

DEVELOPMENT REVIEW APPLICATION		
For Office Use Only		
STAFF CONTACT <i>Sarreen Wyss</i>	PROJECT No(s). <i>MIP-1705</i>	
NON-REFUNDABLE FEE(S)	REFUNDABLE DEPOSIT(S) <i>2800-</i>	TOTAL <i>2800-</i>

Type of Review (Please check all that apply):

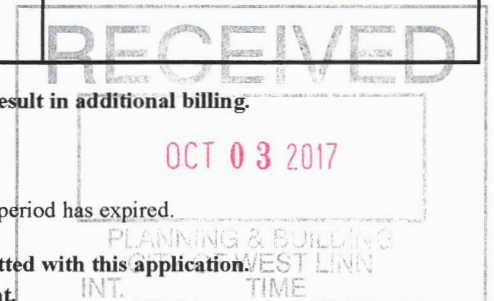
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|---------------------------------------|---|---|
| Annexation (ANX) | Historic Review | Subdivision (SUB) |
| Appeal and Review (AP) * | Legislative Plan or Change | Temporary Uses * |
| Conditional Use (CUP) | Lot Line Adjustment (LLA) */** | Time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

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

Site Location/Address: 4120 MAPLETON DRIVE	Assessor's Map No.: 2201
	Tax Lot(s): 21E24BD
	Total Land Area: 0.48 Acres
Brief Description of Proposal: APPLICANT IS REQUESTING TENTATIVE PLAT APPROVAL FOR A 2-LOT PARTITION IN THE R-10 ZONING DISTRICT	
Applicant Name: ESCM, INC., ATTN: EDWIN SWARTZ Address: 95 FOOTHILLS ROAD City State Zip: LAKE OSWEGO, OR 97034	Phone: 971-219-7461 Email: escminc@comcast.net
Owner Name (required): JOAN SWARTZ EDWIN SWARTZ Address: 4120 MAPLETON DRIVE City State Zip: WEST LINN, OR 97068	Phone: 971-219-7461 Email: escminc@comcast.net
Consultant Name: CASCADIA PLANNING + DEV. SVC., ATTN: STEVE KAY Address: PO BOX 1920 City State Zip: SILVERTON, OR 97381	Phone: 503-804-1089 Email: steve@cascadiapd.com

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

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



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

John A Swab

9-15-17

John A Swab

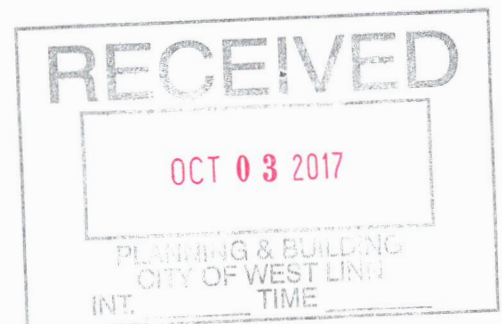
9-15-17

Applicant's signature

Date

Owner's signature (required)

Date





PO Box 1920, Silverton, OR 97381
www.cascadiapd.com / 503-804-1089

**CITY OF WEST LINN
APPLICATION FOR
LAND USE REVIEW**

**MAPLETON DRIVE
PARTITION**

Location: 4120 Mapleton Drive
Tax Lot 2201, Tax Map 21E24BD
Clackamas County, Oregon

Prepared by: Steve Kay, AICP

Prepared for: ESCM, Inc.
95 Foothills Road
Lake Oswego, OR 97034

September 19, 2017

APPLICANT'S STATEMENT

PROJECT NAME: Mapleton Drive Partition

REQUEST: Tentative Plat Approval for a 2-Lot Partition
in the R-10 Zoning District

LEGAL DESCRIPTION: Tax Lot 2201 of Tax Map 21E24BD
Clackamas County, Oregon

**APPLICANT'S
REPRESENTATIVE:** Steve Kay, AICP
Cascadia Planning + Development Services
P.O. Box 1920
Silverton, OR 97381
503-804-1089
steve@cascadiapd.com

APPLICANT: ESCM, Inc.
95 Foothills Road
Lake Oswego, OR 97034

PROPERTY OWNER: Joan Swartz
4120 Mapleton Drive
Lake Oswego, OR 97068

PROPERTY SIZE: 0.48 acres +/-

LOCATION: 4120 Mapleton Drive
Lake Oswego, OR 97068

I. APPLICABLE REGULATIONS

- A. West Linn Comprehensive Plan**
- B. Robinwood Neighborhood Plan**
- C. West Linn Community Development Code**

Chapter 11: Single-Family Residential Detached, R-10
Chapter 85: General Provisions

II. AFFECTED JURISDICTIONS

Domestic Water:	City of West Linn
Fire Protection:	Tualatin Valley Fire and Rescue
Electric:	Portland General Electric
Police Protection:	City of West Linn
School District:	West Linn-Wilsonville, 3J
Sewer:	Tri-City Service District
Streets:	City of West Linn

III. **BACKGROUND:**

The applicant, ESCM Inc., is requesting tentative plat approval for a 2-lot partition in the R-10 zoning district. The subject property is located at 4120 Mapleton Drive, contains approximately 0.48 acres (20,695 sq. ft.), and is identified by the Clackamas County Assessor as Tax Lot 2201 of Tax Map 21E24BD. The site is located in the Robinwood Neighborhood Plan Area. As illustrated by the attached Preliminary Site Plan, the applicant is proposing to remove an existing single-family dwelling, shed, and brick patio with the proposed land division (see Exhibit 4). The plan also indicates that a portion of the existing driveway will be retained for the development of a future dwelling on Parcel 2.

The attached Existing Conditions Plan indicates that the subject property is located directly north of several R-10 zoned flag lots which have been developed with single-family dwellings (see Exhibit 4). Also, to the west and east of the site, are R-10 zoned parcels that have been developed with single-family dwellings. Across Mapleton Drive, to the north of the site, are additional R-10 zoned properties that have been development with single-family dwellings.

The subject site generally slopes down from the southeast to the northwest corner of the property. The site does not contain significant natural resources, steep slopes, or identified hazard areas. The applicant's Preliminary Grading/Erosion Control Plan indicates that proposed grading is limited to rough site grading for the development of future single-family dwellings and associated driveway improvements (see Exhibit 4).

The site fronts Mapleton Drive, which is classified as a Local Street. The Existing Conditions Plan indicates that the Mapleton Drive right-of-way provides 25-ft. from centerline, meeting the right-of-way standard for a Local Street. The roadway provides a minimum 20-ft. paved width along the site's frontage. Local Street standards require 12-ft. of paving from centerline, a 6-in. curb, 6-ft. planter strip, and 6-ft. sidewalk along the site's road frontage. However, due to the lack of curbs and sidewalks in the vicinity of the subject site, the applicant is proposing to pay a fee-in-lieu of installing required street frontage improvements.

The attached Tentative Plat indicates that the proposed 2-lot partition meets the density standards of the R-10 zoning district (see Exhibit 4). Taking into account the site's area of 0.48 acres, a land division of the property allows the development of 2 dwelling units (4.35 du./ac. X 0.48 ac.= 2.09, or 2 dwelling units).

As indicated by the attached Preliminary Development Plans, existing public utilities are located in the vicinity of the site and can serve the proposed development (see Exhibit 4). The attached utility plans indicate that the applicant is proposing to utilize the water meter which serves the existing residence for Parcel 1. In addition, the applicant is proposing to connect the future dwelling on Parcel 2 to an existing sanitary sewer lateral which serves the site. Additional sanitary sewer and water service for the future dwellings will be extended from existing main lines within Mapleton Drive. As indicated by the attached plans, stormwater from impervious surfaces will be individually collected on both parcels and directed to the existing roadside swale along Mapleton Drive. The applicant's Preliminary Stormwater Report, as well as the Preliminary Grading Plan, indicates that stormwater from Parcels 1 and 2 will not negatively impact the public storm system within the right-of-way (see Exhibit 4).

A copy of the signed Application Form, Vicinity Map/Property Deed, City Pre-Application Conference Notes/Correspondence, Preliminary Development Plans, and Preliminary Stormwater Report are included with this application packet. The applicant's exhibits and narrative demonstrate that the proposed land division meets the criteria outlined by the West Linn Community Development Code.

IV. FINDINGS

A. WEST LINN COMPREHENSIVE PLAN

COMMENT:

Except where required by the West Linn Community Development Code, this application is not required to address City goals and policies related to the development of land, since the West Linn Comprehensive Plan is implemented by the Code.

B. ROBINWOOD NEIGHBORHOOD PLAN

COMMENT:

Except where required by the Robinwood Neighborhood Plan, this application is not required to address City goals and policies related to the development of land, since the Robinwood Neighborhood Plan is implemented by the Code.

C. WEST LINN COMMUNITY DEVELOPMENT CODE

CHAPTER 11: SINGLE-FAMILY RESIDENTIAL DETACHED, R-10

Section 11.030: Permitted Uses

The following are uses permitted outright in this zoning district:

- 1. Single-family detached residential unit.**

COMMENT:

The attached plans indicate that the applicant is proposing a 2-lot Minor Partition of the subject site. The applicant is proposing to remove an existing dwelling on the site and develop one single-family detached dwelling on each parcel. Per Section 11.030(1), the proposed use is permitted within the R-10 District.

Section 11.070:

Dimensional Requirements, Uses Permitted Outright and Uses Permitted Under Prescribed Conditions

Except as may be otherwise provided by the provisions of this code, the following are the requirements for uses within this zone:

1. The minimum lot size shall be 10,000 square feet for a single-family detached unit.
2. The minimum front lot line length or the minimum lot width at the front lot line shall be 35 feet.
3. The average minimum lot width shall be 50 feet.
4. Repealed by Ord. 1622.

COMMENT:

The attached Preliminary Plat indicates that proposed Parcel 1 is 10,694 sq. ft. and Parcel 2 is 10,001 sq. ft., meeting the minimum lot size standard of 10,000 square feet. Parcel 1 provides 69.96-ft. of frontage on Mapleton Drive and Parcel 2 provides 65.04-ft. of frontage, meeting the minimum front lot line standard of 35-feet. The attached Preliminary Plat demonstrates that both of the proposed parcels have an average minimum lot width which exceeds the 50-ft. standard (see Exhibit 4).

5. Except as specified in CDC 25.070(C)(1) through (4) for the Willamette Historic District, the minimum yard dimensions or minimum building setback area from the lot line shall be:
 - a. For the front yard, 20 feet; except for steeply sloped lots where the provisions of CDC 41.010 shall apply.
 - b. For an interior side yard, seven and one-half feet.
 - c. For a side yard abutting a street, 15 feet.
 - d. For a rear yard, 20 feet.

COMMENT:

The attached Preliminary Site Plan identifies minimum setbacks for the R-10 District (see Exhibit 4). The subject site is not located within the Willamette Historic District.

6. The maximum building height shall be 35 feet, except for steeply sloped lots in which case the provisions of Chapter 41 CDC shall apply.
7. The maximum lot coverage shall be 35 percent.
8. The minimum width of an accessway to a lot which does not abut a street or a flag lot shall be 15 feet.

9. **The floor area ratio shall be 0.45. Type I and II lands shall not be counted toward lot area when determining allowable floor area ratio, except that a minimum floor area ratio of 0.30 shall be allowed regardless of the classification of lands within the property. That 30 percent shall be based upon the entire property including Type I and II lands. Existing residences in excess of this standard may be replaced to their prior dimensions when damaged without the requirement that the homeowner obtain a non-conforming structures permit under Chapter 66 CDC.**

COMMENT:

The attached Preliminary Site Plan demonstrates that the lot coverage and floor area ratio standards for Parcels 1 and 2 can be met with the proposed partition (Exhibit 4). The City will verify these standards and the minimum height standard when building permits are requested for the single-family detached dwellings. The attached plans indicate that the proposed lots directly front Mapleton Drive and the proposal does not include flag lots.

10. **The sidewalk provisions of Chapter 43 CDC shall apply.**

COMMENT:

Mapleton Drive is classified as a Local Street, requiring the installation of a 6-ft. sidewalk along the site's road frontage. Due to the lack of curbs and sidewalks in the vicinity of the subject site, the applicant is proposing to pay a fee-in-lieu of installing the required sidewalk improvements.

Section 11.090: Other Applicable Development Standards

- A. **The following standards apply to all development including permitted uses:**
 1. **Chapter 34 CDC, Accessory Structures, Accessory Dwelling Units, and Accessory Uses.**
 2. **Chapter 35 CDC, Temporary Structures and Uses.**
 3. **Chapter 38 CDC, Additional Yard Area Required; Exceptions to Yard Requirements; Storage in Yards; Projections into Yards.**
 4. **Chapter 40 CDC, Building Height Limitations, Exceptions.**
 5. **Chapter 41 CDC, Structures on Steep Lots, Exceptions.**
 6. **Chapter 42 CDC, Clear Vision Areas.**
 7. **Chapter 44 CDC, Fences.**

8. Chapter 46 CDC, Off-Street Parking, Loading and Reservoir Areas.
9. Chapter 48 CDC, Access, Egress and Circulation.
10. Chapter 52 CDC, Signs.
11. Chapter 54 CDC, Landscaping.

COMMENT:

At this time, the applicant is requesting approval of a Minor Partition land use application to divide the subject site into two parcels. When building permits are submitted for construction of a dwelling and other site improvements on Parcels 1 and 2, the development will be reviewed for compliance with all applicable standards.

- B. The provisions of Chapter 55 CDC, Design Review, apply to all uses except detached single-family dwellings, residential homes and residential facilities.

COMMENT:

Since a detached single-family dwelling will be developed on Parcels 1 and 2, the provisions of Chapter 55 do not apply.

CHAPTER 85: GENERAL PROVISIONS

Section 85.140: Pre-Application Conference Required

- A. An applicant shall participate in a pre-application conference with staff prior to the submission of a complete tentative plan.
- B. The Planning staff shall explain the applicable plan policies, ordinance provisions, opportunities, and constraints which may be applicable to the site and type of proposed land division.
- C. The City Engineering staff shall explain the public improvement requirements which may be applicable to the site and type of proposed land division, including potential for the applicant to apply for a waiver of street improvements.

COMMENT:

The applicant attended a Pre-Application Conference with the City on August 17, 2017 to discuss the proposed partition. As demonstrated by the attached City Pre-Application Conference Notes, Planning and Engineering staff discussed applicable Code standards and other relevant issues with the applicant prior to the submittal of this application (see Exhibit 3).

Section 85.150: Application – Tentative Plan

- A. The applicant shall submit a completed application which shall include:**
 - 1. The completed application form(s).**
 - 2. Copies of the tentative plan and supplemental drawings shall include one copy at the original scale plus one copy reduced in paper size not greater than 11 inches by 17 inches. The applicant shall also submit one copy of the complete application in a digital format acceptable to the City. When the application submittal is determined to be complete, additional copies may be required as determined by the Community Development Department.**
 - 3. A narrative explaining all aspects of land division per CDC 85.200.**
- B. The applicant shall pay the requisite fee.**

COMMENT:

As required, the applicant has submitted copies of the tentative plat, supplemental drawings, and a narrative addressing applicable code criteria.

Section 85.160: Submittal Requirements For Tentative Plan

- A. A City-wide map shall identify the site. A vicinity map covering one-quarter-mile radius from the development site shall be provided in the application showing existing subdivisions, streets, and unsubdivided land ownerships adjacent to the proposed subdivision and showing how proposed streets and utilities may be extended to connect to existing streets and utilities.**

COMMENT:

The application has submitted a Vicinity Map with this application to demonstrate that adjacent properties are fully developed (see Exhibit 2). The attached Preliminary Development Plans indicate that the applicant is proposing a 2-lot Minor Partition of the site (see Exhibit 4). The submitted exhibits demonstrate that adjacent properties currently have access to utilities and transportation facilities within Mapleton Drive.

- B. The tentative subdivision plan shall be prepared by a registered civil engineer and/or a licensed land surveyor. A stamp and signature of the engineer or surveyor shall be included on the tentative subdivision plan. A tentative minor partition plan (three lots or less) is only required to be drawn**

to scale and does not have to be prepared by an engineer or surveyor.

COMMENT:

The applicant is requesting approval of a tentative plat for a 2-lot minor partition. Therefore, the tentative plat does not need to be prepared by a registered engineer or surveyor.

- C. The tentative plan of a subdivision or partition shall be drawn at a scale not smaller than one inch equals 100 feet, or, for areas over 100 acres, one inch equals 200 feet.**
- D. The following general information shall be shown on the tentative plan of subdivision or partition:**
 - 1. Proposed name of the subdivision and streets; these names shall not duplicate nor resemble the name of any other subdivision or street in the City and shall be determined by the City Manager or designee. Street names should be easily spelled, pronounced, and of limited length. All new street names must, to the greatest extent possible, respect and be representative of the surrounding geography and existing street names. Street names should consider any prominent historical City figures or neighborhood themes that exist. Subdivision street names may not reference names of the builder or developer.**
 - 2. Date, north arrow, scale of drawing, and graphic bar scale.**
 - 3. Appropriate identification clearly stating the drawing as a tentative plan.**
 - 4. Location of the proposed division of land, with a tie to the City coordinate system, where established, and a description sufficient to define its location and boundaries, and a legal description of the tract boundaries.**
 - 5. Names and addresses of the owner, developer, and engineer or surveyor.**

COMMENT:

The attached Existing Conditions Plan, Tentative Plat, and Preliminary Site Plan have been scaled to meet the requirements of this section. All of the required general information listed above has been included on these preliminary plans and the attached Cover Sheet (see Exhibit 4).

- E. The following existing conditions shall be shown on the tentative plan of a subdivision or partition:**
- 1. The location, widths, and names of all existing or platted streets and rights-of-way within or adjacent to the tract (within 50 feet), together with easements and other important features such as section lines, donation land claim corners, section corners, City boundary lines, and monuments.**
 - 2. Contour lines related to the U.S. Geological Survey datum or some other established benchmark, or other datum approved by the Planning Director and having the following minimum intervals:**
 - a. Two-foot contour intervals for ground slopes less than 20 percent.**
 - b. Five-foot contour intervals for ground slopes exceeding 20 percent.**
 - 3. The location of any control points that are the basis for the applicant's mapping.**
 - 4. The location, by survey, and direction of all watercourses and areas subject to periodic inundation or storm drainageway overflow or flooding, including boundaries of flood hazard areas as established by the U.S. Army Corps of Engineers or the City zoning ordinance.**
 - 5. Natural features such as rock outcroppings, wetlands tied by survey, wooded areas, heritage trees, and isolated trees (six-inch diameter at five feet above grade) identified by size, type, and location. All significant trees and tree clusters identified by the City Arborist using the criteria of CDC 55.100(B)(2), and all heritage trees, shall be delineated. Trees on non-Type I and II lands shall have their "dripline plus 10 feet" protected area calculated per CDC 55.100(B)(2) and expressed in square feet, and also as a percentage of total non-Type I and II area.**
 - 6. Existing uses of the property, including location of all existing structures. Label all structures to remain on the property after platting.**
 - 7. Identify the size and location of existing sewers, water mains, culverts, drain pipes, gas, electric, and other utility lines within the site, and in the adjoining streets and property.**

8. Zoning on and adjacent to the tract.
9. Existing uses to remain on the adjoining property and their scaled location.
10. The location of any existing bicycle or pedestrian ways.
11. The location of adjacent transit stops.

COMMENT:

The attached Existing Conditions Plan and Preliminary Site Plan demonstrate that the applicant has provided all of the required information listed above (see Exhibit 3).

F. The following proposed improvements shall be shown on the tentative plan or supplemental drawings:

1. The street – street location, proposed name, right-of-way width, and approximate radius of curves of each proposed street and street grades. Proposed street names shall comply with the street naming method explained in CDC 85.200(A)(12).
2. The type, method, and location of any erosion prevention and sediment control measures and/or facilities in accordance with the most current version of Clackamas County's Erosion/Sedimentation Control Plans Technical Guidance Handbook, which are necessary to prevent and control visible or measurable erosion as determined by the following criteria:
 - a. Deposition of soil, sand, dirt, dust, mud, rock, gravel, refuse, or any other organic or inorganic material exceeding one cubic foot in volume in a public right-of-way or public property, or into the City surface water management system either by direct deposit, dropping, discharge, or as a result of erosion; or
 - b. Flow of water over bare soils, turbid or sediment-laden flows, or evidence of on-site erosion such as rivulets or bare soil slopes, where the flow of water is not filtered or captured on the development site; or
 - c. Earth slides, mud flows, land slumping, slope failure, or other earth movement that is likely to leave the property of origin.

Additional on-site measures may later be required if original measures prove to be inadequate in meeting these attainment standards. For the purposes of this code, “one cubic foot in volume” is defined to include the volume of material, wet or dry, at the time of deposition and includes any water of a discolored or turbid nature.

COMMENT:

Submitted with this application is a Preliminary Grading/Erosion Control Plan which meets all of the required information listed above (see Exhibit 4).

- 3. Any proposed infrastructure improvements that address those identified in the City Transportation System Plan.**
- 4. Any proposed bicycle or pedestrian paths. The location of proposed transit stops.**

COMMENT:

The attached Preliminary Site Plan indicates that the applicant is proposing to provide a fee-in-lieu of installing frontage improvements along Mapleton Drive (see Exhibit 4). The subject site is not located on a transit route, and the applicant is not proposing bicycle or pedestrian paths with the development.

- 5. Any easement(s) – location, width, and purpose of the easement(s).**
- 6. The configuration including location and approximate dimensions and area of each lot or parcel, and in the case of a subdivision, the proposed lot and block number.**

COMMENT:

As required, the attached Tentative Plat provides dimensions and areas for each proposed parcel (see Exhibit 4). There are no existing or proposed easements associated with this Minor Partition application.

- 7. A street tree planting plan and schedule approved by the Parks Department.**
- 8. Any land area to be dedicated to the City or put in common ownership.**
- 9. Phase boundaries shall be shown.**

COMMENT:

The applicant is proposing to provide a fee-in-lieu of installing required street frontage improvements on Mapleton Drive. The applicant is not proposing to establish common ownership land, dedicate land to the City, or create a phased development.

Section 85.170: Supplemental Submittal Requirements for Tentative Subdivision or Partition Plan

The following information shall be submitted to supplement the tentative subdivision plan:

A. General.

- 1. Narrative stating how the plan meets each of the applicable approval criteria and each subsection below.**
- 2. Statement or affidavit of ownership of the tract (County Assessor's map and tax lot number).**
- 3. A legal description of the tract.**

COMMENT:

The owner of the subject site is Joan Swartz. A property deed and legal description has been submitted with this application (see Exhibit 2). The applicant has described how the Tentative Plat meets all of the approval criteria in the submitted narrative.

- 4. If the project is intended to be phased, then such a proposal shall be submitted at this time with drawing and explanation as to when each phase will occur and which lots will be in each phase.**
- 5. Where the land to be subdivided or partitioned contains only a part of the contiguous land owned by the developer, the Commission or Planning Director, as applicable, shall require a master plan of the remaining portion illustrating how the remainder of the property may suitably be subdivided.**

COMMENT:

As mentioned above, the applicant is not proposing a phased development with this Minor Partition. The applicant does not own contiguous land with the subject site.

- 6. Where the proposed subdivision site includes hillsides, as defined in CDC 02.030 Type I and II lands, or any lands identified as a hazard site in the West Linn Comprehensive Inventory Plan Report, the requirements**

for erosion control as described in CDC 85.160(F)(2) shall be addressed in a narrative.

COMMENT:

As demonstrated by the Existing Conditions Plan, the subject property does not contain steep slopes, Type I or II lands, or any land identified as a hazard site in the West Linn Comprehensive Plan (see Exhibit 4)

7. **Table and calculations showing the allowable number of lots under the zone and how many lots are proposed.**
8. **Map and table showing square footage of site comprising slopes by various classifications as identified in CDC 55.110(B)(3).**

COMMENT:

The applicant's Tentative Plat includes a table and calculations showing the allowable number of lots and how many lots are proposed (see Exhibit 4). The attached Existing Conditions Plan includes a slope analysis, consistent with Section 55.110(B)(3) (see Exhibit 4).

B. Transportation.

1. **Centerline profiles with extensions shall be provided beyond the limits of the proposed subdivision to the point where grades meet, showing the finished grade of streets and the nature and extent of street construction.**

COMMENT:

The applicant is not proposing to develop new transportation facilities with this development. The attached plans indicate that the subject site is adjacent to Mapleton Drive, an existing roadway.

2. **Traffic Impact Analysis (TIA). a. Purpose. The purpose of this section of the code is to implement Section 660-012-0045(2)(e) of the State Transportation Planning Rule that requires the City to adopt a process to apply conditions to development proposals in order to minimize adverse impacts to and protect transportation facilities. This section establishes the standards for when a proposal must be reviewed for potential traffic impacts; when a Traffic Impact Analysis must be submitted with a development application in order to determine whether conditions are needed to minimize impacts to and protect transportation facilities; what must be in a Traffic Impact Study; and who is qualified to prepare the study.**

- c. **When required. A Traffic Impact Analysis may be required to be submitted to the City with a land use application, when the following conditions apply:**

COMMENT:

During the applicant's Pre-Application Conference with City, it was determined that the proposed 2-lot Minor Partition will not create any of the abovementioned impacts to the transportation system. Therefore, this application does not require the submittal of a traffic impact analysis.

C. Grading.

1. **If areas are to be graded, a plan showing the location of cuts, fill, and retaining walls, and information on the character of soils shall be provided. The grading plan shall show proposed and existing contours at intervals per CDC 85.160(E)(2).**
2. **The grading plan shall demonstrate that the proposed grading to accommodate roadway standards and create appropriate building sites is the minimum amount necessary.**

COMMENT:

The attached Preliminary Grading/Erosion Control Plan meets all of the standards listed above (see Exhibit 4).

D. Water.

1. **A plan for domestic potable water supply lines and related water service facilities, such as reservoirs, etc., shall be prepared by a licensed engineer consistent with the adopted Comprehensive Water System Plan and most recently adopted updates and amendments.**
2. **Location and sizing of the water lines within the development and off-site extensions. Show on-site water line extensions in street stubouts to the edge of the site, or as needed to complete a loop in the system.**
3. **Adequate looping system of water lines to enhance water quality.**
4. **For all non-single-family developments, calculate fire flow demand of the site and demonstrate to the Fire Chief. Demonstrate to the City Engineer how the system can meet the demand.**

COMMENT:

The attached Preliminary Utility Plan indicates that the future dwelling located on Parcel 1 will connect to an existing water meter and lateral serving subject site. An additional water meter and lateral line is proposed to be installed for Parcel 2. As required, the submitted plan has been prepared by a registered civil engineer.

E. Sewer.

- 1. A plan prepared by a licensed engineer shall show how the proposal is consistent with the Sanitary Sewer Master Plan and subsequent updates and amendments. Agreement with that plan must demonstrate how the sanitary sewer proposal will be accomplished and how it is efficient. The sewer system must be in the correct zone.**
- 2. Sanitary sewer information will include plan view of the sanitary sewer lines, including manhole locations and depths. Show how each lot or parcel would be sewerred.**
- 3. Sanitary sewer lines shall be located in the public right-of-way, particularly the street, unless the applicant can demonstrate why the alternative location is necessary and meets accepted engineering standards.**
- 4. Sanitary sewer line should be at a depth that can facilitate connection with down-system properties in an efficient manner.**
- 5. The sanitary sewer line should be designed to minimize the amount of lineal feet in the system.**
- 6. The sanitary sewer line shall minimize disturbance of natural areas and, in those cases where that is unavoidable, disturbance shall be mitigated pursuant to the appropriate chapters (e.g., Chapter 32 CDC, Water Resource Area Protection).**
- 7. Sanitary sewer shall be extended or stubbed out to the next developable subdivision or a point in the street that allows for reasonable connection with adjacent or nearby properties.**
- 8. The sanitary sewer system shall be built pursuant to Department of Environmental Quality (DEQ), City, and Tri-City Service District sewer standards. This report should be prepared by a licensed engineer, and the applicant must be able to demonstrate the ability to**

satisfy these submittal requirements or standards at the pre-construction phase.

COMMENT:

The submitted Preliminary Utility Plan shows how the proposed development on Parcel 2 can be served by the existing sanitary lateral which serves the subject site. The plan also indicates that a new lateral line will be extended from the existing sanitary sewer main within Mapleton Road to serve Parcel 1 (see Exhibit 4). As required, the plan has been prepared by a registered engineer and meets the standards of this section.

- F. Storm. A proposal shall be submitted for storm drainage and flood control including profiles of proposed drainageways with reference to the most recently adopted Storm Drainage Master Plan.**

COMMENT:

The attached Preliminary Utility Plan and Preliminary Stormwater Report indicates how stormwater from impervious surfaces will be managed, consistent with standards specified in the City's Stormwater Drainage Master Plan (see Exhibits 4 and 5).

Section 85.180: Redivision Plan Requirement

A redivision plan shall be required for a partition or subdivision, where the property could be developed at a higher density, under existing/proposed zoning, if all services were available and adequate to serve the use.

COMMENT:

Due to the minimum lot size of 10,000 in R-10 zone, the subject site cannot be developed at a higher density than the proposed 2-lot partition. Therefore, a redivision plan is not required for this application.

Section 85.190: Additional Information Required and Waiver of Requirements

- A. The Planning Director may require additional information as part of the application subject to the provisions of CDC 99.035(A).**
- B. The applicant may request a waiver of any requirements for the application subject to the provisions of CDC 99.035(B) and (C).**

COMMENT:

If required by the Planning Director, the applicant will provided additional information regarding this application.

Section 85.200: Approval Criteria

No tentative subdivision or partition plan shall be approved unless adequate public facilities will be available to provide service to the partition or subdivision area prior to final plat approval and the Planning Commission or Planning Director, as applicable, finds that the following standards have been satisfied, or can be satisfied by condition of approval.

A. Streets.

- 1. General.** The location, width and grade of streets shall be considered in their relation to existing and planned streets, to the generalized or reasonable layout of streets on adjacent undeveloped lots or parcels, to topographical conditions, to public convenience and safety, to accommodate various types of transportation (automobile, bus, pedestrian, bicycle), and to the proposed use of land to be served by the streets. The functional class of a street aids in defining the primary function and associated design standards for the facility. The hierarchy of the facilities within the network in regard to the type of traffic served (through or local trips), balance of function (providing access and/or capacity), and the level of use (generally measured in vehicles per day) are generally dictated by the functional class. The street system shall assure an adequate traffic or circulation system with intersection angles, grades, tangents, and curves appropriate for the traffic to be carried. Streets should provide for the continuation, or the appropriate projection, of existing principal streets in surrounding areas and should not impede or adversely affect development of adjoining lands or access thereto.

To accomplish this, the emphasis should be upon a connected continuous pattern of local, collector, and arterial streets rather than discontinuous curvilinear streets and cul-de-sacs. Deviation from this pattern of connected streets should only be permitted in cases of extreme topographical challenges including excessive slopes (35 percent-plus), hazard areas, steep drainageways, wetlands, etc. In such cases, deviations may be allowed but the connected continuous pattern must be reestablished once the topographic challenge is passed. Streets should be oriented with consideration of the sun, as site conditions allow, so that over 50 percent of the front building lines of homes are oriented within 30 degrees of an east-west axis.

Internal streets are the responsibility of the developer. All streets bordering the development site are to be

developed by the developer with, typically, half-street improvements or to City standards prescribed by the City Engineer. Additional travel lanes may be required to be consistent with adjacent road widths or to be consistent with the adopted Transportation System Plan (TSP) and any adopted updated plans.

An applicant may submit a written request for a waiver of abutting street improvements if the TSP prohibits the street improvement for which the waiver is requested. Those areas with numerous (particularly contiguous) under-developed or undeveloped tracts will be required to install street improvements. When an applicant requests a waiver of street improvements and the waiver is granted, the applicant shall pay an in-lieu fee equal to the estimated cost, accepted by the City Engineer, of the otherwise required street improvements. As a basis for this determination, the City Engineer shall consider the cost of similar improvements in recent development projects and may require up to three estimates from the applicant. The amount of the fee shall be established prior to the Planning Commission's decision on the associated application. The in-lieu fee shall be used for in kind or related improvements.

Streets shall also be laid out to avoid and protect tree clusters and significant trees, but not to the extent that it would compromise connectivity requirements per this subsection (A)(1), or bring the density below 70 percent of the maximum density for the developable net area. The developable net area is calculated by taking the total site acreage and deducting Type I and II lands; then up to 20 percent of the remaining land may be excluded as necessary for the purpose of protecting significant tree clusters or stands as defined in CDC 55.100(B)(2).

COMMENT:

The applicant is not proposing to develop new transportation facilities with this development. The attached plans indicate that the subject site is adjacent to Mapleton Drive, which is an existing roadway that is partially improved. To meet Local Street standards, the applicant is requesting a waiver of required street improvements, and is proposing to pay a fee-in-lieu of installing the required improvements.

2. **Right-of-way and roadway widths.** In order to accommodate larger tree-lined boulevards and sidewalks, particularly in residential areas, the standard right-of-way widths for the different street classifications shall be within the range listed below. But instead of filling in the right-of-way with pavement,

they shall accommodate the amenities (e.g., boulevards, street trees, sidewalks). The exact width of the right-of-way shall be determined by the City Engineer or the approval authority. The following ranges will apply:

Street Classification	Right-of-Way
Highway 43	60 – 80
Major arterial	60 – 80
Minor arterial	60 – 80
Major collector	60 – 80
Collector	60 – 80
Local street	40 – 60
Cul-de-sac	40 – 60
Radii of cul-de-sac	48 – 52
Alley	16

Additional rights-of-way for slopes may be required. Sidewalks shall not be located outside of the right-of-way unless to accommodate significant natural features or trees.

COMMENT:

The Mapleton Drive right-of-way, adjacent to the subject site, is currently 50-ft. wide. The existing right-of-way width is consistent with Local Street standards.

3. **Street widths.** Street widths shall depend upon which classification of street is proposed. The classifications and required cross sections are established in Chapter 8 of the adopted TSP. Streets are classified as follows.

Local streets have the sole function of providing access to immediately adjacent land. Service to through traffic movement on local streets is deliberately discouraged by design.

The following table identifies appropriate street width (curb to curb) in feet for various street classifications. The desirable width shall be required unless the applicant or his engineer can demonstrate that site conditions, topography, or site design require the reduced minimum width.

COMMENT:

Mapleton Drive is partially improved with an asphalt surface that is approximately 20-ft. wide. As mentioned above, the applicant is proposing to pay a fee-in-lieu of installing improvements to meet the Local Street standards.

- 4. The decision-making body shall consider the City Engineer's recommendations on the desired right-of-way width, pavement width and street geometry of the various street types within the subdivision after consideration by the City Engineer of the following criteria:**
 - a. The type of road as set forth in the Transportation Master Plan.**
 - b. The anticipated traffic generation.**
 - c. On-street parking requirements.**
 - d. Sidewalk and bikeway requirements.**
 - e. Requirements for placement of utilities.**
 - f. Street lighting.**
 - g. Drainage and slope impacts.**
 - h. Street trees.**
 - i. Planting and landscape areas.**
 - j. Existing and future driveway grades.**
 - k. Street geometry.**
 - l. Street furniture needs, hydrants.**

COMMENT:

As required, the applicant conferred with the City Engineer during the Pre-Application Conference. Since there are no sidewalks or curbs along Mapleton Drive in the vicinity of the subject site, it was found acceptable for the applicant to provide a fee-in-lieu of installing the required street improvements.

- 5. Additionally, when determining appropriate street width, the decision-making body shall consider the following criteria:**
 - a. When a local street is the only street serving a residential area and is expected to carry more than the normal local street traffic load, the designs with two travel and one parking lane are appropriate.**

- b. **Streets intended to serve as signed but unstriped bike routes should have the travel lane widened by two feet.**
- c. **Collectors should have two travel lanes and may accommodate some parking. Bike routes are appropriate.**
- d. **Arterials should have two travel lanes. On-street parking is not allowed unless part of a Street Master Plan. Bike lanes are required as directed by the Parks Master Plan and Transportation Master Plan.**

COMMENT:

Mapleton Drive is a Local Street serving a residential area. As required, the proposed fee-in-lieu of the installing road frontage improvements will be based on the street's designation and intended use.

- 6. **Reserve strips. Reserve strips or street plugs controlling the access to streets are not permitted unless owned by the City.**

COMMENT:

The applicant is not proposing a reserve strip with this application.

- 7. **Alignment. All streets other than local streets or cul-de-sacs, as far as practical, shall be in alignment with existing streets by continuations of the centerlines thereof. The staggering of street alignments resulting in "T" intersections shall, wherever practical, leave a minimum distance of 200 feet between the centerlines of streets having approximately the same direction and otherwise shall not be less than 100 feet.**
- 8. **Future extension of streets. Where necessary to give access to or permit a satisfactory future subdivision of adjoining land, streets shall be extended to the boundary of the subdivision and the resulting dead-end streets may be approved without turnarounds. (Temporary turnarounds built to Fire Department standards are required when the dead-end street is over 100 feet long.)**
- 9. **Intersection angles. Streets shall be laid out to intersect angles as near to right angles as practical, except where topography requires lesser angles, but in no case less than 60 degrees unless a special intersection design is approved. Intersections which are not at right angles shall have minimum corner radii of 15 feet along right-of-way lines which form acute angles. Right-of-way lines at intersections with arterial streets shall have minimum curb radii of not less than 35 feet. Other street intersections shall have curb radii of not less than 25 feet. All**

radii shall maintain a uniform width between the roadway and the right-of-way lines. The intersection of more than two streets at any one point will not be allowed unless no alternative design exists.

COMMENT:

As demonstrated by the attached Preliminary Site Plan, the applicant is not proposing to develop a new street with this application. Access to Parcels 1 and 2 is provided from Mapleton Drive, an existing roadway.

- 10. Additional right-of-way for existing streets. Wherever existing street rights-of-way adjacent to or within a tract are of inadequate widths based upon the standards of this chapter, additional right-of-way shall be provided at the time of subdivision or partition.**

COMMENT:

The Mapleton Drive right-of-way is currently 50-ft. wide adjacent to the subject site. This width is consistent with the 40-ft. to 60-ft. right-of-way width standard for Local Streets.

- 11. Cul-de-sacs.**

COMMENT:

The applicant is not proposing to develop a cul-de-sac with this application, therefore these standards do not apply.

- 12. Street names.**
- 13. Grades and curves.**

COMMENT:

The applicant is not proposing to develop a new street with this application, therefore these standards do not apply.

- 14. Access to local streets. Intersection of a local residential street with an arterial street may be prohibited by the decision-making authority if suitable alternatives exist for providing interconnection of proposed local residential streets with other local streets. Where a subdivision or partition abuts or contains an existing or proposed major arterial street, the decision-making authority may require marginal access streets, reverse-frontage lots with suitable depth, visual barriers, noise barriers, berms, no-access reservations along side and rear property lines, and/or other measures necessary for adequate protection of residential properties from incompatible land**

uses, and to ensure separation of through traffic and local traffic.

COMMENT:

As allowed, the proposed 2-lot partition has direct access to Mapleton Drive, a designated Local Street.

15. Alleys.

COMMENT:

The applicant is not proposing to develop an alley with this application, therefore these standards do not apply.

- 16. Sidewalks. Sidewalks shall be installed per CDC 92.010(H), Sidewalks. The residential sidewalk width is six feet plus planter strip as specified below. Sidewalks in commercial zones shall be constructed per subsection (A)(3) of this section. See also subsection C of this section. Sidewalk width may be reduced with City Engineer approval to the minimum amount (e.g., four feet wide) necessary to respond to site constraints such as grades, mature trees, rock outcroppings, etc., or to match existing sidewalks or right-of-way limitations.**

COMMENT:

The subject site abuts Mapleton Drive, a Local Street which serves a residential neighborhood. Since this street is currently lacking required 6-ft. sidewalks, the applicant is proposing to provide a fee-in-lieu of installing improvements within the road right-of-way.

- 17. Planter strip. The planter strip is between the curb and sidewalk providing space for a grassed or landscaped area and street trees. The planter strip shall be at least 6 feet wide to accommodate a fully matured tree without the boughs interfering with pedestrians on the sidewalk or vehicles along the curbline. Planter strip width may be reduced or eliminated, with City Engineer approval, when it cannot be corrected by site plan, to the minimum amount necessary to respond to site constraints such as grades, mature trees, rock outcroppings, etc., or in response to right-of-way limitations.**

COMMENT:

The attached Existing Conditions Plan indicates that Mapleton Drive is partially improved. To meet the planter strip standards, the applicant is requesting a waiver for installing the planter strip, and is proposing to pay a fee-in-lieu for the street improvements.

- 18. Streets and roads shall be dedicated without any reservations or restrictions.**

COMMENT:

The applicant is not proposing to develop a new street with this application, therefore these standards do not apply.

- 19. All lots in a subdivision shall have access to a public street. Lots created by partition may have access to a public street via an access easement pursuant to the standards and limitations set forth for such accessways in Chapter 48 CDC.**

COMMENT:

The subject site fronts Mapleton Drive, a public street. The applicant is proposing to develop a new driveway to provide access to Parcel 1 (see Exhibit 4). The applicant is proposing to retain a portion of the existing driveway for access to Parcel 2.

- 20. Gated streets. Gated streets are prohibited in all residential areas on both public and private streets. A driveway to an individual home may be gated.**

COMMENT:

The applicant is not proposing to develop a gated street or driveway with this application, therefore these standards do not apply.

- 21. Entryway treatments and street isle design.**

COMMENT:

The applicant is not proposing to develop entryway treatments or street isles with this application, therefore these standards do not apply.

- 22. Based upon the determination of the City Manager or the Manager's designee, the applicant shall construct or cause to be constructed, or contribute a proportionate share of the costs, for all necessary off-site improvements identified by the transportation analysis commissioned to address CDC 85.170(B)(2) that are required to mitigate impacts from the proposed subdivision. The proportionate share of the costs shall be determined by the City Manager or Manager's designee, who shall assume that the proposed subdivision provides improvements in rough proportion to identified impacts of the subdivision. Off-site transportation improvements will include bicycle and pedestrian improvements as identified in the adopted City of West Linn TSP.**

COMMENT:

Due to the low impact of developing one additional dwelling with the proposed 2-lot Minor Partition, the applicant is not anticipating a requirement to mitigate off-site transportation improvements.

B. Blocks and Lots.

- 1. General. The length, width, and shape of blocks shall be designed with due regard for the provision of adequate building sites for the use contemplated; consideration of the need for traffic safety, convenience, access, circulation, and control; and recognition of limitations and opportunities of topography and solar access.**

COMMENT:

The preliminary plans demonstrate that the applicant's proposal will not impact the length, width and shape of existing blocks in the area.

- 2. Sizes. The recommended block size is 400 feet in length to encourage greater connectivity within the subdivision. Blocks shall not exceed 800 feet in length between street lines, except for blocks adjacent to arterial streets or unless topographical conditions or the layout of adjacent streets justifies a variation. Designs of proposed intersections shall demonstrate adequate sight distances to the City Engineer's specifications. Block sizes and proposed accesses must be consistent with the adopted TSP.**

COMMENT:

The attached Vicinity Map/Property Deed demonstrates that the existing development pattern precludes the applicant's ability to modify block lengths in the vicinity of the subject site (see Exhibit 1).

- 3. Lot size and shape. Lot or parcel size, width, shape, and orientation shall be appropriate for the location of the subdivision or partition, for the type of use contemplated, for potential utilization of solar access, and for the protection of drainageways, trees, and other natural features. No lot or parcel shall be dimensioned to contain part of an existing or proposed street. All lots or parcels shall be buildable. "Buildable" describes lots that are free of constraints such as wetlands, drainageways, etc., that would make home construction impossible. Lot or parcel sizes shall not be less than the size required by the zoning code unless as allowed by planned unit development (PUD).**

Depth and width of properties reserved or laid out for commercial and industrial purposes shall be adequate to provide for the off-street parking and service facilities required by the type of use proposed.

COMMENT:

The attached Preliminary Site Plan demonstrates that the proposed lot lines have been laid out so that both parcels are buildable and meet City standards (see Exhibit 4).

- 4. Access. Access to subdivisions, partitions, and lots shall conform to the provisions of Chapter 48 CDC, Access, Egress and Circulation.**

COMMENT:

As demonstrated by the attached Preliminary Site Plan, access to the Parcels 1 and 2 conforms to applicable provisions of Chapter 48.

- 5. Double frontage lots and parcels.**

COMMENT:

The attached plans demonstrate that the proposed partition will not create double frontage parcels.

- 6. Lot and parcel side lines. The lines of lots and parcels, as far as is practicable, should run at right angles to the street upon which they face, except that on curved streets they should be radial to the curve.**

COMMENT:

The submitted Tentative Plat demonstrates that the proposed lot lines are perpendicular to the Mapleton Drive right-of-way.

- 7. Flag lots.**

COMMENT:

The applicant is not proposing to develop flag lots with this application, therefore these standards do not apply.

- 8. Large lots or parcels. In dividing tracts into large lots or parcels which, at some future time, are likely to be redivided, the approval authority may:**
 - a. Require that the blocks be of such size and shape, and be so divided into building sites, and contain such easements and site restrictions as will provide for extension and opening of streets at intervals**

which will permit a subsequent division of any tract into lots or parcels of smaller size; or

- b. Alternately, in order to prevent further subdivision or partition of oversized and constrained lots or parcels, restrictions may be imposed on the subdivision or partition plat.

COMMENT:

The applicant is not partitioning the site into large parcels that can be redivided, therefore these standards do not apply.

C. Pedestrian and bicycle trails.

COMMENT:

The applicant is not proposing to develop pedestrian or bicycle trails with this application, therefore these standards do not apply.

D. Transit facilities.

COMMENT:

Mapleton Drive is not located on a transit route. Since the applicant is not proposing to develop transit facilities with this application, these standards do not apply.

E. Grading. Grading of building sites shall conform to the following standards unless physical conditions demonstrate the propriety of other standards:

1. All cuts and fills shall comply with the excavation and grading provisions of the Uniform Building Code and the following:
 - a. Cut slopes shall not exceed one and one-half feet horizontally to one foot vertically (i.e., 67 percent grade).
 - b. Fill slopes shall not exceed two feet horizontally to one foot vertically (i.e., 50 percent grade). Please see the following illustration.
2. The character of soil for fill and the characteristics of lot and parcels made usable by fill shall be suitable for the purpose intended.
3. If areas are to be graded (more than any four-foot cut or fill), compliance with CDC 85.170(C) is required.

4. The proposed grading shall be the minimum grading necessary to meet roadway standards, and to create appropriate building sites, considering maximum allowed driveway grades.
5. Type I lands shall require a report submitted by an engineering geologist, and Type I and Type II lands shall require a geologic hazard report.
6. Repealed by Ord. 1635.

COMMENT:

The subject site does contain identified natural resources, steep slopes, Type I or Type II lands, or other identified hazard areas. The applicant's Preliminary Grading/Erosion Control Plan indicates that proposed grading is limited to rough site grading for the development of future single-family dwellings and associated driveway improvements. As required, grading activities will conform to the Uniform Building Code and the standards of this Section.

7. On land with slopes in excess of 12 percent, cuts and fills shall be regulated as follows:
8. Land over 50 percent slope shall be developed only where density transfer is not feasible. The development will provide that:

COMMENT:

The applicant's Existing Conditions Plan demonstrates that the buildable portions of Parcels 1 and 2 contain less than 12% slopes, therefore these standards do not apply.

F. Water.

1. A plan for domestic water supply lines or related water service facilities shall be prepared consistent with the adopted Comprehensive Water System Plan, plan update, March 1987, and subsequent superseding revisions or updates.
2. Adequate location and sizing of the water lines.
3. Adequate looping system of water lines to enhance water quality.
4. For all non-single-family developments, there shall be a demonstration of adequate fire flow to serve the site.
5. A written statement, signed by the City Engineer, that water service can be made available to the site by the construction of on-site and off-site improvements and

that such water service has sufficient volume and pressure to serve the proposed development's domestic, commercial, industrial, and fire flows.

COMMENT:

The attached City Pre-Application Conference Notes indicate that the water main within Mapleton Drive is adequate to serve the proposed development. The attached Preliminary Utility Plan indicates that the future dwelling located on Parcel 1 will connect to an existing water meter and lateral serving the subject site. An additional water meter and lateral line is proposed to be installed for Parcel 2.

G. Sewer.

- 1. A plan prepared by a licensed engineer shall show how the proposal is consistent with the Sanitary Sewer Master Plan (July 1989). Agreement with that plan must demonstrate how the sanitary sewer proposal will be accomplished and how it is gravity-efficient. The sewer system must be in the correct basin and should allow for full gravity service.**
- 2. Sanitary sewer information will include plan view of the sanitary sewer lines, including manhole locations and depth or invert elevations.**
- 3. Sanitary sewer lines shall be located in the public right-of-way, particularly the street, unless the applicant can demonstrate why the alternative location is necessary and meets accepted engineering standards.**
- 4. Sanitary sewer line should be at a depth that can facilitate connection with down-system properties in an efficient manner.**
- 5. The sanitary sewer line should be designed to minimize the amount of lineal feet in the system.**

COMMENT:

The submitted Preliminary Utility Plan indicates how the proposed development on Parcel 2 can be served by the existing sanitary lateral which serves the subject site. The plan also indicates that a new lateral line will be extended from the existing sanitary sewer main within Mapleton Drive to serve Parcel 1 (see Exhibit 4). As required, the plan has been prepared by a licensed engineer and meets the standards of this section.

- 6. The sanitary sewer line shall avoid disturbance of wetland and drainageways. In those cases where that is unavoidable, disturbance shall be mitigated pursuant to Chapter 32 CDC, Water Resource Area Protection, all trees replaced, and proper permits obtained. Dual sewer**

lines may be required so the drainageway is not disturbed.

7. **Sanitary sewer shall be extended or stubbed out to the next developable subdivision or a point in the street that allows for reasonable connection with adjacent or nearby properties.**

COMMENT:

The attached Preliminary Utility Plan demonstrates that the sanitary sewer laterals do not impact wetlands or drainageways. Since adjacent properties are already served with sanitary sewer, the applicant is not proposing to extend service through the subject site.

8. **The sanitary sewer system shall be built pursuant to DEQ, City, and Tri-City Service District sewer standards. The design of the sewer system should be prepared by a licensed engineer, and the applicant must be able to demonstrate the ability to satisfy these submittal requirements or standards at the pre-construction phase.**
9. **A written statement, signed by the City Engineer, that sanitary sewers with sufficient capacity to serve the proposed development and that adequate sewage treatment plant capacity is available to the City to serve the proposed development.**

COMMENT:

As required, the sanitary service will be constructed in accordance with applicable standards. At the applicant's Pre-Application Conference, the City Engineer confirmed that the public sanitary sewer main line within Mapleton Drive has adequate capacity to serve the proposed development (see Exhibit 3).

- I. **Utility easements. Subdivisions and partitions shall establish utility easements to accommodate the required service providers as determined by the City Engineer. The developer of the subdivision shall make accommodation for cable television wire in all utility trenches and easements so that cable can fully serve the subdivision.**

COMMENT:

If required by the City Engineer, the applicant will establish utility easements for service providers in accordance with this section.

- J. **Supplemental provisions.**
 1. **Wetland and natural drainageways. Wetlands and natural drainageways shall be protected as required by**

Chapter 32 CDC, Water Resource Area Protection. Utilities may be routed through the protected corridor as a last resort, but impact mitigation is required.

COMMENT:

As demonstrated by the attached Existing Conditions Plan, there are no wetlands or natural drainageways on the subject site. Therefore, these standards do not apply.

- 2. Willamette and Tualatin Greenways. The approval authority may require the dedication to the City or setting aside of greenways which will be open or accessible to the public. Except for trails or paths, such greenways will usually be left in a natural condition without improvements. Refer to Chapter 28 CDC for further information on the Willamette and Tualatin River Greenways.**

COMMENT:

The subject site is not located within the vicinity of the Willamette or Tualatin Greenway, therefore these standards do not apply.

- 3. Street trees. Street trees are required as identified in the appropriate section of the municipal code and Chapter 54 CDC.**

COMMENT:

The applicant is proposing a fee-in-lieu of installing street frontage improvements along Mapleton Drive. If required by the City, an appropriate number and type of trees will be installed along the site's street frontage.

- 4. Lighting. To reduce ambient light and glare, high or low pressure sodium light bulbs shall be required for all subdivision street or alley lights. The light shall be shielded so that the light is directed downwards rather than omni-directional.**

COMMENT:

The applicant is proposing a fee-in-lieu of installing street frontage improvements on Mapleton Drive. Therefore, these standards do not apply.

- 5. Dedications and exactions. The City may require an applicant to dedicate land and/or construct a public improvement that provides a benefit to property or persons outside the property that is the subject of the application when the exaction is roughly proportional. No exaction shall be imposed unless supported by a**

determination that the exaction is roughly proportional to the impact of development.

COMMENT:

The applicant is not anticipating City land dedication or an exaction with the proposed 2-lot Minor Partition.

- 6. Underground utilities. All utilities, such as electrical, telephone, and television cable, that may at times be above ground or overhead shall be buried underground in the case of new development. The exception would be in those cases where the area is substantially built out and adjacent properties have above-ground utilities and where the development site's frontage is under 200 feet and the site is less than one acre. High voltage transmission lines, as classified by Portland General Electric or electric service provider, would also be exempted. Where adjacent future development is expected or imminent, conduits may be required at the direction of the City Engineer. All services shall be underground with the exception of standard above-grade equipment such as some meters, etc.**

COMMENT:

As required, installation of electrical, telephone, and television cable service for Parcels 1 and 2 will occur as directed by the City Engineer and affected service providers.

- 7. Density requirement. Density shall occur at 70 percent or more of the maximum density allowed by the underlying zoning. These provisions would not apply when density is transferred from Type I and II lands as defined in CDC 02.030. Development of Type I or II lands are exempt from these provisions. Land divisions of three lots or less would also be exempt.**

COMMENT:

The attached Tentative Plat indicates that the proposed partition meets the density standards of the R-10 zoning district (see Exhibit 4). Taking into account the site's area of 0.48 acres, a land division of the property allows up to 2 dwelling units ($4.35 \text{ du./ac.} \times 0.48 \text{ ac.} = 2.09$, or 2 units). Since the applicant is proposing a 2-lot partition, the land division is 70% or more of the maximum density for the R-10 District.

- 8. Mix requirement. The "mix" rule means that developers shall have no more than 15 percent of the R-2.1 and R-3 development as single-family residential. The intent is that the majority of the site shall be developed as medium high density multi-family housing.**

COMMENT:

The subject site is located in the R-10 District, therefore these standards do not apply.

9. **Heritage trees/significant tree and tree cluster protection. All heritage trees, as defined in the Municipal Code, shall be saved. Diseased heritage trees, as determined by the City Arborist, may be removed at his/her direction. All non-heritage trees and clusters of trees (three or more trees with overlapping dripline; however, native oaks need not have an overlapping dripline) that are considered significant by virtue of their size, type, location, health, or numbers shall be saved pursuant to CDC 55.100(B)(2). Trees are defined per the municipal code as having a trunk six inches in diameter or 19 inches in circumference at a point five feet above the mean ground level at the base of the trunk.**

COMMENT:

The attached Existing Conditions Plan identifies the location, species, and size of all trees on the subject site. The plan indicates that there are no heritage or native oak trees on the site or in the adjacent right-of-way. As indicated on the attached Existing Conditions Plan, the applicant is proposing to remove a number of trees with the proposed partition (see Exhibit 4). As required, the applicant will address Section 55.100(B)(2) when future building permits are requested for parcels.

V. SUMMARY AND CONCLUSIONS

Based upon the findings of this report and the submitted exhibits, the applicant has demonstrated compliance with the requirements of relevant sections of the West Linn Community Development Code. Therefore, the applicant requests that the submitted application be approved.

VI. EXHIBITS

- 1. Application Form**
- 2. Vicinity Map/Property Deed**
- 3. City Pre-Application Conference Notes/Correspondence**
- 4. Preliminary Development Plans**
 - Sheet P-1: Cover Sheet**
 - Sheet P-2: Existing Conditions Plan**
 - Sheet P-3: Tentative Plat**
 - Sheet P-4: Preliminary Site Plan**
 - Sheet P-5: Preliminary Grading/Erosion Control Plan**
 - Sheet P-6: Preliminary Utility Plan**
- 5. Preliminary Stormwater Report**

APPLICATION FORM

DEVELOPMENT REVIEW APPLICATION

For Office Use Only

STAFF CONTACT	PROJECT No(s).	
NON-REFUNDABLE FEE(S)	REFUNDABLE DEPOSIT(S)	TOTAL

Type of Review (Please check all that apply):

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

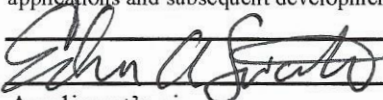
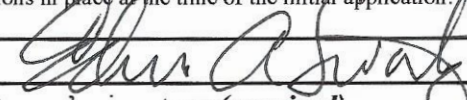
Home Occupation, Pre-Application, Sidewalk Use, Sign Review Permit, and Temporary Sign Permit applications require different or additional application forms, available on the City website or at City Hall.

Site Location/Address: 4120 MAPLETON DRIVE	Assessor's Map No.: 2201
	Tax Lot(s): 21E24BD
	Total Land Area: 0.48 Acres
Brief Description of Proposal: APPLICANT IS REQUESTING TENTATIVE PLAT APPROVAL FOR A 2-LOT PARTITION IN THE R-10 ZONING DISTRICT	
Applicant Name: ESCM, INC., ATTN: EDWIN SWARTZ	Phone: 971-219-7461
Address: 95 FOOTHILLS ROAD	Email: escminc@comcast.net
City State Zip: LAKE OSWEGO, OR 97034	
Owner Name (required): JOAN SWARTZ EDWIN SWARTZ	Phone: 971-219-7461
Address: 4120 MAPLETON DRIVE	Email: escminc@comcast.net
City State Zip: WEST LINN, OR 97068	
Consultant Name: CASCADIA PLANNING + DEV. SVC., ATTN: STEVE KAY	Phone: 503-804-1089
Address: PO BOX 1920	Email: steve@cascadiapd.com
City State Zip: SILVERTON, OR 97381	

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

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

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

	<u>9-15-17</u>		<u>9-15-17</u>
Applicant's signature	Date	Owner's signature (required)	Date



City of West Linn

Expedited Land Division Acknowledgement Form

All applicants for minor partitions and subdivisions must acknowledge, by completing this form, that they were notified about the ELD process and indicate whether they intend to apply for an ELD or a standard subdivision using the procedures set forth in the City of West Linn's Community Development Code. Applicants who do not sign this form (page 1) and subsequently submit a land division application will have the land division processed under the ELD procedures per ORS 197.365. This completed form must accompany the separate ELD or standard subdivision application form.

Are you intending to apply for an Expedited Land Division?

Yes No

If "Yes", your application must include a written description of how the proposal satisfies ORS 197.360(1).

If "No", it indicates your intention to use the procedure set forth in the City of West Linn Community Development Code Land Division regulations.

Applicant Name: ESCM INC., ATTN: EDWIN SWARTZ

Applicant Signature: [Signature] Date: 9-15-17

Applicant Mailing Address: 95 FOOTHILLS ROAD, LAKE OSWEGO, OR 97034

Owner's Name: ~~EDWIN SWARTZ~~ EDWIN SWARTZ

Owner's Signature: [Signature] Date: 9-15-17

Owner's Mailing Address: 4120 MAPLETON DRIVE, WEST LINN, OR 97068

Site Address: 4120 MAPLETON DRIVE

VICINITY MAP / PROPERTY DEED

4120 MAPLETON DR, WEST LINN, OR, 97068

Kenthorpe Way

Mapleton Dr

Nelco Ct

Mary S.

50 m
200 ft



Metro
Data Resource Center
600 NE Grand Avenue, Portland, OR 97232
503.797.1742 - drc@oregonmetro.gov

© Oregon Metro www.oregonmetro.gov/r/is
This Web site is offered as a public service, integrating various government records into a region-wide mapping system. The property assessment records are a multi-county integration of Clackamas, Multnomah and Washington County records. MetroMap blends each county's records into a common database on a quarterly basis. Therefore, to view each county's official records, go to their respective web sites or offices. The other MetroMap data are derived from city, county, state, federal and Metro sources. The metadata (data about the data) are included on this site, including the sources to be consulted for verification of the information contained herein. It describes some cases where Metro blends city and county records by generalizing the disparities. Metro assumes no legal responsibility for the compilation of multi-source government information displayed by Metro Map. Users of this information are cautioned to verify all information.

RECORDING REQUESTED BY:
Fidelity National Title
Company of Oregon

5400 SW Meadows Road, Suite 100
Lake Oswego, OR 97035

GRANTOR'S NAME:
Joan Swartz

GRANTEE'S NAME:
Edwin Swartz

AFTER RECORDING RETURN TO:
Order No.: 45141714992-MC
Edwin Swartz
4120 Mapleton Drive
West Linn, OR 97068

SEND TAX STATEMENTS TO:
Edwin Swartz
4120 Mapleton Drive
West Linn, OR 97068

4120 Mapleton Drive, West Linn, OR 97068

Clackamas County Official Records
Sherry Hall, County Clerk

2017-055526

08/15/2017 10:06:01 AM

D-D Cnt=1 Stn=0 JANIS
\$15.00 \$16.00 \$10.00 \$22.00

\$63.00

SPACE ABOVE THIS LINE FOR RECORDER'S USE

STATUTORY WARRANTY DEED

Joan Swartz, Grantor, conveys and warrants to Edwin Swartz, Grantee, the following described real property, free and clear of encumbrances except as specifically set forth below, situated in the County of Clackamas, State of Oregon:

Parcel 1, PARTITION PLAT NO. 1992-20, in the City of West Linn, County of Clackamas and State of Oregon.

THE TRUE AND ACTUAL CONSIDERATION FOR THIS CONVEYANCE IS THREE HUNDRED THIRTY THOUSAND AND NO/100 DOLLARS (\$330,000.00). (See ORS 93.030).

Subject to:

Property taxes, which are a lien not yet due and payable, including any assessments collected with taxes to be levied for the fiscal year 2017-2018.

Covenants, conditions and restrictions but omitting any covenants or restrictions, if any, including but not limited to those based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law, as set forth in the document

Recording Date: February 1, 1945
Recording No: Book 338, Page 365

Restrictions, but omitting restrictions, if any, based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said restriction is permitted by applicable law, as shown on that certain plat

Name of Plat: Partition Plat No. 1992-20

Easement(s) for the purpose(s) shown below and rights incidental thereto as delineated or as offered for dedication, on the map of said tract/plat;

Purpose: Utilities
Affects: 5 feet along all lot lines

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010.

Fidelity National Title of Oregon 45141714992-08

STATUTORY WARRANTY DEED
(continued)

IN WITNESS WHEREOF, the undersigned have executed this document on the date(s) set forth below.

Dated: 2 August 2017

Joan Swartz
Joan Swartz

Republic of Malta
State of ~~Valletta~~
County of ~~Valletta~~
Embassy of the United States) ss:
of America

This instrument acknowledged before me on 02 AUG 2017 by Joan Swartz.

James D. Brown
Notary Public - State of Oregon

James D. Brown
Notarizing Official of the
United States of America

My Commission Expires: INDEFINITE

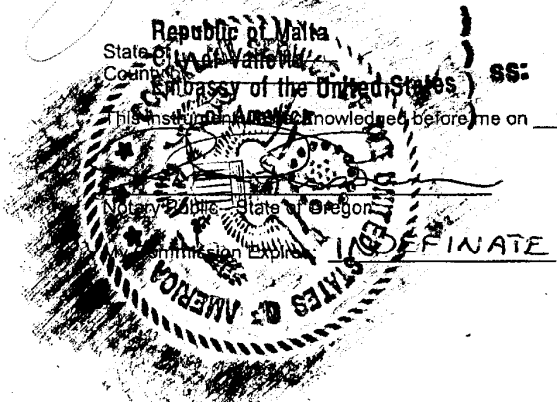


STATUTORY WARRANTY DEED
(continued)

IN WITNESS WHEREOF, the undersigned have executed this document on the date(s) set forth below.

Dated: 2 August 2017

Joan Swartz
Joan Swartz



Republic of Malta
State of Valletta
Country of (Embassy of the United States)
This instrument acknowledged before me on

02 AUG 2017 by Joan Swartz.

James D. Brown
Notarizing Official of the
United States of America



PARTITION PLAT NO. 1992-20

PARTITION LOCATED IN THE GEORGE WALLING D.L.C. NO.62
 IN LOT 32 MAPLE GROVE
 N.W. 1/4 SECTION 24, T.2S., R. 1E., W.M.,
 CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON
 DECEMBER 19, 1991 SCALE 1"=50'

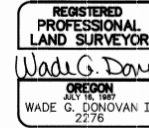
SURVEYOR'S CERTIFICATE:

I, WADE G. DONOVAN III, SAY THAT I HAVE CORRECTLY SURVEYED AND MARKED WITH PROPER MONUMENTS, THE LAND REPRESENTED ON THE ATTACHED MINOR PARTITION MAP, THE BOUNDARIES BEING DESCRIBED AS FOLLOWS:

A TRACT OF LAND IN THE GEORGE WALLING D.L.C. NO.62 IN THE N.W. 1/4 OF SECTION 24, T.2S., R.1E., W.M., CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF LOT 32 MAPLE GROVE, SAID CORNER BEING ON THE SOUTH RIGHT OF WAY OF MAPLETON DRIVE, THENCE, ALONG THE NORTH LINE OF SAID LOT 32, N 89°54'00" E 175.00 FEET TO THE NORTHEAST CORNER THEREOF; ALSO THE NORTHWEST CORNER OF PARTITION PLAT NO. 1990-65; THENCE, ALONG THE EAST LINE OF SAID LOT 32, S 00°20'00" W 289.61 FEET TO THE SOUTHEAST CORNER AS SHOWN BY SAID PARTITION PLAT NO. 1990-65; THENCE, ALONG THE SOUTH LINE OF SAID LOT 32, AS SHOWN BY SAID PLAT 1990-65, N 89°12'02" W 175.00 FEET TO THE SOUTHWEST CORNER THEREOF; THENCE, ALONG THE WEST LINE OF SAID LOT 32 N 00°20'00" E 286.86 FEET TO THE POINT OF BEGINNING.

SAID TRACT OF LAND CONTAINING 46,940 SQUARE FEET MORE OR LESS.



DECLARATION:

KNOW ALL PEOPLE BY THESE PRESENTS THAT BELINDA GARRETTSON AND MICHAEL WHITE, DEVISEES UNDER THE LAST WILL AND TESTAMENT OF VIRGIL M. WHITE (DECEASED), THE OWNERS OF THE LAND REPRESENTED ON THE ACCOMPANYING MAP, AND MORE PARTICULARLY DESCRIBED IN THE ACCOMPANYING SURVEYOR'S CERTIFICATE, DO HEREBY DECLARE THE ANNEXED MAP TO BE A CORRECT MAP OF THE PARTITION PLAT OF SAID PROPERTY AND THAT THEY HAVE CAUSED THIS PARTITION PLAT TO BE PREPARED AND THE PROPERTY PARTITIONED INTO PARCELS AS SHOWN IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 92 OF OREGON REVISED STATUTES. FURTHERMORE, WE DO HEREBY DEDICATE TO THE PUBLIC FOREVER THE UTILITY EASEMENTS AS SHOWN OR NOTED ON SAID MAP.

--- THERE ARE NO WATER RIGHTS ON THIS PROPERTY, AS OF THIS DATE.

Belinda Garrettson 12-27-91
 BELINDA GARRETTSON DATE
 DEVISEE UNDER THE LAST WILL AND TESTAMENT OF VIRGIL M. WHITE (DECEASED)

Michael White 12-27-91
 MICHAEL WHITE DATE
 DEVISEE UNDER THE LAST WILL AND TESTAMENT OF VIRGIL M. WHITE (DECEASED)

ACKNOWLEDGEMENT:

STATE OF OREGON } ss
 COUNTY OF CLACKAMAS }

KNOW ALL THESE PEOPLE BY THESE PRESENTS, ON THIS 27th DAY OF December, 1991, BEFORE ME A NOTARY PUBLIC IN AND FOR SAID STATE AND COUNTY, PERSONALLY APPEARED BELINDA GARRETTSON AND MICHAEL WHITE, DEVISEES UNDER THE LAST WILL AND TESTAMENT OF VIRGIL M. WHITE (DECEASED), WHO BEING DULY SWORN, DID SAY THAT THEY ARE THE IDENTICAL PERSONS NAMED IN THE FOREGOING INSTRUMENT, AND THAT THEY EXECUTED SAID INSTRUMENT FREELY AND VOLUNTARILY.

Corelle Schoof
 NOTARY PUBLIC FOR THE STATE OF OREGON
 MY COMMISSION EXPIRES: 1-28-95

NARRATIVE:

THE PURPOSE OF THIS SURVEY IS TO REESTABLISH THE BOUNDARY LINES FOR LOT 32 MAPLE GROVE FOR A PARTITION PLAT APPROVED BY THE CITY OF WEST LINN PLANNING FILE MP-91-16.

- FOUND AND HELD 1-1/4" IRON PIPE AS THE NORTHWEST CORNER OF LOT 32 MAPLE GROVE.
- FOUND AND HELD 1" IRON PIPE AS THE NORTHEAST CORNER OF LOT 32 MAPLE GROVE.
- ROTATED ONTO MONUMENTS HELD, AS NOTED ABOVE, AND USING BEARING AND DISTANCE FROM THE WEST LINE OF PARTITION PLAT NO. 1990-65 TO ESTABLISH THE SOUTHWEST CORNER OF LOT 32.
- FROM THE COMPUTED POSITION OF THE SOUTHEAST CORNER PROCEEDED WESTERLY ON THE BEARING FOR THE SOUTH LINE OF PARTITION PLAT NO. 1990-65 PLAT DISTANCE OF 175.00 FEET TO ESTABLISH THE SOUTHWEST CORNER OF LOT 32.

BASIS OF BEARINGS FROM THE PLAT OF MAPLE GROVE, USING HELD MONUMENTS FOR THE NORTH LINE OF LOT 32.

REFERENCE SURVEYS AND REFERENCE DEEDS FROM CLACKAMAS COUNTY SURVEY RECORDS AND DEED RECORDS RESPECTIVELY.

APPROVALS:

- APPROVED THIS 3rd DAY OF February, 1992
 BY Wade G. Donovan III
 CITY OF WEST LINN CITY SURVEYOR, DE HAAS ASSOC. INC.
- APPROVED THIS 28th DAY OF JANUARY, 1992
 BY Michael V. Patton
 CITY OF WEST LINN PLANNING DIRECTOR
- APPROVED THIS 28th DAY OF JANUARY, 1992
 BY David Manson P.E.
 CITY OF WEST LINN CITY ENGINEER

- APPROVED THIS 6th DAY OF FEB, 1992
 FOR COMPLIANCE WITH O.R.S. 205.250 ONLY.
 BY Wade G. Donovan III
 DEPUTY CLACKAMAS COUNTY SURVEYOR

STATE OF OREGON } ss
 COUNTY OF CLACKAMAS }

I DO HEREBY CERTIFY THAT THE ATTACHED PARTITION PLAT WAS RECEIVED FOR RECORD ON THE 10th DAY OF FEB, 1992, AT 10:40 O'CLOCK P.M., AND RECORDED AS PARTITION PLAT NO. 1992-20 CLACKAMAS COUNTY RECORDS.

CLACKAMAS COUNTY CLERK, John Kauffman
 BY: Sherry Haigher
 DEPUTY

I HEREBY CERTIFY, THIS IS A TRUE AND EXACT COPY OF THE ORIGINAL PARTITION PLAT

Wade G. Donovan III
 WADE G. DONOVAN III P.L.S. NO. 2276

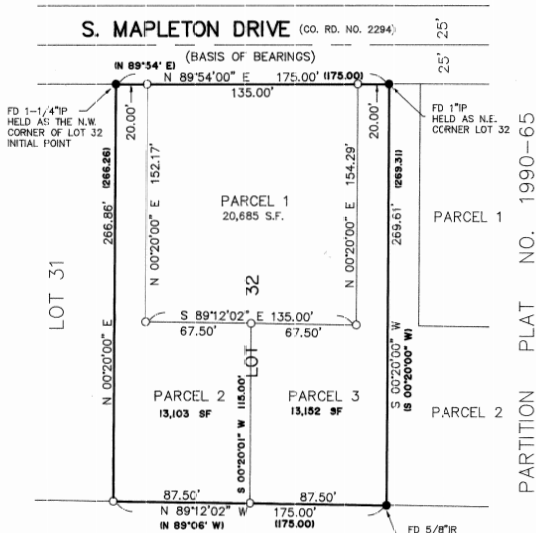
92-6673



Centerline Concepts Inc.
 640 82ND DRIVE GLADSTONE, OREGON 97027
 503 650-0189 FAX 503 650-0189

DRAWN BY: BTA CHECKED BY: WGD/III ACCOUNT #150-553

PARTITION PLAT 1992-20



REFERENCE SURVEYS:

PARTITION PLAT NO. 1990-65
 PLAT OF MAPLE GROVE NO. 639
 P.S. 9442

LEGEND:

- SET 5/8"x30" IRON ROD W/RED PLASTIC CAP SCRIBED "CENTERLINE CONCEPTS INC."
- FOUND MONUMENT AS NOTED
- () RECORD DISTANCES & BEARINGS -SEE REFERENCES-
- IR = IRON ROD IP = IRON PIPE
 S.F. = SQUARE FEET

NOTES

- THIS PLAT SUBJECT TO THE CONDITIONS OF CITY OF WEST LINN PLANNING FILE MP-91-16.
- NO OCCUPIABLE GEODETIC CONTROL MONUMENT WITHIN 1/2 MILE RADIUS OF THIS SITE.
- FIVE FOOT UTILITY EASEMENTS ALONG ALL LOT LINES.

Public Record

AFTER RECORDING RETURN TO:
Dave Monson
City of West Linn
2042 8th Ave
West Linn OR 97068

**MODIFICATIONS TO
RESERVATIONS AND RESTRICTIONS UPON USE AND
OCCUPANCY OF PROPERTY IN MAPLE GROVE,
IN CLACKAMAS COUNTY, OREGON**

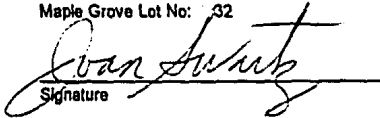
KNOW ALL MEN BY THESE PRESENTS, that the undersigned do hereby agree to the following modifications to the "Reservations and Restrictions Upon Use and Occupancy of Property in Maple Grove, in Clackamas County, Oregon," recorded in Book 338, page 385, Clackamas County Deed Records.

It is agreed that the restriction described in Item 1 of the "Reservations and Restrictions Upon Use and Occupancy of Property in Maple Grove, in Clackamas County, Oregon," be solely modified to include the following exception:

"This restriction shall not apply to the Mapleton Sanitary Sewer Pump Station located on the southeasterly corner of the parcel shown on the original Maple Grove plat as Lot 25A and described in Document 92-31354 of the Clackamas County Deed Records. The city of West Linn may upgrade or replace the existing pump station through the construction of a wet well, a valve vault and a pigging station, all to be constructed underground to the extent practical. The city of West Linn may also construct a one-story control building adjacent to the underground pump station facilities."

The signature below of all owners of record of any parcel that is part of the original lots within the plat of Maple Grove, as the same appears in a plat recorded in Book 23, page 38, Record of Town Plats of Clackamas County, Oregon, constitutes agreement with the above modification in compliance with Item 9 of the "Reservations and Restrictions Upon Use and Occupancy of Property in Maple Grove, in Clackamas County, Oregon," which requires the signed agreement of 75% of the owners in order to change or modify any restriction covering Maple Grove.

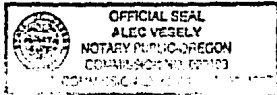
Owners of Record: Joan Swartz
Property Address: 4120 Mapleton Drive
Legal Description: 2-1E-24BD 2201
Maple Grove Lot No: 32



Signature

Signature 96-061307

STATE OF OREGON)
(~~FROM WASHINGTON~~) ss.
County of Clackamas)

This instrument was acknowledged before me on 10/31/15 by JOAN SWARTZ




Notary Public for State of Oregon
My Commission Expires: _____

This instrument was acknowledged before me on _____ by _____

Notary Public for State of Oregon
My Commission Expires: _____

STATE OF OREGON 96-061307
CLACKAMAS COUNTY
Received and placed in the public
records of Clackamas County
RECEIPT# AND FEE: 41005 \$5.00
DATE AND TIME: 08/21/96 09:54 AM
JOHN KAUFFMAN, COUNTY CLERK

2

**CITY PRE-APPLICATION CONFERENCE NOTES /
CORRESPONDANCE**

City of West Linn
PRE-APPLICATION CONFERENCE MEETING
SUMMARY NOTES
August 17, 2017

SUBJECT: Two lot minor partition at 4120 Mapleton Drive
FILE: PA-17-34
ATTENDEES: Applicant: Ed Swartz, ESCM Inc.; Leon Simms; Steve Kay
Staff: Jennifer (Planning) Erich Lais (Engineering)

*The following is a summary of the meeting discussion provided to you from staff meeting notes. Additional information may be provided to address any "follow-up" items identified during the meeting. **These comments are PRELIMINARY in nature.** Please contact the Planning Department with any questions regarding approval criteria, submittal requirements, or any other planning-related items. Please note disclaimer statement below.*

Site Information

Site Address: 4120 Mapleton Drive (Tax Lot 2201 map 21E 24BD)
Site Area: 20,685 square feet (.47 ac)
Neighborhood: Robinwood NA
Comp. Plan: Low Density Residential
Zoning: R-10, Single Family Residential detached
Applicable code: Community Development Code (CDC) Chapter 85: Land Division; CDC Chapter 11: R-10

Project Details

This property is on the south side of Mapleton Drive and is just under an acre. The applicant proposes to divide the property in half creating two lots, both with street frontage on Mapleton Drive. Both lots would be approximately 10,414 meeting the requirements of the R-10 zone (10,000 sq. ft. lot requirement). The applicant plans to remove the existing home, since it would cross the proposed lot line.

Coordination with the West Linn Engineering Department will be required for right of way dedications and/or street improvements/fees in lieu.

Engineering Division Comments

Contact Erich Lais at elais@westlinnoregon.gov or 503-722-3434 for engineering requirements.

Process

For a minor partition, address the submittal requirements and approval criteria of CDC Chapter 11 and Chapter 85. The fee is \$2,800 with a final plat fee of \$1,500 and an inspection fee of \$500. The CDC is online at <http://westlinnoregon.gov/cdc>.

N/A is not an acceptable response to the approval criteria. The submittal requirements may be waived, but the applicant must first identify the specific submittal requirement and request, in letter form, that it be waived by the Planning Manager and must identify the specific grounds for that waiver.

Once the application and deposit/fee are submitted, the City has 30 days (non ELD) to determine if the application is complete or not. If the application is not complete, the applicant has 180 days to make it complete or provide written notice to staff that no other information will be provided.

Once the submittal is deemed complete, staff will provide notice per CDC Chapter 99 and schedule a decision date by the Planning Manager. Appeals of the Planning Manager's decision are heard by City Council.

A neighborhood Association meeting is not required for this application.

NOTE: All applicants for minor partitions and subdivisions must complete the Expedited Land Division (ELD) Acknowledgement Form, stating that they were notified about the ELD process, its eligibility standards of ORS 197.360(1), and indicate whether they intend to apply for an ELD or a standard partition/subdivision using the procedures set forth in the City of West Linn's Community Development Code. Applicants who do not sign the ELD Acknowledgement Form and subsequently submit a land division application will have the land division processed under the ELD procedures per ORS 197.365. The completed form must accompany the separate ELD or standard partition/subdivision application form. Unlike standard subdivision applications which require a Planning Commission hearing with public testimony, ELD subdivision decisions are made at a meeting of the Planning Commission which may only consider written comments submitted during a 14 day period. (There is no public hearing.) ELD minor partition decisions are made by the Planning Manager who may also only consider written comments submitted during a 14 day period. Subsequent appeals of ELD partitions and subdivisions are heard by an appointed referee and then the Court of Appeals. Differences in notice requirements, decision-making and appeals are explained in ORS 197.365, 197.370 and 197.375. Application fees are similar but ELD applicants must pay for referee costs, if applicable.

Pre-application notes are void after 18 months. After 18 months with no application approved or in process, a new pre-application conference is required.

Typical land use applications can take 6-10 months from beginning to end.

DISCLAIMER: This summary discussion covers issues identified to date. It does not imply that these are the only issues. The burden of proof is on the applicant to demonstrate that all approval criteria have been met. These notes do not constitute an endorsement of the proposed application **or provide any assurance of potential outcomes.** Staff responses are based on limited material presented at this pre-application meeting. New issues, requirements, etc. could emerge as the application is developed. **A new pre-application conference would have to be scheduled one that period lapses and these notes would no longer be valid. Any changes to the CDC standards may require a different design or submittal.**



CITY OF
**West
Linn**

Pre-app Comments

**Project Number: PA-17-34
4120 Mapleton Drive**

Engineering Contact:

Erich Lais, PE
elais@westlinnoregon.gov
Telephone: (503) 722-3434

Project Description: Remove single family residence and partition into two lots

Pre-application meeting date: August 17, 2017

The comments provided below are based upon material provided as part of the pre-application packet and are intended to identify potential design challenges associated with the development. Comments are not intended to be exhaustive and do not preclude the engineering department from making additional comments as part of the formal land use application process.

TRANSPORTATION

Minimum Required Improvement:

- Mapleton street improvement:
 - Existing right-of-way is unimproved and approximately 50 feet wide.
 - Half street improvements will not be required but curb, 6' planter and 6' sidewalk will along the entire site frontage
- Street trees: coordinate with the Park Department to install appropriate number and type of tree, as applicable:
 - Parks Contact: Mike Perkins
mperkins@westlinnoregon.gov
503-723-2554
- Development shall pay all applicable Transportation System Development Charges (SDC) fees (Street and Bike/Ped).

SANITARY SEWER

Minimum Required Improvement:

- There is an existing sanitary sewer main in Mapleton Drive.
- Development shall pay all applicable Sanitary Sewer SDC fees.

DOMESTIC WATER

Minimum Required Improvement:

- There is an existing 8" DI water main in Mapleton that has adequate capacity to serve the proposed development.
- Development shall pay all applicable Water SDC fees.

SURFACE WATER (STORM SEWER)

Minimum Required Improvement:

- Onsite run-off generated from new impervious areas of greater than 500 square feet must be



CITY OF
**West
Linn**

Pre-app Comments

**Project Number: PA-17-34
4120 Mapleton Drive**

Engineering Contact:

Erich Lais, PE
elais@westlinnoregon.gov
Telephone: (503) 722-3434

treated. The exemption is for the construction of one or two family (duplex) dwellings on existing lots of record. accordance with the *Portland Stormwater Management Manual*, the Uniform Plumbing Code, and *City of West Linn Public Works Standards*.

- Stormwater facilities installed to capture, treat, detain and convey stormwater from the private improvements shall be privately owned and maintained.
- Development shall pay all applicable Surface Water SDC fees.

OTHER

- The proposed development will disturb less than 1 acre, therefore a West Linn Erosion Control Permit Application, as outlined in Section 2.0065 of the *City of West Linn Public Works Standards*, will be required prior to the commencement of construction.
- All utilities, such as electrical, telephone, and television cable, that may at times be above ground or overhead shall be buried underground in the case of new developments frontage exceeding 200 feet. The development is exempt if its frontage is less than 200 feet and the site is less than 1 acre. High voltage transmission lines as classified by PGE or other electrical service provider would also be exempt.

Steve Kay

From: Steve Kay <steve@cascadiapd.com>
Sent: Thursday, September 7, 2017 1:05 PM
To: 'Perkins, Michael'
Subject: RE: Street Tree Requirements for PA-17-34

Thank you for letting me know Mike.

Steve

From: Perkins, Michael [<mailto:mperkins@westlinnoregon.gov>]
Sent: Thursday, September 7, 2017 1:03 PM
To: 'Steve Kay'
Subject: RE: Street Tree Requirements for PA-17-34

If there aren't any street improvements then we probably wouldn't require trees at this time

From: Steve Kay [<mailto:steve@cascadiapd.com>]
Sent: Thursday, September 07, 2017 7:33 AM
To: Perkins, Michael <mperkins@westlinnoregon.gov>
Subject: Street Tree Requirements for PA-17-34

Mike,

We recently attended a pre-application conference with the City and Erich Lais suggested that we contact you regarding street tree requirements for the 2-lot partition. Attached is an Existing Conditions Plan which shows the location of existing trees. The applicant is proposing to remove all of the trees in the right-of-way with development of the site. We would like to find out how many and what type of street trees should be installed along the site's frontage on Mapleton Drive.

Also for your review, I've attached our Tentative Plat and a Preliminary Site Plan for the development. We are proposing to pay a fee-in-lieu for the required roadway widening and installation of a sidewalk along Mapleton Drive. Please let me know if you need any additional information for your review.

Thank you,

Steve Kay, AICP
Cascadia Planning + Development Services
503-804-1089
www.cascadiapd.com

Michael Perkins
City Arborist/Park Development Coordinator
Parks and Recreation

22500 Salamo Rd.
West Linn, Oregon 97068
mperkins@westlinnoregon.gov

westlinnoregon.gov

503-742-6046



[Click to Connect!](#)

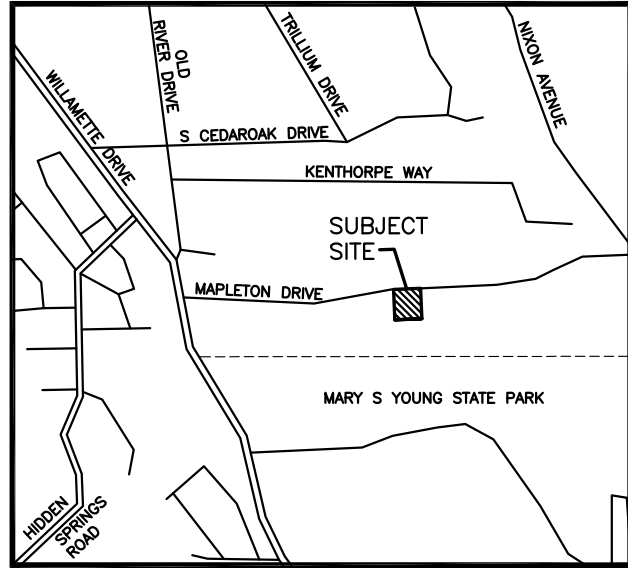
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This e-mail is subject to the State Retention Schedule and may be made available to the public

PRELIMINARY DEVELOPMENT PLANS

MAPLETON DRIVE PARTITION

WEST LINN, ORE.

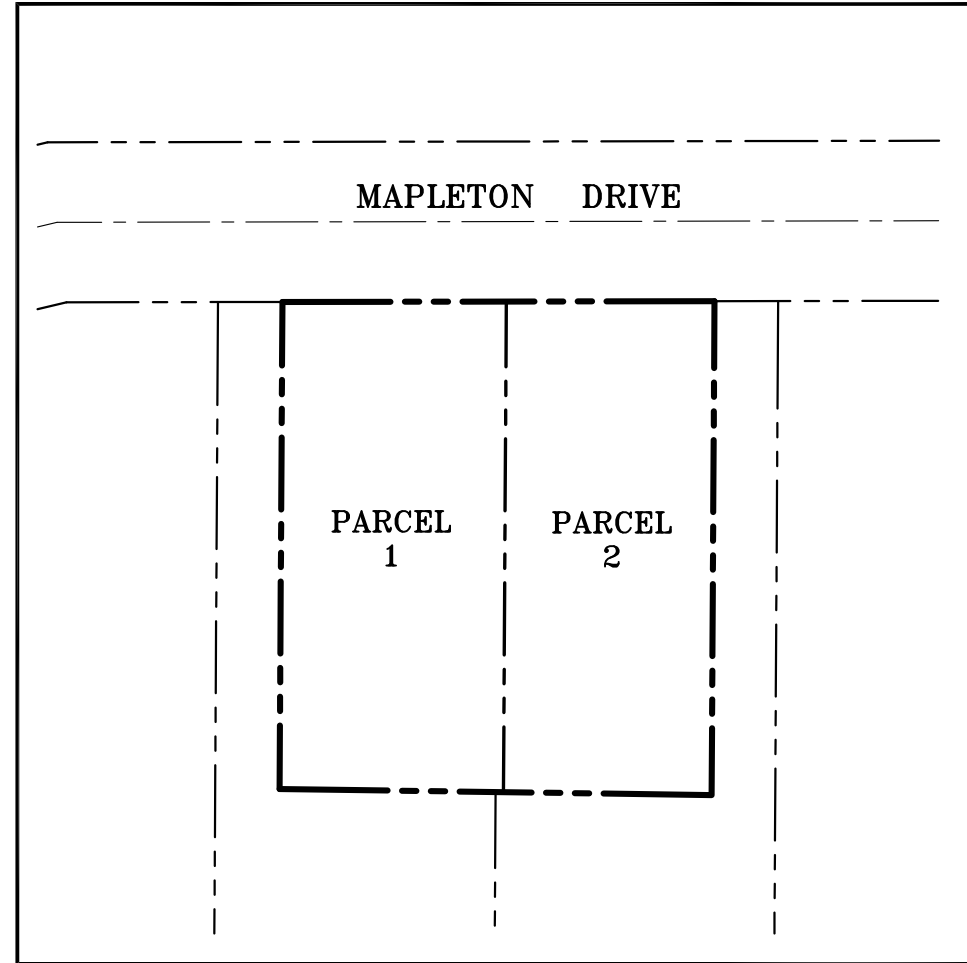
Cascadia
 Planning + Development Services
 PO Box 1920
 Silverton, Oregon 97381
 503-804-1089
 steve@cascadiapd.com
 www.cascadiapd.com



VICINITY MAP

INDEX OF DRAWINGS

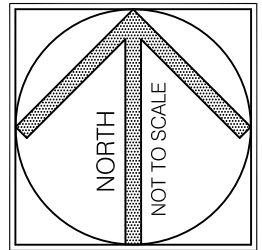
- P-1 COVER SHEET
- P-2 EXISTING CONDITIONS
- P-3 TENTATIVE PLAT
- P-4 PRELIMINARY SITE PLAN
- P-5 PRELIMINARY GRADING / EROSION CONTROL PLAN
- P-6 PRELIMINARY UTILITY PLAN



SITE MAP

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS FOR THE CITY OF WEST LINN, THE CONDITIONS OF APPROVAL FOR THE PROJECT, THE UNIFORM BUILDING CODE APPENDIX, AND THE AGREEMENT ALLOWING THE DEVELOPER TO CONSTRUCT PUBLIC IMPROVEMENTS.
2. THE EXCAVATOR MUST COMPLY WITH ALL PROVISIONS OF ORS 757.541 TO 757.571, INCLUDING NOTIFICATION OF ALL OWNERS OF UNDERGROUND FACILITIES AT LEAST 48 HOURS, BUT NOT MORE THAN 10 BUSINESS DAYS, BEFORE COMMENCING ANY EXCAVATION.
3. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING SEDIMENT TRANSPORT WITHIN THE PROJECT LIMITS, USING RECOGNIZED METHODS FOR EROSION CONTROL AS APPROVED BY THE CITY OF WEST LINN.
4. THE CONTRACTOR IS TO LEAVE THE PROJECT FREE OF DEBRIS AND UNUSED MATERIALS UPON COMPLETION.
5. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE UTILITY SYSTEMS SUCH AS POWER, TELEPHONE, GAS, CABLE TV, ETC., WITH EACH INDIVIDUAL UTILITY COMPANY, PRIOR TO FINAL INSTALLATION OF THE SYSTEMS.
6. THE CONTRACTOR SHALL MAINTAIN AND PROTECT EXISTING PUBLIC AND PRIVATE UTILITY LINES AND OTHER PUBLIC UTILITY STRUCTURES. THE CONTRACTOR SHALL RESTORE ALL PUBLIC PROPERTY TO ITS ORIGINAL CONDITION UPON COMPLETION OF WORK.
7. TEMPORARY EROSION CONTROL METHODS MUST REMAIN IN PLACE AND BE MAINTAINED UNTIL PERMANENT EROSION CONTROL METHODS ARE IN PLACE AND OPERATIONAL.
8. ALL AREAS TO RECEIVE FILL SHALL BE STRIPPED OF ALL VEGETATION AND OTHER DELETERIOUS MATERIALS. ALL SUCH MATERIALS SHALL BE REMOVED FROM SITE AT THE CONTRACTOR'S EXPENSE.
9. ALL NONMETALLIC SANITARY AND STORM SEWER SERVICE LATERAL PIPING SHALL HAVE AN ELECTRICALLY CONDUCTIVE INSULATED 12 GA. GREEN COPPER TRACER WIRE THE FULL LENGTH OF THE INSTALLED PIPE.
10. NO MATERIAL SUBSTITUTIONS OR DESIGN CHANGES SHALL BE MADE WITHOUT PRIOR PERMISSION OF THE ENGINEER AND THE CITY ENGINEER.
11. A FULL SET OF THE APPROVED PLANS WITH ALL CURRENT REVISIONS AND AMENDMENTS SHALL BE MAINTAINED ON THE SITE AT ALL TIMES DURING CONSTRUCTION.
12. ALL FILL SHALL BE PLACED IN 12" LIFTS AND SHALL BE COMPACTED TO AASHTO 95% DENSITY. THE CONTRACTOR SHALL EMPLOY A GEOTECHNICAL ENGINEER TO TEST ALL FILLED LOTS. TEST REPORTS SHALL BE SUBMITTED TO THE CITY AND TO THE ENGINEER. PER GEOTECHNICAL ENGINEERING REPORT.



CITY OF WEST LINN LAND USE APPLICATION
MAPLETON DRIVE PARTITION
 TAX LOT 2201 OF TAX MAP 21E24BD
 CLACKAMAS COUNTY, OREGON
 4120 MAPLETON DRIVE
 WEST LINN, OREGON 97068

APPLICANT

ESCM, INC.
 95 FOOTHILLS ROAD
 LAKE OSWEGO, OR 97034
 971-219-7461
 CONTACT: EDWIN SWARTZ

LAND SURVEYOR

ANDY PARIS AND ASSOCIATES, INC.
 16057 BOONES FERRY ROAD
 LAKE OSWEGO, OR 97035
 503-636-3341
 CONTACT: HARRY SALO, PLS

APPLICANT'S REPRESENTATIVE

CASCADIA PLANNING + DEVELOPMENT SERVICES
 PO BOX 1920
 SILVERTON, OR 97038
 503-804-9294
 CONTACT: STEVE KAY, AICP

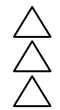
CIVIL ENGINEER

KITTREDGE ENGINEERS, LLC
 6565 SW 207TH AVENUE
 ALOHA, OR 97078
 503-708-3942
 CONTACT: CHRIS KITTREDGE, PE

COVER SHEET

SEPTEMBER 19, 2017

REVISIONS



P-1

SHEET 1 OF 6

TOPOGRAPHIC SURVEY

FOR:
E.S.C.M.

BEING PARCEL 1, "PARTITION PLAT NO. 1992-20"
SITUATED IN THE NW 1/ 4 OF SECTION 124
T.2S, R.1E, W.M.
CITY OF WEST LINN
CLACKAMAS COUNTY, OREGON

TAX MAP 2 1E 24BD
APRIL 27, 2017

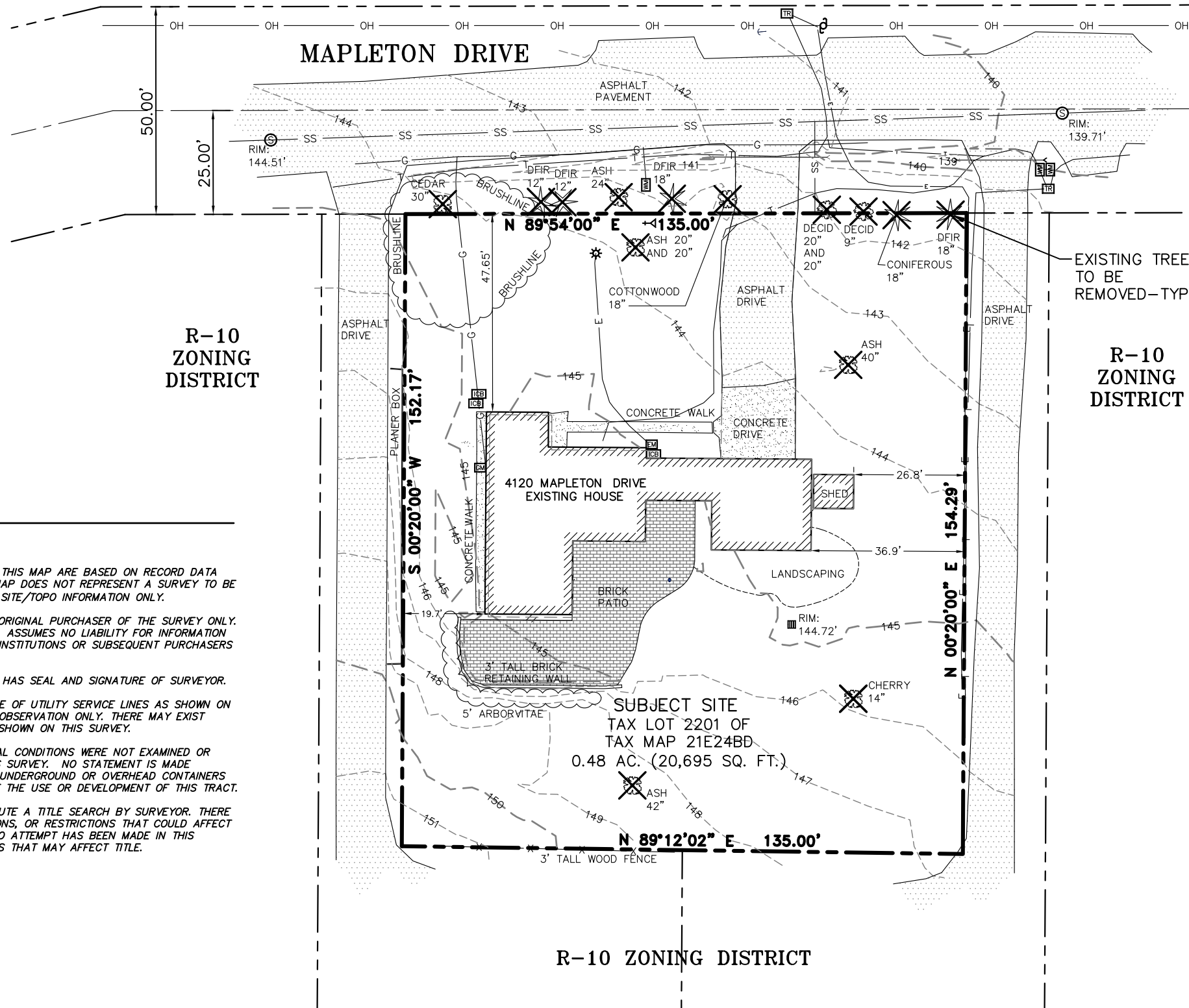
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ANDY PARIS AND ASSOCIATES, INC.
PROFESSIONAL LAND SURVEYORS
16057 BOONES FERRY ROAD
LAKE OSWEGO, OREGON 97035
PH: 503-636-3341
www.andyparis.com

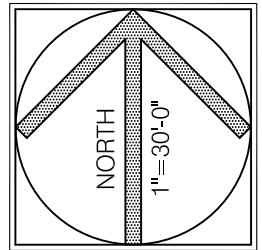
PROJECT: 17096
DRAWING: 17096TP1.DWG
DRAFTED: SES 04/27/17

ON-SITE SLOPE ANALYSIS	
0%-14% SLOPE	20,695 SQ. FT.
15%-25% SLOPE	0 SQ. FT.
26%-35% SLOPE	0 SQ. FT.
OVER 35% SLOPE	0 SQ. FT.

R-10 ZONING DISTRICT



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503-804-1089
steve@cascadiapd.com
www.cascadiapd.com



- LEGEND:**
- FOUND SURVEY MONUMENT
 - ⊙ SANITARY SEWER MANHOLE
 - ▣ CATCH BASIN
 - WM WATER METER
 - ICB IRRIGATION CONTROL BOX
 - ↑ GUY ANCHOR
 - ⌚ UTILITY POLE
 - ☼ STREET LIGHT
 - EM ELECTRIC METER
 - TR COMMUNICATIONS RISER
 - ⊥ HOSE BIB
 - GM GAS METER
 - MB MAILBOX
 - OH — OVERHEAD ELECTRIC LINE
 - SS — UNDERGROUND SANITARY LINE
 - E — UNDERGROUND ELECTRIC LINE
 - T — UNDERGROUND COMMUNICATION LINE
 - G — UNDERGROUND GAS LINE
 - x — FENCE LINE AS NOTED
 - 000.0 X SPOT ELEVATION

- SURVEY NOTES:**
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CITY OF WEST LINN LAND USE APPLICATION

MAPLETON DRIVE PARTITION

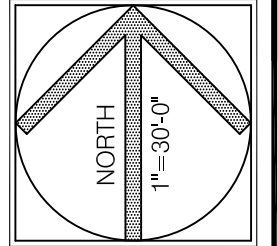
TAX LOT 2201 OF TAX MAP 21E24BD
CLACKAMAS COUNTY, OREGON

4120 MAPLETON DRIVE
WEST LINN, OREGON 97068

EXISTING CONDITIONS
SEPTEMBER 19, 2017

REVISIONS

- △
- △
- △

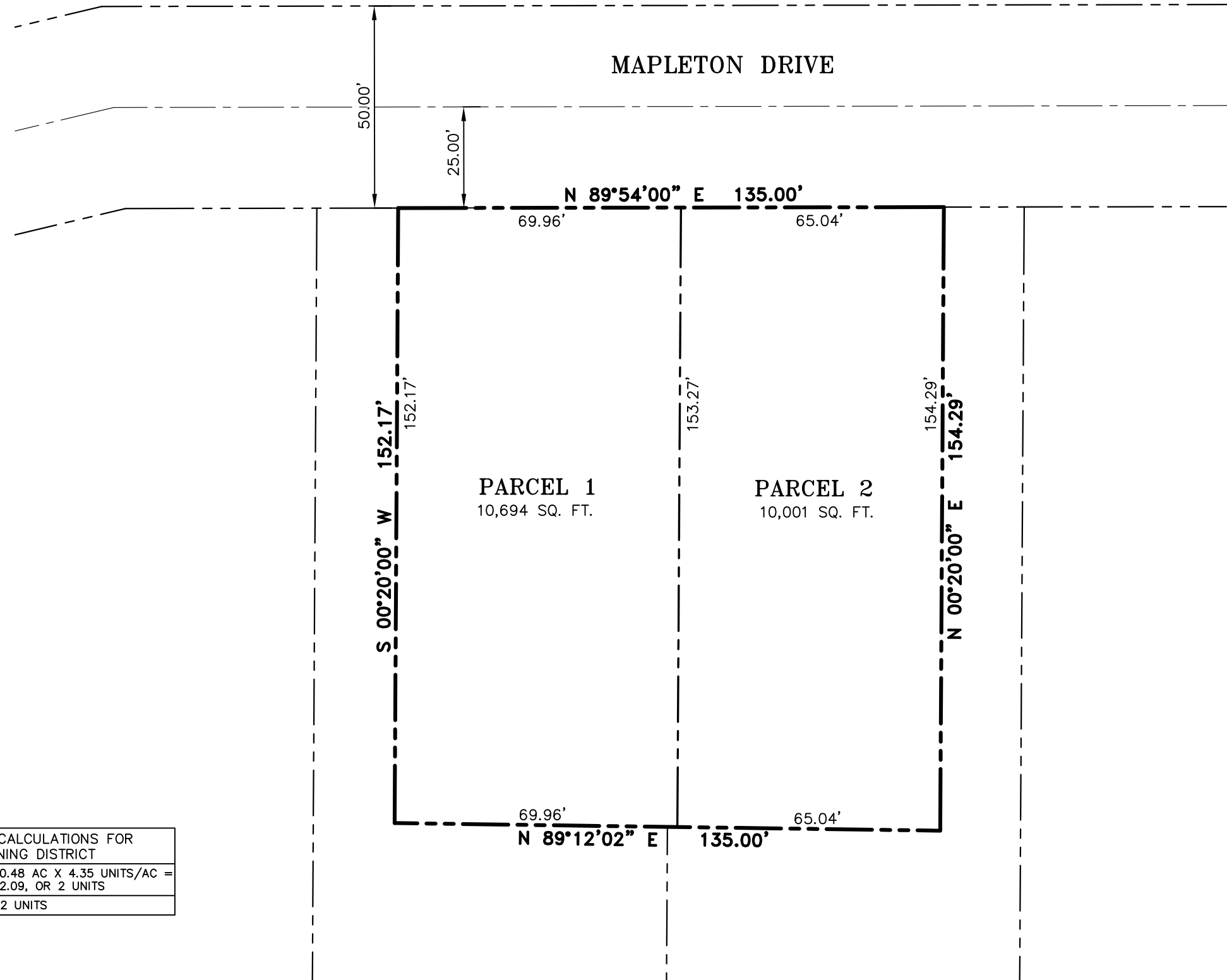


CITY OF WEST LINN LAND USE APPLICATION
MAPLETON DRIVE PARTITION
 TAX LOT 2201 OF TAX MAP 21E24BD
 CLACKAMAS COUNTY, OREGON
 4120 MAPLETON DRIVE
 WEST LINN, OREGON 97068

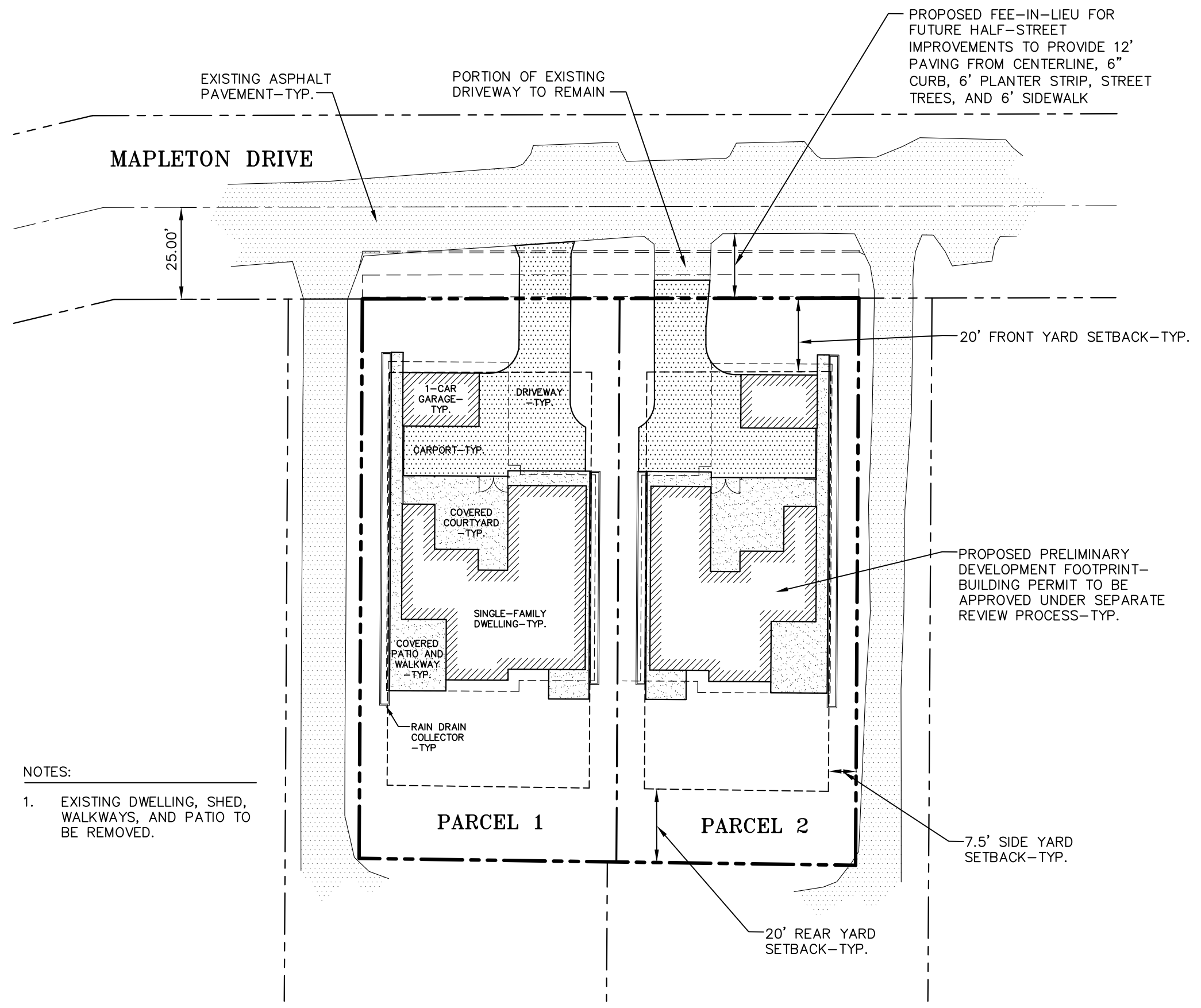
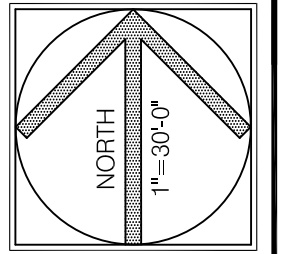
TENTATIVE PLAT
 SEPTEMBER 19, 2017

REVISIONS
 ▲
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P-3



SITE DENSITY CALCULATIONS FOR R-10 ZONING DISTRICT	
ALLOWED DENSITY:	0.48 AC X 4.35 UNITS/AC = 2.09, OR 2 UNITS
PROPOSED DENSITY:	2 UNITS



- NOTES:
1. EXISTING DWELLING, SHED, WALKWAYS, AND PATIO TO BE REMOVED.

CITY OF WEST LINN LAND USE APPLICATION

MAPLETON DRIVE PARTITION

TAX LOT 2201 OF TAX MAP 21E24BD
 CLACKAMAS COUNTY, OREGON

4120 MAPLETON DRIVE
 WEST LINN, OREGON 97068

PRELIMINARY SITE PLAN
 SEPTEMBER 19, 2017

REVISIONS

△	
△	
△	

PRELIMINARY STORMWATER REPORT

Storm Drainage Report

Mapleton Drive – 2 lot Partition
West Linn, OR

October 2, 2017

Prepared For: Mr. Edwin Swartz
ESCM, Inc
95 Foothills Road
Lake Oswego, OR 97034

Submitted To: The City of West Linn, Oregon



Prepared by:

KITTREDGE ENGINEERS, LLC
Site Development and Infrastructure Design
Civil Engineering and Land Use Services
Specializing in Commercial, Residential and Public Utility Projects

6565 SW 207th Avenue
Aloha, Oregon 97078
Office: 503. 708-3942
www.kitengs.com

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Appendices:

- Appendix A - Location and Vicinity Map, Existing Conditions Plan**
- Appendix B - Soil Maps & Classification, Runoff Curve Numbers**
- Appendix C - Construction plans**
- Appendix D - Culvert Design Information**
- Appendix E - Site Basin map
Pre and Post Developed HydroCAD Calculations**

STORM DRAINAGE REPORT

MAPLETON DRIVE – 2 LOT PARTITION **TAX MAP T2S – SECTION 24BD** **TAX LOT 2201 – Clackamas County, OR**

Purpose

The purpose of this storm drainage analysis is to:

- Describe existing and proposed site conditions.
- Provide data and analysis for the stormwater impacts due to the proposed Mapleton Drive – 2 Lot Partition Project.
- Address on-site conveyance.
- Provide upstream and downstream analysis for the site.
- Demonstrate that the proposed development does not significantly impact adjacent properties.

Introduction/Project Overview

This report describes the stormwater impacts and criteria used to complete the civil engineering stormwater design for the Mapleton Drive – 2 Lot Partition project located in Clackamas County, Oregon.

Existing Conditions

The existing site is 0.47 acres in size. The site is currently the location of an existing home located at 4120 SW Mapleton Drive at the approximate midpoint of the property. This house will be demolished as part of the proposed development. The property is bound to the south, east and west by existing residential properties and to the north by Mapleton Drive.

Proposed Conditions

The proposed development is for two new residential lots on which new single-family homes will be constructed on each. The proposed lots will run the length of the property in the north and south directions and the property will be divided at its midpoint. Stormwater will be collected from the new homes and driveways and collected in a regraded ditch that currently resides along the north end of the site along the Mapleton Drive Street frontage.

Minor lot regrading take place on the lots with the majority taking place along the back of the lots. Some degree of excavation will be occurring along the back of the proposed homes in order to allow for a “useable” backyard space.

No street frontage improvements or water quality treatment will be taking place on-site. In the project preapplication meeting, the city agreed to let the developer pay a “fee-in-lieu” for on-site water quality along with site frontage improvements.

A contractor development plan has been completed for the future street frontage work so that contractor’s may prepare (3) different estimates for this work as requested by West Linn. This plan has been included as part of this report and includes a street frontage LIDA facility design per Clean Water Services requirements and listed in the City’s stormwater design manual.

A flow through infiltration planter is being proposed for “future” street frontage water quality treatment and has been sized to for 6% of the overall street frontage improvement area per CWS standards. The total street side impervious was found to be 2329 sf and therefore the infiltration planter was sized to meet 6% of this area or 140 sf.

Hydraulic Basin Analysis – Street Side Culverts – Rational Method.

Other than the sizing of the Mapleton Drive infiltration planter described directly above, the only other basin calculations were performed to analyze the proposed driveway culvert crossings along Mapleton Drive.

As per the City of West Linn storm drainage manual, these culverts were analyzed for conveyance using methods described in the City of Portland Stormwater Manual (25 year storm event). As part of the analysis, the correct IDR Curve was determined (Zone 8). Using the IDR curve, an iterative process was completed to determine the correct Time of Concentration ($T_c=11$) and rainfall intensity (2.0 in/hr). This information can be located in Appendix “D” of this report. Once the T_c and Rainfall Intensity (I) were determined, they were plugged into an excel spreadsheet that calculated flow (Q) based on the Rational Method.

The overall site (Q) was calculated to be 1.07 cfs for the 25 year storm event when the Rational method was used. The proposed culverts under the driveways are both 12” ductile iron. Using the 12” pipe size and design storm flow of 1.07 cfs, the culvert headwall chart for inlet control was used to analyze depth of flow in the culverts. This chart was found in the City of Portland stormwater manual but is essentially universal in most parts of the country. Since the culverts will be essentially identical in design characteristics, only one culvert analysis was performed. According to the headwall analysis for inlet control and assuming a free outfall, the culverts will be approximately 60% full on the upstream end of the pipes.

Water Quality Treatment Design

Water Quality treatment design has been discussed earlier in this narrative. A per discussion with the City, as fee-in-lieu will be paid to accommodate both the on-site and future offsite ½ street improvements along Mapleton Drive. This is per previous agreement with City staff and the project developer.

Upstream Analysis

There will be no off-site stormwater that will contribute to the on-site project area. However, there is a portion of the adjacent west driveway that will contribute stormwater that will eventually run into the culverts that will be constructed along the site's frontage to Mapleton Drive. This site area was included in the overall basin design used to calculate frontage culvert conveyance.

Downstream Analysis

The proposed 25 year storm runoff from the site has been increased by 0.03 cfs from the existing storm flows. The predeveloped flow rate is 0.27 cfs and the post developed flow rate is 0.30 cfs. The HydroCAD storm calculations for the 25 year storm event are included in this report as Appendix "E". The difference of 0.03 cfs represent an essentially negligible storm flow increase therefore there should be no negative impacts to property owners downstream of the project.

Conclusions

- The conveyance system for the proposed Mapleton Drive 2 Lot Partition Project has been sized to convey the peak 25-Year, 24-Hour storm as per City of West Linn design standards.
- Both on and off-site water quality will be addressed through a "fee-in-lieu" process.
- Stormwater runoff from the site will not adversely impact adjacent or downstream neighboring properties.

Hydrologic Methodology

Appendix B - is the Soils Survey Information for the Maple Drive 2 Lot Partition property which includes the Hydrologic Soils Classification for the site as found in The USDA Soil Conservation Services "Soil Survey of Clackamas County". The majority of the soil on-site is classified as Aloha Silt Loam, Hydrologic Soils Group 'C'.

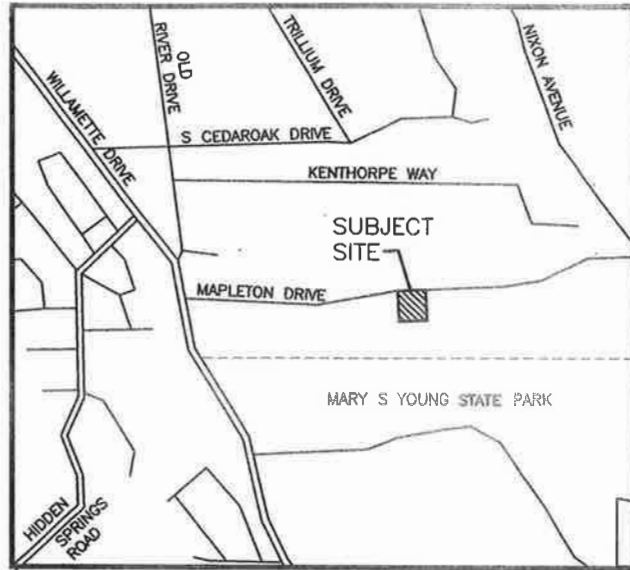
Appendix B - are the SCS Runoff Curve Numbers as found in the Soil Conservation Services Manual "Urban Hydrology for Small Watersheds" (TR-55 Method). An SCS Curve Number of 74 was assumed for all post developed on-site pervious surfaces based on the assumption of (grass cover > 75%) in good condition. An SCS Curve Number of 79 was assumed for all pre- developed on-site pervious surfaces based on the assumption of (grass cover 50% - 75%) in fair condition. Lastly, An SCS Curve Number of 98 was assumed for all impervious surfaces.

Appendix D – Street Frontage culvert calculations were performed using the Rational Method to determine over all flows and the standard headwater depth chart was used to calculate depth of culvert flow assuming and inlet control condition.

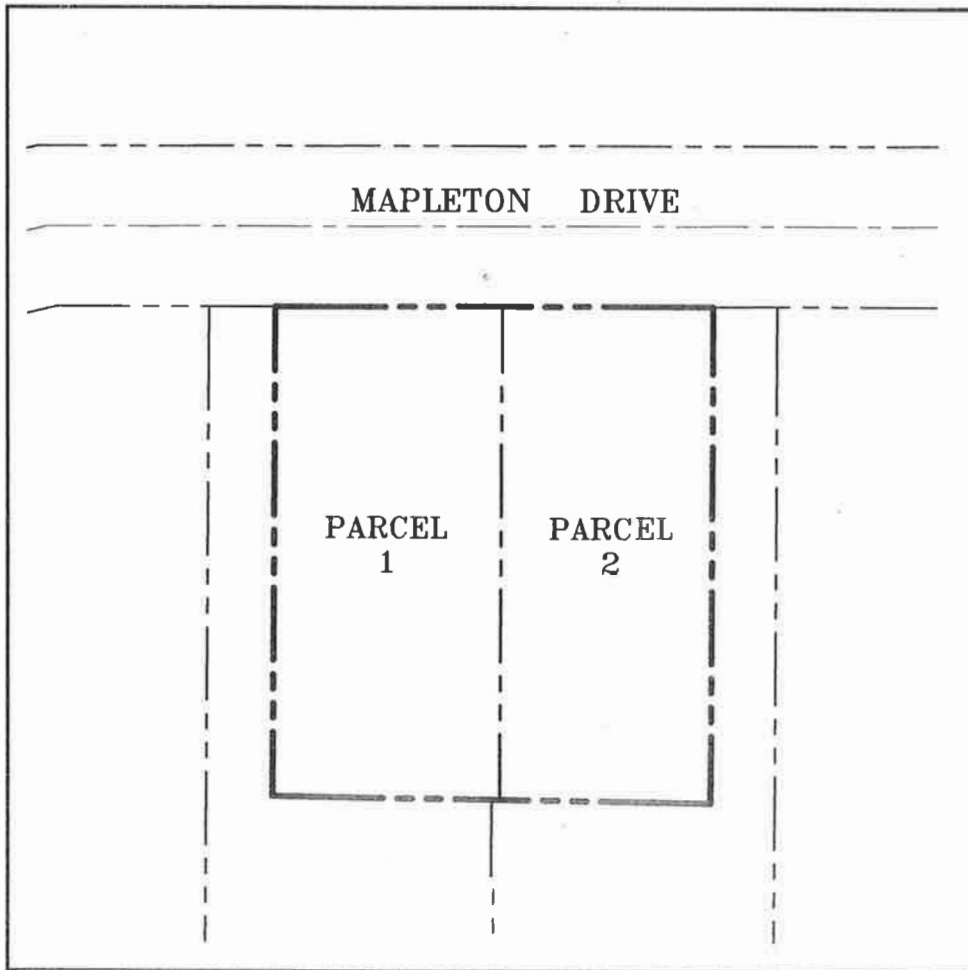
Appendix E - The Santa Barbara Urban Hydrograph SCS-Type 1A Method was used to compute the tributary basins peak flows for the 25 Year, 24-Hour, design storm event. Precipitation for the storm events was assumed to be 4.10 inches/hr. HydroCAD software was used to calculate and model flows. An on-site Basin map has been included in this appendix as well.

Appendix A:

Vicinity Map
Location Map
Existing Conditions Plan



VICINITY MAP



SITE MAP

TOPOGRAPHIC SURVEY

FOR:
E.S.C.M.

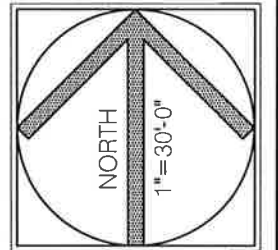
BEING PARCEL 1, "PARTITION PLAT NO. 1992-20"
SITUATED IN THE NW 1/ 4 OF SECTION 124
T.2S, R.1E, W.M.
CITY OF WEST LINN
CLACKAMAS COUNTY, OREGON

TAX MAP 2 1E 24BD
APRIL 27, 2017

ON-SITE SLOPE ANALYSIS	
0%-14% SLOPE	20,695 SQ. FT.
15%-25% SLOPE	0 SQ. FT.
26%-35% SLOPE	0 SQ. FT.
OVER 35% SLOPE	0 SQ. FT.



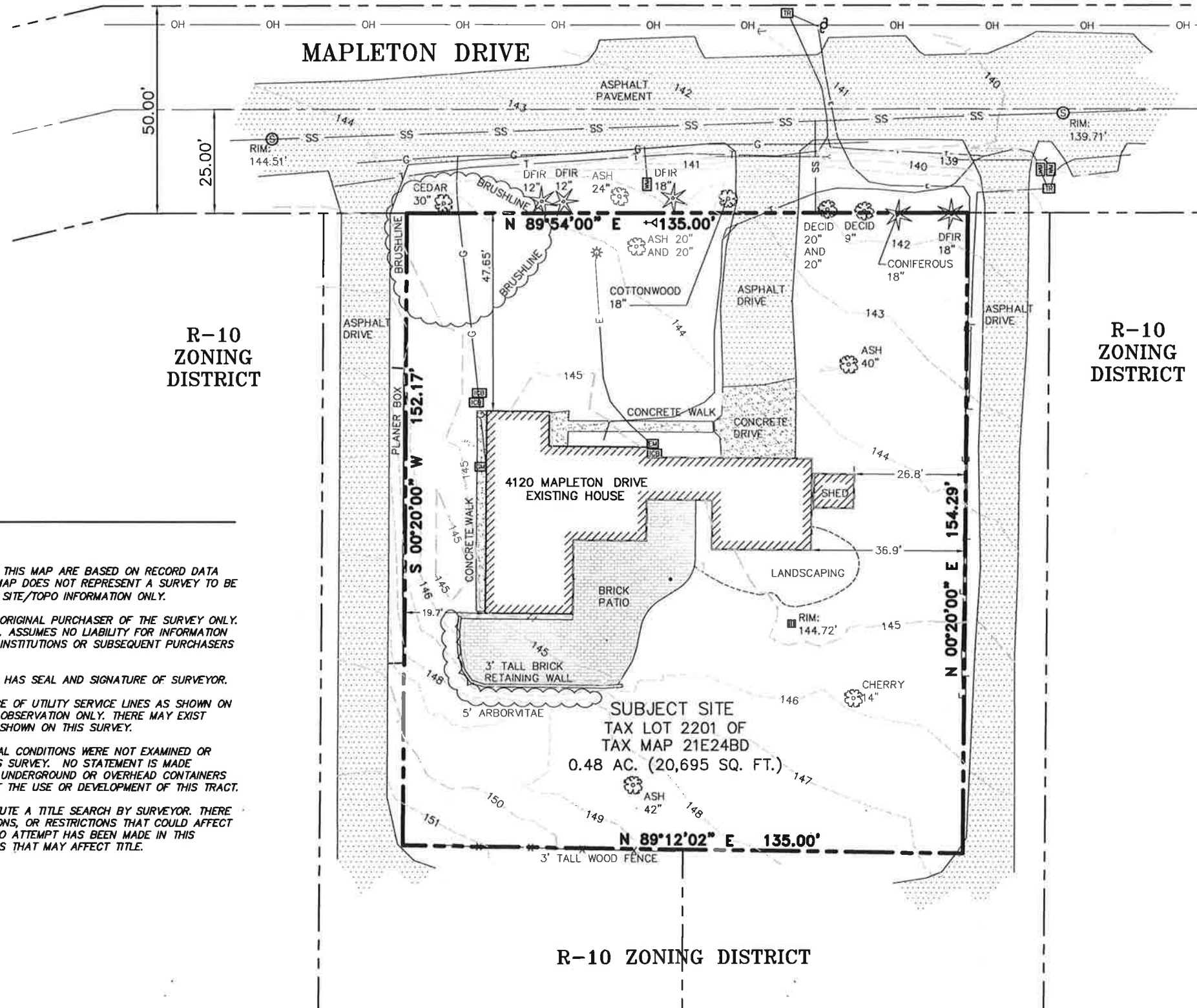
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SINCE 1952

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LAKE OSWEGO, OREGON 97035
PH: 503-636-3341
www.andyparis.com

PROJECT: 17096
DRAWING: 17096TP1.DWG
DRAFTED: SES 04/27/17



LEGEND:

- FOUND SURVEY MONUMENT
- ⊙ SANITARY SEWER MANHOLE
- ▭ CATCH BASIN
- ⊕ WATER METER
- ⊠ IRRIGATION CONTROL BOX
- ⊖ GUY ANCHOR
- ⊕ UTILITY POLE
- ⊙ STREET LIGHT
- ⊕ ELECTRIC METER
- ⊠ COMMUNICATIONS RISER
- ⊖ HOSE BIB
- ⊕ GAS METER
- ⊠ MAILBOX
- OH — OVERHEAD ELECTRIC LINE
- SS — UNDERGROUND SANITARY LINE
- E — UNDERGROUND ELECTRIC LINE
- T — UNDERGROUND COMMUNICATION LINE
- G — UNDERGROUND GAS LINE
- X — FENCE LINE AS NOTED
- 000.0 X SPOT ELEVATION

NOTES:

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CITY OF WEST LINN LAND USE APPLICATION
MAPLETON DRIVE PARTITION

TAX LOT 2201 OF TAX MAP 21E24BD
CLACKAMAS COUNTY, OREGON

4120 MAPLETON DRIVE
WEST LINN, OREGON 97068

EXISTING CONDITIONS

SEPTEMBER 19, 2017

REVISIONS



P-2

SHEET 2 OF 7

Appendix B:

Soil Maps & Classification
Runoff Curve Number Designation

Hydrologic Soil Group—Clackamas County Area, Oregon
(Mapleton Drive - Hydrologic Soils Group)



Map Scale: 1:324 if printed on A portrait (8.5" x 11") sheet.

0 4 9 18 27 Meters

































0 15 30 60 90 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84



Hydrologic Soil Group—Clackamas County Area, Oregon
(Mapleton Drive - Hydrologic Soils Group)

MAP LEGEND

- Area of Interest (AOI)**
 Area of Interest (AOI)
- Soils**
- Soil Rating Polygons**
-  A
 -  A/D
 -  B
 -  B/D
 -  C
 -  C/D
 -  D
 -  Not rated or not available
- Soil Rating Lines**
-  A
 -  A/D
 -  B
 -  B/D
 -  C
 -  C/D
 -  D
 -  Not rated or not available
- Soil Rating Points**
-  A
 -  A/D
 -  B
 -  B/D
- Soils**
-  C
 -  C/D
 -  D
 -  Not rated or not available
- Water Features**
-  Streams and Canals
- Transportation**
-  Rails
 -  Interstate Highways
 -  US Routes
 -  Major Roads
 -  Local Roads
- Background**
-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Clackamas County Area, Oregon
 Survey Area Data: Version 11, Sep 16, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 26, 2014—Sep 5, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1B	Aloha silt loam, 3 to 6 percent slopes	C/D	0.5	100.0%
Totals for Area of Interest			0.5	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

































Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Hydrologic Soil Group—Clackamas County Area, Oregon
(Mapleton Drive - Hydrologic Soils Group)

MAP LEGEND

- Area of Interest (AOI)**
 Area of Interest (AOI)
- Soils**
- Soil Rating Polygons**
-  A
 -  A/D
 -  B
 -  B/D
 -  C
 -  C/D
 -  D
 -  Not rated or not available
- Soil Rating Lines**
-  A
 -  A/D
 -  B
 -  B/D
 -  C
 -  C/D
 -  D
 -  Not rated or not available
- Soil Rating Points**
-  A
 -  A/D
 -  B
 -  B/D
- Water Features**
-  Streams and Canals
- Transportation**
-  Rails
 -  Interstate Highways
 -  US Routes
 -  Major Roads
 -  Local Roads
- Background**
-  Aerial Photography
- Soil Rating Legend (C, C/D, D, Not rated or not available)**
-  C
 -  C/D
 -  D
 -  Not rated or not available

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Clackamas County Area, Oregon
 Survey Area Data: Version 11, Sep 16, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 26, 2014—Sep 5, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table 2-2a Runoff curve numbers for urban areas ^{1/}

Cover description	Average percent impervious area ^{2/}	Curve numbers for hydrologic soil group			
		A	B	C	D
<i>Fully developed urban areas (vegetation established)</i>					
Open space (lawns, parks, golf courses, cemeteries, etc.) ^{3/} :					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) ^{4/}		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
<i>Developing urban areas</i>					
Newly graded areas (pervious areas only, no vegetation) ^{5/}		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

¹ Average runoff condition, and $I_a = 0.2S$.

² The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

³ CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

⁴ Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

⁵ Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

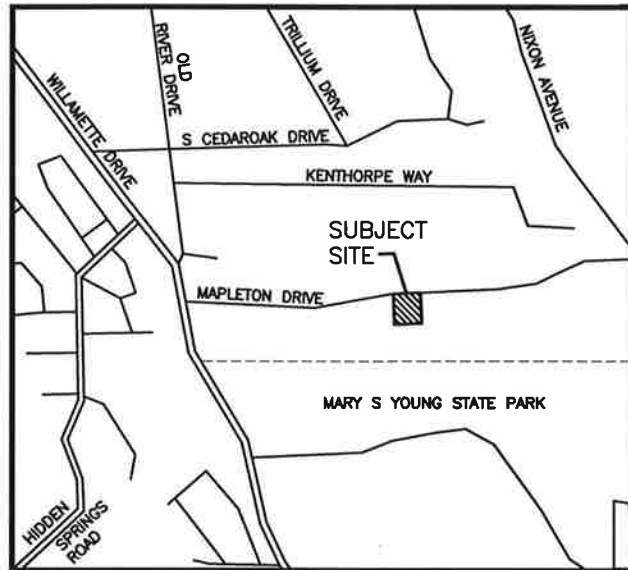
Appendix C:

Construction Plan Set

MAPLETON DRIVE PARTITION

WEST LINN, ORE.

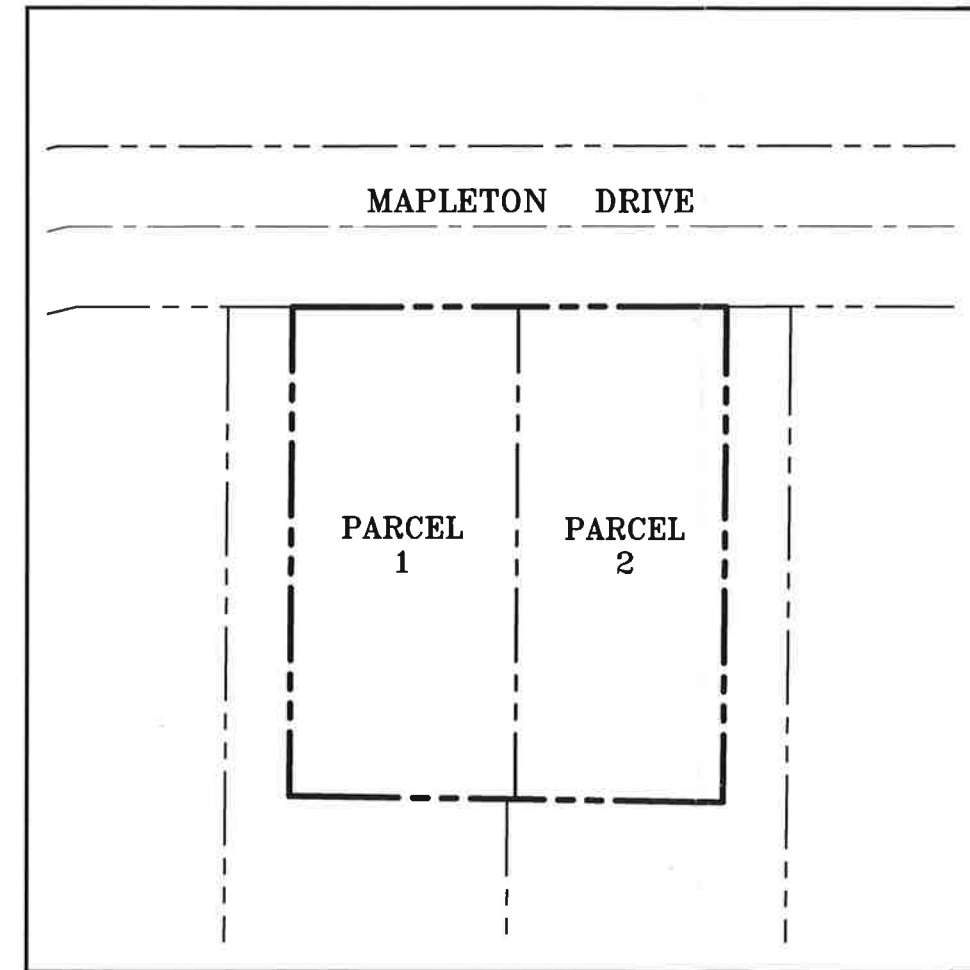
Cascadia
 Planning + Development Services
 PO Box 1920
 Silverton, Oregon 97381
 503-804-1089
 steve@cascadiapd.com
 www.cascadiapd.com



VICINITY MAP

INDEX OF DRAWINGS

- P-1 COVER SHEET
- P-2 EXISTING CONDITIONS
- P-3 TENTATIVE PLAT
- P-4 PRELIMINARY SITE PLAN
- P-5 PRELIMINARY GRADING / EROSION CONTROL PLAN
- P-6 PRELIMINARY SANITARY SEWER / WATER PLAN
- P-7 PRELIMINARY STORMWATER PLAN



SITE MAP

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS FOR THE CITY OF WEST LINN, THE CONDITIONS OF APPROVAL FOR THE PROJECT, THE UNIFORM BUILDING CODE APPENDIX, AND THE AGREEMENT ALLOWING THE DEVELOPER TO CONSTRUCT PUBLIC IMPROVEMENTS.
2. THE EXCAVATOR MUST COMPLY WITH ALL PROVISIONS OF ORS 757.541 TO 757.571, INCLUDING NOTIFICATION OF ALL OWNERS OF UNDERGROUND FACILITIES AT LEAST 48 HOURS, BUT NOT MORE THAN 10 BUSINESS DAYS, BEFORE COMMENCING ANY EXCAVATION.
3. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING SEDIMENT TRANSPORT WITHIN THE PROJECT LIMITS, USING RECOGNIZED METHODS FOR EROSION CONTROL AS APPROVED BY THE CITY OF WEST LINN.
4. THE CONTRACTOR IS TO LEAVE THE PROJECT FREE OF DEBRIS AND UNUSED MATERIALS UPON COMPLETION.
5. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE UTILITY SYSTEMS SUCH AS POWER, TELEPHONE, GAS, CABLE TV, ETC., WITH EACH INDIVIDUAL UTILITY COMPANY, PRIOR TO FINAL INSTALLATION OF THE SYSTEMS.
6. THE CONTRACTOR SHALL MAINTAIN AND PROTECT EXISTING PUBLIC AND PRIVATE UTILITY LINES AND OTHER PUBLIC UTILITY STRUCTURES. THE CONTRACTOR SHALL RESTORE ALL PUBLIC PROPERTY TO ITS ORIGINAL CONDITION UPON COMPLETION OF WORK.
7. TEMPORARY EROSION CONTROL METHODS MUST REMAIN IN PLACE AND BE MAINTAINED UNTIL PERMANENT EROSION CONTROL METHODS ARE IN PLACE AND OPERATIONAL.
8. ALL AREAS TO RECEIVE FILL SHALL BE STRIPPED OF ALL VEGETATION AND OTHER DELETERIOUS MATERIALS. ALL SUCH MATERIALS SHALL BE REMOVED FROM SITE AT THE CONTRACTOR'S EXPENSE.
9. ALL NONMETALLIC SANITARY AND STORM SEWER SERVICE LATERAL PIPING SHALL HAVE AN ELECTRICALLY CONDUCTIVE INSULATED 12 GA. GREEN COPPER TRACER WIRE THE FULL LENGTH OF THE INSTALLED PIPE.
10. NO MATERIAL SUBSTITUTIONS OR DESIGN CHANGES SHALL BE MADE WITHOUT PRIOR PERMISSION OF THE ENGINEER AND THE CITY ENGINEER.
11. A FULL SET OF THE APPROVED PLANS WITH ALL CURRENT REVISIONS AND AMENDMENTS SHALL BE MAINTAINED ON THE SITE AT ALL TIMES DURING CONSTRUCTION.
12. ALL FILL SHALL BE PLACED IN 12" LIFTS AND SHALL BE COMPACTED TO AASHTO 95% DENSITY. THE CONTRACTOR SHALL EMPLOY A GEOTECHNICAL ENGINEER TO TEST ALL FILLED LOTS. TEST REPORTS SHALL BE SUBMITTED TO THE CITY AND TO THE ENGINEER. PER GEOTECHNICAL ENGINEERING REPORT.

APPLICANT

ESCM, INC.
 95 FOOTHILLS ROAD
 LAKE OSWEGO, OR 97034
 971-219-7461
 CONTACT: EDWIN SWARTZ

LAND SURVEYOR

ANDY PARIS AND ASSOCIATES, INC.
 16057 BOONES FERRY ROAD
 LAKE OSWEGO, OR 97035
 503-636-3341
 CONTACT: HARRY SALO, PLS

APPLICANT'S REPRESENTATIVE

CASCADIA PLANNING + DEVELOPMENT SERVICES
 PO BOX 1920
 SILVERTON, OR 97038
 503-804-9294
 CONTACT: STEVE KAY, AICP

CIVIL ENGINEER

KITTREDGE ENGINEERS, LLC
 6565 SW 207TH AVENUE
 ALOHA, OR 97078
 503-708-3942
 CONTACT: CHRIS KITTREDGE, PE

CITY OF WEST LINN LAND USE APPLICATION
MAPLETON DRIVE PARTITION
 TAX LOT 2201 OF TAX MAP 21E24BD
 CLACKAMAS COUNTY, OREGON
 4120 MAPLETON DRIVE
 WEST LINN, OREGON 97068

COVER SHEET

SEPTEMBER 19, 2017

REVISIONS



P-1

TOPOGRAPHIC SURVEY

FOR:
E.S.C.M.

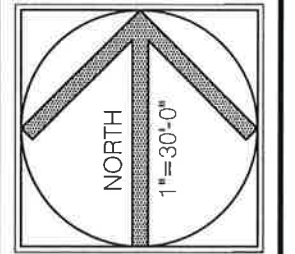
BEING PARCEL 1, "PARTITION PLAT NO. 1992-20"
SITUATED IN THE NW 1/ 4 OF SECTION 124
T.2S, R.1E, W.M.
CITY OF WEST LINN
CLACKAMAS COUNTY, OREGON

TAX MAP 2 1E 24BD
APRIL 27, 2017

ON-SITE SLOPE ANALYSIS	
0%-14% SLOPE	20,695 SQ. FT.
15%-25% SLOPE	0 SQ. FT.
26%-35% SLOPE	0 SQ. FT.
OVER 35% SLOPE	0 SQ. FT.



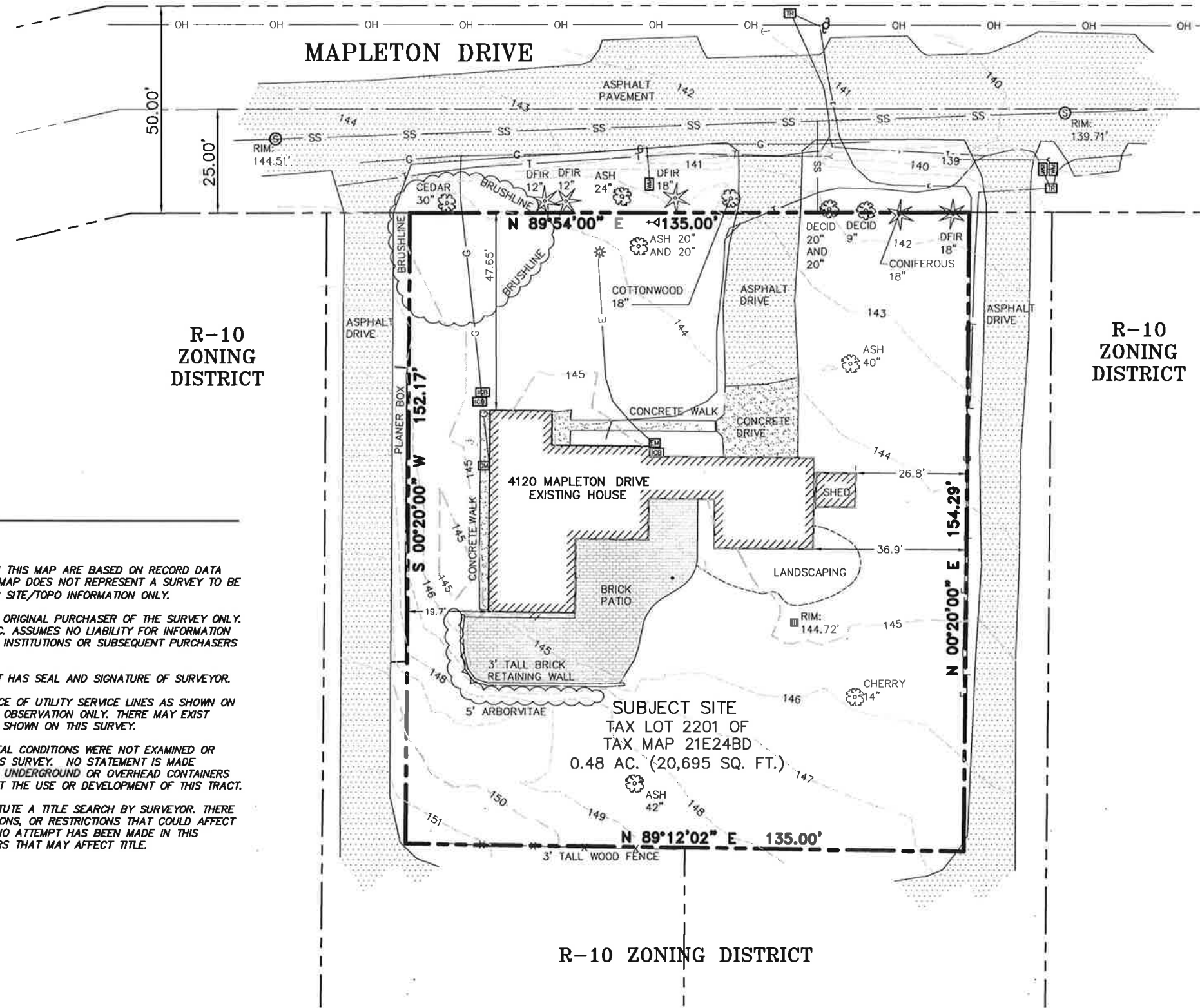
Cascadia
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PO Box 1920
Silverton, Oregon 97381
503-804-1089
steve@cascadiapd.com
www.cascadiapd.com



SINCE 1952

ANDY PARIS AND ASSOCIATES, INC.
PROFESSIONAL LAND SURVEYORS
16057 BOONES FERRY ROAD
LAKE OSWEGO, OREGON 97035
PH: 503-636-3341
www.andyparis.com

PROJECT: 17096
DRAWING: 17096TP1.DWG
DRAFTED: SES 04/27/17



- LEGEND:**
- FOUND SURVEY MONUMENT
 - ⊙ SANITARY SEWER MANHOLE
 - ▭ CATCH BASIN
 - WM WATER METER
 - ICB IRRIGATION CONTROL BOX
 - ↑ GUY ANCHOR
 - ⊕ UTILITY POLE
 - ⊙ STREET LIGHT
 - EM ELECTRIC METER
 - TR COMMUNICATIONS RISER
 - ⊕ HOSE BIB
 - GM GAS METER
 - MB MAILBOX
 - OH — OVERHEAD ELECTRIC LINE
 - SS — UNDERGROUND SANITARY LINE
 - E — UNDERGROUND ELECTRIC LINE
 - T — UNDERGROUND COMMUNICATION LINE
 - G — UNDERGROUND GAS LINE
 - X — FENCE LINE AS NOTED
 - 000.0 X SPOT ELEVATION

- NOTES:**
1. VERTICAL DATUM IS NGVD 29.
 2. THE BOUNDARIES AS SHOWN ON THIS MAP ARE BASED ON RECORD DATA AND FOUND MONUMENTS. THIS MAP DOES NOT REPRESENT A SURVEY TO BE RECORDED, BUT WAS DONE FOR SITE/TOPO INFORMATION ONLY.
 3. THIS SURVEY IS MADE FOR THE ORIGINAL PURCHASER OF THE SURVEY ONLY. ANDY PARIS & ASSOCIATES, INC. ASSUMES NO LIABILITY FOR INFORMATION SHOWN HEREON TO ANY OTHER INSTITUTIONS OR SUBSEQUENT PURCHASERS OF THE PROPERTY.
 4. SURVEY IS VALID ONLY IF PRINT HAS SEAL AND SIGNATURE OF SURVEYOR.
 5. THE LOCATION AND OR EXISTENCE OF UTILITY SERVICE LINES AS SHOWN ON THIS MAP ARE BASED ON FIELD OBSERVATION ONLY. THERE MAY EXIST ADDITIONAL SERVICE LINES NOT SHOWN ON THIS SURVEY.
 6. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.
 7. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY SURVEYOR. THERE MAY EXIST EASEMENTS, CONDITIONS, OR RESTRICTIONS THAT COULD AFFECT THE TITLE OF THIS PROPERTY. NO ATTEMPT HAS BEEN MADE IN THIS SURVEY TO SHOW SUCH MATTERS THAT MAY AFFECT TITLE.

CITY OF WEST LINN LAND USE APPLICATION

MAPLETON DRIVE PARTITION

TAX LOT 2201 OF TAX MAP 21E24BD
CLACKAMAS COUNTY, OREGON

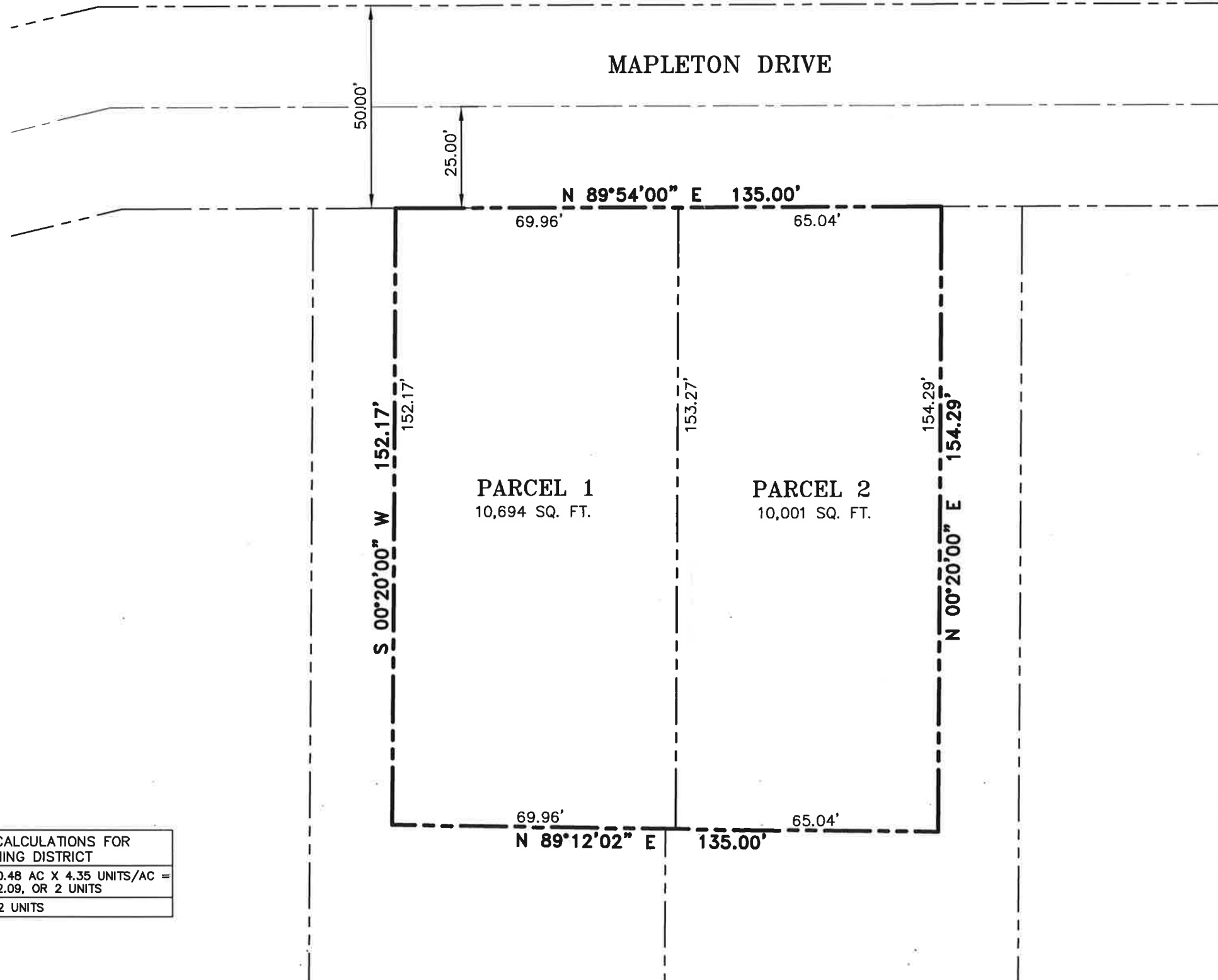
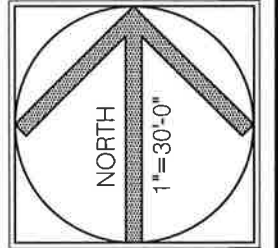
4120 MAPLETON DRIVE
WEST LINN, OREGON 97068

EXISTING CONDITIONS

SEPTEMBER 19, 2017

REVISIONS

△
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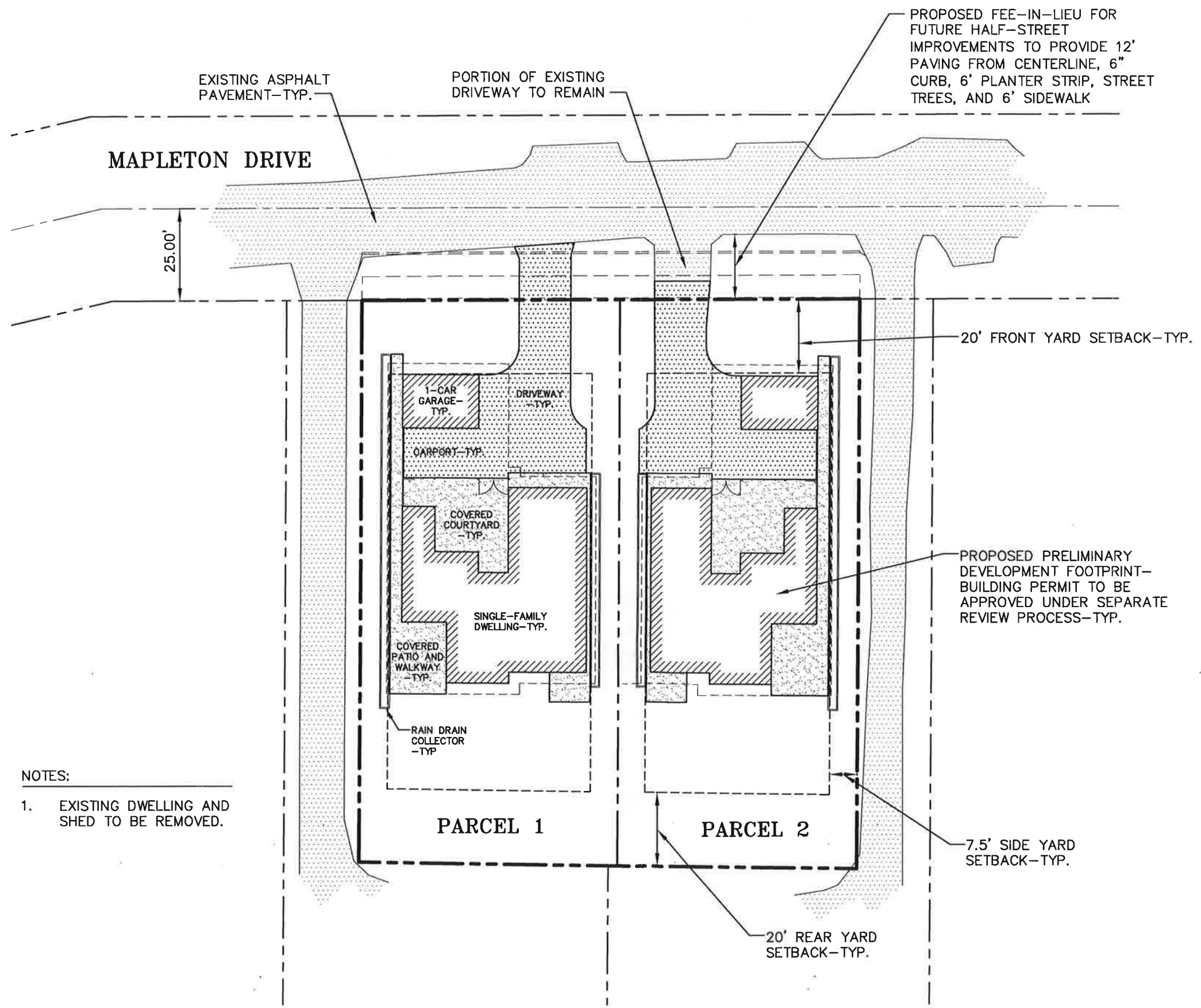
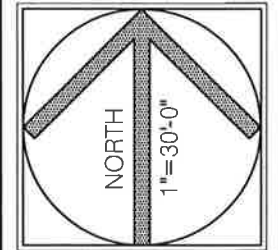
SITE DENSITY CALCULATIONS FOR R-10 ZONING DISTRICT	
ALLOWED DENSITY:	0.48 AC X 4.35 UNITS/AC = 2.09, OR 2 UNITS
PROPOSED DENSITY:	2 UNITS

CITY OF WEST LINN LAND USE APPLICATION
MAPLETON DRIVE PARTITION
 TAX LOT 2201 OF TAX MAP 21E24BD
 CLACKAMAS COUNTY, OREGON
 4120 MAPLETON DRIVE
 WEST LINN, OREGON 97068

TENTATIVE PLAT
 SEPTEMBER 19, 2017

REVISIONS
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 △
 △

P-3
 SHEET 3 OF 7

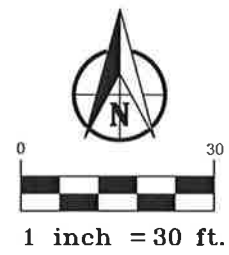
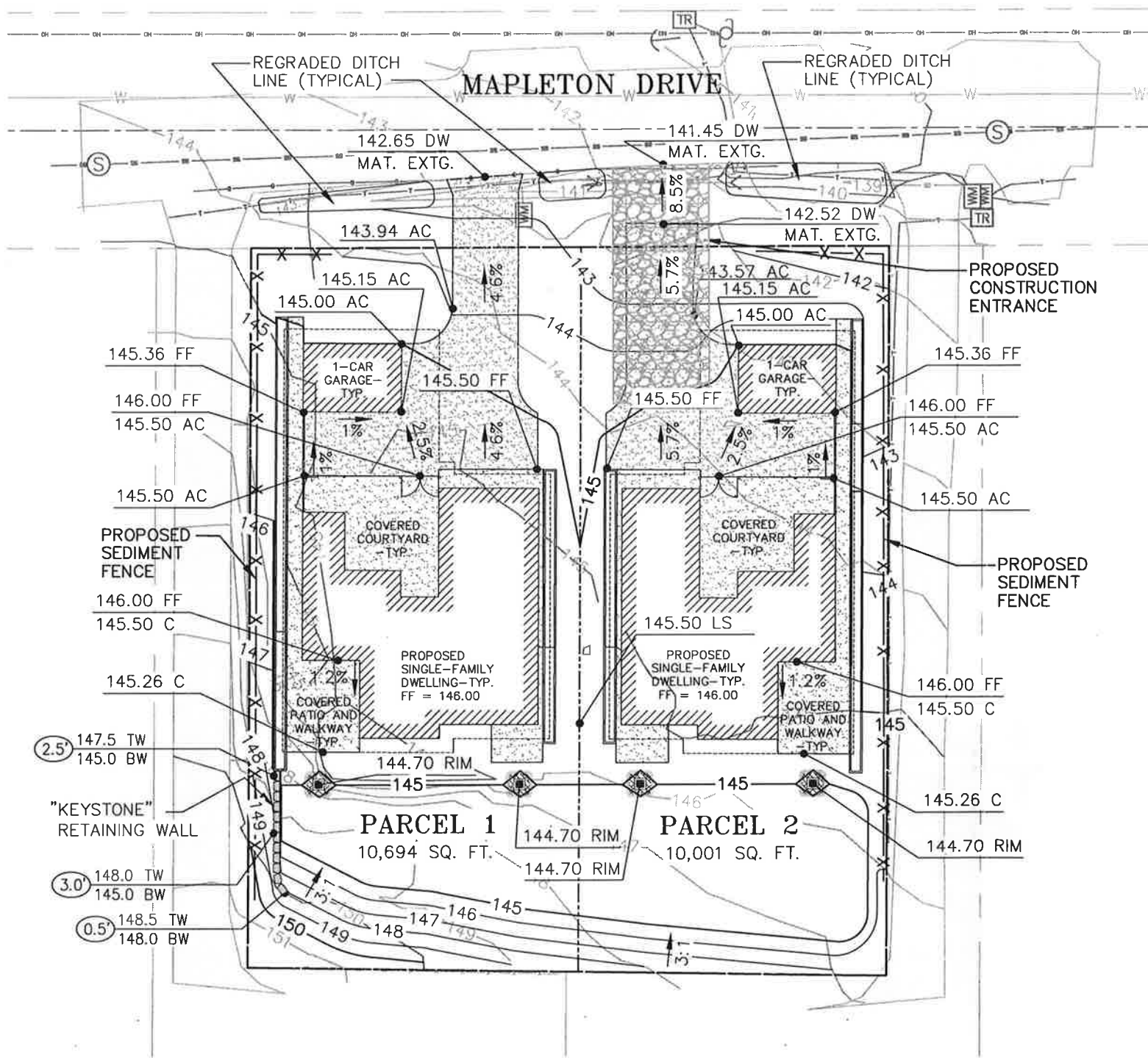


NOTES:
 1. EXISTING DWELLING AND SHED TO BE REMOVED.

CITY OF WEST LINN LAND USE APPLICATION
MAPLETON DRIVE PARTITION
 TAX LOT 2201 OF TAX MAP 21E24BD
 CLACKAMAS COUNTY, OREGON
 4120 MAPLETON DRIVE
 WEST LINN, OREGON 97068

PRELIMINARY SITE PLAN
 SEPTEMBER 19, 2017

REVISIONS
 ▲
 ▲
 ▲



LEGEND

- 185— PROPOSED 5FT. CONTOUR INTERVAL
 - 184— PROPOSED 1FT. CONTOUR INTERVAL
 - - - - - RIGHT OF WAY/PROPERTY LINE
 - - - - - CENTER LINE
 - ⊙ EXTG. SANITARY SEWER MANHOLE
 - WM EXTG. WATER METER
 - ← EXTG. GUY ANCHOR
 - ⊕ EXTG. UTILITY POLE
 - TR EXTG. COMMUNICATIONS RISER
 - OH- EXTG. OVERHEAD ELECTRIC LINE
 - SS- EXTG. UNDERGROUND SANITARY LINE
 - E- EXTG. UNDERGROUND ELECTRIC LINE
 - T- EXTG. UNDERGROUND COMMUNICATION LINE
 - G- EXTG. UNDERGROUND GAS LINE
 - X- EXTG. FENCE LINE AS NOTED
-
- 149.25 AC SPOT ELEVATION - ASPHALT PAVEMENT
 - 148.16 TW SPOT ELEVATION - TOP OF WALL
 - 144.81 BW SPOT ELEVATION - BOTTOM OF WALL
 - 149.50 FF SPOT ELEVATION - FINISH FLOOR
 - 147.01 RIM SPOT ELEVATION - TOP OF GRATE
 - 149.08 C SPOT ELEVATION - CONCRETE PAD
 - 149.35 LS SPOT ELEVATION - LANDSCAPE

KITTRIDGE ENGINEERS, LLC
 6565 SW 207TH AVENUE
 ALOHA, OR 97078
 TEL: (503) 708-3942

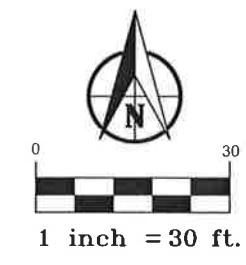
PRELIMINARY GRADING AND
 EROSION CONTROL PLAN
 MAPLETON DRIVE PARTITION
 ESCM, INC 971-219-7461 - EDWIN SWARTZ
 95 FOOTHILLS ROAD



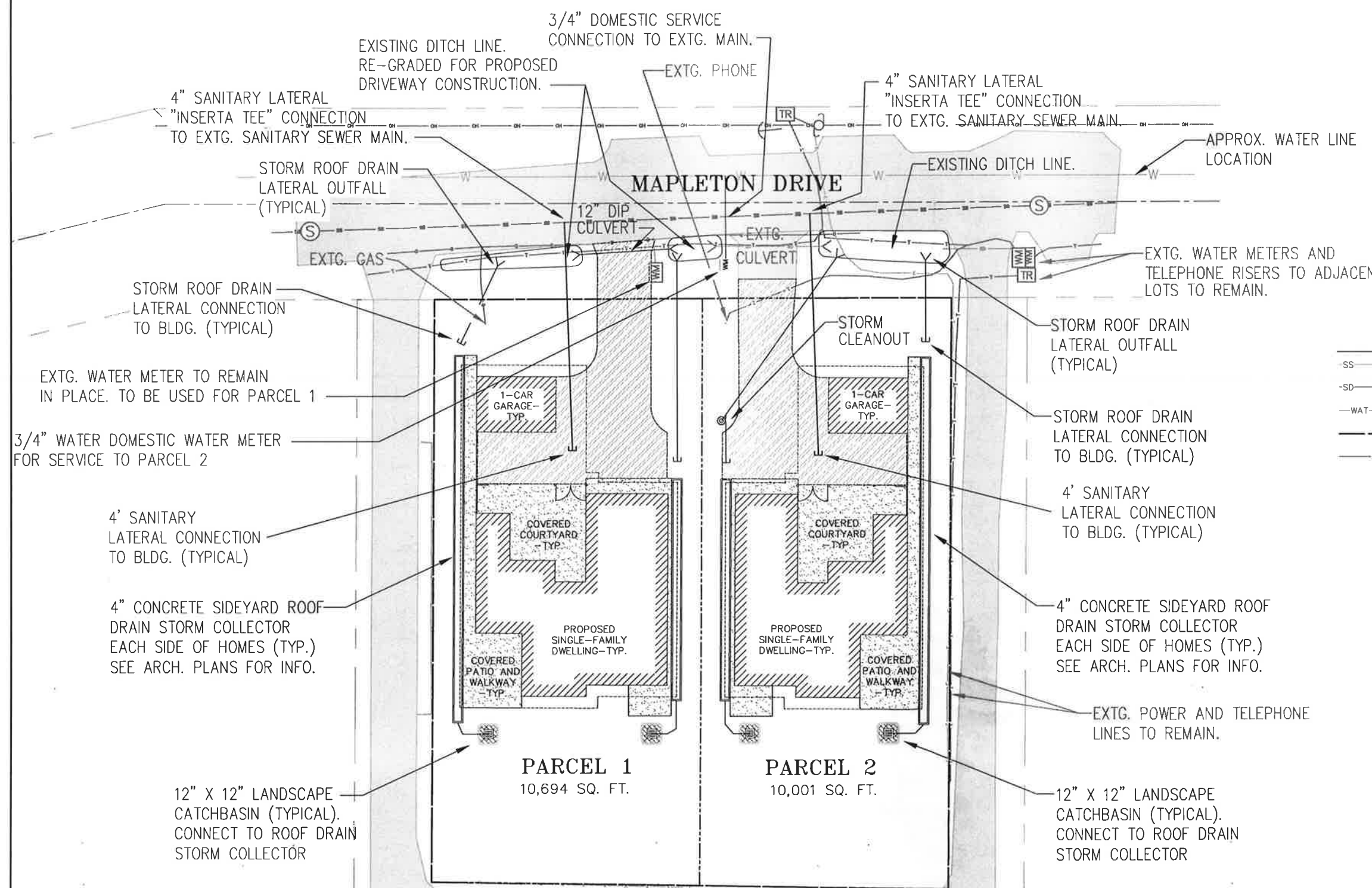
DATE: 9/22/2017
 DRAWN BY: CPK
 PROJ. MGR: CPK
 CHECKED BY: CPK
 PROJECT NUMBER
 SWZ.001
 CASE FILE NUMBER
 N/A

REVISION	DATE	MODIFICATION

SHEET NUMBER
P-5
 OF 6



KITTRIDGE ENGINEERS, LLC
 6565 SW 207TH AVENUE
 ALOHA, OR 97078
 TEL: (503) 708-3942



LEGEND

- SS— SS —SS— PROPOSED SANITARY SEWER LINE
- SD— SD —SD— PROPOSED STORM SEWER LINE
- WAT— WAT— PROPOSED WATER LINE
- — — RIGHT OF WAY/PROPERTY LINE
- — — CENTER LINE
- ⊙ EXTG. SANITARY SEWER MANHOLE
- WM EXTG. WATER METER
- ← EXTG. GUY ANCHOR
- ⊕ EXTG. UTILITY POLE
- TR EXTG. COMMUNICATIONS RISER
- OH— EXTG. OVERHEAD ELECTRIC LINE
- SS— EXTG. UNDERGROUND SANITARY LINE
- E— EXTG. UNDERGROUND ELECTRIC LINE
- T— EXTG. UNDERGROUND COMM. LINE
- G— EXTG. UNDERGROUND GAS LINE
- Z— EXTG. FENCE LINE AS NOTED

PRELIMINARY
 ON-SITE UTILITY PLAN
 MAPLETON DRIVE PARTITION

95 Foothills Road
 ESCM, INC
 971-219-7461 - EDWIN SWARTZ



DATE: 9/22/2017
 DRAWN BY: CPK
 PROJ. MGR: CPK
 CHECKED BY: CPK
 PROJECT NUMBER
 SWZ.001
 CASE FILE NUMBER
 N/A

REVISION	DATE	MODIFICATION

SHEET NUMBER
P-6
 OF 6

DEMO. EXTG STREET, LANDSCAPE AND SIDEWALK AREA - HAUL OFF-SITE.
 CONSTRUCT 12' x 137' PROPOSED 1/2 STREET SECTION WITH CURB AND GUTTER.
 CONSTRUCT STREET SECTION WITH 3" AC PAVEMENT, 2" LEVELING COURSE, 14" GRANULAR ROCK BASE.

CONSTRUCT STREET SIDE "FLOW THRU" INFILTRATION PLANTER PER CWS LIDA MANUAL 27' X 5.5'.
 EXTEND EXTG. ROOF DRAIN LATERAL INTO PLANTER.

4" LATERAL EXTENSION THRU CURB FACE. INSTALL 3" X 4" REDUCER AT CURB.

RELOCATE EXTG. WATER METER IN FRONT OF WALK IN LANDSCAPE STRIP.

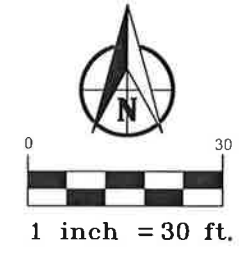
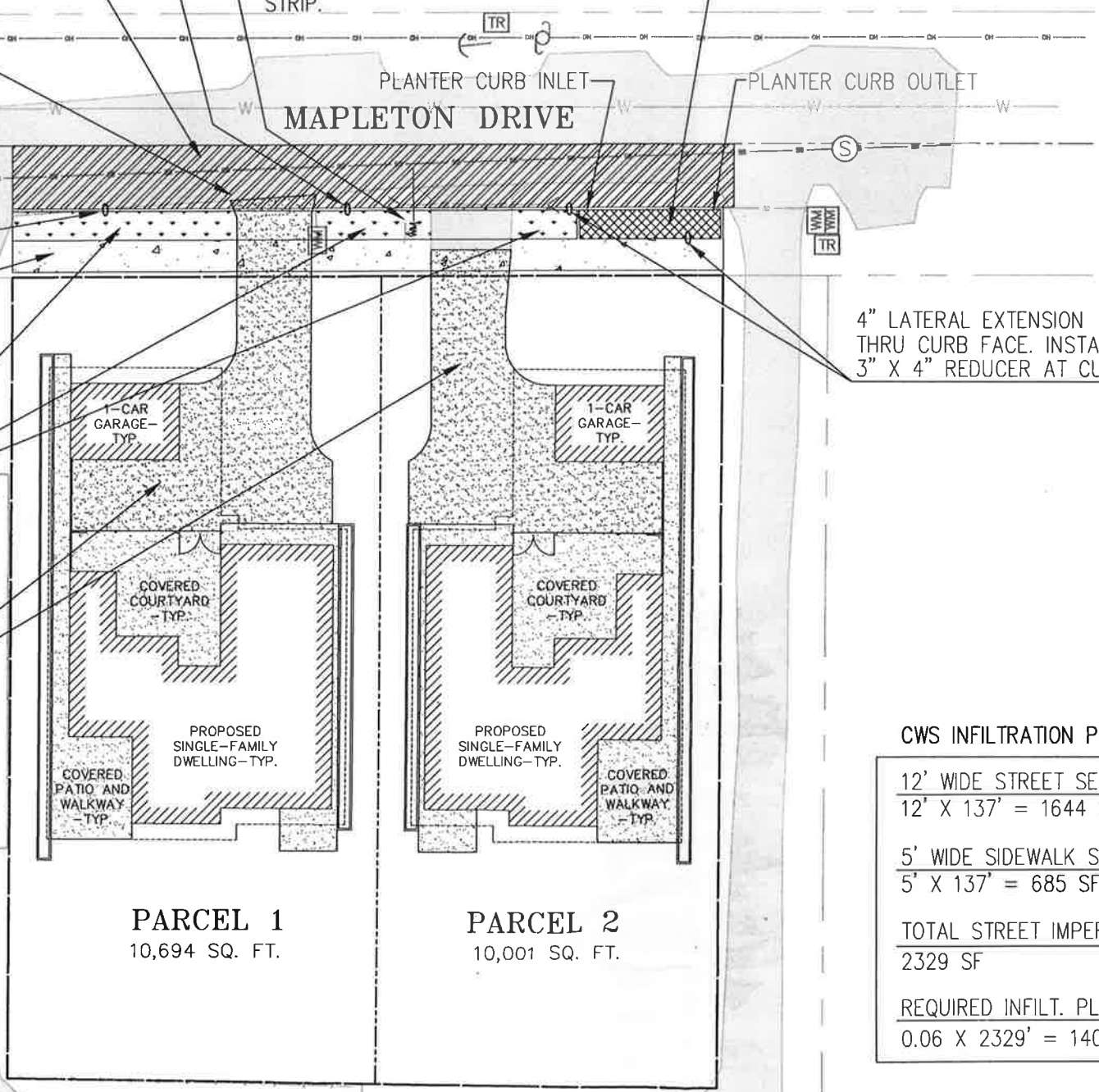
REMOVE EXTG CULVERTS UNDER EXTG. DRIVEWAYS (2)

4" LATERAL EXTENSION THRU CURB FACE. INSTALL 3" X 4" REDUCER AT CURB.

CONSTRUCT 5' X 137' SIDEWALK PER CITY OF WEST LINN STDS.

CONSTRUCT LANDSCAPE STRIP AND STREET TREES (TYP).
 INSTALL TREES @ 25' INTERVALS.

PROPOSED ON-SITE DRIVEWAYS NOT PART OF THIS WORK SCOPE. THIS DRAWING SCOPE IS FOR NEW WORK WITHIN ROW ONLY.



LEGEND

- NEW ROW PAVEMENT SECTION
- PROPOSED "FLOW THRU" INFILTRATION PLANTER AREA
- PROPOSED ROW LANDSCAPE AND TREE AREA
- PROPOSED ROW SIDEWALK CENTER LINE
- EXTG. SANITARY SEWER MANHOLE
- EXTG. WATER METER
- EXTG. GUY ANCHOR
- EXTG. UTILITY POLE
- EXTG. COMMUNICATIONS RISER
- EXTG. OVERHEAD ELECTRIC LINE
- EXTG. UNDERGROUND SANITARY LINE
- EXTG. UNDERGROUND ELECTRIC LINE
- EXTG. UNDERGROUND COMM. LINE
- EXTG. UNDERGROUND GAS LINE
- EXTG. FENCE LINE AS NOTED

CWS INFILTRATION PLANTER SIZING.

12' WIDE STREET SECTION IMPERVIOUS:
 12' X 137' = 1644 SF

5' WIDE SIDEWALK SECTION IMPERVIOUS:
 5' X 137' = 685 SF

TOTAL STREET IMPERVIOUS:
 2329 SF

REQUIRED INFILT. PLANTER AREA = 0.06% OF TOTAL
 0.06 X 2329' = 140 SF

PARCEL 1
 10,694 SQ. FT.

PARCEL 2
 10,001 SQ. FT.

KITTRIDGE ENGINEERS, LLC
 6565 SW 207TH AVENUE
 ALOHA, OR 97078
 TEL: (503) 708-3942

MAPLETON DRIVE "FUTURE CONSTRUCTION"
 CONTRACTOR FEE IN-LIEU EXHIBIT
 MAPLETON DRIVE PARTITION

95.00THILLS ROAD
 ESCM, INC
 971-219-7461 - EDWIN SWARTZ



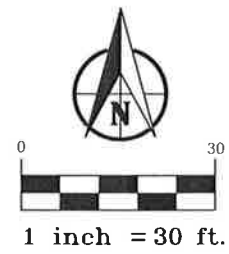
DATE: 9/22/2017
 DRAWN BY: CPK
 PROJ. MGR: CPK
 CHECKED BY: CPK
 PROJECT NUMBER
 SWZ.001
 CASE FILE NUMBER
 N/A

SHEET NUMBER
EXH B 1
 OF 1

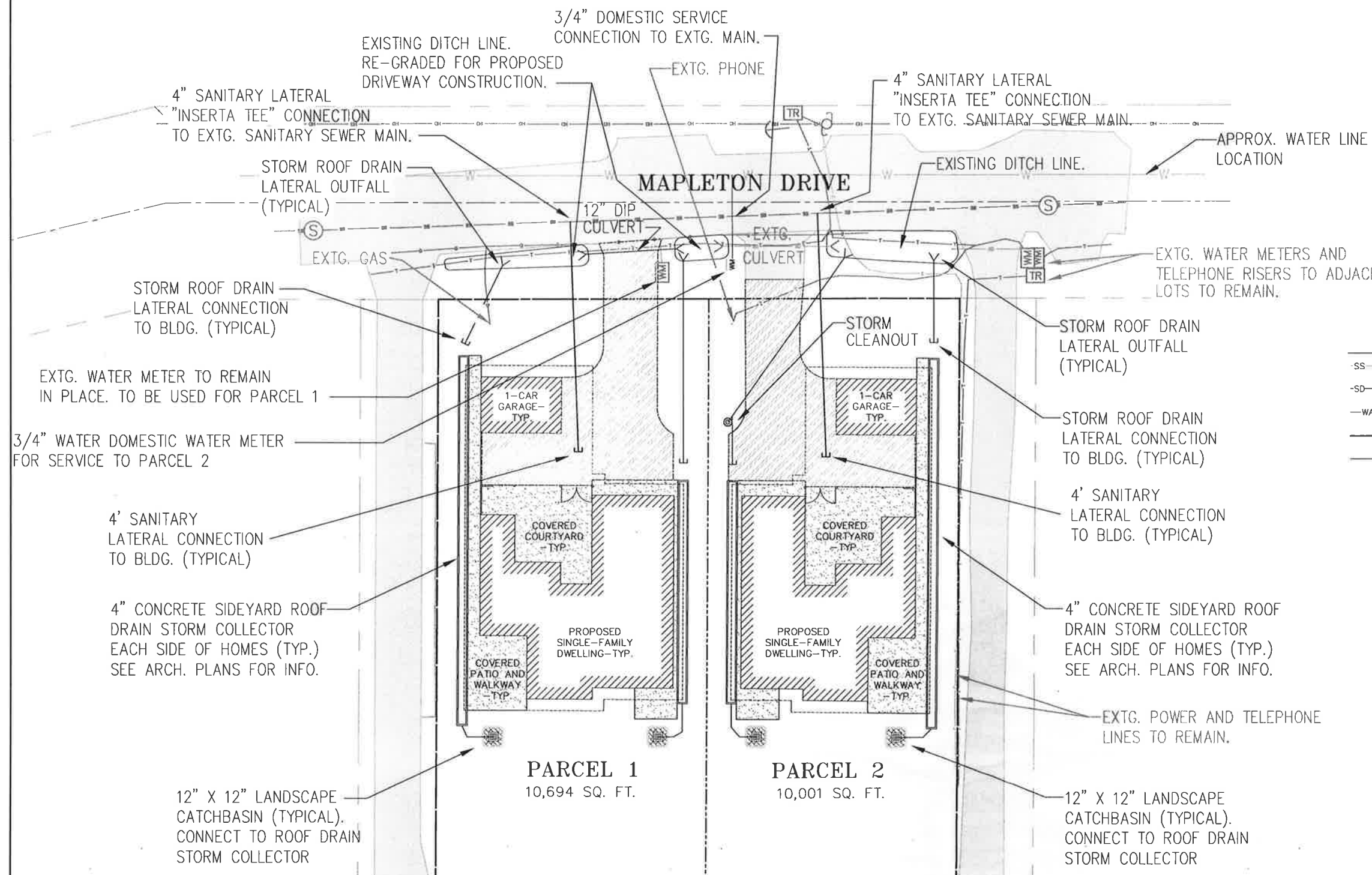
REVISION	DATE	MODIFICATION

Appendix D:

- Rational Frontage
Culvert Calculations
and inlet control
analysis.



KITTRIDGE ENGINEERS, LLC.
 6565 SW 20TH AVENUE
 ALOHA, OR 97078
 TEL: (503) 708-3942



LEGEND

- SS-SS-SS- PROPOSED SANITARY SEWER LINE
- SD-SD-SD- PROPOSED STORM SEWER LINE
- WAT-WAT-WAT- PROPOSED WATER LINE
- RIGHT OF WAY/PROPERTY LINE
- CENTER LINE
- ⊙ EXTG. SANITARY SEWER MANHOLE
- WM EXTG. WATER METER
- ← EXTG. GUY ANCHOR
- ⊕ EXTG. UTILITY POLE
- TR EXTG. COMMUNICATIONS RISER
- OH- EXTG. OVERHEAD ELECTRIC LINE
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- T- EXTG. UNDERGROUND COMM. LINE
- G- EXTG. UNDERGROUND GAS LINE
- F- EXTG. FENCE LINE AS NOTED

PRELIMINARY
 ON-SITE UTILITY PLAN
 MAPLETON DRIVE PARTITION
 ESCM, INC
 95 FOOTHILLS ROAD
 971-219-7461 - EDWIN SWARTZ



DATE: 9/22/2017
 DRAWN BY: CPK
 PROJ. MGR: CPK
 CHECKED BY: CPK
 PROJECT NUMBER
 SWZ.001
 CASE FILE NUMBER
 N/A

REVISION	DATE	MODIFICATION

SHEET NUMBER
P-6
 OF 6

PLATE 1: RAINFALL I-D-R CURVE ZONE MAP

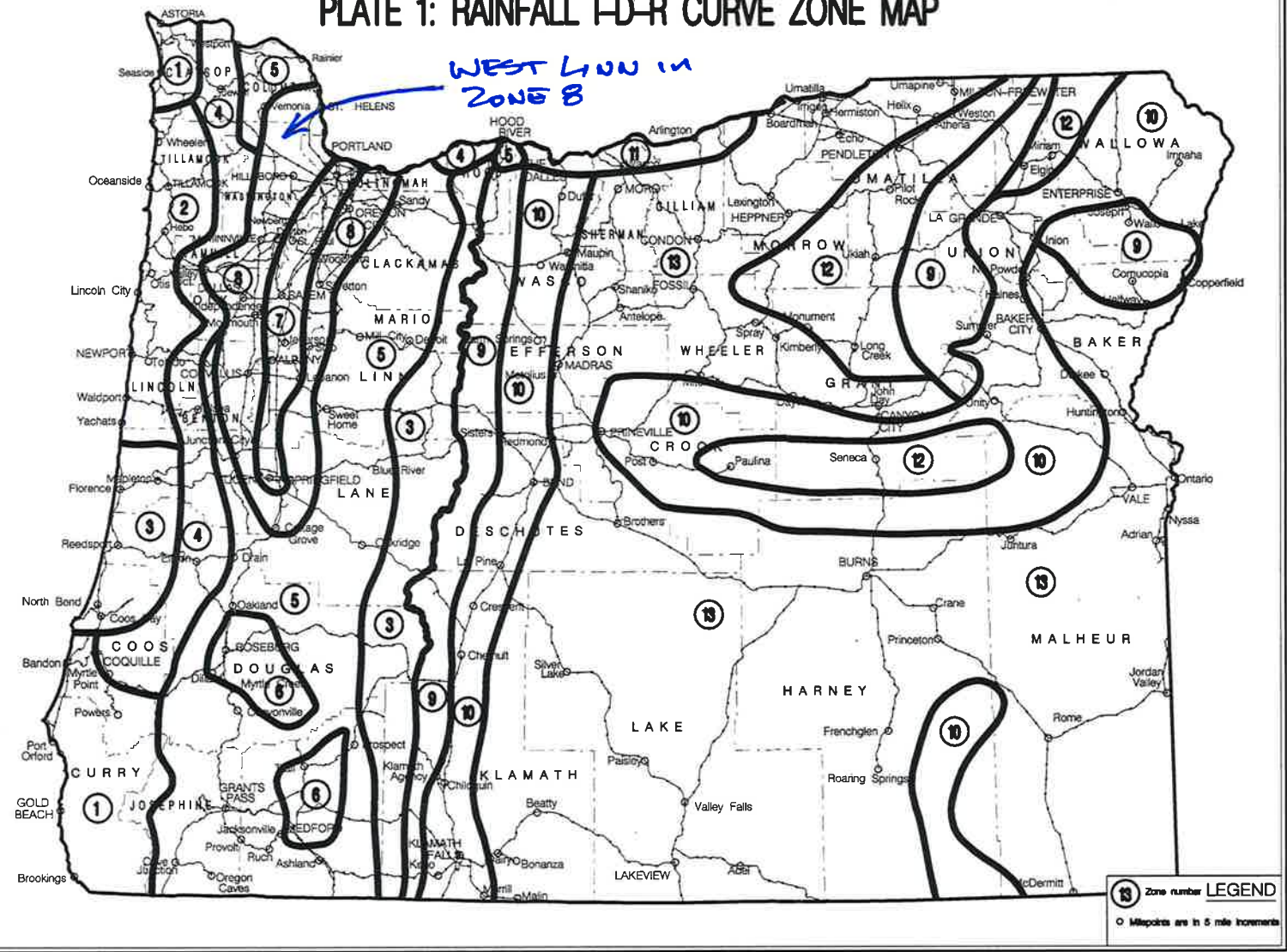


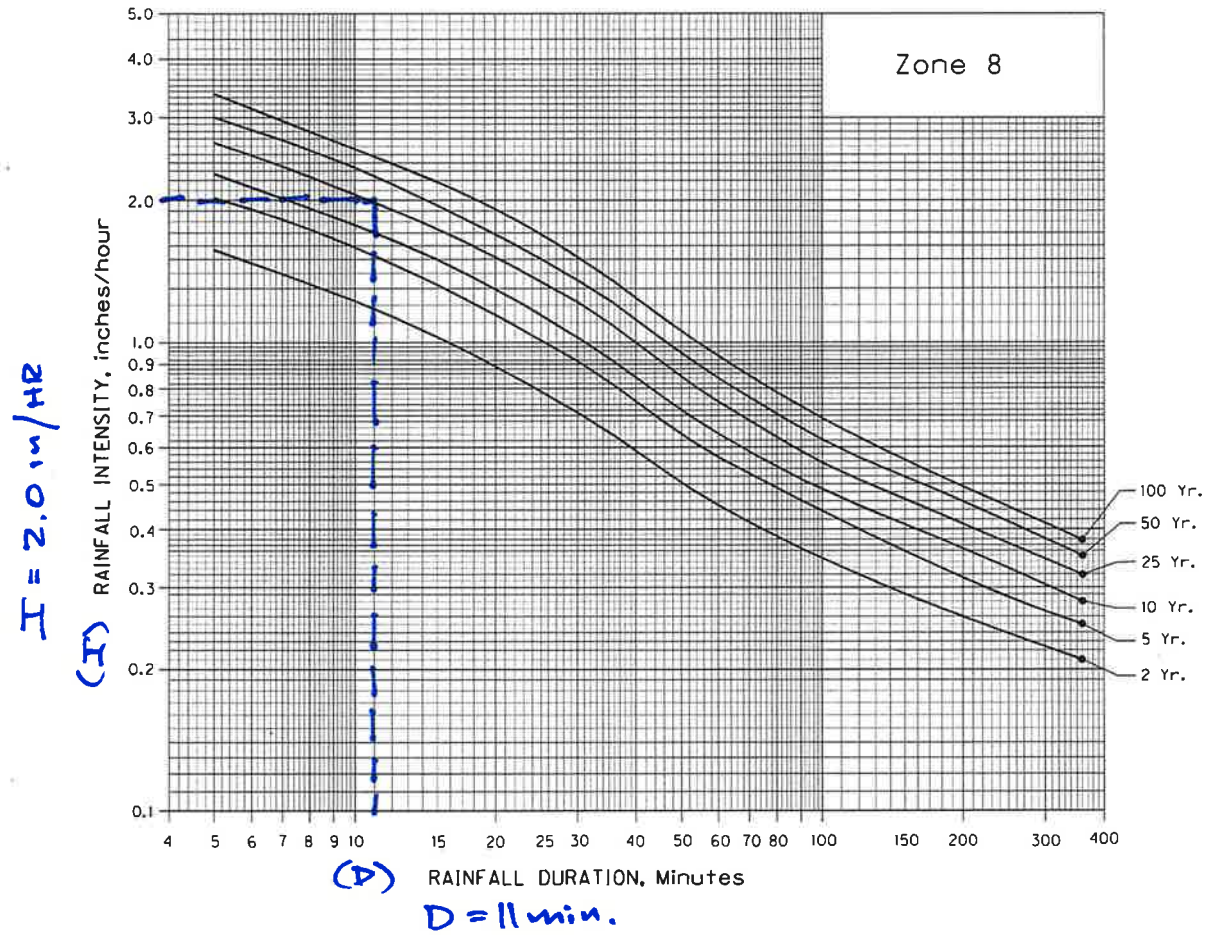
Table 1 Runoff Coefficients for the Rational Method

	FLAT	ROLLING	HILLY
→ Pavement & Roofs	0.90	0.90	0.90
Earth Shoulders	0.50	0.50	0.50
Drives & Walks	0.75	0.80	0.85
Gravel Pavement	0.85	0.85	0.85
City Business Areas	0.80	0.85	0.85
Apartment Dwelling Areas	0.50	0.60	0.70
Light Residential: 1 to 3 units/acre	0.35	0.40	0.45
Normal Residential: 3 to 6 units/acre	0.50	0.55	0.60
→ Dense Residential: 6 to 15 units/acre	0.70	0.75	0.80
Lawns	0.17	0.22	0.35
Grass Shoulders	0.25	0.25	0.25
Side Slopes, Earth	0.60	0.60	0.60
Side Slopes, Turf	0.30	0.30	0.30
Median Areas, Turf	0.25	0.30	0.30
Cultivated Land, Clay & Loam	0.50	0.55	0.60
Cultivated Land, Sand & Gravel	0.25	0.30	0.35
Industrial Areas, Light	0.50	0.70	0.80
Industrial Areas, Heavy	0.60	0.80	0.90
Parks & Cemeteries	0.10	0.15	0.25
Playgrounds	0.20	0.25	0.30
Woodland & Forests	0.10	0.15	0.20
Meadows & Pasture Land	0.25	0.30	0.35
Unimproved Areas	0.10	0.20	0.30

Note:

- **Impervious surfaces in bold**
- *Rolling = ground slope between 2 percent to 10 percent*
- *Hilly = ground slope greater than 10 percent*

RAINFALL INTENSITY - DURATION - RECURRENCE INTERVAL CURVES



THROUGH ITERATION:

RATIONAL T_c Calculation

$$T_c = 0.93 \frac{(164^{0.6}) (0.08^{0.6})}{(2.2^{0.4}) (0.02^{0.3})}$$

$$T_c = 0.93 \frac{(164^{0.6}) (0.08^{0.6})}{(2.0)^{0.4} (0.02^{0.3})} = 10.67 \text{ min}$$

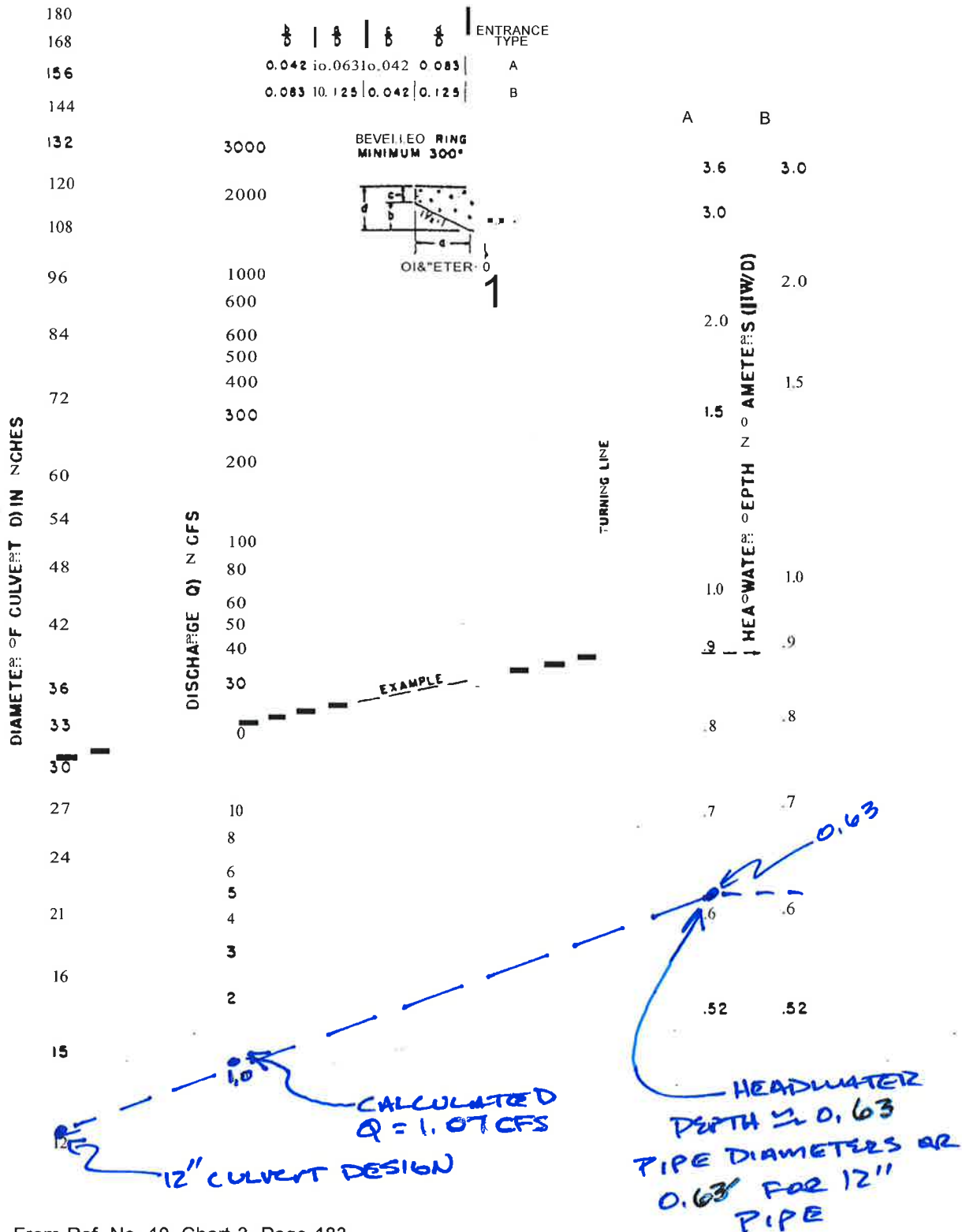
10.67 rounds up to 11
so 11 is correct value

MAPLETON DRIVE - RATIONAL CONVEYANCE
25 -Year Rational Pipe Sizing for Road Side Culverts

Manning's "n" = 0.013

Design Section	Incr. Tc (min)	Total time (min)	Intensity (in/hr)	Incr. Area A	C	Equiv. Incr. Area CA	Runoff (cfs)	Pipe Slope ft/ft	Dia. (in)	Capacity (cfs)	Full Vel. (fps)	% Full	Length (ft)	Travel Time (min)	NOTES
STREET FRONTAGE CULVERT	11.0	11.0	2.00	0.630	0.85	0.536	<u>1.07</u>	0.025	12	5.65	7.19	19%	27.00	0.06	TYPICAL CULVERT CONVEYANCE - MAPLETON DRIVE.

**HEADWATER DEPTH
FOR CIRCULAR PIPE CULVERT
WITH BEVELED RING ENTRANCE
INLET CONTROL**



From Ref. No. 10, Chart 3, Page 183.

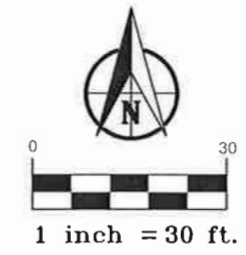
BES August 7, 1990

Appendix E:

- Pre and Post Developed On-site Basin Plans w/HydroCAD Calculations.
- On-site Basin maps

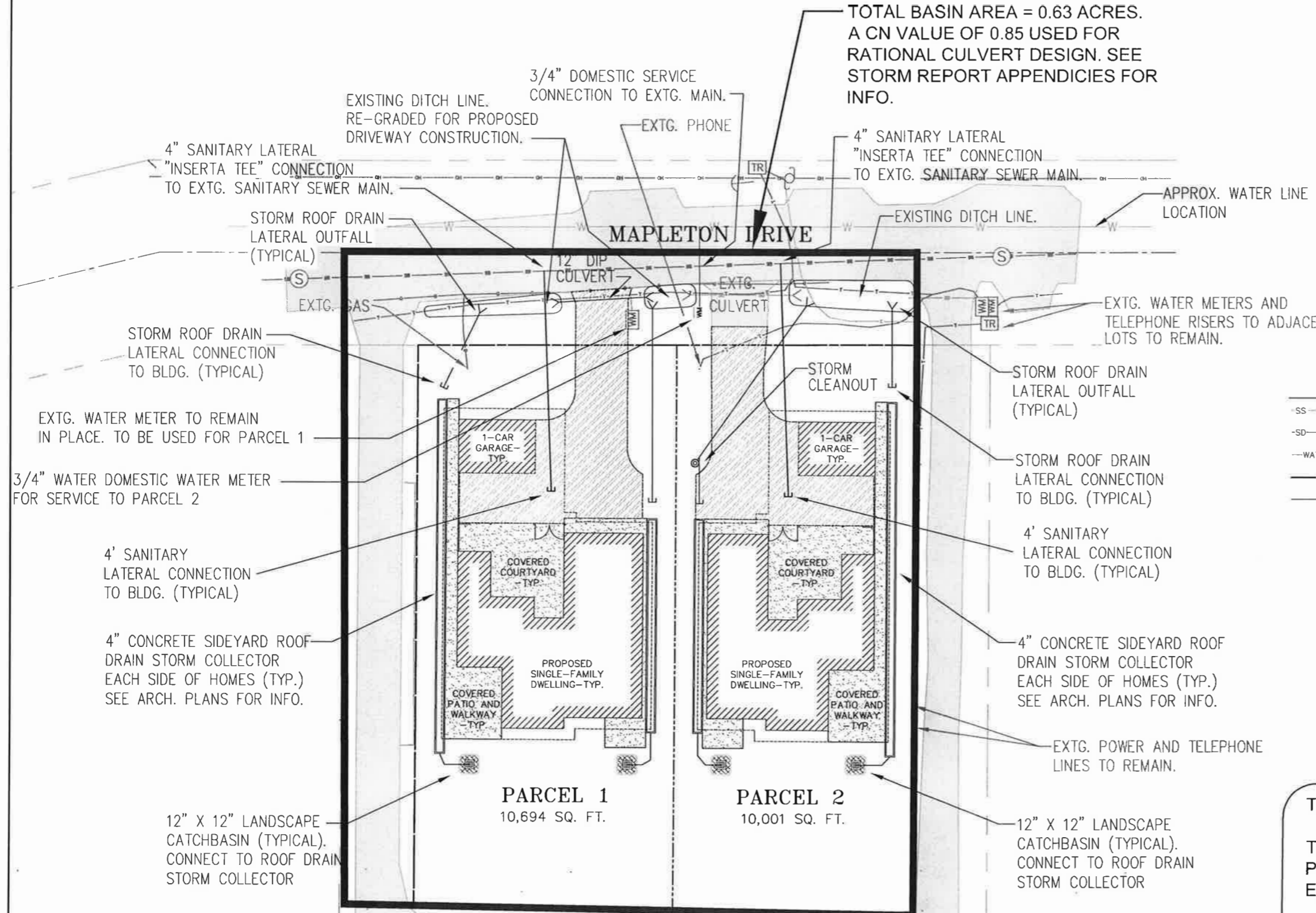
Appendix E:

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KITTRIDGE ENGINEERS, LLC
 6565 SW 207TH AVENUE
 ALOHA, OR 97078
 TEL: (503) 708-3942

TOTAL BASIN AREA = 0.63 ACRES.
 A CN VALUE OF 0.85 USED FOR
 RATIONAL CULVERT DESIGN. SEE
 STORM REPORT APPENDICIES FOR
 INFO.



LEGEND

- SS SS SS PROPOSED SANITARY SEWER LINE
- SD SD SD PROPOSED STORM SEWER LINE
- WAT WAT WAT PROPOSED WATER LINE
- RIGHT OF WAY/PROPERTY LINE
- CENTER LINE
- ⊙ EXTG. SANITARY SEWER MANHOLE
- WM EXTG. WATER METER
- ⊖ EXTG. GUY ANCHOR
- ⊕ EXTG. UTILITY POLE
- TR EXTG. COMMUNICATIONS RISER
- OH EXTG. OVERHEAD ELECTRIC LINE
- SS EXTG. UNDERGROUND SANITARY LINE
- E EXTG. UNDERGROUND ELECTRIC LINE
- T EXTG. UNDERGROUND COMM. LINE
- G EXTG. UNDERGROUND GAS LINE
- X EXTG. FENCE LINE AS NOTED

TOTAL ON-SITE AREA: 20,653 SF

TOTAL ON-SITE IMPERVIOUS:
 PROPOSED: 11,080 SF
 EXTG: 5,645 SF

TOTAL ON-SITE PERVIOUS:
 PROPOSED 9,573 SF
 EXTG: 15,008 SF

PRELIMINARY ON-SITE OVERALL
 DRAINAGE BASIN PLAN
 MAPLETON DRIVE PARTITION
 ESCM, INC



DATE: 9/22/2017
 DRAWN BY: CPK
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25 Year Post-developed
Site



25 year predeveloped
site



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SBUH method, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: 25 Year Post-developed Runoff Area=20,653 sf 46.35% Impervious Runoff Depth>2.19"
Tc=5.0 min CN=85 Runoff=0.30 cfs 0.086 af

Subcatchment 2S: 25 year predeveloped Runoff Area=20,653 sf 27.33% Impervious Runoff Depth>2.11"
Tc=10.0 min CN=84 Runoff=0.27 cfs 0.083 af

Total Runoff Area = 0.948 ac Runoff Volume = 0.170 af Average Runoff Depth = 2.15"
63.16% Pervious = 0.599 ac 36.84% Impervious = 0.349 ac

Summary for Subcatchment 1S: 25 Year Post-developed Site

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.30 cfs @ 7.96 hrs, Volume= 0.086 af, Depth> 2.19"

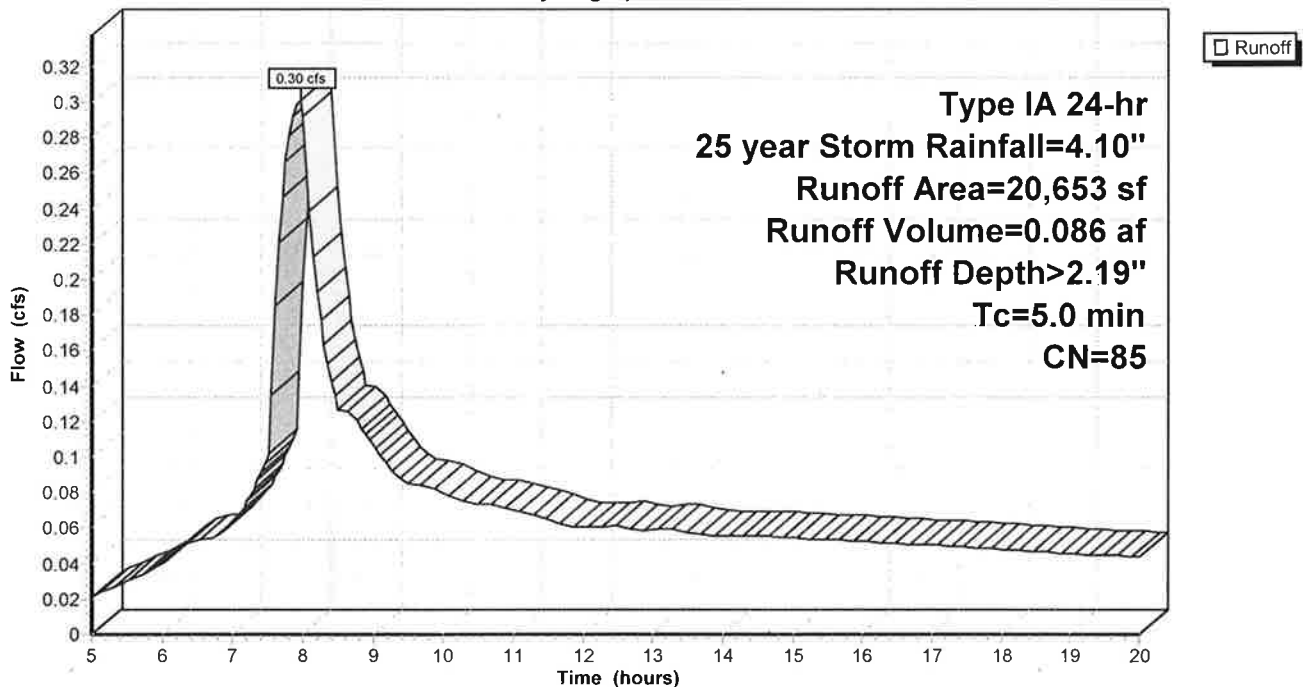
Runoff by SBUH method, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 year Storm Rainfall=4.10"

	Area (sf)	CN	Description
*	11,080	74	PERVIOUS
*	9,573	98	IMPERVIOUS
	20,653	85	Weighted Average
	11,080		53.65% Pervious Area
	9,573		46.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 1S: 25 Year Post-developed Site

Hydrograph



Summary for Subcatchment 2S: 25 year predeveloped site

Runoff = 0.27 cfs @ 7.99 hrs, Volume= 0.083 af, Depth> 2.11"

Runoff by SBUH method, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 year Storm Rainfall=4.10"

	Area (sf)	CN	Description
*	15,008	79	
*	5,645	98	
	20,653	84	Weighted Average
	15,008		72.67% Pervious Area
	5,645		27.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Subcatchment 2S: 25 year predeveloped site

Hydrograph

