) The applicant shall provide Clackamas County a performance surety in an amount equal to 125% of the Clackamas County approved cost estimate for the Harmony Road improvements.
- 12) Applicant shall install and maintain additional traffic control features at the shared private road approach intersection with Harmony Road, including a stop bar behind the sidewalk, an arrow pavement legend behind the sidewalk indicating traffic is restricted to southbound only and a "DO NOT ENTER" sign behind the sidewalk facing Harmony Road and angled towards westbound traffic.
- 13) All traffic control devices on private property, located where private driveways intersect County facilities shall be installed and maintained by the applicant, and shall meet standards set forth in the *Manual on Uniform Traffic Control Devices* and relevant Oregon supplements.

14) Prior to the issuance of a building permit, the applicant shall submit to Clackamas County Engineering Office:

- a) Written approval from the local Fire District for the planned access, circulation, and fire lanes. The approval shall be in the form of site and utility plans stamped and signed by the Fire Marshal.
- b) Written approval from City of Milwaukie for surface water detention facilities and erosion control measures.
- c) A set of site frontage and street improvement construction plans for review, in conformance with *Clackamas County Roadway Standards* Section 140, to Deana Mulder in Clackamas County's Engineering Office and obtain written approval, in the form of a Development Permit. The permit will be for road, curb, sidewalk, and drainage improvements. The permit fee will be calculated in accordance with the current fee structure and will be based on the approved cost estimate for the Harmony Road improvements.

The submitted plans shall provide plan and profile data and sight lines illustrating adequate intersection sight distances for passenger vehicles, single unit trucks, and combination trucks exiting the Harmony Road shared private road approach. In addition, the submitted plans shall provide plan and profile data and sight lines illustrating adequate stopping sight distance for passenger vehicles on Harmony Road approaching the Harmony Road shared private road from the east. The submitted plans shall also include a detailed striping plan and a legend for various line work. The applicant shall have an Engineer, registered in the state of Oregon, design and stamp the construction plans for all required improvements.

- d) A Fire Access and water supply plan for commercial buildings over 1000 square feet in size or when required by Clackamas Fire District #1.
 The plan shall show fire apparatus access, fire lanes, fire hydrants, fire lines, available fire flow, fdc location if applicable, building square footage and type of construction. The applicant shall provide fire flow tests per NFPA 291 and shall be no older than 12 months. Work to be completed by experienced and responsible persons and coordinated with the local water authority. (Applicable for developments with potable water supply provided by a water authority.)
- 15) Following completion of site construction activities of buildings over 1000 square feet or when required by Clackamas Fire District #1, the applicant shall provide as-built Fire Access and Water Supply pdf plans to the local Fire District and the County. The pdf plans shall show fire apparatus access, fire lanes, fire hydrants, fire lines, available fire flow, fdc location if applicable, building square footage and type of construction. The plans shall include any supporting details of the access, circulation, water vaults, fire lines, valves, fdc, backflow devices, etc.

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For this proposal, the pdf as-built plan sheets shall be transmitted to mike.boumann@clackamasfire.com (Deputy Fire Marshal Mike Boumann) and deanam@co.clackamas.or.us (Development Review Coordinator Deana Mulder)

- 16) Before the County issues a Development Permit, the applicant shall submit a construction vehicle management and staging plan for review and approval by the County DTD, Construction and Development Section. That plan shall show that construction vehicles and materials will not be staged or queued-up on public streets and shoulders without specific authority from DTD for the purpose.

Kelver, Brett

From: Seth.A.Brumley@odot.state.or.us
Sent: Tuesday, October 18, 2016 3:43 PM
To: Kelter, Brett
Cc: abraham.tayar@odot.state.or.us; andy.jeffrey@odot.state.or.us;
Seth.A.Brumley@odot.state.or.us
Subject: ODOT Case # 6927 Harmony Rd Self Storage

Hello Brett,

The proposed self-storage facility appears to be consistent with the previously approved zone change. ODOT has no further comment.

Thank you,

Seth Brumley
ODOT Region 1 Planner
123 NW Flanders St.
Portland, OR 97209
(503) 731-8234

TO: Brett Kelter, Associate Planner
City of Milwaukie

FROM: Rick Buen, Civil Engineer
City of Milwaukie

DATE: October 20, 2016

RE: CU-2016-001, NR-2016-001, TFR-2016-001, VR-2016-003
Harmony Road mini-storage
T1S., R2E., Section 31D, Tax Lots 1900, 1990 and 1800

Comments based on our understanding of the proposal:

1. Use the Portland Curve Numbers (CN) on Table A-2 of the City of Portland Storm Water Management Manual.
2. The soil map shows 4 different soil types but the report indicates only type D. Calculation should reflect a weighted value of CN per the type of soil present on site.
3. Missing Basin A Presumptive Approach calculations for both developed and undeveloped.
4. The applicant has proposed the construction of a mini-storage business, as a conditional use, in a City of Milwaukie Business Industrial zone. The subject property has frontage on Harmony Road, a Clackamas County facility. All proposed improvements along SE Harmony road shall be per Clackamas County's Roadway Standards and shall be reviewed by the Clackamas County Engineering Department.
5. The Traffic Impact Study has been reviewed by both the City of Milwaukie and Clackamas County. Both confirmed that the updated materials confirmed that no other traffic-related adjustments are needed.
6. Invert elevations and slope shall be provided for sanitary storm and sanitary sewer lines. Design criteria for all utilities shall be per the current City of Milwaukie Public Works Standards.



memorandum

date November 8, 2016

to Brett Kelter, AICP

from Sarah Hartung, Senior Biologist; Mauria Pappagallo, P.E.

subject Natural Resource Review for mini-storage project 5945 & 5965 SE Harmony Rd (Assessor Map 1S2E31D, tax lots 1800 and 1900) Land Use File (master) #CU-2016-001

This memorandum summarizes our technical review of land use application materials relating to site natural resources regulated by Milwaukie's Municipal Code, including Habitat Conservation Areas (HCAs) and Water Quality Resources (WQRs). Specific technical review tasks identified by the City are identified **in bold**, followed by our responses.

1. Conduct a site visit to assess existing conditions and generally corroborate the figures and narrative provided in the application submittal.

Response: ESA staff (Jeff Barna and Sarah Hartung) visited the project site on October 12, 2016. The site visit involved walking the property to assess existing conditions with the applicant's land use application materials in hand. In general, ESA observed site conditions consistent with those illustrated on the application figures and in the narrative. Observations related specifically to the figures and regulated resource boundaries presented in the land use application materials are noted below.

- WQR and HCA boundaries: The boundaries of Minthorn Creek, wetlands, and the 50-foot setbacks appear accurate. As indicated on Figure 4 of the narrative, no slopes exceed 25% when measured in 25 foot increments from the OHWM/wetland boundaries. The boundary of the HCA also appears accurate according to the City's map. As a separate housekeeping note, the WQR mapping at the north end of the property appears to be outdated. See Exhibit A below.

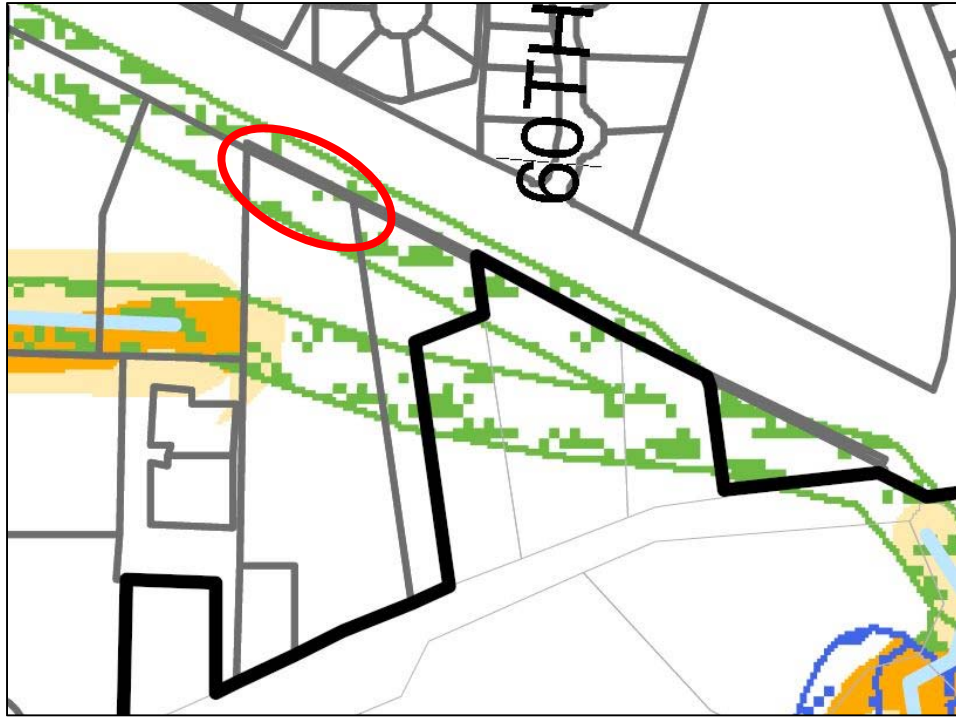


Exhibit A: Obsolete WQR mapping at north end of property circled in red.

- Figures 5 and 6 of the narrative show landscape trees in a strip through the WQR along the eastern property line. Please describe what this involves (i.e. clearing of understory, etc.) and the purpose. Describe the impacts to the WQR and mitigation.
- Proposed planting list: We understand that the plant quantities shown on Figure 6 are correct and that Table 4 on page 9 of the narrative shows the incorrect quantities. Please update Table 4.
- Grading plan: Show limits of grading on the ECP to be consistent with Grading Plan.
- Erosion control plan: The ECP provided shows silt fencing stopping short of the WQR limits. We recommend extending the fencing up the slopes and around the water quality buffers to improve the function of silt fencing (see Exhibit B below).

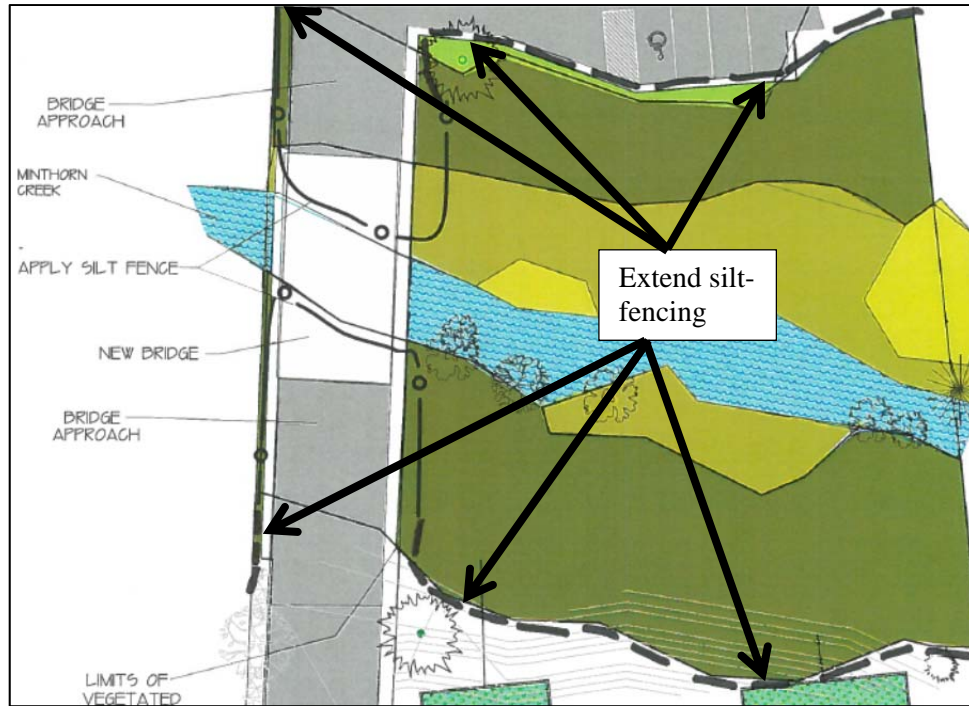


Exhibit B: Erosion control plan – we recommend extending silt fencing along entire length of WQR.

- Bridge design: We understand Minthorn Creek is a small stream with low flow; however, consider the following measures in Exhibit C to reduce the risk of scour during large storm events for the lifespan of the bridge:

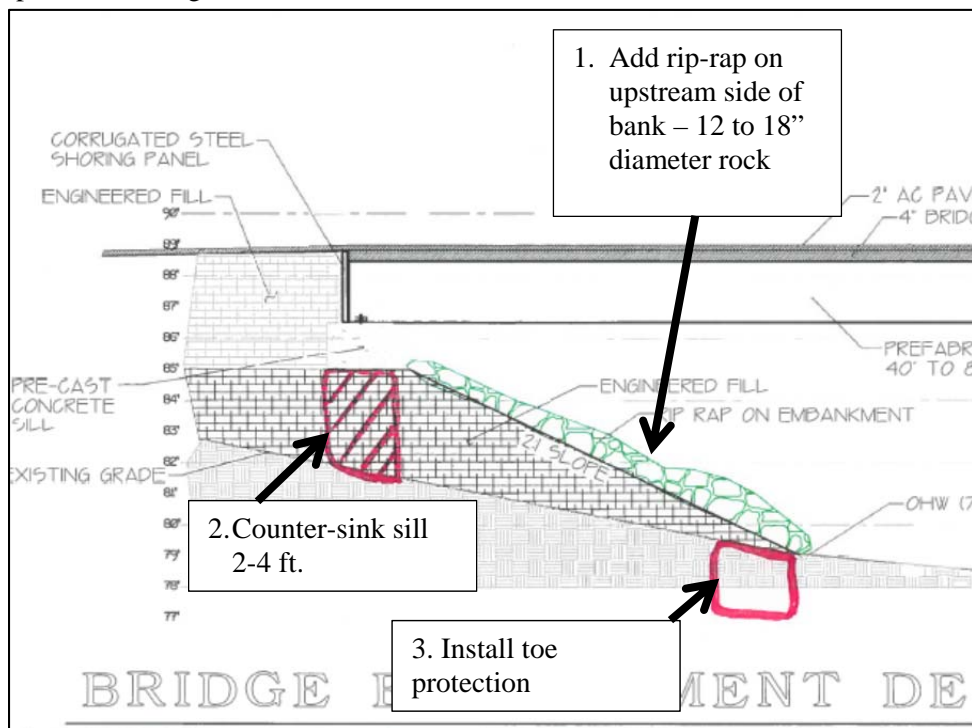


Exhibit C: Measures to reduce bridge scour.

2. Review the Natural Resource Review report prepared by Pacific Habitat Services. Assess and comment on the applicant's responses to the following requirements:

a. Inventory of existing vegetation, identification of the ecological functions of riparian habitat, and categorization of the existing condition of the WQR on the subject property

Response:

- The categorization of the existing conditions of the North and South WQR's as "good" and "poor," respectively, is accurate.
- The text refers to the Oregon Department of Agriculture noxious weed list, but it seems more appropriate to reference the City of Milwaukie/Portland Native List which outlines several nuisance plant species. The inventory of existing vegetation presented in the narrative is incomplete (when compared with the Portland list of nuisance plants), and could include: periwinkle (*Vinca* sp. - observed along the stream) and English holly (*Ilex aquifolium* - observed in the North WQR). Also, English hawthorn (*Crataegus monogyna*) is a nuisance plant that was observed in the North WQR.

b. Analysis of alternatives to the proposed development, including an explanation of the rationale behind choosing the alternative selected

Response:

- The orientation of Minthorn Creek and the presence of the railroad clearly limit access to the north side of the property and the narrative states that there are no practicable alternatives other than a proposed bridge for developing the northern portion of the site. As part of a complete review of avoidance options, the narrative could briefly address whether the bridge on the neighboring property to the west was considered as an alternative and why it is or isn't practicable (see Exhibit D below).

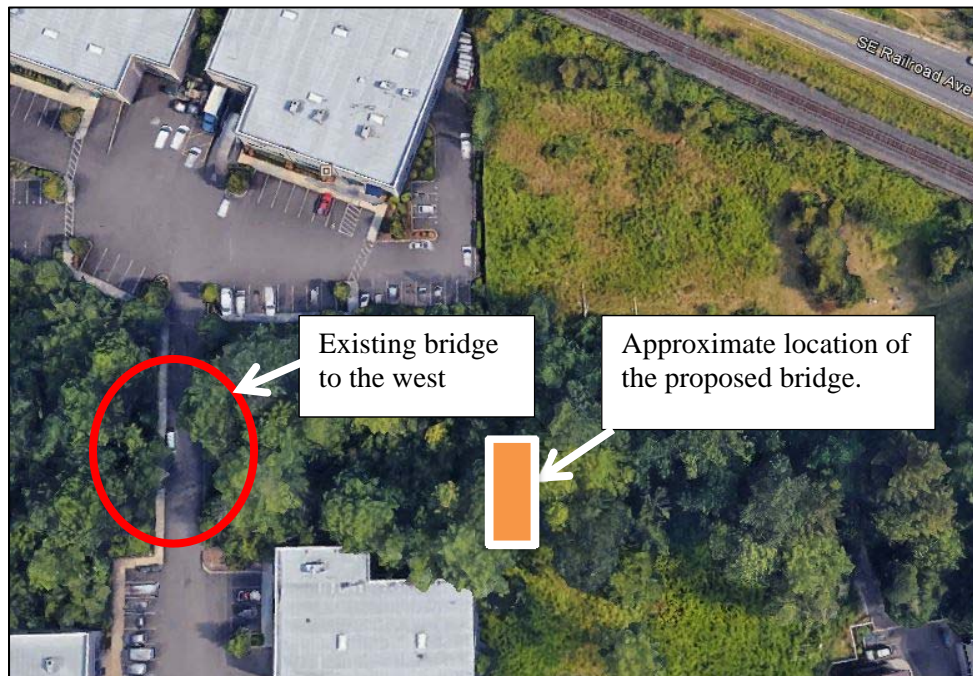


Exhibit D: Address the existing bridge to the west as a project alternative.

- The narrative does not adequately justify the location of the stormwater outfall on the north side of the WQR, which appears to be the reason for the proposed removal of a tree. Can the outfall be

located to avoid removing the tree, which appears to be a black cottonwood, or is there another reason for removing this tree?

- c. **Mitigation plan that is appropriate for the proposed disturbance and that ensures the disturbed portions of the WQR and HCA will be restored to an equal or better condition, including appropriateness of the proposed mitigation planting list**

Response:

- The proposed on-site mitigation is adequate and meets the city's code, with a few minor points of improvement:
 - o Does the 5,446 sf of impact account for the potential need to place riprap beyond the limits of the bridge footprint? Based on images of a typical Big "R" Bridge, it appears that the riprap would be placed 2-3 ft. beyond the bridge, but the plan view does not show this detail.
 - o The proposed riparian restoration planting list is suitable and includes red alder and Oregon ash - both common species. Consider adding (or substituting with) Ponderosa pine (valley pine) and Oregon white oak to the list of trees to increase diversity.
 - o We recommend conducting the inventory of "man-made debris and noxious materials" as part of this application process to develop mitigation measures. We observed some concrete rubble embedded in the stream – clarify if this type of material would be removed as part of mitigation.

3. Evaluate the proposed activity with respect to the three approval criteria established in MMC Subsection 19.402.12.B:

- a. **Avoid – The proposed activity will have less detrimental impact to the WQR and HCA than other practicable alternatives.**

Response:

- Other than the potential for sharing the existing bridge to the west (see Exhibit C above), a bridge crossing appears to be the only practical solution to accessing the northern side of the WQR and would be less of an impact compared with a culvert (for example).

- b. **Minimize – Where impacts cannot be avoided, the proposed activity shall minimize detrimental impacts to the extent practicable.**

Response:

- With the extension of silt fencing up the slope and around the WQR as recommended in Exhibit B and with the minimization measures listed on page 12 of the narrative, the proposed project appears to minimize impacts to Minthorn Creek and associated wetlands consistent with 19.402.11A.

- c. **Mitigate – The proposed mitigation plan demonstrates appropriate and adequate mitigation for adverse impacts to the WQR and HCA.**

Response:

- The native plantings proposed for the south side of Minthorn Creek (Mitigation Area B) shown on Figure 6 of the narrative are appropriate and adequate to compensate for proposed project impacts.
- Please clarify what it means to "inventory man-made debris and noxious materials" as it relates to the north side of Minthorn Creek (Mitigation Area A). Does this involve removing nuisance plants such

as English hawthorn and English holly? The WQR on the north side is in good condition, but could be further improved by replacing these nuisance shrubs/saplings with native species.

Thank you for the opportunity to review the Harmony Road Self Storage project. Please let me know if you have any questions or would like to discuss any of the information presented in this memorandum.

TO: Brett Kelter, Associate Planner
City of Milwaukie

FROM: Rick Buen, Civil Engineer
City of Milwaukie

DATE: October 20, 2016

RE: CU-2016-001, NR-2016-001, TFR-2016-001, VR-2016-003
Harmony Road mini-storage
T1S., R2E., Section 31D, Tax Lots 1900, 1990 and 1800

Comments based on our understanding of the proposal:

1. Use the Portland Curve Numbers (CN) on Table A-2 of the City of Portland Storm Water Management Manual.
2. The soil map shows 4 different soil types but the report indicates only type D. Calculation should reflect a weighted value of CN per the type of soil present on site.
3. Missing Basin A Presumptive Approach calculations for both developed and undeveloped.
4. The applicant has proposed the construction of a mini-storage business, as a conditional use, in a City of Milwaukie Business Industrial zone. The subject property has frontage on Harmony Road, a Clackamas County facility. All proposed improvements along SE Harmony road shall be per Clackamas County's Roadway Standards and shall be reviewed by the Clackamas County Engineering Department.
5. The Traffic Impact Study has been reviewed by both the City of Milwaukie and Clackamas County. Both confirmed that the updated materials confirmed that no other traffic-related adjustments are needed.
6. Invert elevations and slope shall be provided for sanitary storm and sanitary sewer lines. Design criteria for all utilities shall be per the current City of Milwaukie Public Works Standards.

Memorandum

TO: Brett Kelter, Associate Planner
City of Milwaukie

FROM: Development Engineering, Robert Hixson

DATE: October 18, 2016

RE: CU-2016-001, NR-2016-001, TFR-2016-001, VR-2016-003
Harmony Road mini-storage
T1S., R2E., Section 31D, Tax Lots 1900, 1990 and 1800

Development Engineering staff has been requested by City of Milwaukie staff to evaluate this proposal in regards to issues associated with Harmony Road, which is under County jurisdiction. We have visited the site, reviewed the submitted materials, and have the following comments based on our understanding of the proposal:

Facts and Findings:

1. The subject property is located adjacent to the northerly side of Harmony Road, easterly from International Way. The subject property has been annexed into the City requiring that the land use review be done through a City land use action. However, Harmony Road is under the jurisdiction of Clackamas County which results in Clackamas County providing requirements for Harmony Road frontage improvements and onsite operations which could impact Harmony Road safety and operations. Clackamas County has adopted roadway standards that pertain to the structural section, construction characteristics, minimum required right-of-way widths and access standards for major arterial roads. Harmony Road is classified as a major arterial roadway adjacent to the subject property.
2. The submitted materials include site plans which were developed for a right-in/right-out shared private road approach intersection with Harmony Road. Recently received materials indicate that the access point will remain as a right-out only. In addition, the traffic impact study for the proposal is dated from 2007 and also evaluates operations based on the right-in/right-out access scenario. Traffic Engineering staff has evaluated the 2007 traffic impact study, applied appropriate adjustments where needed, and finds that the right-out only shared private road approach will comply with current operational standards. A speed study was also done in 2016, providing valid data for determining appropriate sight distance requirements for the access

intersection with Harmony Road. This was needed as the speed data from 2007 was too dated to be considered valid.

3. This portion of Harmony Road, adjacent to the subject property, is a section of the Essential Pedestrian Network. This information is illustrated on *Comprehensive Plan* Map 5-3 (March 1, 2014). In addition, Harmony Road is also a part of the Planned Bikeway Network, shown on *Comprehensive Plan* Map 5-2a (March 1, 2014). Therefore, Harmony Road will require bike lanes and unobstructed sidewalks. Since Harmony Road is under Clackamas County jurisdiction, Clackamas County requires that the sidewalk width requirements and any landscape strip width requirements and street trees conform to County standards.
4. The Clackamas County Capital Improvement Plan identifies the section of Harmony Road from Highway 213 (82nd Avenue) to Highway 224 with project number 1022. Proposed improvements include construction of bicycle and pedestrian facilities. This project, if approved and constructed, will provide for these desired improvements along the subject property frontage.
5. *Clackamas County's Roadway Standards* indicate that three lane major arterial roads with bike lanes shall have a minimum right-of-way width of 80 feet with eight-foot wide sign, slope, public utility, and sidewalk easements on each side of the roadway. The applicant shall demonstrate that a minimum 40-foot wide one-half right-of-way exists along the entire Harmony Road site frontage or dedicate additional right-of-way to provide it. In addition, the applicant shall grant an eight-foot wide sign, slope, sidewalk, and public utility easement along the entire Harmony Road site frontage.
6. The applicant has proposed the construction of a mini-storage business, as a conditional use, in a City of Milwaukie Business Industrial zone. The subject property has frontage on Harmony Road, a Clackamas County facility, and the applicant proposes adding traffic to an existing shared private road access to Harmony Road, with turning maneuvers at the intersection of the shared private road with Harmony Road restricted to right-out only turning movements. The right-out only exit to Harmony Road is what was previously approved and constructed to serve the development to the west.
7. When the development to the west was approved, it was required to provide access easements to the subject property to provide for shared access opportunities when the subject property developed. This now allows for this current proposed development to utilize the existing right-in only ingress from International Way and the existing right-out only egress to Harmony Road if it is approved.
8. The applicant is subject to the provisions of *Clackamas County Zoning and Development Ordinance (ZDO)* section 1007, pertaining to frontage improvements

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October 18, 2016

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and section 1008 and Roadway Standards chapter 4, pertaining to surface water management associated with Harmony Road. Additionally, the applicant is subject to other ZDO requirements, the *Clackamas County Comprehensive Plan* and *Clackamas County Roadway Standards* regarding issues within the Harmony Road right-of-way and onsite issues (principally with the shared private road throat, signing, and pavement markings and legends) which would impact the County right-of-way and traffic operations on Harmony Road.

9. Minimum frontage improvements on the Harmony Road frontage include, but are not necessarily limited to, up to a half-street improvement, pavement widening if necessary, and storm drainage facilities. In addition, standard curb or curb and gutter when curb line slope is less than one percent, a minimum seven-foot wide unobstructed sidewalk behind a minimum five-foot wide landscape strip with street trees and a pavement taper if necessary, are required.
10. All curbs shall typically be type "C", or curb and gutter if curb line slope is less than one percent, if they carry, direct or channel surface water. Alternative curbs will be considered when it is determined by the Clackamas County Department of Transportation and Development that type "C" curbs or curb and gutter are not appropriate. Extruded curbs for carrying, directing, or channeling surface water shall not be allowed.
11. A 50-foot wide roadway section, curb to curb on Harmony Road, is the usual minimum desirable width for this type of roadway and would be consistent with the *Clackamas County Roadway Standards*. Typically, 12-foot wide travel lanes, a 14-foot wide center two way left turn lane and six foot bike lanes comprise a 50-foot wide street cross section. However, in this case the required median and associated shy distances will increase the minimum pavement width to approximately 56 feet where the full three lane section is required. The additional six feet of width is typically comprised of a minimum two-foot wide median curb and two feet of shy distance on each side of the median.

The existing right-out only shared private road approach intersecting with Harmony Road shall be retained as currently constructed. No widening is required or will be permitted. The minimum throat length for the shared private road intersecting with Harmony Road shall be 50 feet, per Roadway Standards subsection 330.1 f, measured from the back of the sidewalk. Therefore, no drive aisles shall intersect with the shared private road within 50 feet of the back of the sidewalk.

12. The proposed right-out only shared private road approach to Harmony Road shall provide adequate intersection sight distances and adequate stopping sight distances for both passenger vehicles and trucks in accordance with *Clackamas County Roadway Standards* and AASHTO requirements. Since the approach will remain as a

right-out only, intersection sight distance measurements requiring evaluation are for right turns of passenger vehicles, single unit trucks and combination trucks exiting the site and entering onto Harmony Road. In addition, the stopping sight distance requiring evaluation is for westbound vehicles approaching the Harmony Road approach.

The 2016 speed study data indicates that an 85th percentile speed of 36 miles per hour was observed and recorded for westbound vehicles. Based on this speed, the intersection sight distance requirements for passenger vehicles, single unit trucks, and combination trucks is 345 feet, 450 feet, and 560 feet, respectively. In addition, 275 feet of stopping sight distance is required for westbound traffic approaching the Harmony Road access, based on an analysis prepared by Lancaster Engineering staff and confirmed by Clackamas County Engineering staff. Based on field measurements made by Lancaster Engineering staff and preliminary drawings prepared by Sisul Engineering, the intersection sight distances are feasible to provide for the shared private road right-out only intersection with Harmony Road.

Prior to approval of the use of the existing shared private road approach for the mini-storage business, the applicant shall provide plan and profile drawings, based on survey data, with sight lines, illustrating adequate intersection sight distances for passenger vehicles and trucks exiting the proposed Harmony Road access and adequate stopping sight distances for passenger vehicles and trucks on Harmony Road approaching the shared private road access from the east.

13. Applicant shall comply with County Roadway Standards clear zone requirements in accordance with Roadway Standards section 245 along the entire Harmony Road site frontage.
14. The submitted preliminary civil plan sheets, illustrating Harmony Road improvements, are again based on a widened shared private road approach intersection with Harmony Road allowing for both right-in and right-out turning maneuvers. Since the current proposal does not include a right-in/right-out approach, the civil plans will understandably require revisions.

For example, the raised median will not require extension easterly and the existing shared private road approach intersecting with Harmony Road will not be required or be permitted to be widened. Easterly from the easterly terminus of the raised median, along the entire site frontage easterly, Harmony Road shall provide for a minimum 12-foot wide westbound travel lane and a six-foot wide westbound bike lane. Northerly from the westbound bike lane, type "C" curb, or curb and gutter when curb line slope is less than one percent, minimum five-foot wide landscape strip with street trees and a minimum seven foot wide unobstructed sidewalk shall be constructed

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easterly from the existing shared private road approach intersection with Harmony Road to the easterly property line. Obstructions within the limits of the sidewalk shall be relocated. The fire hydrant illustrated on the civil drawings near the easterly property line adjacent to Harmony Road shall be relocated and the seven-foot wide unobstructed sidewalk extended to the easterly property line.

15. Currently, the shared private road approach intersection with Harmony Road is provided with a “STOP” sign and a “RIGHT TURN ONLY” sign behind the sidewalk. Additional improvements, including a stop bar behind the sidewalk, an arrow pavement legend indicating traffic is restricted to southbound only and a “DO NOT ENTER” sign facing Harmony Road and angled towards westbound traffic are also required by Clackamas County.
16. Plans submitted in anticipation of receiving a Development permit from Clackamas County, for road and frontage construction activities within the Harmony Road right-of-way, shall include additional detail, such as an illustration of the full width of Harmony Road, along the site frontage, and extending 200 feet beyond the limits of the property, both northeasterly and southwesterly. Any existing driveway approaches within these limits shall also be illustrated. The right-of-way limits on each side of the road shall be illustrated. The additional detail shall also include a striping plan illustrating the existing and proposed striping on Harmony Road, also extending a minimum of 200 feet beyond the limits of the property.

All illustrated features shall be to scale and dimensioned. A legend for various line work shall also be provided. Storm drainage features shall be illustrated and storm water runoff from the shared private road shall not be permitted to flow onto Harmony Road. Installation of a slotted drain would be one method to address this storm water runoff from the shared private road. Ultimately, the applicant shall provide a set of construction plans to Clackamas County which are in conformance with Clackamas County *Roadway Standards* section 140.

17. Prior to the initiation of any construction activities within the Harmony Road right-of-way, the applicant shall submit plans and obtain a Development permit for improvements to Harmony Road or the frontage. The cost of the permit will be in accordance with the current fee schedule and based on an approved cost estimate for the road and frontage improvements. A performance surety shall also be required in an amount equal to 125% of the approved cost estimate.
18. The use of public rights-of-way for construction vehicle staging is not authorized by the Roadway Standards and poses a potentially deleterious effect of the proposed use, because it contributes to congestion, reduces sight distance, and occupies shoulders intended for emergencies and other purposes. To protect the public from such effects,

the applicant shall be required to submit a construction vehicle management plan for review and approval by the County DTD, Construction and Development Section, before the County issues a Development Permit. The plan shall show that the construction vehicles and materials will not be staged or queued up on improved public streets and shoulders under County jurisdiction without specific authority from DTD for that purpose.

Preface to recommended conditions of approval:

The following items are project requirements from the Department of Transportation and Development's Development Engineering Division. These conditions of approval are not intended to include every engineering requirement necessary for the successful completion of this project, but are provided to illustrate to the applicant specific details regarding the required improvements that may prove helpful in determining the cost and scope of the project. These conditions are based upon the requirements detailed in the County's Comprehensive Plan (Comp Plan), the County's Zoning and Development Ordinance (ZDO) and the County's Site Development and Roadway Construction Standards (Roadway Standards). Additional requirements, beyond those stated in the conditions of approval, may be required. The applicant may discuss the requirements of the project with staff at any time.

The requirements specifically required by the Comp Plan and the ZDO cannot be modified by the Development Engineering Division. However, the requirements detailed in these conditions of approval, derived from the Roadway Standards, are based upon nationally accepted standards and engineering judgment and may be modified pursuant to Section 170 of the Roadway Standards. The applicant is required to provide sufficient justification to staff in the request. Staff shall determine if a modification is warranted.

Recommended Conditions of Approval:

- 1) All frontage improvements in, or adjacent to Clackamas County right-of-way, shall be in compliance with *Clackamas County Roadway Standards*.
- 2) The applicant shall obtain a Development Permit from Clackamas County Department of Transportation and Development prior to the initiation of any construction activities associated with the project.
- 3) The applicant shall verify by a professional survey that adequate right-of-way width exists along the entire site frontage, on the northerly side of Harmony Road to permit construction of the required roadway and frontage improvements or shall dedicate additional right-of-way as necessary to provide it. At a minimum, a 40-foot wide one-half right-of-way width is required on the northerly side of Harmony Road.

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Contact Deana Mulder for the dedication of right-of-way form and specifics of exhibits to be included with submittals.

- 4) The applicant shall grant an eight-foot wide public easement for signs, slopes, sidewalks and public utilities along the entire Harmony Road site frontage on the northerly side of Harmony Road. Contact Deana Mulder for the grant of easement form and specifics of exhibits to be included with submittals.
- 5) The existing shared private road approach intersection with Harmony Road shall be retained in its current configuration from the face of the existing curb to the back of the existing sidewalk. A minimum 50-foot long throat width, measured from the back of the sidewalk, without intersecting drive aisles within the 50-foot length, per Roadway Standards subsection 330.1 f, shall be provided and maintained.
- 6) The applicant shall design and construct improvements along the entire site frontage of Harmony Road. These improvements shall consist of:
 - a) Up to a half-street improvement. Structural section for Harmony Road improvements shall consist of seven and one-half inches of Level 3 Hot Mix Asphalt Concrete (HMAC), Performance Grade (PG) 70-22, $\frac{3}{4}$ " dense or $\frac{1}{2}$ " dense placed in lifts consisting of two and one-half inches per lift, over four inches of $\frac{3}{4}$ "-0 aggregate leveling course, over 10 inches of 1-1/2"-0 aggregate base course, over geotextile fabric.
 - b) Standard curb, or curb and gutter if curb line slope is less than one percent, and appropriate pavement widening to accommodate the necessary improvements of bike lanes (minimum six feet wide), travel lanes (minimum 12 feet wide), turn lanes, median lengths and widths, and associated shy distances (minimum two feet). Lane widths, median lengths and widths, and shy distances shall be proposed by the applicant and shall be reviewed and approved by Clackamas County Traffic Engineering staff prior to the issuance of a Development permit. Centerline of the right-of-way shall be established by a registered survey.
 - c) Drainage facilities in conformance with City of Milwaukie requirements, ZDO section 1008, and *Clackamas County Roadway Standards* chapter 4. Storm water runoff from the site driveway shall not flow onto Harmony Road and shall be intercepted by a slotted drain or an alternate method approved by County Engineering staff.
 - d) A minimum seven-foot wide unobstructed sidewalk behind a minimum five-foot wide landscape strip with appropriate street trees. The applicant shall relocate mailboxes, fire hydrants, utility poles, etc, when they are located within the limits of the sidewalk. Mailboxes shall be relocated or replaced in accordance with

standards established by the local Post Office. Additional easement, as necessary, shall be granted to provide for any sidewalk eyebrows.

- e) Appropriate pavement tapers, where required, in accordance with *Roadway Standards* Section 250.6.4 for transitions.
- 7) The applicant shall provide a copy of the City of Milwaukie approved drainage study and Engineer's detention calculations to DTD Engineering, Deana Mulder.
- 8) The applicant shall provide adequate intersection sight distances and stopping sight distances (including appropriate adjustments for grades) at the shared private road approach intersection with Harmony Road in accordance with Clackamas County *Roadway Standards* and AASHTO requirements for passenger vehicles, single unit trucks, and combination trucks. In addition, no plantings at maturity, retaining walls, embankments, fences or any other objects shall be allowed to obstruct vehicular sight distances. Minimum intersection sight distances for passenger vehicles, single unit trucks, and combination trucks, all making right turns, shall be 345 feet, 450 feet, and 560 feet respectively, at the shared private road approach intersection with Harmony Road. Intersection sight distances shall be measured 14.5 feet back from the edge of the travel lane. In addition, minimum stopping sight distance for westbound vehicles shall be 275 feet.
- 9) Applicant shall comply with County Roadway Standards clear zone requirements in accordance with Roadway Standards section 245 along the entire Harmony Road site frontage.
- 10) The applicant shall provide an Engineer's cost estimate to Clackamas County Engineering, to be reviewed and approved, for the asphalt concrete, aggregates, curbs, sidewalks and any other required public improvement associated with Harmony Road.
- 11) The applicant shall provide Clackamas County a performance surety in an amount equal to 125% of the Clackamas County approved cost estimate for the Harmony Road improvements.
- 12) Applicant shall install and maintain additional traffic control features at the shared private road approach intersection with Harmony Road, including a stop bar behind the sidewalk, an arrow pavement legend behind the sidewalk indicating traffic is restricted to southbound only and a "DO NOT ENTER" sign behind the sidewalk facing Harmony Road and angled towards westbound traffic.
- 13) All traffic control devices on private property, located where private driveways intersect County facilities shall be installed and maintained by the applicant, and shall meet standards set forth in the *Manual on Uniform Traffic Control Devices* and relevant Oregon supplements.

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14) Prior to the issuance of a building permit, the applicant shall submit to Clackamas County Engineering Office:

- a) Written approval from the local Fire District for the planned access, circulation, and fire lanes. The approval shall be in the form of site and utility plans stamped and signed by the Fire Marshal.
- b) Written approval from City of Milwaukie for surface water detention facilities and erosion control measures.
- c) A set of site frontage and street improvement construction plans for review, in conformance with *Clackamas County Roadway Standards* Section 140, to Deana Mulder in Clackamas County's Engineering Office and obtain written approval, in the form of a Development Permit. The permit will be for road, curb, sidewalk, and drainage improvements. The permit fee will be calculated in accordance with the current fee structure and will be based on the approved cost estimate for the Harmony Road improvements.

The submitted plans shall provide plan and profile data and sight lines illustrating adequate intersection sight distances for passenger vehicles, single unit trucks, and combination trucks exiting the Harmony Road shared private road approach. In addition, the submitted plans shall provide plan and profile data and sight lines illustrating adequate stopping sight distance for passenger vehicles on Harmony Road approaching the Harmony Road shared private road from the east. The submitted plans shall also include a detailed striping plan and a legend for various line work. The applicant shall have an Engineer, registered in the state of Oregon, design and stamp the construction plans for all required improvements.

- d) A Fire Access and water supply plan for commercial buildings over 1000 square feet in size or when required by Clackamas Fire District #1. The plan shall show fire apparatus access, fire lanes, fire hydrants, fire lines, available fire flow, fdc location if applicable, building square footage and type of construction. The applicant shall provide fire flow tests per NFPA 291 and shall be no older than 12 months. Work to be completed by experienced and responsible persons and coordinated with the local water authority. (Applicable for developments with potable water supply provided by a water authority.)

15) Following completion of site construction activities of buildings over 1000 square feet or when required by Clackamas Fire District #1, the applicant shall provide as-built Fire Access and Water Supply pdf plans to the local Fire District and the County. The pdf plans shall show fire apparatus access, fire lanes, fire hydrants, fire lines, available fire flow, fdc location if applicable, building square footage and type of construction. The plans shall include any supporting details of the access, circulation, water vaults, fire lines, valves, fdc, backflow devices, etc.

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For this proposal, the pdf as-built plan sheets shall be transmitted to mike.boumann@clackamasfire.com (Deputy Fire Marshal Mike Boumann) and deanam@co.clackamas.or.us (Development Review Coordinator Deana Mulder)

- 16) Before the County issues a Development Permit, the applicant shall submit a construction vehicle management and staging plan for review and approval by the County DTD, Construction and Development Section. That plan shall show that construction vehicles and materials will not be staged or queued-up on public streets and shoulders without specific authority from DTD for the purpose.