CLACKAMAS COUNTY

Clackamas County Planning and Zoning Division
Department of Transportation and Development

Development Services Building
150 Beavercreek Road | Oregon City, OR 97045

503-742-4500 | zoninginfo@clackamas.us
www.clackamas.us/planning

NOTICE OF LAND USE APPLICATION IN YOUR AREA

Date: 07/29/2019

Permit Number: Z0229-19

Application: Design Review

From: Clackamas County Planning and Zoning

Notice Mailed To: Property owners within 300 feet
Community Planning Organizations (CPO)
Interested Citizens and Agencies

Application Proposal:

SELF STORAGE FACILITY - Design review of alterations to existing warehouse and development of new three-story building, to be used as a self storage facility. Project will include new site access, circulation, landscaping, and right of way improvements.

This project has been scheduled to be presented to the Design Review Committee on Tuesday, August 13th at 8:30 am. The meeting will be held in the Auditorium of Clackamas County's Development Services Building, located at 150 Beavercreek Road in Oregon City.

Property Owner: NWB CLACKAMAS LLC
801 SECOND AVE STE 1300
SEATTLE , WA 98104

Applicant: HITCHCOCK LARZ
311 FIRST AVENUE SOUTH
SEATTLE, WA 98104

Address: 8319 SE OTTY RD
HAPPY VALLEY, OR 97086

Location: Intersection of SE Otty and SE Fuller

Legal Description: 12E28CB03000 **Acres:** 1.47

Zone: CC - Corridor Commercial

Staff: Anthony Riederer 503-742-4528 **E-mail:** ariederer@co.clackamas.or.us,

How to Comment on this Application:

1. To be sure your comments will be considered prior to the decision, we need to have them within 20 days of the date of this notice.

Permit Number: Z0229-19

2. You may use the space provided below, mail a separate letter or e-mail the information. Please include the permit number, address the information to the staff member handling this matter, and focus your comments on the approval criteria for the application.

3. Return your mailed comments to: Clackamas County Planning and Zoning, 150 Beavercreek Rd, Oregon City, OR 97045; FAX to (503) 742-4550.

Community Planning Organization: The following recognized Community Planning Organization (CPO) has been notified of this application. This organization may develop a recommendation on this application. You are welcome to contact this organization and attend their meeting. If this Community Planning Organization is currently inactive, and you are interested in becoming involved in Land Use Planning in your area, please contact the Citizen Involvement Office at (503) 655-8552.

SOUTHGATE (INACTIVE)

OR

Decision Process: In order to be approved, this proposal must meet the approval criteria in the Zoning and Development Ordinance, Section(s)

510, 1000 series, 1102, 1307

The Ordinance criteria for evaluating this application can be obtained from this office or viewed at www.clackamas.us/planning/zdo.html. You may view the submitted application at the following link, https://accela.clackamas.us/citizenaccess/ within five days of the date of this notice, or at our office during weekday lobby hours, 8:00 am to 4:00 pm, Monday through Thursday and 8:00 am to 3:00 pm Friday.

A decision on this proposal will be made and a copy will be mailed to you. If you disagree with the decision you may appeal to the Land Use Hearings Officer who will conduct a public hearing. There is a $250 appeal fee.

Comments:

_____

_____

_____

_____ _____

Your Name/Organization Telephone Number

Clackamas County is committed to providing meaningful access and will make reasonable accommodations, modifications, or provide translation, interpretation or other services upon request. Please contact us at 503-742-4545 or email DRenhard@clackamas.us.

503-742-4696: ¿Traducción e interpretación? |Требуется ли вам устный или письменный перевод? | 翻译或口译？| Cần Biên dịch hoặc Phiên dịch? | 번역 또는 통역?

CLACKAMAS COUNTY

Planning & Zoning
Development Services Building
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E-mail: zoninginfo@co.clackamas.or.us
Web: http://www.clackamas.us/transportation/planning/

LAND USE APPLICATION

DEEMED COMPLETE

ORIGINAL DATE SUBMITTED: 5/22/19

FILE NUMBER: Z0229-19-D

APPLICATION TYPE: Design Review

The Planning and Zoning Division staff deemed this application complete for the purposes of Oregon Revised Statutes (ORS) 215.427 on: ~~5~~ 6/22/19

Signature

Senior Planner
Title

Anthony Riederer
Print Name

Comments: _____

Check one:

[X] The subject property is located inside an urban growth boundary. The 120-day deadline for final action on the application pursuant to ORS 215.427(1) is:

Wednesday, November 20th

[ ] The subject property is not located inside an urban growth boundary. The 150-day deadline for final action on the application pursuant to ORS 215.427(1) is:

_____

CLACKAMAS COUNTY

CLACKAMAS COUNTY PLANNING AND ZONING DIVISION
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DEVELOPMENT SERVICES BUILDING
150 BEAVERCREEK ROAD | OREGON CITY, OR 97045
503-742-4500 | ZONING@CLACKAMAS.US

Land Use Application

For Staff Use Only			
Date received:	5.22.19	Staff initials:	LH
Application type:	2.D.	File number:	Z0229-19-D
Zone:	CC	Fee:	21,584.00
Violation #:		CPO/Hamlet:	

Applicant Information:

What is proposed? To retrofit the existing building on site into a 2-story self-storage facility and construct a new 3-story self-storage facility building to the east. Also, new parking and landscaping.

Name of applicant: Jackson Main Architecture (contact: Larz Hitchcock)

Mailing address: 311 First Avenue South

City Seattle State WA Zip 98104

Applicant is (select one): ☐ Property owner ☐ Contract purchaser ☒ Agent of the property owner or contract purchaser

Name of contact person (if other than applicant):

Mailing address of contact person:

larz.hitchcock@jacksonmain.com

Applicant #s: Wk: 206-324-4800 Cell: Email: see above

Contact person #s: Wk: Cell: Email:

Other persons (if any)to be mailed notices regarding this application:

Name	Address	Zip	Relationship
Kevin Brady	6720 SW Macadam Ave, Ste. 200, Portland, OR	97219	Planner
Luis Giron	6720 SW Macadam Ave, Ste. 200, Portland, OR	97219	Civil Engineer

SITE ADDRESS: 8319 SE Otty Road, Happy Valley, OR 98104

TAX LOT #: T 1S R 2E Section 28CB Tax 3000 Lot(s) 7, 8, 9 (Maryland Fractional)

Total land area: 1.47 acres

Adjacent properties under same ownership:

T___ R___ Section___ Tax lot(s) ___

T___ R___ Section___ Tax lot(s) ___

T___ R___ Section___ Tax lot(s) ___

I hereby certify that the statements contained herein, along with the evidence submitted, are in all respects true and correct to the best of my knowledge.

Jim Fitzpatrick 05/14/19 [signature] REAL ESTATE/DEVELOPMENT MANAGER

Property owner or contract purchaser's name (print) Date Owner or contract purchaser's signature

Larz Hitchcock 05/17/19 [signature]

Applicant's name (print) Date

CLACKAMAS COUNTY

CLACKAMAS COUNTY PLANNING AND ZONING DIVISION
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DEVELOPMENT SERVICES BUILDING
150 BEAVERCREEK ROAD | OREGON CITY, OR 97045
503-742-4500 | ZONING@CLACKAMAS.US

Application for Design Review

May 2018

******A Pre-Application Conference is required prior to filing this application.******

Date Received: _____ File No.: _____

Staff Member: _____ Design Review Fee: $_____

Zone: _____ .384% of Construction Cost: $_____

Comp. Plan: _____ ($650.00 Minimum / $36,835.00 Maximum Fee)

Development No.: _____ Project No.: _____

Name of Applicant: Jackson Main Architecture (contact: Larz Hitchcock)

Mailing Address: 311 First Avenue South, Seattle, Washington 98104

Phone: 206-324-4800 Email: larz.hitchcock@jacksonmain.com

What is proposed?:

___ Demolition of existing building mezzanine and all interior non-structural walls within Type II Structure.
— Retrofit the existing building on site into a 2-story self storage facility.
___ Construct a new 3-story Type II self-storage building to the east.

Proposed title: West Coast Self-Storage- Otty Road Sq. ft. of each structure: 40,300+/- Existing, 48,800+/- New

Estimated completion date: Sept. 2020 Estimated cost of constr (labor & materials): $_ $5,600,000.00 _

Site Address: 8319 Southeast Otty Road, Happy Valley, Oregon 98104

Total Land Area : 1.47 Acres

Legal Description: T 1 S R 2 E Section: 28 Tax Lot(s): 7,8,9, Maryland Fractional Acres

Adjacent Properties Under Same Ownership: T____ R____ Section_____ Tax Lot(s)_____

Other persons (if any) to be mailed notices regarding this application:

Name	Address	Relationship
Cardno, Attn: Kevin Brady	6720 SW Macadam Ave., Suite 200, Portland, Oregon 97219	Planner
WCSS, Attn: Jim Fitzpatrick	808 134th St SW, Bldg B Ste211, Everett, WA 98204	Client
Name	Address	Relationship

I hereby certify the statements contained herein, along with the evidence submitted, are in all respects true and correct to the best of my knowledge.

Jim Fitzpatrick
Property Owner's Name (Print)

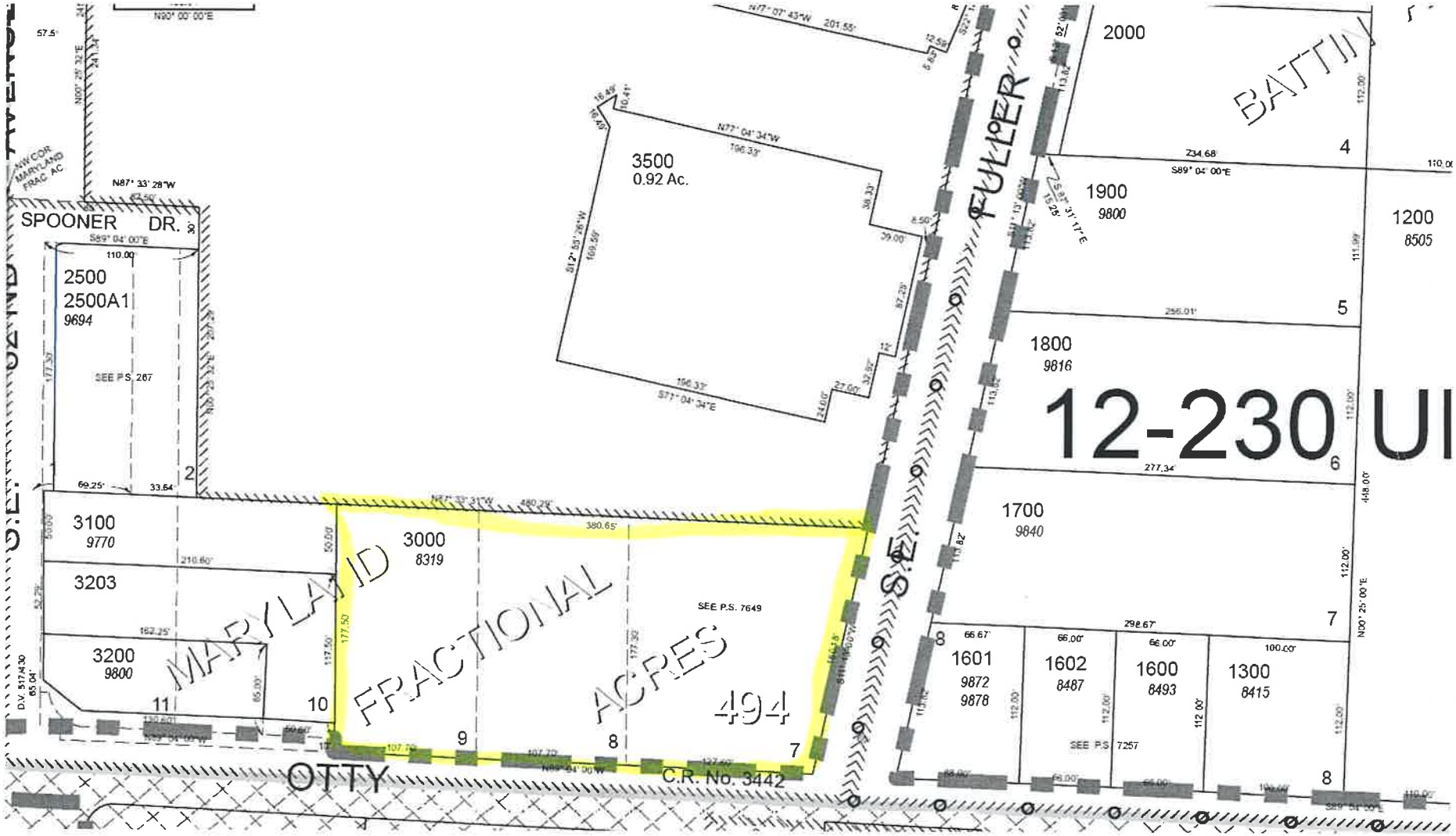
05/17/19
Property Owner's Signature Date

REAL ESTATE / DEVELOPMENT MANAGER

LARZ HITCHCOCK- ARCHITECT / LEED AP
Applicant's Name (Print)

05/17/19
Date

Architect/ LEED AP (BD+C)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FULLER
OTTY
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MARYLAND FRACTIONAL ACRES 494
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8319
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8505
1800
9816
1700
9840
1601
9872
9878
1602
8487
1600
8493
1300
8415
SEE P.S. 267
SEE P.S. 7649
SEE P.S. 7257

CLACKAMAS COUNTY

Clackamas County Planning and Zoning Division
Department of Transportation and Development

Development Services Building
150 Beavercreek Road | Oregon City, OR 97045

503-742-4500 | zoninginfo@clackamas.us
www.clackamas.us/planning

NOTICE OF INCOMPLETE APPLICATION

ORIGINAL DATE SUBMITTED: May 22, 2019
FILE NUMBER: Z0229-19-D
APPLICATION TYPE: Design Review
STAFF CONTACT: Anthony Riederer, (503) 742-4528
DATE OF THIS NOTICE: May 30, 2019
180 DAYS AFTER DATE SUBMITTED: November 19, 2019
Date of **CERTIFIED MAILING**: May 30, 2019

MAILED TO :

Larz Hitchcock
Jackson Main Architecture
311 First Avenue South
Seattle, WA 98104

MISSING INFORMATION REQUIRED FOR A COMPLETE APPLICATION:

After reviewing the materials submitted in support of this Design Review application, the following elements appear to be absent from the application. These items are drawn directly from ZDO Section 1102.02 "Submittal Requirements" which outlines the required elements for a Design Review application to be complete.

1) A site plan which includes the following:
    a. Location and type of lighting [1102.02(H)(10)]
    b. Service areas for waste disposal, recycling, loading, and delivery [1102.02(H)(11)]
    c. Pedestrian amenities [1102.02(H)(14)]
2) Architectural drawings, including:
    a. Elevations of signs, with dimensioning [1102.02(J)(5)]
3) A general landscaping plan drawn at a scale of not less than 1 inch equals 50 feet showing the site plan elements as well as
        i. Description of soil conditions [1102.02(K)(2)]
        ii. Erosion controls, including plant materials and soil stablilication ([1102.02(K)(3)]
        iii. Irrigation system [1102.02(K)(4)]
4) A transportation improvement plan that includes proposed cross-sections for roads to be constructed or improved, including widths of travel lanes, bikeways, sidewalks, curbs, pedestrian pathways, and landscape strips.

Identify proposed landscape plan for landscape strips, including street tree type, size and location. Identify proposed dedication of right-of-way. [1102.02(L)]

Please keep in mind that, though the items listed in ZDO section 1102.02 are necessary for an application to meet the minimum requirements to be deemed 'complete', the onus is on the applicant to provide sufficient evidence that staff can make defensible findings on all pertinent ZDO criteria. As such, staff may seek further information through the review process.

ADDITIONAL ADVISORY INFORMATION

The following are NOT completeness items but are offered to the applicant as areas, identified through this preliminary completeness review, which staff recommends be considered for revision relative to ZDO criteria. This is a preliminary review and it is possible that additional items will be identified as the review process moves forward.

Generally: It appears that a number of the plan sheets referenced in the narrative are missing from the set of submitted drawings.

1005.04(D): Consider revising roofline/cornice to create more visual interest along the top of the building.

1005.04(E): Though the façade materials have been indicated in rendering and narrative form, metal is used as a primary exterior building material.

> Per 1005.04(E)(4), "Notwithstanding Subsection 1005.04(E)(3) metal may be approved as an exterior building material through design review pursuant to Section 1102 for specific high-image surfaces, canopies, awnings, doors, screening of roof mounted fixtures, or other architectural features." (emphasis added).

1005.05: Though some outdoor lighting is plain in the indicated drawings, the placement and nature of the described wall sconces is not clear.

1005.08: The narrative is incorrect. The proposal is subject to these standards. Only where they are in conflict with the Fuller Road Station Community Standards, do those standards supersede.

1005.10(I)(2): The floor to ceiling height of the ground floor is not 15 feet, as required by this standard.

1005.10(I)(9): Metals may be used as indicated in the ordinance, "for specific high-image surfaces, canopies, awnings, doors, screening of roof mounted fixtures, or other architectural features." The scope and extent of metal on this building is significantly beyond the intent of the ordinance.

1009.01(B): Given that approximately 80% of the landscaped area is comprised of two species of ground cover, the proposed design does not adequately address the standard:

> "A variety of plants, intermixed throughout landscaped areas, shall be provided, as follows:
>
> 1. Evergreen and deciduous;
> 2. Trees, shrubs, and groundcover;
> 3. Plants of varying textures;
> 4. Plants of varying widths and heights at maturity; and
> 5. Plants with seasonal color interest (e.g., foliage, flowering perennials, annuals)."

1009.06: The applicant correctly identifies the potential for the landscape requirement to be reduced, per this section. That said, as an alternative, the landscape strip requirement may be met with a linear arrangement of trellises, hanging baskets, or planters.

1010: Signs are indicated in the submitted drawings. If the signs are to be considered and approved through this Design Review application, please provide additional information and dimensional information so that they may be evaluated relative to the standards of ZDO 1010.

1021: Narrative indicates that the refuse/recycling enclosure is to be internal to the building. The location of this is unclear and so the application cannot be adequately evaluated relative to the standards of ZDO 1021.

IMPORTANT

Your application will be deemed complete, if, within 180 days of the date the application was first submitted, the Planning Division receives one of the following:

1. **All of the missing information; or**
2. **Some of the missing information and written notice from you (the applicant) that no other information will be provided; or**
3. **Written notice from you (the applicant) that none of the missing information will be provided.**

If any one of these options is chosen within 180 days of the date of the initial submittal, approval or denial of your application will be subject to the relevant criteria in effect on the date the application was first submitted.

NOTICE

Your application will be considered Void if, on the 181st day after the date the application was first submitted, you have been mailed this notice and have not provided the information requested in Options 1 – 3 above. In this case, no further action will be taken on your application.

Applicant or authorized representative, please check one of the following and return this notice to: Clackamas County Planning Division; 150 Beavercreek Road, Oregon City, Oregon, 97045

☑ I am submitting the required information (attached); or.

☐ I am submitting some of the information requested (attached) and no other information will be submitted; or

☐ I will not be submitting the requested information. Please accept the application as submitted for review and decision.

Signed

07/17/19

Date

LARZ HITCHCOCK - ARCHITECT/ LEED AP (BD+C)

Print Name

RECEIVED

JUL 18 2019

Clackamas County
Planning & Zoning Division

Otty Road
West Coast Self Storage

Portland, Oregon

An Application For:
Type II Design Review
and Nonconforming Review

Original Submittal: May 22, 2019
Completeness Response Narrative: June 21, 2019

Applicant:
Jackson Main Architecture
Contact: Larz Hitchcock
311 First Avenue South
Seattle, WA 98104
Phone: 206. 324-4800

Client:
West Coast Self Storage
808 134th St SW Bldg B Ste 211
Everett, WA 98204
Phone: 818. 749-8846

Prepared by:
Cardno
Contact: Kevin Brady
6720 SW Macadam Ave., Suite 200
Portland, Oregon 97219
Phone: 503. 419-2500

RECEIVED

JUL 18 2019

Clackamas County
Planning & Zoning Division

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EXHIBITS

Exhibit A	Land Use Application
Exhibit B	Pre-application Conference Notes
Exhibit C	Narrative
Exhibit D	Statements of Feasibility
Exhibit E	Plan Set (reduced size) – Site Plan, Grading Plan, Planting Plan, etc.
Exhibit F	Architectural Elevations and Building Material/Color Samples
Exhibit G	Storm Water Drainage Report
Exhibit H	Geotechnical Report

I. INTRODUCTION

GENERAL INFORMATION

Applicant:	Jackson Main Architecture 311 First Street South Seattle, WA 98104 Contact: Larz Hitchcock Email: larz.hitchcock@jacksonmain.com Phone: 206-324-4800
Applicant's Representative	Cardno 6720 SW Macadam Avenue, Suite 200 Portland, Oregon 97219 Contact: Kevin Brady Email: kevin.brady@cardno.com Phone: 503-419-2500
Tax Lot Information:	12E28CB0 Tax Lot 3000
Location:	8319 SE Otty Road
Current Zoning District:	CC, Corridor Commercial
Project Site Area:	1.38 acres

SUMMARY OF PROPOSAL

Project Location – 8319 SE Otty Road

Project Description – The applicant proposes to construct a self-storage facility consisting of two buildings on a site currently developed with a building and some parking. The larger of the two buildings is the existing building onsite along the south and west sides of the property. This building will be redeveloped as a two-story self-storage building with a total of 41,317 square feet. The second building will be located on the south and east sides of the property and be constructed as a new 3-story self-storage building with a total of 50,082 square feet. The site development will also include parking and vehicle areas, a pedestrian network and landscaping. The property is zoned Corridor Commercial (CC), which permits the proposed development within the use category described as 'Services, Commercial – Mini-Storage/Self-Storage Facilities'. The existing site is developed with an industrial building and some vehicle areas, with some vegetated areas along some of the perimeter areas of the site. The proposal will include improvements to existing rights-of-way adjacent to the subject property, as well as connections to existing public utilities.

Land Use Application – Type II Design Review

SURROUNDING USES

Table A: SURROUNDING LAND USE

Location	Zoning Designation	Land Use
North	Corridor Commercial	Corridor Commercial
East	Planned Mixed Use	Station Community Mixed Use
South	Corridor Commercial	Corridor Commercial
West	Corridor Commercial	Corridor Commercial

II. CLACKAMAS COUNTY – ZONING AND DEVELOPMENT ORDINANCE

SECTION 500 COMMERCIAL DISTRICTS

510 CORRIDOR COMMERCIAL (CC)

510.02 APPLICABILITY

Section 510 is adopted to implement the policies of the Comprehensive Plan for the Neighborhood Commercial zoning district and Community Commercial, Regional Center Commercial, Retail Commercial, Corridor Commercial, General Commercial, Planned Mixed Use, Station Community Mixed Use, Office Apartment, Office Commercial, and Regional Center Office areas.

Response: The subject property is zoned Corridor Commercial (CC), therefore, the standards of this Section are applicable to this application and property.

510.03 USES PERMITTED

Uses permitted in each zoning district are listed in Table 510-1, *Permitted Uses in the Urban Commercial and Mixed-Use Zoning Districts*. In addition, uses similar to one or more of the listed uses for the applicable zoning district may be authorized pursuant to Section 106, *Authorization of Similar Uses*.

A. As used in Table 510-1:
   1. "P" means the use is a primary use.
   2. "A" means the use is an accessory use.

Response: The proposal is for a self-storage facility. The use is considered 'Services, Commercial—Mini-Storage/Self-Storage Facilities, and is a permitted use in the CC District.

510.04 DIMENSIONAL STANDARDS

Dimensional standards applicable in the urban commercial and mixed-use zoning districts are listed in Table 510-2, *Dimensional Standards in the Urban Commercial and Mixed-Use Zoning Districts*. Modifications to the standards of Table 510-2 are established by Sections 800, *Special Use Requirements;* Section 903, *Setback Exceptions*; 904, *Height Exceptions*; 1012, *Lot Size and Density*; 1107, *Property Line Adjustments*; and 1205, *Variances*. As used in Table 510-2, numbers in superscript correspond to the notes that follow Table 510 -2.

Response: The minimum lot size standard applies only to subdivisions, partitions, and property line adjustments, therefore, the dimensional standard does not apply to this application.

510.05 DEVELOPMENT STANDARDS

Response: There is not a subsection in the development standards in Section 510 that is applicable to the CC District. Applicable development standards are addressed below in Section 1005.

SECTION 1000 DEVELOPMENT STANDARDS

1005 SUSTAINABLE SITE AND BUILDING DESIGN

1005.02 APPLICABILITY

Section 1005 shall apply to institutional, commercial, and industrial development; multifamily dwellings; and developments of more than one two- or three-family dwelling. Subsections 1005.04 (F) and 1005.09 also shall apply to attached single family dwellings. Subsection 1005.09 also shall apply to developments of a single two- or three-family dwelling.

Response: The proposal for this application is for a self-storage facility, therefore, Section 1005 applies to this application and is addressed below.

1005.03 GENERAL SITE DESIGN STANDARDS

Development shall be subject to the following standards:

A. Where feasible, cluster buildings within single and adjacent developments for efficient sharing of walkways, on-site vehicular circulation, connections to adjoining sites, parking, loading, transit-related facilities, plazas, recreation areas, and similar amenities.

Response: The development has been designed to allow clustering of buildings with a vehicle circulation system and pedestrian walkway network that allows separate efficient and convenient circulation within the site for both vehicles and pedestrians. The on-site pedestrian walkway network connects all of the buildings to the associated parking spaces. Reference Exhibit E, Plan Set, Sheet A1.01 or C2.0 Site Plans.

B. Where feasible, design the site so that so that the longest building elevations can be oriented within 20 degrees of true south in order to maximize the south-facing dimensions.

Response: The existing building is within 20 degrees of true south. Based on site constraints and development standards required by the ZDO, it is not feasible to design the site so that the new building will have the longest building elevation within true south.

D. A continuous, interconnected on-site walkway system meeting the following standards shall be provided.
   1. Walkways shall directly connect each building public entrance accessible to the public to the nearest sidewalk or pedestrian pathway, and to all adjacent streets, including streets that dead-end at the development or to which the development is not oriented.
   2. Walkways shall connect each building to outdoor activity areas including parking lots, transit stops, children's play areas and plazas.
   3. Walkways shall be illuminated. Separate lighting shall not be required if existing lighting adequately illuminates the walkway.
   4. Walkways shall be constructed with a well-drained, hard-surfaced material or porous pavement and shall be at least five feet in unobstructed width.
   5. Standards for walkways through vehicular areas:
      a. Walkways crossing driveways, parking areas and loading areas shall be constructed to be clearly identifiable to motorists through the use of different paving material, raised elevation, warning signs or other similar methods.
      b. Where walkways are adjacent to driveways, they shall be separated by a raised curb, bollards, landscaping or other physical barrier.
      c. Inside the Portland Metropolitan Urban Growth Boundary (UGB), if the distance between the building public entrance and street is 75 feet or greater and located adjacent to a driveway or in a parking lot, the walkway shall be raised, with curbs, a minimum four-foot-wide landscape strip and shade trees planted a maximum of 30 feet on center.

d. The exclusive use of a painted crossing zone to make walkways identifiable to motorists may be used only for portions of walkways which are shorter than 30 feet and located across driveways, parking lots, or loading areas.
e. Walkways bordering parking spaces shall be at least seven feet wide or a minimum of five feet wide when concrete bumpers, bollards, curbing, landscaping, or other similar improvements are provided which prevent parked vehicles or opening doors from obstructing the walkway.

6. The interconnected onsite walkway system shall connect to walkways in adjacent developments, or stub to the adjacent property line if the adjacent land is vacant or is developed without walkways.
   a. Walkway stubs shall be located in consideration of topography and eventual redevelopment of the adjacent property.
   b. Notwithstanding the remainder of Subsection 1005.03(D)(6), walkway linkages to adjacent development shall not be required within industrial developments, to industrial developments, or to vacant industrially zoned land.

Response: The development has been designed to allow clustering of buildings with an efficient pedestrian walkway network that allows efficient and convenient circulation within the site for both vehicles and pedestrians. Public sidewalks are on the street side of the building with the business sidewalks on the private side of the building. All sidewalks are separated from driving areas by a curb. The on-site pedestrian walkway network connects all of the buildings to the associated parking spaces on-site. See Exhibit E, Plan Set, Sheet C2.0, Site Plan.

E. Inside the UGB, except for industrial developments, a minimum of 50 percent of the street frontage of the development site shall have buildings located at the minimum front yard depth line.
   1. If the minimum front yard depth standard is less than 20 feet, the front yard depth may be increased to 20 feet provided pedestrian amenities are developed within the yard.
   2. Primary building entrances for buildings used to comply with Subsection 1005.03(E), shall:
      a. Face the street;
      b. Be located at an angle facing both the street and a parking lot; or
      c. Be located to the side of the building, provided that the walkway connecting to the street is a minimum of eight feet wide and is developed with landscaping and pedestrian amenities.
   3. If a development has frontage on more than one street, Subsection 1005.03(E) must be met on only one frontage, as follows:
      a. If one of the streets is a major transit street, the standard shall be met on that street.
      b. If neither or both are a major transit street, then the standard shall be met on the street with the higher functional classification.
      c. If neither 1005.03(E)(3)(a) or (b) applies, then the standard shall be met on the longest frontage.

Response: The proposal is for a commercial development within the UGB, therefore, this standard applies. Utilizing the linear design methods as outlined under section 1000 of the ZDO, the minimum front yard setback for both Otty Road and Fuller Road is zero feet. The length of the lot line along Otty Road is 324'± linear feet with 300±' of that being the building (92%) and Fuller Road is 178±' with 145±' of building (81%). Therefore, both Otty Road and Fuller Road exceed the minimum 50% street frontage standard. See Exhibit H, Plan Set, Sheet C2.0, Site Plan and Exhibit F, Sheets A3.01 and A3.02 Architectural Elevations.

F. Inside the UGB, parking lots larger than three acres in size shall be built with major on-site vehicular circulation ways that include raised walkways with curbs, a minimum four-foot-wide landscape strip and shade trees planted a maximum of 30 feet on center.

Response: The proposal does not include a parking lot greater than 3 acres in size.

G. New retail, office, mixed use, and institutional buildings located on major transit streets shall have at least one public entrance facing a major transit street, or street intersecting a major transit street.

Response: The proposal includes a public entrance at Fuller Road. However, neither Otty Road nor Fuller Road is considered a major transit street.

1005.04 BUILDING DESIGN

B. Requirements for building entries:
1. Public entries shall be clearly defined, highly visible and sheltered with an overhang or other architectural feature, with a depth of at least four feet.
2. Commercial, mixed-use and institutional buildings sited to comply with 1005.03(E) shall have public entries that face streets and are open to the public during all business hours.

Response: The public entry at Fuller Road is highly visible through the use of glazing, doors, canopies, access drive and signage. The canopy (overhang) at the entrance is 5' feet deep. The public entry facing Otty Road provides a pedestrian entry between the two buildings, is open to the public during business hours and has a canopy at the auxiliary buildings entrance. The Fuller Road entry shall be open during business hours, with a gated security entrance for vehicles after hours.

D. Requirements for roof design:
1. For buildings with pitched roofs:
   a. Eaves shall overhang at least 24 inches.
   b. Roof vents shall be placed on the roof plane opposite the primary street.
2. For buildings, other than industrial buildings, with flat roofs or without visible roof surfaces, a cornice or other architectural treatment shall be used to provide visual interest at the top of the building.

Response: The existing building has a "flat-roof" (low slope) with no cornice. The new roof also shall be a single ply membrane "flat-roof" (low slope) that is not visible from below. Visual interest for the top of the buildings include breaks in the parapet heights and tower elements at circulation points with extended structural elements for strong visual interest

E. Requirements for exterior building materials:
1. Use architectural style, concepts, colors, materials and other features that are compatible with the neighborhood's intended visual identity.
3. Walls shall be surfaced with brick, tile, masonry, stucco, stone or synthetic equivalent, pre-cast masonry, gypsum reinforced fiber concrete, wood lap siding, architecturally treated concrete, glass, wood, or a combination of these or other high-image materials.

Response: The materials and colors are listed on the Architectural Elevations and include 2 colors of split face CMU, Trespa Metal panels for the body with high-end corrugated metal siding for relief accents and High-End Aluminum Panels at the tower elements. Reference Exhibit F, Sheets A3.01 and A3.02 Architectural Elevations.

G. Requirements to increase safety and surveillance:
1. Locate buildings and windows to maximize potential for surveillance of entryways, walkways, parking, recreation and laundry areas.
2. Provide adequate lighting for entryways, walkways, parking, recreation and laundry areas.
3. Locate parking and automobile circulation areas to permit easy police patrol.
4. Design landscaping to allow for surveillance opportunities.
5. Locate mail boxes where they are easily visible and accessible.
6. Limit fences, walls and, except for trees, landscaping between a parking lot and a street to a maximum of 30 inches in height.
7. Locate play areas for clear parental monitoring.

Response: Both buildings are located within 5 feet of either Otty Road or Fuller Road, thereby maximizing surveillance potential for law enforcement on the public. The project also includes a security gate at the pedestrian entrance from Otty Rd and a gate set back from Fuller road that will be secured after hours. These are coded for owner and tenant use. A Knox Box on a post shall be near the vehicular entrance for ease of Emergency vehicle access. As this is a storage facility security is a high priority and additional site security will be on CCTV.

The site is illuminated from a series of wall sconces and where the building extends over parking or loading – down lights. All fixtures will be LED with cutoffs for night sky viewing. Landscaping has been designed to meet the standards of Section 1009, Landscaping, which includes low plants and shrubs that permit surveillance opportunities within the site, with most of the plants and shrubs growing to less than 3 feet in height.

H. Solar access requirements:
   1. Except for uses with greater cooling needs than heating needs, such as many retail uses, concentrate window areas on the south side of buildings (within 20 degrees of due south) where there is good southern exposure.
   2. Provide overhangs, balconies, or other shading devices to prevent excessive summer heat gains.
   3. Use architectural features, shape of buildings, fences, natural landforms, berms, and vegetation to catch and direct summer breezes for natural cooling, and minimize effects of winter winds.

Response: 60% of the Southern elements of the building have glazing however, as the building is predominantly not occupied and windows are a security hazard, they are neither for viewing nor for solar gain. They are decorative and show the intent of this section.

Awnings are provided along the frontages of both Otty Road and Fuller Road. See Architectural Elevations A3.01 andA30.2 in Exhibit F.

I. Requirements for compatibility with the intent of the design type or with the surrounding area. For purposes of Subsection 1005.04(I), design types are Centers, Station Communities or Corridor Streets as identified on Comprehensive Plan Map IV-8, Urban Growth Concept; X-CRC-1, Clackamas Regional Center Area Design Plan, Regional Center, Corridors and Station Community; X-SC-1, Sunnyside Corridor Community Plan, Community Plan Area and Corridor Design Type Location; or X-MC-1, McLoughlin Corridor Design Plan, Design Plan Area. The intent of these design types is stated in Chapter 4 or 10 of the Comprehensive Plan.

Response: The project is located within an area where the Fuller Road Station Community design types apply to the site and proposal. Though the building use is self-storage, the elements lend themselves to make one viewing the site think it is retail or possibly office space. This is done by incorporating colors, textures and design features that both complement the surrounding area and using their massing visually connect the development to the adjacent public spaces.

The building elements are located within 5 feet of both street frontages and the facades substantially cover the linear footage of those frontages. The Fuller Road Station Community design types are also addressed below in Section 1005.08.

J. Requirements for screening mechanical equipment:
   1. Rooftop mechanical equipment, except for solar energy systems, shall be screened from view by the use of parapet walls or a sight-obscuring enclosure around the equipment. The screen shall be constructed of one of the primary materials used on the primary facades, and shall be an integral part of the building's architectural design.
   2. Ground mounted mechanical equipment shall be located away from the intersection of two public streets, to the extent practicable, and shall be screened by ornamental fences, screening enclosures, or landscaping that blocks at least 80% of the view.

Response: Roof mechanical equipment shall be screened via parapets. Any elements at grade will be screened via fencing or landscaping. See Architectural Elevations in Exhibit F.

1005.05 OUTDOOR LIGHTING

A. Outdoor lighting devices:
   1. Shall be architecturally integrated with the character of the associated structures, site design and landscape.
   2. Shall not direct light skyward.
   3. Shall direct downward and shield light; or direct light specifically toward walls, landscape elements or other similar features, so that light is directed within the boundaries of the subject property;

4. Shall be suitable for the use they serve, e.g. bollard lights along walkways, pole mounted lights for parking lots;
5. Shall be compatible with the scale and intensity of uses they are serving. Height of pole mounted fixtures shall not exceed 25 feet or the height of the tallest structure onsite, whichever is less; and
6. At entrances, shall be glare-free. Entrance lighting may not exceed a height of 12 feet and must be directed downward.

Response: Outdoor lighting devices proposed for the project are indicated in the Exhibit E, Plan Set, Sheet A1.01 Architectural Site Plan and Architectural Elevations in Exhibit F. The site is illuminated from a series of wall sconces and where the building extends over parking or loading – down lights. All fixtures will be LED with cutoffs for night sky viewing.

The street facades shall have diffused lighting from the windows displaying faux doors at grade. Alternatively, should the jurisdiction prefer, these doors can be omitted leaving a blank wall that would be a secure Marquette that could be used for local information and events.

B. The following are exempt from Subsection 1005.05(A):
1. Temporary lights used for holiday decorations;
2. Street lights regulated in Section 1006, *Utilities, Street Lights, Water Supply, Sewage Disposal, Surface Water Management, and Erosion Control;* and
3. Lighting associated with outdoor recreation uses such as ball fields or tennis courts.

Response: Temporary lights and lighting associated with outdoor recreation uses are not proposed, therefore, those standards are not applicable. Street lighting is addressed in Section 1006, below.

1005.06 ADDITIONAL REQUIREMENTS

Development shall comply with a minimum of one of the following techniques per 20,000 square feet of site area. Regardless of site size, a minimum of one and a maximum of five techniques are required. Partial site area numbers shall be rounded.

Response: The site area is just under 60,000 square feet. Therefore, the development is in conformance with three techniques, which are specifically addressed below.

C. Use highly reflective (high albedo) materials on roof surfaces.

Response: The roof of the new building shall be a White Single-Ply Membrane Roof which is highly reflective. The roof for the existing building is similar and scheduled to be replaced.

E. Construct a minimum of 75 percent of walkway area of porous pavement.

Response: All pathways shall be porous pavement, the only exceptions are for the area directly at the end of the loading area, in front of the new elevators for the existing building. This is roughly 85% of all walkways.

R. Provide no more than the minimum number of surface parking spaces set out in Table 1015-2, all of which shall be no greater than the minimum dimensions allowed in Subsection 1015.04(B)(2).

Response: The required amount of parking is 18 spaces and the amount of parking proposed is 18 spaces, with no spaces greater than the dimensions allowed by Subsection 1015.04(B)(2). The breakdown on parking spaces is as follows: 8 standard spaces, 6 compact spaces, 4 on-street parking (as agreed to with Clackamas County Planning) and 1 ADA accessible space.

1005.08 CLACKAMAS REGIONAL AREA DESIGN STANDARDS

Subsection 1005.08 applies in the Clackamas Regional Center Area, including the Regional Center and the Fuller Road Station Community, as identified on Comprehensive Plan Map X-CRC-1, *Clackamas Regional Center Area Design Plan Regional Center, Corridors, and Station Community*. Where these standards conflict with other provisions in Section 1000, Subsection 1005.08 shall take precedence.

A. Clackamas Regional Center Area Design Plan: Development is subject to the Clackamas Regional Center Area Design Plan in Chapter 10 of the Comprehensive Plan.

B. Urban Design Elements: New development is subject to the urban design elements shown on Comprehensive Plan Map X-CRC-3, *Clackamas Regional Center Area Design Plan Urban Design Elements*. The urban design elements are described in the Clackamas Regional Center Area Design Plan in Chapter 10 of the Comprehensive Plan.

Response: The proposed development is subject to the urban design elements shown on Comprehensive Plan Map X-CRC-3, Clackamas Regional Center Area Design Plan Urban Design Elements, as described in the Clackamas Regional Center Area Design Plan in Chapter 10 of the Comprehensive Plan. However, none of the design elements indicated on Map X-CRC-3 specifically relate to the subject site, except for the general location of a needed park. The proposal is subject to the Fuller Road Station Community Standards through the Comprehensive Plan Map X-CRC-1, and are addressed below.

1005.10 FULLER ROAD STATION COMMUNITY DIMENSIONAL AND DESIGN STANDARDS

Subsection 1005.10 applies in the Fuller Road Station Community, as shown on Comprehensive Plan Map X-CRC-1, *Clackamas Regional Center Area Design Plan Regional Center, Corridors and Station Community*. Where these standards conflict with other provisions in Section 1000, Subsection 1005.10 shall take precedence. If the text of Subsection 1005.10 is unclear as applied to a specific development, Figures 1005-1 through 1005-11, as applicable, may be used to resolve the ambiguity.

A. Subsections 1005.10(B) through (M) do not apply in Sectors 1 and 2, as shown on Map 1005-1, until:

Response: The site is not located in either Sectors 1 or 2, therefore, the standards in this Section apply and are addressed below.

B. Minimum Building Height: 20 feet, measured to top of parapet or roof.

Response: The overall building heights range from 27 feet to 39 feet, therefore, the minimum building height is met for all buildings proposed.

C. Minimum Side and Rear Yard Setbacks: Five feet, except a zero setback is allowed for attached structures. (See Figure 1005-1.)

Response: A minimum setback of 5 feet is proposed for all side and rear setbacks.

D. Maximum Driveway Width: The maximum width of a curb cut for a driveway is 24 feet (not including sidewalks or landscaping) unless otherwise required by the Clackamas County Roadway Standards or applicable fire district. (See Figure 1005-1.)

Response: The access driveway for the ingress and egress for the site at Fuller Road is required to be 28 feet based on requirements of the Clackamas County Roadway Standards, Drawing 675. However, County Engineering has agreed to a 24-foot wide standard based on other access and site constraints. The internal vehicular circulation network consists of 20-foot wide driveways.

E. Regulating Plan: Map 1005-1 is the regulating plan for the Fuller Road Station Community. It identifies each existing or planned street in the Fuller Road Station Community as one of four street types: Type A, B, C, or D. As established by Subsections 1005.10(G) and (L), the building frontage and landscape screening regulations for the Fuller Road Station Community are applied by street type and are thereby "keyed" to the regulating plan.

Response: Based on Map 1005-1 of the Fuller Road Station Community Plan, Otty Road and Fuller Road are both classified as a "B Street". The building frontage and landscape screening regulations associated with a "B Street" are specifically addressed below.

F. Streets: Street improvements are required as follows:

1. Except as set forth in Subsection 1005,10(F)(3), the locations of required new streets are shown on Map 1005-1, or will be determined pursuant to Subsection 1005.10(F)(2). New streets shown on Map 1005-1 are intended to create blocks with a perimeter no greater than 2,200 feet. Exact location of these new

streets may vary up to 50 feet, provided the maximum block perimeter standard is met and create the connections/intersections shown on Map 1005-1.

2. In addition to the mapped streets (existing and new) illustrated on Map 1005-1, a through-block connection is required for any block face longer than 450 feet. (See Figure 1005-2.)
3. Subsections 1005.10(F)(1) and (2) do not apply in Sectors 1 and 2 shown on Map 1005-1. Instead, compliance with either Subsection 1005.10(F)(3)(a) or Subsections 1005.10(F)(3)(b) and(c) is required.
4. Streets and Type E pedestrian/bicycle connections shall be designed in conformance with the design standards shown in Comprehensive Plan Figures X-CRC-8 through X-CRC-11, unless an alternative design is required pursuant to the Clackamas County Roadway Standards or to accommodate fire access, necessary truck circulation, or other engineering factors. An alternative design shall not change the designated street type for purposes of applying the building frontage and landscape screening regulations. Cross section designs for SE Johnson Creek Boulevard and SE 82nd Avenue shall be determined by Clackamas County and the Oregon Department of Transportation.

Response: **Based on Map 1005-1 of the Fuller Road Station Community Plan, Otty Road is classified as a "B Street". Required streets are indicated on Map 1005-1 and are generally associated with a "D Street", not a "B Street". No new streets are required, nor proposed.**

G. Building Frontage Types: Four building frontage types are established, each of which is allowed on one or more of the four street types allowed in the Fuller Road Station Community. Subsection 1005.10(G) applies to existing or future Type A, B, C, and D streets, regardless of whether they are shown on Map 1005-1. Table 1005-1 establishes which building frontage types are permitted on each street type. Figure 1005-3 summarizes the four building frontage types.

1005-1: Permitted Building Frontage Type by Street Type

Permitted Building Frontage Type:	Street Type:
Landscape	A Street
Linear	A, B, C, and D Streets
Forecourt	A, B, C, and D Streets
Porch/Stoop/Terrace	B, C, and D Streets

1. Buildings, except parking structures, located wholly or partially within 40 feet of a Type A, B, C or D street are required to comply with the standards for a building frontage type permitted on the applicable street type.

2. The entire length of street frontage designated on Map 1005-1 as "building frontage required," or "required retail opportunity area," excluding walkway cuts with a maximum width of eight feet and driveway cuts, shall be developed with one or more buildings that comply with the standards of a building frontage type permitted on the abutting street type.

3. A minimum of 50 percent of the length of street frontage not designated as "building frontage required" or "required retail opportunity area" shall be developed with one or more buildings that comply with the standards of a building frontage type permitted on the abutting street type. The 50-percent building frontage requirement is calculated for each lot individually, rather than in the aggregate for an entire street.
   a. If part of the street frontage is designated as "building frontage required" or "required retail opportunity area," buildings developed pursuant to Subsection 1005.10(G)(2) may be counted toward meeting the 50-percent requirement for the entire street frontage.

4. If a lot has street frontage on more than one street:

a. Compliance with Subsection 1005.10(G)(2) is required for all street frontage designated as "building frontage required" or "required retail opportunity area."
b. Compliance with Subsection 1005.10(G)(3) is required for only one street frontage, unless one of the frontages is on Otty Road, in which case compliance with Subsection 1005.10(G)(3) is not required.

5. Lots developed solely with parks and open space uses are exempt from Subsection 1005.10(G)(2) and (3).

Response: **The required retail opportunity area, as shown on Map 1005-1 of the Fuller Road Station Community Plan, affects the southwest corner of the subject site. Based on Map 1005-1 of the Fuller Road Station Community Plan, Otty Road and Fuller Road are both classified as a "B Street". The applicant is choosing to use the Linear Building Frontage Type, as indicated in Table 1005-1. The standards of the Linear Building Frontage Type are specifically addressed below.**

I. Linear Building Frontage Type: Linear Building Frontage, which is permitted on all street types, shall comply with the following standards (see Figure 1005-5):
1. Front Yard Setback: The street-facing facade of the building shall be set back a maximum of five feet. There is no minimum front yard setback.
a. If it is not possible for a development to comply with the maximum setback standard and the intersection sight distance and roadside clear zone standards of the County Roadway Standards, the setback may be increased to the minimum extent necessary.
b. The front yard setback area, if any, shall be landscaped with plants, or paved with masonry pavers or stamped concrete.
c. No parking, storage, or display of motorized vehicles or equipment is allowed in the front yard setback area.
d. Building service and utility equipment and outdoor storage of garbage or recycling is not permitted along the street-facing building facade or in the front yard setback area, except:
i. Garbage and recycling receptacles for public use are permitted, provided that they do not exceed 35 gallons in size and are clad in stone or dark-colored metal.

Response: **Both the existing building and newly proposed are part of this application are to be located along either Otty Road or Fuller Road, with associated street-facing facades. True to the linear scheme, the majority of the building is built to the property line with some smaller remnant areas to be used for expanded sidewalks or landscaping. No parking, storage or display is proposed for these setback areas.**

e. Fences: Fences and walls are permitted in the front yard setback area, subject to the following standards:
i. The fence or wall shall be a maximum of three feet high.
ii. A fence shall be wrought iron, steel, or a similar metal and shall be dark in color. Chain-link fences are prohibited.
iii. A wall shall be wood, masonry, concrete, or a combination thereof.
iv. A fence shall be a minimum of 20 percent transparent. The transparent portions of the fence shall be distributed along the length of the fence in a recognizable pattern (e.g., two-inch gaps alternating with eight-inch solid sections).

Response: **No fences are proposed within the front yard setbacks of either Otty Road or Fuller Road.**

2. Minimum Ground Floor Height: The ground floor of the building shall measure a minimum of 15 feet from floor to ceiling, except when the building is designed to accommodate residential uses, in which case the minimum floor-to-floor height shall be 12 feet.

Response: **The ground level floor to ceiling height of the proposed new building is 15'-0" feet. The existing building will retain the existing ground floor height.**

3. Ground Floor Construction Type: In areas designated "required retail opportunity area" on Map 1005-1, the ground floor construction type shall meet at least the minimum requirements for a commercial use, as set forth in the current edition of the Oregon Structural Specialty Code.

Response: The design of the buildings includes ground floor construction type compliance with the Oregon Structural Specialty Code.

4. Minimum Building Depth: In areas designated "required retail opportunity area" on Map 1005-1, buildings shall be a minimum of 40 feet deep.

Response: The minimum depth of both buildings is >40' feet. Rev. Architectural Plans

5. Weather Protection: Awnings or canopies shall be provided for a minimum of 50 percent of the linear distance of the street-facing building facade and shall comply with the following:
   a. Awnings and canopies shall project a minimum of five feet and a maximum of eight feet over the sidewalk.
   b. Awnings and canopies shall have a minimum vertical clearance of eight feet and a maximum vertical clearance of 13 ½ feet.
6. Building Entrances: Building entrances shall either be covered by an awning or canopy, or be covered by being recessed behind the front building façade. If an awning or canopy is provided, it shall have a minimum vertical clearance of 8 feet and a maximum vertical clearance of 13 ½ feet. If only a recessed entry is provided, it shall be recessed behind the front façade a minimum of three feet.

Response: The street-facing building facade for Otty Road is 155±' long at the new building with 81'-8" of awning (53% of the façade). For the Existing Building is 114-6±' long with 65±' of canopy overhang (53% of this façade). For Fuller Road the building is 150±' long and 91'-4"± of this being awnings. (60% of this facade).

The minimum depth of all proposed awnings is 5' feet and the minimum depth of the low roof canopy is 4' with a minimum height of 9'-4". See Architectural Roof Plan in Exhibit F, Architectural Section and Elevations.

7. Primary Building Entrances: Primary building entrances shall face the street and be a minimum of 40 percent transparent. The minimum amount of transparency is measured as a percentage of the total area of the entrance.
   a. Primary building entrances shall open onto an abutting public sidewalk, or be directly connected to a public sidewalk by a walkway that is a minimum of five feet wide.
   b. If the entrance serves a business (other than a home occupation), the entrance must be open to the public during regular business hours.
   c. If a fence or wall is within the front yard setback as provided in Subsection 1005.10(I)(1)(e), a pedestrian opening a minimum of five feet wide shall be provided for the walkway.

Response: Primary building entrance is located at Fuller Road. This entry area is fully (100%) transparent. A 5-foot sidewalk is provided at the entrance connecting this public entrance to the adjacent sidewalk network to the site.

8. Windows: Transparent ground-floor windows shall be provided along a minimum of 60 percent of the ground-floor, street-facing façade area.

Response: Staff has indicated that the transparent ground-floor windows standard only applies to the new proposed building, not the existing building on the site. The new building has frontage on both Otty Road and Fuller Road. The street-facing building facade of the new building for Otty Road is 155±' long with 93'" lf of this glazing (60% of the façade). For Fuller Road the building is 146±' long and 90'± lf of this is glazed. (60% of this facade). See Exhibit E, Plan Set, Sheet C2.0, Site Plan and Exhibit F, Architectural Elevations.

9. Building Materials: Exterior building materials and finishes shall be high image, such as masonry, architecturally treated tilt-up concrete, glass, wood, or stucco. Metal siding is prohibited, except as approved through design review pursuant to Section 1102 for specific high-image materials, canopies, awnings, doors, screening for roof-mounted fixtures, and other architectural features.

Response: Per previous discussions with the zoning officials we were granted some leeway on the use of metals. Not all metal panels are bad looking as witnessed on project examples below.

Materials and colors are listed on the Architectural Elevations and include 2 colors of split face CMU, Prestige Metal panels for the body with Mini-V corrugated metal siding for relief accents (see sample project to the left) and High-End Alucabond Panels at the tower elements (See Below). Reference Exhibit F, Sheets A3.01 and A3.02 Architectural Elevations.

1006 UTILITIES, STREET LIGHTS, WATER SUPPLY, SEWAGE DISPOSAL, SURFACE WATER MANAGEMENT, AND EROSION CONTROL

1006.01 GENERAL STANDARDS

A. The location, design, installation, and maintenance of all utility lines and facilities shall be carried out with minimum feasible disturbance of soil and site consistent with the rules and regulations of districts for surface water management regulatory authority.

Response: The overall location and design for utilities on-site, as well as the associated connections to the public system(s) considered minimal disturbance of the site. However, the site is proposed for maximum development potential and standard requirements for excavation and ground disturbance will be required as part of construction. Included in site development will be that excavation work necessarily associated with some of the proposed utilities, especially for the surface water management system that is primarily based on the standards and requirements of the Clackamas County Water Environment Services.

B. All development that has a need for electricity, natural gas, and communications services shall install them pursuant to the requirements of the utility district or company serving the development. Except where otherwise prohibited by the utility district or company, all such facilities shall be installed underground.

Response: All electricity, gas and communication services are available to serve the site. Gas is not proposed for utilization and connection at this site. Any new service and associated facilities are proposed to be underground, including the placement of the existing electrical facility along Fuller Road/Otty Road.

Coordinated installation of necessary water, sanitary sewer, and surface water management and conveyance facilities is required.

Response: Any easements deemed necessary and agreed to by the owner will be provided. All other existing utility easements are indicated on the Utility Plan, as well as all proposed water lines and water facilities necessary to serve the site (see Exhibit E, Plan Set, Sheet C 4.0, Utility Plan).

C. Easements shall be provided along lot lines as deemed necessary by the County, special districts, and utility companies. Easements for special purpose uses shall be of a width deemed appropriate by the responsible agency.

Response: The applicant is not proposing a partition or subdivision. However, any easements deemed necessary and agreed to by the owner will be provided. All other existing utility easements are indicated on the Utility Plan (see Exhibit E, Plan Set, Sheet C 4.0, Utility Plan).

1006.02 STREET LIGHTS

Street lights are required for all development inside the Portland Metropolitan Urban Growth Boundary. The following standards apply:

A. Street lighting shall be installed pursuant to the requirements of Clackamas County Service District No. 5 and the electric company serving the development. A street light shall be installed where a new road intersects a County road right-of-way and, in the case of subdivisions, at every intersection within the subdivision.

Response: There is an existing street light at the intersection of Otty Road and Fuller Road. This street light is proposed to remain as part of the project, and no new street lights are proposed.

1006.03 WATER SUPPLY

A. All development which has a need for, or will be provided with, public or community water service shall install water service facilities and grant necessary easements pursuant to the requirements of the district or company serving the development.
B. Approval of a development that requires public or community water service shall be granted only if the applicant provides a preliminary statement of feasibility from the water system service provider.
   1. The statement shall verify that water service, including fire flows, is available in levels appropriate for the development and that adequate water system capacity is available in source, supply, treatment, transmission, storage and distribution. Alternatively, the statement shall verify that such levels and capacity can be made available through improvements completed by the developer or the system owner.
   2. If the statement indicates that water service is adequate with the exception of fire flows, the applicant shall provide a statement from the fire district serving the subject property that states that an alternate method of fire protection, such as an on-site water source or a sprinkler system, is acceptable.
   3. The statement shall be dated no more than one year prior to the date a complete land use application is filed and need not reserve water system capacity for the development.
C. Prior to final approval of any partition or subdivision, the applicant shall provide evidence that any wells in the tract subject to temporary or permanent abandonment under Oregon Revised Statutes (ORS) 537.665 have been properly abandoned.
D. The following standards apply inside the Portland Metropolitan Urban Growth Boundary, Government Camp, Rhododendron, Wemme/Welches, Wildwood/Timberline, and Zigzag Village:

Response: A Preliminary Statement of Feasibility for water service has been provided by Clackamas County (see Exhibit D, Statements of Feasibility). However, the Statement does not include fire flows. As part of the Design Review process, Clackamas River Water and/or the Clackamas County Fire Department will coordinate and provide review of this development proposal. This review, and the associated analysis of fire flows, will ensure adequacy of service from the existing service provider, including that necessary to meet the demands for domestic supply, irrigation and fire flows.

1006.04 SANITARY SEWER SERVICE

A. All development that has a need for sanitary sewers shall install the facilities pursuant to the requirements of the district or company serving the development.
B. Approval of a development that requires sanitary sewer service shall be granted only if the applicant provides a preliminary statement of feasibility from the sanitary sewage treatment service provider and the collection system service provider.

1. The statement shall verify that sanitary sewer capacity in the wastewater treatment system and the sanitary sewage collection system is available to serve the development or can be made available through improvements completed by the developer or the system owner.
2. The service provider may require preliminary sanitary sewer system plans and calculations for the proposed development prior to signing a preliminary statement of feasibility.
3. The statement shall be dated no more than one year prior to the date a complete land use application is filed and need not reserve sanitary sewer system capacity for the development.

Response: The proposed development has been designed with a modern, sanitary sewer system capable of meeting the requirements of the development, while also being congruent with the existing public sanitary system. This system meets all of the required standards of the prevailing regulating agency for sanitary sewer system construction, operation and maintenance. A Preliminary Statement of Feasibility for sanitary sewer service has been provided by Water Environment Service, Clackamas County (see Exhibit D, Statements of Feasibility). The County has reviewed the preliminary plans, including the drainage report and plans, and the Statement is signed and dated May 22, 2019.

1006.05 SUBSURFACE SEWAGE DISPOSAL STANDARDS

A. All development proposing subsurface sewage disposal shall receive approval for the system from the County prior to submittal of a land use application for development. Said systems shall be installed pursuant to Oregon Revised Statutes 454.605 through 454.745 and Chapters 171, 523, and 828; Oregon Administrative Rules Chapter 340, Divisions 71 and 73; and the policies of the County.
B. Inside the Portland Metropolitan Urban Growth Boundary, Government Camp, Rhododendron, Wemme/Welches, Wildwood/Timberline, and Zigzag Village, all land divisions or other development requiring subsurface sewage disposal systems shall be prohibited except for:

Response: On-site subsurface sewage disposal is not proposed for this project, therefore, this standard does not apply.

1006.06 SURFACE WATER MANAGEMENT AND ERIOSION CONTROL

The following surface water management and erosion control standards apply:

A. Positive drainage and adequate conveyance of surface water shall be provided from roofs, footings, foundations, and other impervious or near-impervious surfaces to an appropriate discharge point.
B. The requirements of the surface water management regulatory authority apply. If the County is the surface water management regulatory authority, the surface water management requirements of the Clackamas County Roadway Standards apply.
C. Approval of a development shall be granted only if the applicant provides a preliminary statement of feasibility from the surface water management regulatory authority. The statement shall verify that adequate surface water management, treatment and conveyance is available to serve the development or can be made available through improvements completed by the developer or the system owner.
    1. The surface water management regulatory authority may require a preliminary surface water management plan and report, natural resource assessment, and buffer analysis prior to signing the preliminary statement of feasibility.
    2. The statement shall be dated no more than one year prior to the date a complete land use application is filed and need not reserve surface water treatment and conveyance system capacity for the development.
D. Development shall be planned, designed, constructed, and maintained to:
    1. Protect and preserve existing natural drainage channels to the maximum practicable extent;
    2. Protect development from flood hazards;
    3. Provide a system by which water within the development will be controlled without causing damage or harm to the natural environment, or to property or persons within the drainage basin;
    4. Ensure that waters drained from the development are substantially free of pollutants, including sedimentary materials, through such construction and drainage techniques as sedimentation ponds, reseeding, and phasing of grading; and
    5. Ensure that waters are drained from the development in such a manner that will not cause erosion to any greater extent than would occur in the absence of development.

E. Where culverts cannot provide sufficient capacity without significant environmental degradation, the County may require the watercourse to be bridged or spanned.
F. If a development, or any part thereof, is traversed by any watercourse, channel, stream, creek, gulch, or other natural drainage channel, adequate easements for surface water management purposes shall be provided to the surface water management regulatory authority.
G. Channel obstructions are not allowed, except as approved for the creation of detention, retention, or hydropower facilities approved under this Ordinance. Fences with swing gates may be utilized.
H. The natural drainage pattern shall not be substantially altered at the periphery of the subject property. Greatly accelerated release of stored water is prohibited. Flow shall not be diverted to lands that have not previously encountered overland flow from the same upland source unless adjacent downstream owners agree.
I. A surface water management and erosion control plan is required for significant residential, commercial, industrial, and institutional development. The plan shall include:
   1. The methods to be used to minimize the amount of runoff siltation and pollution created from the development both during and after construction; and
   2. Other elements required by the surface water management authority.

Response: A Stormwater Analysis and Management Plan has been prepared for this development proposal (see Exhibit G). The Plan was used in the design of the stormwater facilities for the site (see Exhibit E, Plan Set, Sheet C 4.0, Utility Plan). The storm water conveyance system designed for the site provides for both conveyance and filtration of all surface water runoff from all impervious surface areas proposed for the development.

1007 ROADS AND CONNECTIVITY

1007.01 GENERAL PROVISIONS

A. The location, alignment, design, grade, width, and capacity of all roads shall be planned, coordinated, and controlled by the Department of Transportation and Development and shall conform to Section 1007, Chapters 5 and 10 of the Comprehensive Plan, and the Clackamas County Roadway Standards. Where conflicts occur between Section 1007, the Comprehensive Plan, and the Clackamas County Roadway Standards, the Comprehensive Plan shall control.

Response: The applicant recognizes the authority of the Clackamas County Engineering Section and the Oregon Department of Transportation in review and approval of the requirements for roadway improvements relevant to the development proposal. Based on coordination with County Engineering, some improvements to both Fuller Road and Otty Road will be warranted as part of this development. The improvement requirements are based on the Clackamas County Roadway Standards, as well as per the designation of both Otty Road and Fuller Road as Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8). Specific improvement requirements are indicated in the Pre-Application Conference notes from October 24, 2018, as well as follow up communique with County Engineering. See Exhibit E, Plan Set, Sheet C 2.0, Site Plan and Sheet C 4.0, Utility Plan.

B. Right-of-way dedications and improvements shall be required of all new developments, including partitions, subdivisions, multifamily dwellings, two- and three-family dwellings, condominiums, single-family dwellings, and commercial, industrial, and institutional uses, as deemed necessary by the Department of Transportation and Development and consistent with Section 1007, Chapters 5 and 10 of the Comprehensive Plan, and the Clackamas County Roadway Standards.

Response: The applicant is proposing right-of-way dedications along both Otty Road and Fuller Road. A 4 -foot right-of-way is proposed along Otty Road adjacent to the subject site, and an 18-foot right-of-way is proposed along Fuller Road adjacent to the site.

C. New developments shall have access points connecting with existing private, public, county, or state roads.
   1. Intersection spacing and access control shall be based on Subsection 3.08.110(E) of the Metro Code (Regional Transportation Functional Plan); Chapters 5 and 10 of the Comprehensive Plan; and the Clackamas County Roadway Standards.

3. Access control shall be implemented pursuant to Chapter 5 of the Comprehensive Plan and the Clackamas County Roadway Standards considering best spacing for pedestrian access, traffic safety, and similar factors as deemed appropriate by the Department of Transportation and Development.
4. Approaches to public and county roads shall be designed to accommodate safe and efficient flow of traffic and turn control where necessary to minimize hazards for other vehicles, pedestrians, and bicyclists.
5. Joint access and circulation drives utilizing reciprocal easements shall be utilized as deemed necessary by the Department of Transportation and Development. In the NC District, joint street access for adjacent commercial developments shall be required.
10. Inside the Portland Metropolitan Urban Growth Boundary:
    a. The development shall have no more than the minimum number of driveways required by the Department of Transportation and Development on all arterial and collector streets.
    b. For properties having more than one street frontage, driveways shall be located on the street with the lowest functional classification, if feasible.
    c. Driveways shall be no wider than the minimum width allowed by the Clackamas County Roadway Standards.
    d. Driveways shall be located so as to maximize the number of allowed on street parking spaces, the number of street trees, and optimum street tree spacing.

Response: The applicant is proposing only one access for the development. This two-way, 24-foot wide access is located at Fuller Road, which has been determined by County Engineering to be the required access street. The location of the single access is predicated on the maximum spacing between the proposed driveway access and the intersection of Fuller Road with Otty Road. No new streets are proposed as part of the development proposal and none are required. The access at Fuller Road was designed through a site distance analysis considering line of sight and associated safety for vehicular movement at or near the driveway intersection.

D. Street alignments, intersections, and centerline deflection angles shall be designed according to the standards set forth in Chapters 5 and 10 of the Comprehensive Plan and the Clackamas County Roadway Standards.

Response: The access at Fuller Road was designed through a site distance analysis considering line of sight and associated safety for vehicular movement at or near the driveway intersection. Clackamas County Engineering has requested a street section on Fuller Rd that varies from the Fuller Road Station Community Plan since it will provide an 11' travel lane, 6' bike lane, 8' parking, and 12' sidewalk. The analysis and subsequent design of the driveway intersection was based on this input from Clackamas County Engineering and is not completely in compliance with the Clackamas County Roadway Standards, per the designation of Fuller Road as a Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8).

E. All roads shall be designed and constructed to adequately and safely accommodate vehicles, pedestrians, and bicycles according to Chapters 5 and 10 of the Comprehensive Plan and the Clackamas County Roadway Standards. Development-related roadway adequacy and safety impacts to roadways shall be evaluated pursuant to the Clackamas County Roadway Standards and also to Oregon Department of Transportation standards for state highways.

Response: Clackamas County Engineering has requested a street section on Fuller Rd that varies from the Fuller Road Station Community Plan since it will provide an 11' travel lane, 6' bike lane, 8' parking, and 12' sidewalk. Typical design of the proposed improvements for Fuller Road would have been based on the Clackamas County Roadway Standards, as well as per the designation of Fuller Road as a Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8). This includes a 12-foot wide sidewalk, 6-foot wide bike lane, parking, street trees, and 13-foot wide north/south travel lanes.

The design of the proposed improvements for Otty Road was based on the Clackamas County Roadway Standards, as well as per the designation of Otty Road as a Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8). This includes a new 12-foot wide sidewalk, an existing 6-foot wide bike lane, parking and 13-foot wide east/west travel lanes.

F. Roadways shall be designed to accommodate transit services where transit service is existing or planned and to provide for the separation of motor vehicles, bicycle, and pedestrian traffic, and other modes as appropriate.

Response: The proposed sidewalks along both Otty Road and Fuller Road will provide adequate opportunity for pedestrians to travel safely to and from the proposed use and development. The proposed sidewalk along the north side of Otty Road will be 12-feet wide and separated from the roadway with curbs and gutter, as well as street trees. The proposed sidewalk along the west side of Fuller Road will be 12-feet wide and separated from the roadway with curbs and gutter, as well as street trees. These proposed sidewalks provide direct access to existing Tri-Met service along Otty Road.

G. The needs of all modes of transportation shall be balanced to provide for safe and efficient flow of traffic. Where practical, pedestrian crossing lengths shall be minimized and the road system shall be designed to provide frequent pedestrian connections.

Response: The access at Fuller Road was designed through a site distance analysis considering line of sight and associated safety for vehicular movement at or near the driveway intersection. Clackamas County Engineering has requested a street section on Fuller Rd that varies from the Fuller Road Station Community Plan since it will provide an 11' travel lane, 6' bike lane, 8' parking, and 12' sidewalk. This analysis and subsequent design of the driveway intersection was based on this direction from County Engineering, and not complete compliance with the Clackamas County Roadway Standards, as well as per the designation of Fuller Road as a Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8). The proposed driveway access width is the minimum required by the County.

The design of the public improvements proposed for both Otty Road and Fuller Road was based on the Clackamas County Roadway Standards, as well as per the designation of Otty Road and Fuller Road as Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8). The proposed sidewalks on both Otty Road and Fuller Road will provide adequate opportunity for pedestrians to travel safely to and from the proposed development. Overall, site design for the proposed development has incorporated all modes of travel, including vehicles, pedestrian, bike and transit.

1007.02 PUBLIC AND PRIVATE ROADWAYS

A. All roadways shall be developed according to the classifications, guidelines, tables, figures, and maps in Chapters 5 and 10 of the Comprehensive Plan and the provisions of the Clackamas County Roadway Standards.
   1. Development along streets with specific design standards specified in Chapter 10 of the Comprehensive Plan shall improve those streets as shown in Chapter 10.
   2. Development along streets identified as Regional or Community Boulevards on Comprehensive Plan Map 5-5, Metro Regional Street Design Classifications, shall provide pedestrian, bicycle, transit, and visual amenities in the public right-of-way. Such amenities may include, but are not limited to, the following: street trees, landscaping, kiosks, outdoor lighting, outdoor seating, bike racks, bus shelters, other transit amenities, pedestrian spaces and access to the boulevard, landscaped medians, noise and pollution control measures, other environmentally sensitive uses, aesthetically designed lights, bridges, signs, and turn bays as appropriate rather than continuous turn lanes.

3. Development adjacent to scenic roads identified on Comprehensive Plan Map 5-1, Scenic Roads, shall conform to the following design standards, as deemed appropriate by the Department of Transportation and Development:
   a. Road shoulders shall be improved to accommodate pedestrian and bicycle traffic; and
   b. Turnouts shall be provided at viewpoints or for recreational needs.
4. In centers, corridors, and station communities, as identified on Comprehensive Plan Map IV-8, Urban Growth Concept, roads shall be designed to minimize the length of street crossings and to maximize connectivity for pedestrians as deemed appropriate by the Department of Transportation and Development. Other streetscape design elements in these areas include:
   a. On-street parking;
   b. Street trees;
   c. Street lighting;
   d. Pedestrian amenities; and
   e. Truck routes shall be specified for deliveries to local businesses.
5. In centers, corridors, and station communities, as identified on Comprehensive Plan Map IV-8, on local streets within the Portland Metropolitan Urban Growth Boundary (UGB), and in unincorporated communities, when conflicts exist between the dimensional requirements for vehicles and those for pedestrians, pedestrians shall be afforded additional consideration in order to increase safety and walkability. In industrial areas, the needs of vehicles shall take precedence.
6. In the NC, OA, VCS, and VO Districts, landscaping, crosswalks, additional lighting, signalization, or similar improvements may be required to create safe and inviting places for pedestrians to cross streets.

Response: Clackamas County Engineering has requested a street section on Fuller Rd that varies from the Fuller Road Station Community Plan since it will provide an 11' travel lane, 6' bike lane, 8' parking, and 12' sidewalk. The proposed improvements to Otty Road are based on the Clackamas County Roadway Standards, as well as per the designation of Otty Road as Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8, Chapter 10 of the Clackamas County Comprehensive Plan).

Neither Fuller Road nor Otty Road is included on the Regional or Community Boulevards on Comprehensive Plan Map 5-5 (Metro Regional Street Design Classifications). Neither Fuller Road nor Otty Road is designated a scenic road, as identified on Comprehensive Plan Map 5-1, Scenic Roads. The subject site is not part of the NC, OA, VCS, or VO Districts.

B. The layout of new public and county roads shall provide for the continuation of roads within and between the development and adjoining developments when deemed necessary and feasible by the Department of Transportation and Development.

Response: No new public roads are proposed or required as part of this proposed residential development.

C. New county and public roads terminating in cul-de-sacs or other dead-end turnarounds are prohibited except where natural features (such as topography, streams, or wetlands), parks, dedicated open space, or existing development preclude road connections to adjacent properties, existing street stubs, or existing roads.

Response: No new public roads are proposed or required as part of this proposed residential development.

D. Developments shall comply with the intersection sight distance and roadside clear zone standards of the Clackamas County Roadway Standards. In addition:
   1. No planting, signing, or fencing shall be permitted which restricts motorists' vision; and
   2. Curbside parking may be restricted along streets with visibility problems for motorists, pedestrians, and/or bicyclists as deemed appropriate by the Department of Transportation and Development.

Response: The access at Fuller Road was designed through a site distance analysis considering line of sight and associated safety for vehicular movement at or near the driveway intersection. Clackamas County Engineering has requested a street section on Fuller Rd that varies from the Fuller Road Station Community Plan since it will provide an 11' travel lane, 6' bike lane, 8' parking, and 12'

sidewalk. The analysis and subsequent design of the driveway intersection was based on this input from Clackamas County Engineering, and not strict compliance with the Clackamas County Roadway Standards, as well as the designation of Fuller Road as a Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8). The proposed driveway access width is the minimum required by the County.

E. New developments, subdivisions, and partitions may be required to dedicate land for right-of-way purposes and/or make road frontage improvements to existing rights-of-way as deemed necessary by the Department of Transportation and Development and consistent with Section 1007, Chapters 5 and 10 of the Comprehensive Plan, and the Clackamas County Roadway Standards.

Response: The applicant is proposing right-of-way dedications along both Otty Road and Fuller Road. A 4-foot right-of-way is proposed along Otty Road adjacent to the subject site, and an 18-foot right-of-way is proposed along Fuller Road adjacent to the site.

F. Road frontage improvements within the UGB and in Mt. Hood urban villages shall include:
1. Surfacing, curbing, or concrete gutters as specified in Section 1007, Chapters 5 and 10 of the Comprehensive Plan, and the Clackamas County Roadway Standards;
2. Pedestrian, bikeway, accessway, and trail facilities as specified in Subsection 1007.04;
3. Transit amenities as specified in Subsection 1007.05; and
4. Street trees as specified in Subsection 1007.06.

Response: The proposed public improvements to both Fuller Road and Otty Road are based on the Clackamas County Roadway Standards, as well as per the designation of both Fuller Road and Otty Road as Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8, Chapter 10 of the Clackamas County Comprehensive Plan). These improvements also include widening of travel lanes and new asphalt surfacing, concrete curbs, gutters and sidewalks, as well as street trees. Specific improvements are indicated below and in Exhibit E, Plan Set, Sheet C2.0, Site Plan.

1007.03 PRIVATE ROADS AND ACCESS DRIVES

A. Private roads and access drives shall be developed according to classifications and guidelines listed in Section 1007, Comprehensive Plan Figures 5-1 through 5-3, *Typical Roadway Cross Sections*, Chapters 5 and 10 of the Comprehensive Plan, and the Clackamas County Roadway Standards, except:
1. When easements or "flag-pole" strips are used to provide vehicular access to lots or parcels, the minimum width shall be 20 feet, unless a narrower width is approved by the Department of Transportation and Development and the applicable fire district's Fire Marshal;
2. Where the number of lots served exceeds three, a wider width may be required as deemed appropriate or necessary by the Department of Transportation and Development consistent with other provisions of Section 1007, the Comprehensive Plan, and the Clackamas County Roadway Standards;
3. Access easements or "flag-pole" strips may be used for utility purposes in addition to vehicular access;
4. The standards listed above may be deviated from when deemed appropriate by the Department of Transportation and Development to accommodate one-half streets or private common access drives and roads within developed urban areas providing access to not more than seven lots; and
5. The intersection of private roads or access drives with a public or county road and intersections of two private roads or access drives shall comply with the sight distance and clear zone standards pursuant to Subsection 1007.02(D).

Response: No access easements or "flag-pole" strips are proposed as part of this development application. The proposed development is on a subject property consisting of one lot and no new lots are proposed. The access at Fuller Road was designed through a site distance analysis considering line of sight and associated safety for vehicular movement at or near the driveway intersection. This analysis and subsequent design of the driveway intersection was based on the Clackamas County Roadway Standards, as well as per the designation of Otty Road as a Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure

X-CRC-8). No new vegetation or signage is proposed within the clear vision areas of the access driveway. See Exhibit E, Plan Set, Sheet C 2.1, Site Distance Analysis.

1007.04 PEDESTRIAN AND BICYCLE FACILITIES

A. General Standards: Pedestrian and bicycle facilities shall be developed according to the classifications and guidelines listed in Section 1007, Comprehensive Plan Figures 5-1 through 5-3, *Typical Roadway Cross Sections*, Chapters 5 and 10 of the Comprehensive Plan, and the Clackamas County Roadway Standards.

Response: The proposed public improvements to both Fuller Road and Otty Road include a 12-foot wide concrete sidewalk with street trees, curbing and gutters. The proposed improvements also include 6-foot wide bike lanes between the sidewalk and the adjacent travel lane. These improvements are based on the Clackamas County Roadway Standards, as well as per the designation of Otty Road as a Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8).

B. Pedestrian and Bicycle Facility Design: Pedestrian and bicycle facilities shall be designed to:
   1. Minimize conflicts among automobiles, trucks, pedestrians, and bicyclists;
   2. Provide safe, convenient, and an appropriate level of access to various parts of the development and to locations such as schools, employment centers, shopping areas, adjacent developments, recreation areas and open space, and transit corridors;
   3. Allow for unobstructed movements and access for transportation of disadvantaged persons; and
   4. Be consistent with Chapters 5 and 10 of the Comprehensive Plan; Comprehensive Plan Maps 5-2a, *Planned Bikeway Network, Urban*, 5-2b, *Planned Bikeway Network, Rural*, and 5-3, *Essential Pedestrian Network;* North Clackamas Parks and Recreation District's (NCPRD) Park and Recreation Master Plan; and Metro's Regional Trails and Greenways Map.

Response: The access at Fuller Road was designed through a site distance analysis considering line of sight and associated safety for vehicular movement at or near the driveway intersection. This analysis and subsequent design of the driveway intersection, as well as the proposed public improvements to both Fuller Road and Otty Road, was based on the Clackamas County Roadway Standards, as well as per the designation as a Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8). However, Clackamas County Engineering has requested a street section on Fuller Road that varies from the Fuller Road Station Community Plan since it will provide an 11' travel lane, 6' bike lane, 8' parking, and 12' sidewalk. The proposed improvements to both Fuller Road and Otty Road include a 12-foot wide concrete sidewalk with street trees, curbing and gutters. The proposed improvements also include a 6-foot wide bike lane between the sidewalk and the east bound travel lane. No new vegetation or signage is proposed within the clear vision areas of the access driveway.

C. Requirements for Pedestrian and Bicycle Facility Construction: Within the Portland Metropolitan Urban Growth Boundary (UGB), sidewalks, pedestrian pathways, and accessways shall be constructed as required in Subsection 1007.06 for subdivisions, partitions, multifamily dwellings, three-family dwellings, attached single-family dwellings where three or more dwelling units are attached to one another, and commercial, industrial, or institutional developments, except that for structural additions to existing commercial, industrial, or institutional buildings, development of such facilities shall be required only if the addition exceeds 10 percent of the assessed value of the existing structure, or 999 square feet.

Response: The proposed public improvements to both Fuller Road and Otty Road will include construction standards based on Subsection 1007.06. These improvements are also based on the Clackamas County Roadway Standards, as well as per the designation of Otty Road as a Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8).

D. Requirement for Sidewalk Construction: Within the UGB, sidewalks shall be constructed, as required in Subsection 1007.04(F), for two-family dwellings, detached single-family dwellings, attached single-family

dwellings where two dwelling units are attached to one another, and manufactured dwellings outside a manufactured dwelling park.

Response: The proposed development does not include two-family dwellings, detached single-family dwellings, and attached single-family dwellings where two dwelling units are attached to one another, or manufactured dwellings outside a manufactured dwelling park. Therefore, this standard does not apply.

E. Sidewalks or Pedestrian Pathways in Unincorporated Communities: In an unincorporated community, either a sidewalk or a pedestrian pathway shall be constructed on arterial or collector street frontage(s) of a lot upon which a subdivision, partition, multifamily dwelling, three-family dwelling, attached single-family dwelling where three or more dwelling units are attached to one another, or a commercial, industrial, or institutional development is proposed.

Response: The subject property and proposed development are not within an unincorporated community, therefore, this standard does not apply.

F. Sidewalk Location: Sidewalks required by Subsection 1007.04(C) or (D) shall be constructed on:
   1. Both sides of a new or reconstructed road, except that sidewalks may be constructed on only one side of the road if:
      a. The road is not a through road;
      b. The road is 350 feet or less in length and cannot be extended; or
      c. In consideration of the factors listed in Subsection 1007.02(B)(3).
   2. The street frontage(s) of a lot upon which a subdivision, partition, multifamily dwelling, three-family dwelling, attached single-family dwelling where three or more dwelling units are attached to one another, or a commercial, industrial, or institutional development is proposed; and
   3. Local or collector road street frontage(s) of a lot upon which a two-family dwelling, a detached single-family dwelling, an attached single-family dwelling where two dwelling units are attached to one another, or a manufactured dwelling is proposed. This requirement shall be imposed as a condition on the issuance of a conditional use permit, building permit, or manufactured dwelling placement permit, but
      a. The requirement shall be waived if the dwelling is a replacement for one destroyed by an unplanned fire or natural disaster; and
      b. The sidewalk requirement shall apply to no more than two street frontages for a single lot.

Response: County Engineering has indicated that public improvement requirements for sidewalks shall be required only along the adjacent frontage of the subject site, including both Fuller Road and Otty Road.

G. Pedestrian Pathways: Within the UGB, a pedestrian pathway may be constructed as an alternative to a sidewalk on a local or collector road when it is recommended by the Department of Transportation and Development; the surface water management regulatory authority approves the design; and at least one of the following criteria is met:

Response: New sidewalk is proposed for the north side of Otty Road and the west side of Fuller Road, including curb and gutter that are incorporated into the stormwater plan. The new sidewalk precludes the need for any alternative to a sidewalk, and no alternatives are proposed.

H. Sidewalk and Pedestrian Pathway Width: Sidewalks and pedestrian pathways shall be constructed to the minimum widths shown in Table 1007-1, *Minimum Sidewalk and Pedestrian Pathway Width*, and be consistent with applicable requirements of Chapters 5 and 10 of the Comprehensive Plan.

Table 1007-1: Minimum Sidewalk and Pedestrian Pathway Width

Street Type	Residential Sidewalk	Commercial or Institutional Sidewalk	Industrial Sidewalk
Local	5 feet	7 feet	5 feet
Connector	5 feet	7 feet	5 feet
Collector	5 feet	8 feet	5 feet
Arterial	6 feet	8 feet	6 feet

1. The entire required width of sidewalks and pedestrian pathways shall be unobstructed.
2. Sidewalks and pedestrian pathways at transit stops shall be a minimum of eight feet wide for a distance of 20 feet centered on the transit shelter or transit stop sign.
3. A sidewalk set back from the curb by at least five feet may be one foot narrower (but not less than five feet) than the standard listed above. This five-foot separation strip shall be landscaped and shall be maintained by the adjacent property owner. The landscape strip may contain fixed objects provided that sight distance and roadside clear zone standards are satisfied pursuant to the Clackamas County Roadway Standards.
4. Uses located in the Campus Industrial, Light Industrial, General Industrial, or Business Park District and containing over 5,000 square feet of office space shall comply with the requirements for Commercial and Institutional uses.

Response: New sidewalk is proposed for the north side of Otty Road and the west side of Fuller Road, including curb and gutter that are incorporated into the stormwater plan. Otty Road is classified as an arterial and the proposed development is commercial, therefore, the minimum sidewalk width would be 8 feet. Fuller Road is classified as a Collector and the proposed development is commercial, therefore, the minimum sidewalk width would be 8 feet. This is based on Table 1007-1, above. However, both Otty Road and Fuller Road are designated as Street Type "B" per the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8). These requirements supersede the requirements of Table 1007-1. Therefore, the proposed improvements to both Otty Road and Fuller Road include a 12-foot wide concrete sidewalk with street trees, curbing and gutters. The proposed improvements also include a 6-foot wide bike lane between the sidewalk and the travel lane.

I. Accessways: Accessways shall comply with the following standards:
1. Accessways shall be required where necessary to provide direct routes to destinations not otherwise provided by the road system and where topography permits. Developments shall not be required to provide right-of-way for accessways off-site to meet this requirement. If right-of-way is available off-site, the developer may be required to improve an accessway off-site up to 150 feet in length.
2. Accessways shall provide safe, convenient access to facilities generating substantial pedestrian or bicycle trips, such as an existing or planned transit stop, school, park, church, daycare center, library, commercial area, or community center. Facilities such as these shall be accessible from dead-end streets, loops, or mid-block locations. Where required, accessways shall be constructed at intervals of no more than 330 feet, unless they are prevented by barriers such as topography, railroads, freeways, pre-existing development, or environmental constraints such as streams and wetlands.
3. An accessway shall include at least a 15-foot-wide right-of-way and an eight-foot-wide hard surface. For safety, accessways should be as straight as practicable and visible from an adjacent use if practicable. Removable bollards or other large objects may be used to bar motor vehicular access.

4. So that they may be safely used at night, accessways shall be illuminated by street lights or luminaires on shorter poles. Separate lighting shall not be required if existing lighting adequately illuminates the accessway.
5. Fences are not required, but the height of a fence along an accessway shall not exceed six feet.
6. Ownership and maintenance responsibility for accessways shall be resolved during the development review and approval process.

Response: The site can be served by the adjacent street system and the proposed access at Fuller Road, therefore, an additional accessway is not necessary. However, a multi-modal on-site accessway (driveway) and pedestrian network have been included in the overall design of the development.

Accessways in Sunnyside Village: The following standards apply in Sunnyside Village. Where these standards conflict with Subsection 1007.04(I), Subsection 1007.04(J) shall take precedence.

Response: The subject property is not located within the Sunnyside Village Plan area, therefore, this standard does not apply.

J. Bikeways: Bikeways shall be required as follows:
1. Shoulder bikeways, bike lanes, bike paths, or cycle tracks shall be included in the reconstruction or new construction of any street if a bikeway is indicated in Chapters 5 and 10 of the Comprehensive Plan and on Comprehensive Plan Map 5-2a or 5-2b; NCPRD's Park and Recreation Master Plan; or Metro's Regional Trails and Greenways Map.
2. Shoulder bikeways, bike lanes, bike paths, or cycle tracks shall be considered in the reconstruction or new construction of any other arterial or collector.

Response: A 6-foot wide bike lane is proposed as part of the design and reconstruction of the western portion of Fuller Road. An existing 6-foot bike lane along Otty Road will be retained. These proposed bike lanes are part of the requirements of Street Type B of the Fuller Road Station Community Plan in the Clackamas County Comprehensive Plan.

K. Trails: Trail dedications or easements shall be provided and developed as shown on Comprehensive Plan Map IX-1, *Open Space Network & Recreation Needs*; the Facilities Plan (Figure 4.3) in NCPRD's Park and Recreation Master Plan; and Metro's Regional Trails and Greenways Map.

Response: No trails are required or proposed as part of this development.

N. Pedestrian and Bicycle Circulation: The pedestrian and bicycle circulation connections shown on Comprehensive Plan Maps X-CRC-3, Clackamas Regional Center Area Design Plan Urban Design Elements, X-CRC-7, Clackamas Regional Center Area Design Plan Pedestrian and Bicycle Circulation Network, and X-CRC-7a, Clackamas Regional Center Area Design Plan Walkway Network, shall be provided.

Response: All of the pedestrian and bicycle circulation connections shown on Comprehensive Plan Maps X-CRC-3, Clackamas Regional Center Area Design Plan Urban Design Elements, X-CRC-7, Clackamas Regional Center Area Design Plan Pedestrian and Bicycle Circulation Network, and X-CRC-7a, Clackamas Regional Center Area Design Plan Walkway Network are provided.

1007.05 TRANSIT AMENITIES

All residential, commercial, institutional, and industrial developments on existing and planned transit routes shall be reviewed by Tri-Met or other appropriate transit provider to ensure appropriate design and integration of transit amenities into the development. The design shall not be limited to streets, but shall ensure that pedestrian/bikeway facilities and other transit-supportive features such as shelters, bus pull-outs, park-and-ride spaces, and signing will be provided. The designs shall comply with Tri-Met standards and specifications.

Response: Tri-Met will be notified of this application and provide comments. According to Tri-Met's online schedule, bus service is provided by Tri-Met Route 72 (SE Otty Road/SE 82nd Road) along SE 82nd Road. This route connects the site with Clackamas Town Center and NE Portland and operates on weekdays from approximately 4:30 AM to 1:00 AM, with 15-minute headways for most of the day. On weekdays, it operates from approximately 5:30 AM to 12:30 AM, with 30-

minute headways for most of the day. The site is connected to both transit facilities through existing sidewalk and multi-use pathway systems.

1007.06 STREET TREES

A. Within the Portland Metropolitan Urban Growth Boundary, street trees are required on all road frontage—except frontage on private roads or access drives--for subdivisions, partitions, multifamily dwellings, three-family dwellings, attached single-family dwellings where three or more dwelling units are attached to one another, and commercial, industrial, or institutional developments, except that for structural additions to existing commercial, industrial, or institutional buildings, street trees are required only if the addition exceeds 10 percent of the assessed value of the existing structure, or 999 square feet. Street trees shall comply with the following standards:
   1. Partial or complete exemptions from the requirement to plant street trees may be granted on a case-by-case basis. Exemptions may be granted, for example, if the exemption is necessary to save existing significant trees which can be used as a substitute for street trees.
   2. Street trees to be planted shall be chosen from a County-approved list of street trees (if adopted), unless approval for planting of another species is given by the Department of Transportation and Development.
   3. Location and planting of street trees may be influenced by such conditions as topography, steep terrain, soil conditions, existing trees and vegetation, preservation of desirable views, and solar access.
   4. Planting of street trees shall be coordinated with other uses which may occur within the street right-of-way, such as bikeways, pedestrian paths, storm drains, utilities, street lights, shelters, and bus stops.
   5. Street trees at maturity shall be of appropriate size and scale to complement the width of the street or median area.

B. Street trees required for developments in the Clackamas Regional Center Area, shall comply with the following standards:
   1. Street trees are required along all streets, except for drive aisles in parking lots.
   2. When determining the location of street trees, consideration should be given to accommodating normal retail practices in front of buildings such as signage, outdoor display, loading areas, and pullout lanes.
   3. Street trees are required along private access streets under the following conditions:
   4. In the Fuller Road Station Community, as identified on Comprehensive Plan Map X-CRC-11, street trees are required along both sides of all street types, and as shown in Comprehensive Plan Figure X-CRC-11, *Clackamas Regional Center Area Design Plan Fuller Road Station Community, Type "E" Pedestrian/Bicycle Connection, Type "E"* pedestrian/bicycle connections. Street trees shall be spaced from 25 to 40 feet on center, based on the selected tree species and any site constraints. Street trees shall otherwise comply with the other provisions of Subsections 1007.06(A) and (B).

Response: Street trees are proposed as part of the development plan and application along the Fuller Road frontage. The street trees are based on the requirements of the Fuller Road Station Community, as identified on Comprehensive Plan Map X-CRC-1. See Exhibit E, Plan Set, Planting Plan, Sheet L1.0.

1007.07 TRANSPORTATION FACILITIES CONCURRENCY

A. Subsection 1007.09 shall apply to the following development applications: design review, subdivisions, partitions, and conditional uses.
B. Approval of a development shall be granted only if the capacity of transportation facilities is adequate or will be made adequate in a timely manner. The following shall be exempt from this requirement:
C. As used in Subsection 1007.07(B), "adequate" means a maximum volume-to-capacity ratio (v/c), or a minimum level of service (LOS) , as established by Comprehensive Plan Tables 5-2a, *Motor Vehicle Capacity Evaluation Standards for the Urban Area*, and 5-2b, *Motor Vehicle Capacity Evaluation Standards for the Rural Area.*
D. For the purpose of calculating capacity as required by Subsections 1007.07(B) and (C), the following standards shall apply:
   1. The methods of calculating v/c and LOS are established by the Clackamas County Roadway Standards.
   2. The adequacy standards shall apply to all roadways and intersections within the impact area of the proposed development. The impact area shall be established by the Clackamas County Roadway Standards.

E. As used in Subsection 1007.07(B), "timely" means:
   1. For facilities under the jurisdiction of the County, necessary improvements are included in the Five-Year Capital Improvement Program, fully funded, and scheduled to be under construction within three years of the date land use approval is issued;
   2. For facilities under the jurisdiction of the State of Oregon, necessary improvements are included in the Statewide Transportation Improvement Plan and scheduled to be under construction within four years of the date land use approval is issued;
   3. For facilities under the jurisdiction of a city or another county, necessary improvements are included in that jurisdiction's capital improvement plan, fully funded, and scheduled to be under construction within three years of the date land use approval is issued.
   4. Alternatively, timely means that necessary improvements will be constructed by the applicant or through another mechanism, such as a local improvement district. Under this alternative:
      a. Prior to issuance of a certificate of occupancy for a conditional use or a development subject to design review and prior to recording of the final plat for a subdivision or partition, the applicant shall do one of the following:
         i. Complete the necessary improvements; or
         ii. For transportation facilities under the jurisdiction of the County, the applicant shall provide the county with a deposit, letter of credit, performance bond, or other surety satisfactory to county staff pursuant to Section 1311, *Completion of Improvements, Sureties, and Maintenance*. For transportation facilities under the jurisdiction of the state, a city, or another county, the applicant shall comply with the respective jurisdiction's requirements for guaranteeing completion of necessary improvements. This option is only available if the jurisdiction has a mechanism in place for providing such a guarantee.
   5. For a phased development, the first phase shall satisfy Subsections 1007.07(E)(1) through (4) at the time of land use approval. Subsequent phases shall be subject to the following:

F. As used in Subsection 1007.07(E), necessary improvements are:
   1. Improvements identified in a transportation impact study as being required in order to comply with the adequacy standard identified in Subsection 1007.07(C).
      a. A determination regarding whether submittal of a transportation impact study is required shall be made based on the Clackamas County Roadway Standards, which also establish the minimum standards to which a transportation impact study shall adhere.
      b. If a transportation impact study is not required, County traffic engineering or transportation planning staff shall identify necessary improvements or the applicant may opt to provide a transportation impact study.

Response: A transportation impact study has not been required by County Engineering. Transportation improvements along both Fuller Road and Otty Road are proposed, based primarily on the Pre-application Conference notes (ZPAC0141-DR – Otty Self Storage), as well as subsequent communique with County Engineering (Kenneth Kent). Clackamas County Engineering has requested a street section on Fuller Rd that varies from the Fuller Road Station Community Plan since it will provide an 11' travel lane, 6' bike lane, 8' parking, and 12' sidewalk. The proposed public improvements to both Fuller Road and Otty Road are also based on the Clackamas County Roadway Standards, as well as per the designation of Otty Road as a Street Type "B" of the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan (Figure X-CRC-8, Chapter 10 of the Clackamas County Comprehensive Plan). These improvements will be required as part of the proposed development, therefore, transportation concurrency for improvements can be met.

1009 LANDSCAPING

1009.01 GENERAL PROVISIONS

A. Landscaping materials shall be selected and sited to produce a hardy and low-maintenance landscaped area with an emphasis on fast-growing plants. Selection shall include consideration of soil type and depth, spacing, exposure to sun and wind, slope and contours of the subject property, building walls and overhangs, and

compatibility with existing vegetation to be preserved. Notwithstanding the requirement for hardiness, annuals are permitted as provided in Subsection 1009.01(B).

B. A variety of plants, intermixed throughout landscaped areas, shall be provided, as follows:
   1. Evergreen and deciduous;
   2. Trees, shrubs, and groundcover;
   3. Plants of varying textures;
   4. Plants of varying widths and heights at maturity; and
   5. Plants with seasonal color interest (e.g., foliage, flowering perennials, annuals).

C. The planting of invasive non-native or noxious vegetation shall be prohibited, and existing invasive non-native or noxious vegetation shall be removed.

D. Landscaped areas shall not be used for other purposes, such as storage or display of automobiles, equipment, merchandise, or materials.

E. Landscaping of the unimproved area between a property line and the improved portion of an adjacent road right-of-way shall be required when there are no immediate plans to develop or otherwise disturb the unimproved area, and one or more of the following apply:
   1. The subject property is located inside the Portland Metropolitan Urban Growth Boundary;
   2. Landscaping is necessary to present an appearance consistent with the proposed development as viewed from the road;
   3. Landscaping is necessary to reduce dust, noise, erosion, or fire hazard; or
   4. The road is designated as a scenic road on Comprehensive Plan Map 5-1, *Scenic Roads*.

F. Landscaping shall be used to highlight public entrances to buildings. If—due to the depth of a front setback, a required walkway, or both—there is insufficient area to permit a typical, in-ground landscaping bed between a public entrance and a front lot line, this requirement may be met with trellises, hanging baskets, or planters, any of which shall include plants.

G. Where feasible, landscaping shall be required adjacent to walkways and other areas intended for pedestrian use.

H. Existing significant plants, terrain, and other natural features shall be incorporated into the landscaping design and development if such features are required to be retained by other provisions of this Ordinance or if otherwise feasible.

Response: The applicant is proposing landscaping as part of the development proposal. See Exhibit E, Plan Set, Sheet L 1.0, Planting Plan. The Planting Plan includes a broad mix of both evergreen and deciduous trees and shrubs, based on the varied circumstances of the site and proposed development. No non-native or invasive species are proposed. All areas between development and property lines are proposed for pedestrian connections or landscaping, where feasible.

1009.02 MINIMUM AREA STANDARDS

A. Table 1009-1, *Minimum Landscaped Area*, establishes the minimum percentage of the area of the subject property that shall be landscaped.
   1. The minimum landscaping percentage shall be calculated after subtracting any public dedications from the area of the subject property.
   2. Landscaping in adjacent rights-of-way shall not count toward compliance with the minimum landscaping area.
   3. Requirements for surface parking and loading area landscaping, screening and buffering, scenic roads landscaping, landscaping strips, and recreational areas and facilities set forth in Section 1009 apply regardless of whether compliance with those requirements results in landscaping a greater percentage of the subject property than is required by Table 1009-1.

Table 1009-1: Minimum Landscaped Area

Zoning District	Minimum Landscaped Area
CC, PMU, RCC, RCO, RTL	10 percent

4. A minimum of 75 percent of the minimum landscaped area required by Table 1009-1—excluding any area occupied by pedestrian amenities, active recreational areas, or edible gardens—shall be landscaped with native or drought-tolerant plants.
7. Green roofs may comprise a maximum of 25 percent of the minimum landscaped area required by Table 1009-1.
8. Turf lawn may comprise a maximum of 10 percent of the minimum landscaped area required by Table 1009-1. However, this limitation shall not apply to active recreational areas, provided that no other areas of the subject property are planted in turf lawn, and it shall not apply to cemeteries.
9. Pedestrian amenities may comprise a maximum of one-third of the minimum landscaped area required by Table 1009-1. However, no more than 15 percent of the minimum landscaped area required by Table 1009-1 and developed with pedestrian amenities shall have an impervious surface.
10. Area occupied by walls, fences, or trellises constructed to comply with Subsections 1009.03 and 1009.04 shall count toward the minimum landscaped area required by Table 1009-1.

Response: The applicant proposes a total of 6,037 square feet of landscaping and the area of the subject site is 56,115 square feet, for a proposed landscape area of 10.8 %. Therefore, the minimum landscape area of 10% is met. The landscape areas include a broad mix of both evergreen and deciduous trees and shrubs, based on the varied circumstances of the site and proposed development. No non-native or invasive species are proposed. All areas between development and property lines are proposed for pedestrian connections or landscaping, where feasible. No areas dedicated to public rights-of-way or pedestrian amenities is included in the landscape area calculation. See Exhibit E, Plan Set, Sheet L 1.0, Planting Plan and Sheet C2.0, Site Plan.

B. Exceptions: Notwithstanding Table 1009-1:
   1. If a commercial, industrial, or institutional development is lawfully nonconforming with regard to compliance with the minimum landscaped area standard, less than 5,000 square feet of building floor space may be added without bringing the subject property into full compliance with the standard, as follows:

Response: The applicant proposes to meet the minimum landscape standards for the entire subject site.

1009.03 SURFACE PARKING AND LOADING AREA LANDSCAPING

Surface parking and loading areas shall be landscaped as follows:

A. Surface parking areas that include more than 15 parking spaces shall comply with the following landscaping requirements:
   1. Twenty-five square feet of landscaping per parking space, excluding perimeter parking spaces, shall be provided, except that the standard shall be reduced to 20 square feet for each parking space developed entirely with porous pavement.
   2. One landscape swale located between two rows of parking spaces, as shown in Figure 1009-1, is required for every six rows of parking spaces, unless all parking spaces are developed entirely with porous pavement. Additional swales beyond the minimum requirement are allowed.
   3. Interior landscaping not developed as swales pursuant to Subsection 1009.04(A)(2) shall comply with the following standards:
      a. It shall be arranged in areas at the ends of rows of parking or between parking spaces within rows of parking. See Figure 1009-2.
      b. It may join perimeter landscaping as long as the interior landscape area extends at least four feet into the parking area from the perimeter landscape line. See Figure 1009-2.
      c. Landscaping that abuts, but does not extend into, the parking area may be included as interior landscaping if all of the following are met:
      d. The interior length and width of landscaped areas shall be a minimum of four feet.

Response: There are 14 surface parking spaces proposed on-site, therefore, this standard does not apply.

4. Interior landscaped areas, including swales, shall include a minimum of one tree located every eight interior parking spaces, or fraction thereof, except in the OA, VA, VCS, and VO Districts, where a minimum of one tree shall be located every six interior parking spaces.
   a. Where necessary to accommodate other design considerations, variable spacing of the trees required by Subsection 1009.03(A)(4) is allowed, but in no case shall there be less than one tree planted in every 12 parking spaces.
   b. The species of trees required shall be determined on the basis of the growth habit and the need to provide maximum shading of surface parking areas.

Response: Based on a total of 14 surface parking spaces proposed on-site, 2 trees are required as part of the interior landscaped area. The applicant proposes 2 trees as part of interior landscaping, therefore, this standard is met.

B. Perimeter landscaping requirements for surface parking and loading areas adjacent to abutting properties or rights-of-way are as follows:
   1. A landscaping strip with a minimum width of five feet shall be provided adjacent to the perimeter of the surface parking or loading area, except:
   2. The required landscaping strips shall comply with the following standards:
      a. Sufficient low shrubs shall be planted to form a continuous screen three feet high and 95 percent opaque, year-round; or a three-foot-high masonry wall or a berm may be substituted for the shrubs. When applied along front lot lines, the screen or wall is to be placed along the interior side of the landscaping strip and shall be 30 inches high instead of three feet high.
      b. In addition, one tree is required for every 30 linear feet of landscaping strip, or as otherwise required to provide a tree canopy over the landscaping strip.
      c. Ground cover plants must fully cover the remainder of the landscaped area.
   3. A perimeter landscape strip is not required for a surface parking or loading area adjacent to an abutting lot if one or more interior driveways connect the two lots and if the abutting lot also is developed with a surface parking or loading area adjacent to the shared lot line.
   4. Required walkways may cross perimeter landscaping strips.

Response: The applicant proposes a 5-foot wide perimeter landscape strip along the north side of the parking area that is adjacent to the property to the north. The proposed landscape perimeter includes a tree every 30 feet, shrubs that provide an opaque screen and ground cover. See Exhibit E, Plan Set, Sheet L 1.0, Planting Plan and Sheet C2.0, Site Plan.

1009.04 SCREENING AND BUFFERING

A. Screening shall be used to eliminate or reduce the visual impacts of the following:
   1. Service areas and facilities, such as loading areas and receptacles for solid waste or recyclable materials;
   2. Storage areas;
   3. Ground-mounted rainwater collection facilities with a storage capacity of more than 100 gallons;
   5. Any other area or use, as required by this Ordinance.

B. Screening shall be accomplished by the use of sight-obscuring evergreen plantings, vegetated earth berms, masonry walls, sight-obscuring fences, proper siting of disruptive elements, building placement, or other design techniques.

C. Screening shall be required to substantially block any view of material or equipment from any point located on a street or accessway adjacent to the subject property. Screening from walkways is required only for receptacles for solid waste or recyclable materials. A sight-obscuring fence at least six feet in height and up to a maximum of 10 feet in height shall be required around the material or equipment.

D. Buffering shall be used to mitigate adverse visual impacts, dust, noise, or pollution, and to provide for compatibility between dissimilar adjoining uses. Special consideration shall be given to the buffering between residential uses and commercial or industrial uses, and in visually sensitive areas.

E. Buffering shall be accomplished by one of the following:
   1. A landscaping strip with a minimum width of 15 feet and planted with:
      a. At least one row of deciduous and evergreen trees staggered and spaced not more than 30 feet apart;

b. A perennial, evergreen planting with sufficient foliage to obscure vision and which will grow to form a continuous hedge a minimum of six feet in height within two years of planting; and
c. Low-growing evergreen shrubs and evergreen ground cover covering the balance of the area;

2. A berm with a minimum width of ten feet, a maximum slope of 40 percent on the side away from the area screened from view, and planted with:
   a. A perennial, evergreen planting with sufficient foliage to obscure vision and which will grow to form a continuous hedge within two years of planting. The minimum combined height of the berm and planting shall be six feet; and
   b. Low-growing evergreen shrubs and evergreen ground cover covering the balance of the area
3. A landscaping strip with a minimum width of five feet, and including:
   a. A masonry wall or sight-obscuring fence a minimum of six feet in height. The wall or fence is to be placed along the interior side of the landscaping strip;
   b. Evergreen vines, evergreen trees, or evergreen shrubs, any of which shall be spaced not more than five feet apart; and
   c. Low-growing evergreen shrubs and evergreen ground cover covering the balance of the area; or
4. Another method that provides an adequate buffer considering the nature of the impacts to be mitigated.

F. Required walkways shall be accommodated, even if such accommodation necessitates a gap in required screening or buffering.

Response: 3 loading areas are proposed as part of the loading requirements for the site. All of the trash/recycling and loading areas are proposed with perimeter landscape screening along the north property boundary of the site, as indicated in Exhibit E, Plan Set, Sheet L 1.0, Planting Plan. This perimeter landscape area includes an existing 6-foot high cyclone fence that will be upgraded with sight-obscuring slatting.

Trash collection shall occur in one of the storage units as designated by the Owner. The roll-up door will remain closed at all times except when the rubbish container is being used.

1009.06 LANDSCAPING STRIPS

C. In all other zoning districts, except SCMU, a landscaping strip a minimum of five feet wide shall be provided abutting front lot lines. (See Subsection 1005.10(L) for additional SCMU landscaping requirements.)
   2. If—due to the depth of a front setback and the need to accommodate a required walkway, required pedestrian amenities, or both—there is insufficient area to permit a five-foot-wide landscaping strip, the landscaping strip may be reduced in width or the landscaping requirement may be met with a linear arrangement of trellises, hanging baskets, or planters, any of which shall include plants.

Response: Due to the allowance for a zero setback and the requirement for a 12-foot wide sidewalk in the Fuller Road Station Community Design Standards, the applicant requests that landscape strips be reduced to zero in order to allow for the buildings to locate at the front property line as a zero setback.

1009.07 FENCES AND WALLS

A. Fences and walls shall be of a material, color, and design complementary to the development.

Response: The applicant proposes to retain a 6-foot high fence along the north and west property lines of the subject site. The existing 6-foot high cyclone fence will be upgraded with sight-obscuring slatting.

1009.09 EROSION CONTROL

A. Graded areas shall be re-vegetated with suitable plants to ensure erosion control.
B. Netting shall be provided, where necessary, on sloped areas while ground cover is being established.

Response: All graded areas on the site will be properly protected during construction as part of a construction management plan. See Grading Plan, Exhibit E, Plan Set, Sheet C3.0. All areas of the site not developed will be planted, as indicated in the Planting Plan, Exhibit E, Plan Set, Sheet 1.0.

1009.10 PLANTING AND MAINTENANCE

A. Impervious weed barriers (e.g, plastic sheeting) are prohibited.
B. Plants shall not cause a hazard. Plants over walkways, sidewalks, pedestrian pathways, and seating areas shall be pruned to maintain a minimum of eight feet below the lowest hanging branches. Plants over streets and other vehicular use areas shall be pruned to maintain a minimum of 15 feet below the lowest hanging branches.
C. Plants shall be of a type that, at maturity, typically does not interfere with above- or below-ground utilities or paved surfaces.
D. Plants shall be installed to current nursery industry standards.
E. Plants shall be properly guyed and staked to current nursery industry standards as necessary. Stakes and guy wires shall not interfere with vehicular or pedestrian traffic, shall be loosened as needed to prevent girdling of trunks, and shall be removed as soon as sufficient trunk strength develops, typically one year after planting.
F. Landscaping materials shall be guaranteed for a period of one year from the date of installation. The developer shall either submit a signed maintenance contract for the one-year period or provide a performance surety pursuant to Section 1311, *Completion of Improvements, Sureties, and Maintenance*, covering the landscape maintenance costs for the one-year period.
G. Plants shall be suited to the conditions under which they will be growing. As an example, plants to be grown in exposed, windy areas that will not be irrigated shall be sufficiently hardy to thrive under these conditions. Plants shall have vigorous root systems, and be sound, healthy, and free from defects and diseases.
H. When planted, deciduous trees shall be fully branched, have a minimum caliper of two inches, and have a minimum height of eight feet.
I. When planted, evergreen trees shall be fully branched and have a minimum height of eight feet, and have only one leader.
J. Shrubs shall be supplied in minimum one-gallon containers or eight-inch burlap balls with a minimum spread of 12 inches.
K. Ground cover shall be planted a maximum of 30 inches on center with a maximum of 30 inches between rows. Rows of plants shall be staggered. Ground cover shall be supplied in minimum four-inch containers, except that the minimum shall be reduced to two and one-quarter inches or equivalent if the ground cover is planted a minimum of 18 inches on center.
L. Plants shall be spaced so that ground coverage three years after planting is expected to be 90 percent, except where pedestrian amenities, rainwater collection systems, or outdoor recreational areas count as landscaping pursuant to Subsection 1009.02. Areas under the drip line of trees count as ground coverage.
M. Irrigation of plants shall be required, except in wooded areas, wetlands, and in river and stream buffers. The irrigation system shall be automatic, except that hose bibs and manually operated methods of irrigation may be permitted in small landscaped areas close to buildings. Automatic irrigation systems are subject to the following standards:
    1. An automatic irrigation controller shall be required for irrigation scheduling.
    2. The system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.
    3. In mulched planting areas, the use of low volume irrigation is required to maximize water infiltration into the root zone.
    4. Narrow or irregularly shaped areas, including turf lawn, less than eight feet in width in any direction shall be irrigated with subsurface or low volume irrigation.
    5. Overhead sprinkler irrigation is prohibited within two feet of any impervious surface unless:
        a. The landscaped area is adjacent to permeable surfacing and no runoff occurs; or
        b. The adjacent impervious surfaces are designed and constructed to drain entirely to landscaping; or
        c. The irrigation designer specifies an alternative design or technology that complies with Subsection 1009.10(M)(2).

Response: All plants and material will be installed according to current nursery industry standards. All trees, shrubs and ground covers will be planted per the dimensional standards indicated in this Subsection. All plant areas will be maintained by the owner over time, including irrigation, pruning and weeding. See details in the Planting Plan, Exhibit E, Plan Set, Sheet L 1.0.

1015 PARKING AND LOADING

1015.01 GENERAL STANDARDS

A. Inside the Portland Metropolitan Urban Growth Boundary (UGB), parking, loading, and maneuvering areas shall be hard-surfaced, unless a permeable surface is required for surface water management authority or in order to comply with Subsection 1006.06.
B. Outside the UGB, all areas used for parking, loading, and maneuvering of vehicles shall be surfaced with screened gravel or better, and shall provide for suitable drainage.
C. Parking and loading requirements for types of uses and structures not specifically listed in Tables 1015-1, *Automobile Parking Space Requirements*; 1015-2, *Minimum Required Bicycle Parking Spaces*; and 1015-3, *Minimum Required Off-Street Loading Berths* shall be subject to the requirements for the most similar use.
D. Motor vehicle parking, bicycle parking, and loading areas shall be separated from one another.
E. Required parking spaces and loading berths shall not be:
    a. Rented, leased, or assigned to any other person or organization, except as provided for under Subsection 1015.02(D)(2)(a) for shared parking or Subsection 1015.04(C) for shared loading berths.
    b. Used for storing or accumulating goods or storing a commercial or recreational vehicle, camper, or boat, rendering the space(s) useless for parking or loading operations.
    c. Occupied by the conducting of any business activity, except for permitted temporary uses (e.g., farmers' markets).

Response: A clearly defined and identifiable parking and vehicle area has been incorporated into the overall design of the site. Specific parking spaces vehicle maneuvering areas are defined on the Site Plan. See Exhibit H, Plan Set, Site Plan, Sheet C 2.0. All of the parking spaces and vehicle maneuvering areas will be constructed with asphalt and concrete curbing. All applicable standards for construction and stormwater run-off are included in the overall design.

1015.02 MOTOR VEHICLE PARKING AREA STANDARDS

A. Off-street parking areas shall be designed to meet the following requirements:
    1. Off-street motor vehicle parking areas shall be provided in defined areas of the subject property. No area shall be considered a parking space unless it can be shown that the area is accessible and usable for that purpose and has required maneuvering area for vehicles. Required backing and maneuvering areas shall be located entirely onsite.
    2. Automobile parking spaces shall be a minimum of 8.5 feet wide and 16 feet long, except that parallel spaces shall be a minimum of 8.5 feet wide and 22 feet long.
    3. A minimum of 25 percent of required parking spaces shall be no larger than 8.5 feet wide and 16 feet long.
    4. Parking areas shall comply with minimum dimensions for curb length, stall depth, and aisle width established by the Clackamas County Roadway Standards; these dimensions are based on the orientation (e.g., 45-degree, 90-degree), length, and width of the spaces.
    5. Double-loaded, ninety-degree angle parking bays shall be utilized where possible.
    6. A minimum of one parking space or five percent of the required spaces, whichever is greater, shall be marked and signed for use as carpool/vanpool spaces. These spaces shall be the closest employee automobile parking spaces to the building entrances normally used by employees, but shall not take priority over any spaces required for individuals with disabilities.
    8. Where feasible, shared driveway entrances, shared parking and maneuvering areas, and interior driveways between adjacent parking lots shall be required.
    9. Except for parallel spaces, parking spaces heading into landscaped areas or along the perimeter of a parking lot shall be provided with a sturdy tire stop at least four inches high and located two feet within the space to prevent any portion of a car within the lot from extending over the property line.
    10. For parking spaces heading into a landscaped area, the area in front of the tire stop that is included in the parking space dimension may be landscaped instead of paved or graveled according to the following standards:
        a. Landscaping shall be ground cover plants only;
        b. The area in front of the tire stop that is included in the parking space dimension shall be in addition to the required minimum dimension for a landscape planter; and

c. The landscaped area in front of the tire stop may count toward overall site landscaping requirements established in Table 1009-1, *Minimum Landscaped Area*. However, it may not count toward perimeter landscaping requirements established in Section 1009.03(B)(1).

Response: A clearly defined and identifiable parking and vehicle area has been incorporated into the overall design of the site. Specific parking spaces vehicle maneuvering areas are defined on the Site Plan. See Exhibit H, Plan Set, Site Plan, Sheet C 2.0. All of the parking spaces and vehicle maneuvering areas meet the dimensional standards required in Table 1015-1, Minimum Parking Space and Aisle Dimensions, below, with stall width dimensions of 8.5 feet by 16 feet at 90 degrees.

Any vehicle maneuvering areas not clearly identifiable as parking or aisle will be signed with 'no parking signs' to ensure efficient maneuvering of vehicles. One space will be signed as carpool/vanpool parking. Some of the spaces head into interior landscape areas, but not into perimeter landscape area, and these overhang areas for vehicles will be planted with ground cover only. All bicycle parking is provided in locations away from parking spaces and vehicle areas, to the extent possible. No commercial or recreational vehicle parking will be allowed, accept for temporary use of the loading areas designated on the Site Plan. See Exhibit E, Plan Set, Sheet L 1.0, Planting Plan and Sheet C2.0, Site Plan.

B. Parking Minimums: The minimum number of parking spaces listed in Table 1015-1, *Automobile Parking Space Requirements*, applies unless modified in Subsection 1015.02(D).
   1. In case of expansion of a building or use that, prior to the expansion, does not meet the minimum parking space requirements in Table 1015-1, the following provisions shall apply:
      a. The minimum number of additional parking spaces required shall be based only on the floor area or capacity added and not the area or capacity existing prior to the expansion.
      b. If the enlargement covers any of the pre-expansion parking spaces, lost parking spaces shall be replaced, in addition to any required additional spaces.
   2. In the event more than one use occupies a single structure or parcel, the total minimum requirement for parking shall be the sum of the minimum requirements of the several uses computed separately.

Response: A clearly defined and identifiable parking and vehicle area has been incorporated into the overall design of the site. Specific parking spaces and vehicle maneuvering areas are defined on the Site Plan. See Exhibit E, Plan Set, Site Plan, Sheet C 2.0. One ADA parking spaces is included in the overall parking area, and is wheel chair accessible. Based on the total number of parking spaces proposed (18) and the associated minimum number of ADA stalls, as set by the Oregon Structural Specialty Code, the minimum number of ADA stalls is one (1). The applicant is providing one (1) ADA stall.

All of the standard parking spaces proposed are a minimum of 8.5 feet wide and 16 feet long, at an angle of 90 degrees along two-way drive aisles. One carpool/vanpool parking space is proposed for this development. There are no opportunities for shared access or driveways for this site and proposed development, and none are proposed. All proposed parking is 90 degree, head-in parking, with separation of parking spaces and landscape/sidewalk areas provided through standard curbing. None of the proposed parking will be allowed for storage of commercial or recreational vehicles.

C. Parking Maximums:
   1. Within the UGB, the parking maximums listed in Table 1015-1, Urban Zone A, apply when an area has 20-minute peak hour transit service within one-quarter mile walking distance for bus transit or one-half mile walking distance for light rail transit;
   2. Within the UGB, areas not meeting the requirements of Subsection 1015.02(C)(1), are subject to the parking maximums listed in Table 1015-1, Urban Zone B.
   3. In case of expansion of a building or use with more parking spaces than the maximum allowed by Table 1015-1:
      a. Existing parking spaces may be retained, replaced, or eliminated, provided that after the expansion, the total number of remaining spaces complies with the minimum parking space requirement of Table 1015-1 for the entire development; and

b. Additional parking spaces are allowed only if required to comply with the minimum parking space requirement of Table 1015-1 for the entire development after the expansion.

Table 1015-1: Automobile Parking Space Requirements[1]

Land Use Category	Minimum Parking Spaces	Maximum Parking Spaces (Urban Zone A)	Maximum Parking Spaces (Urban Zone B)
Warehouse and Storage Distribution, and Terminals (air, rail, truck, water, etc.) **Maximum parking requirements apply only to warehouses 150,000 gross square feet or greater.			
Zero to 49,999 square feet	0.3	None	None
50,000 square feet and over	0.2	0.4**	0.5**

[1] Parking ratios are based on spaces per 1,000 square feet of gross leasable area, unless otherwise stated.

Response: The proposed gross leasable area for the project is 90,000± square feet, therefore, based on Table 1015-1 the minimum parking space requirement is 18 spaces. 18 spaces are proposed, with 14 spaces on-site and 4 spaces provided for as on-street parking along the western frontage of Fuller Road. The maximum number of spaces is also met.

1015.03 BICYCLE PARKING STANDARDS

A. Bicycle parking areas shall meet the following on-site locational requirements:
   1. Bicycle parking racks shall be located in proximity to an entrance but shall not conflict with pedestrian needs.
   2. At least 75 percent of the bicycle parking spaces shall be located within 50 feet of a public entrance to the building.
   3. Bicycle parking may be provided within a building, if the location is easily accessible for bicycles.
   4. Bicycle parking for multiple uses, or a facility with multiple structures, may be clustered in one or several locations within 50 feet of each building's entrance.
   5. If the bicycle parking is not easily visible from the street or main building entrance, then a sign must be posted near the building entrance indicating the location of the parking facilities.

B. Bicycle parking shall be designed to meet the following requirements:
   1. When more than seven bicycle parking spaces are required, a minimum of 50 percent of the spaces shall be covered. All (100 percent) of the required bicycle spaces for schools, park-and-ride lots, congregate housing facilities, and multifamily dwellings shall be covered.
   2. Cover for bicycle parking may be provided by building or roof overhangs, awnings, bicycle lockers, bicycle storage within buildings, or freestanding shelters.
   3. When more than 15 covered bicycle parking spaces are required, 50 percent of the required covered spaces shall be enclosed and offer a high level of security, e.g. bicycle lockers or a locked cage or room with locking facilities inside, to provide safe long-term parking.
   4. Required bicycle parking spaces shall be illuminated.
   5. Required bicycle parking areas shall be clearly marked and reserved for bicycle parking only.
   6. Bicycle parking space dimensions and standards:
      a. Bicycle parking spaces must be at least six feet long and two feet wide, and in covered situations the overhead clearance must be at least seven feet.
      b. An aisle five feet wide for bicycle maneuvering must be provided.
      c. Bicycle racks must hold bicycles securely by the frame and be securely anchored.

d. Hanging bicycle racks and/or enclosed, stackable bike lockers may be substituted for surface racks if comparable dimensions, maneuvering, and clearance are provided to the user.
e. Bicycle racks must accommodate both:
   i. Locking the frame and one wheel to the rack with a high-security U-shaped shackle lock; and
   ii. Locking the frame and both wheels without removal of wheels to the rack with a chain or cable not longer than six feet.

7. The minimum bicycle parking spaces listed in Table 1015-2, *Minimum Required Bicycle Parking Spaces*, are required. If a listed use is located with the Portland Metropolitan Urban Growth Boundary (UGB), it shall have a minimum of two bicycle parking spaces or the number required by Table 1015-2, whichever is greater.
8. New multifamily residential, commercial, and institutional developments within the UGB shall designate short-term bicycle parking (less than four hours) and long-term bicycle parking (four or more hours) spaces as needed for the development.

Table 1015-4: Minimum Required Bicycle Parking Spaces

Land Use Category	Minimum Bicycle Parking Spaces[1]
Warehouses and industrial buildings without attached offices, automotive service uses such as service stations and tire stores, and businesses selling large items such as major appliances, furniture, cars, or boats (per 10,000 square feet of building area)	1

[1] Minimums outside the UGB are 20 percent of the requirement listed in Table 1015-2.

Response: The bicycle parking spaces will be provided and located within 50' of the entry and illuminated by the exterior building lights and the surface level lighting proposed for the overall parking area. See Exhibit E, Plan Set, Sheet C 2.0, Site Plan.

1015.04 OFF-STREET LOADING STANDARDS

A. No area shall be considered a loading berth unless it can be shown that the area is accessible and usable for that purpose, and has maneuvering area for vehicles.
B. In cases of expansion of a building or use, that prior to the expansion, does not meet the minimum loading berth requirements in Table 1015-3, *Minimum Required Off-Street Loading Berths*, the following provisions shall apply:
   1. The minimum number of additional loading berths required shall be based only on the floor area or capacity added and not on the area or capacity existing prior to the expansion.
   2. If the expansion covers any pre-expansion loading berths, lost loading berths shall be replaced, in addition to any required additional berths.
C. In the event several uses occupy a single structure or parcel of land and share the same loading berths, the total requirement for off-street loading shall be reduced by up to 25 percent of the sum of the requirements of the several uses computed separately.
D. The minimum off-street loading berths listed in Table 1015-3 are required.

Response: Three (3) off-street loading areas have been provided within the proposed development. These loading areas are located at the southern portion of the vehicle and parking area, and are separated from other vehicle parking areas.

Table 1015-5: Minimum Required Off-Street Loading Berths

Land Use Category	Unit of Measurement	Number of Loading Berths	Minimum Required Dimension
	Square feet of floor area		60 feet x 12 feet x 14 feet high
Commercial Uses	50,000 to 100,000	3	

Response: The proposed gross leasable area for the project is 90,222 square feet, therefore, based on Table 1015-5 the minimum number of off-street loading berths is three (3). Three (3) off-street loading areas are required and three off-street loading areas have been provided within the proposed development. These loading areas are located at the southern portion of the vehicle and parking area, and are separated from other vehicle parking areas. These areas will only be used for their intended purposes, and not for temporary uses or other activities not intended for loading.

1021 SOLID WASTE AND RECYCLABLE MATERIAL COLLECTION

1021.01 APPLICABILITY

Section 1021 applies to:

A. Multifamily developments of five units or more; and
B. Institutional, commercial, and industrial developments.

Response: The proposal is a commercial development, therefore, Section 1021 applies to the development proposal.

1021.03 GENERAL STANDARDS

A. Pads: Compactors, containers, and drop boxes shall be located on a level Portland cement concrete pad, a minimum four inches thick, at ground level or other location compatible with the local collection service franchisee's equipment at the time of construction. The pad shall be designed to discharge surface water runoff to avoid ponding.
B. Recycling and Solid Waste Service Areas:
   1. Recycling receptacles shall be designed and located to serve the collection requirements for the specific type of material.
   2. Recycling service areas shall be located in close proximity to the solid waste container areas and be accessible to the local collection service franchisee's equipment.
   3. Recycling receptacles or shelters located outside a structure shall have lids and be covered by a roof constructed of water- and insect-resistive material.
   4. The location of recycling service areas and method of storage shall be approved by the local fire marshal.
   5. Recycling and solid waste service areas shall be at ground level and be accessible to the local collection service franchisee.
   6. Recycling and solid waste service areas shall be used only for storing solid waste and recyclable materials.
   7. Recycling and solid waste service areas and equipment shall be maintained in a clean and safe condition pursuant to Chapter 10.03, Solid Waste and Wastes Management, of the Clackamas County Code.
C. Special Wastes or Recyclable Materials:
   1. Hazardous wastes defined in Oregon Revised Statutes 466.005 shall be located, prepared, stored, maintained, collected, transported, and disposed in a manner acceptable to the Oregon Department of Environmental Quality.

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

Response: There is a trash and recycling area is located in one of the exterior accessible units as designated by the Owner and will remain closed except when in use. No hazardous materials are anticipated.

1021.04 ENCLOSURE AND GATE STANDARDS

A. Gate Access: Gates shall be designed to permit sufficient service access for the local collection service franchisee's equipment and personnel.
B. Gate Swing: The gate swing shall be free of obstructions and have restrainers in the open and closed positions.
C. Bumper Curb: Enclosures constructed of wood or chain link fencing material shall contain a two- to four-inch high bumper curb at ground level located 12 inches inside the perimeter walls of the enclosure or fencing to prevent damage from container impacts.
D. Bumper Rail: Enclosures constructed of concrete, brick, and masonry block or similar materials shall contain a bumper curb described in Subsection 1021.04(C) or a bumper rail to prevent damage from container impacts. The rail shall be secured by anchor bolts recessed in the rail within the perimeter walls of the enclosure at a height compatible with the receptacle.
E. Obstructions and Accumulations: All areas around the receptacles shall be kept free of obstructions and accumulations of waste matter, grease, oil, water, and standing water.

Response: Access gate at driveway will have access code and a knox box for entry. Bumper curbs shall be in the trash/ recycling collection area.

1021.05 RECEPTACLE STANDARDS

A. Containers: Enclosures shall be designed consistent with the following standards:
   1. Length and width of the service container.
   2. A minimum of two feet, including pad area, shall be provided around the sides and rear of each container.
   3. A minimum three feet, including pad area, shall be provided in front of each container for maneuverability in depositing solid waste or recyclable materials. In cases where the containers face each other, a minimum four feet shall be provided.
   4. Containers two cubic yards or less in size shall be provided with a minimum nine feet of unobstructed overhead or vertical clearance for servicing.
   5. Containers greater than two cubic yards in size shall be provided with a minimum 20 feet of unobstructed overhead or vertical clearance for servicing.
B. Drop Boxes and Compactors:
   1. The pad shall be a minimum of 14 feet wide and a minimum of five feet longer than the length of the drop box or compactor.
   2. The pad shall be located a minimum of two feet from any perimeter wall or structure.
   3. Drop boxes and compactors shall be located a minimum of five feet from any combustible wall, structure, opening, or overhang. This may be reduced to a minimum of two feet provided the pad is located adjacent to a noncombustible wall, structure, opening, or overhang.
   4. Loading dock areas shall have a guide rail and bumper stop placed at ground level or at dock level where the rear of the drop box or compactor is to rest to protect any enclosure, wall, or structure from damage due to loading or unloading.
   5. Compactors shall be compatible with the local collection service franchisee's equipment and weight limits prescribed by state and local law.

Response: There is a trash and recycling area is located in one of the exterior accessible units as designated by the Owner and will remain closed except when in use.

1021.06 VEHICLE ACCESS

A. Vehicular access to the front of a container pad, shelter, or enclosure shall be a minimum of 45 feet long and a minimum of 12 feet wide.
B. Vehicular access to service a drop box or compactor shall include the pad length required in Subsection 1021.06(A) plus a minimum of 65 feet in front of the loading hook placement position.
C. The vehicular access to a pad or enclosure shall be hard-surfaced consistent with the off-street parking provisions of Section 1015, Parking and Loading.
D. In the absence of an on-site through street or driveway, a cul-de-sac with a minimum 50-foot turning radius shall be provided for vehicle maneuvering at the end of a private dead-end street or driveway. A standard emergency services hammerhead turnaround, consistent with the County's standards for road improvements, may be granted in lieu of the cul-de-sac if the local fire district approves the design.
E. The grade for access to the pad or enclosure shall not exceed three percent. Exceptions may be granted when compatible with the equipment manufacturer's specifications and consistent with Subsection 1021.08.

Response: The owner has been informed of the requirements: areas in front of the trash and recycling areas (i.e. the gates) have minimum widths of 26 feet and minimum depths of 45 feet. These areas consist of asphalt paving designed for both trucks and automobiles, including the provisions of Section 1015. All grades in the parking and vehicle area are less than 2%. Client to provide info on final location of Trash/ Recycling area.

1021.07 SIGNS

"No parking" signs shall be placed in a prominent location on the enclosure or shelter and painted on the pavement in front of the enclosure or shelter to provide unobstructed and safe access for servicing receptacles. Signs clearly identifying recycling containers and type of recyclable material shall be posted on each container.

Response: The applicant proposes to place "No parking" signs in a prominent location on the enclosure or shelter and painted on the pavement in front of the enclosure or shelter to provide unobstructed and safe access for servicing receptacles. Signs clearly identifying recycling containers and type of recyclable material will also be posted on each container.

SECTION 1100 DEVELOPMENT REVIEW PROCESS
1102 DESIGN REVIEW

1021.07 PURPOSE AND APPLICABILITY

Section 1102 is adopted to provide standards, criteria, and procedures under which design review may be approved. Design review is required for:

A. Development, redevelopment, expansions, and improvements in commercial and industrial zoning districts, except for uses approved through a zone change to NC District;
B. Development, redevelopment, expansions, and improvements in the following residential zoning districts: HDR, MR-1, MR-2, PMD, RCHDR, SHD, VA and VTH;
C. Development, redevelopment, expansions, and improvements in the MRR District, except for the following if they are not part of a condominium development:
    1. Detached single-family dwellings;
    2. Manufactured homes; and
    3. Uses accessory to detached single-family dwellings and manufactured homes;
D. The following uses in the Urban Low Density Residential Districts: attached single-family dwellings, two-family dwellings, three-family dwellings, condominiums, and institutional uses;
E. The following uses in the VR-4/5 and VR-5/7 Districts: attached single-family dwellings, two-family dwellings, three-family dwellings, and institutional uses;
F. The following uses in the HR District: attached single-family dwellings, condominiums, and institutional uses; and
G. Other uses as required by the Planning Director, the Hearings Officer, or the Board of County Commissioners.

Response: The proposed development is in the CC District, which is a commercial zoning district. Therefore, Section 11023 is applicable to the subject property and proposal.

1102.02 SUBMITTAL REQUIREMENTS

In addition to the submittal requirements identified in Subsection 1307.07(C), an application for design review shall include:

A. A narrative describing the proposed use;

Response: This narrative has been prepared to address all requirements of this Type II Design Review application, including descriptions of the proposed use. See Exhibit C, Narrative.

B. An engineering geologic study, if required pursuant to Section 1002, *Protection of Natural Features*, or 1003, *Hazards to Safety*;

Response: An engineering geologic study has been prepared and is included as part of this application for Type II Design Review. See Exhibit H, Geotechnical Report.

C. Preliminary statements of feasibility, if required pursuant to Section 1006, *Utilities, Street Lights, Water Supply, Sewage Disposal, Surface Water Management, and Erosion Control*;

Response: Preliminary statements of feasibility have been included as part of this application for Type II Design Review. See Exhibit D, Statements of Feasibility.

D. A transportation impact study, if required pursuant to Section 1007, *Roads and Connectivity*;

Response: A transportation impact study (TIA) has not been required by County Engineering.

E. Calculations demonstrating compliance with Section 1012, *Lot Size and Density*, if applicable;

Response: Density calculations are not applicable, per Section 1012, Density.

F. A vicinity map showing the location of the subject property in relation to adjacent properties, roads, bikeways, pedestrian access, utility access, and manmade or natural site features that cross the boundaries of the subject property;

Response: A vicinity map has been included as part of this Type II Design Review application. The vicinity map is located on the Cover Sheet of the Plan Set. See Exhibit E, Plan Set, Cover Sheet, Sheet C0.0.

G. An existing conditions map, drawn to scale of not less than one inch equals 50 feet, showing:
   1. Contour lines at two-foot intervals for slopes of 20 percent or less within an urban growth boundary; contour lines at five-foot intervals for slopes exceeding 20 percent within an urban growth boundary; contour lines at 10-foot intervals outside an urban growth boundary; source of contour information.
   2. Slope analysis designating portions of the site according to the following slope ranges and identifying the total land area in each category: zero to 20 percent, greater than 20 percent to 35 percent, greater than 35 percent to 50 percent, and greater than 50 percent;
   3. Drainage;
   4. Potential hazards to safety, including areas identified as mass movement, flood, soil, or fire hazards pursuant to Section 1003;
   5. Natural features, such as rivers, streams, wetlands, underground springs, wildlife habitat, earth mounds, and large rock outcroppings;
   6. Wooded areas, significant clumps or groves of trees, and specimen conifers, oaks, and other large deciduous trees. Where the site is heavily wooded, an aerial photograph, at a scale of not more than 1 inch equals 400 feet, may be submitted and only those trees that will be affected by the proposed development need be sited accurately;
   7. Overlay zoning districts regulated by Section 700, *Special Districts*;
   8. Noise sources;
   9. Sun and wind exposure;
   10. Significant views;

11. Structures, impervious surfaces, utilities, onsite wastewater treatment systems, landscaping, driveways and easements (e.g., access, utility, storm drainage). Note whether these will remain or be removed and provide dimensions of driveways and easements; and
12. All of the following that are on or adjacent to the subject property, including dimensions and, if applicable, names: existing roads, platted unconstructed roads, railroad rights-of-way, bikeways, curbs, sidewalks, pedestrian pathways, accessways, and trails.

Response: An existing conditions map has been included as part of this Type II Design Review application. See Exhibit E, Plan Set, Existing Conditions, Sheet C1.0.

H. A proposed site plan, drawn to scale of not less than one inch equals 50 feet, showing:
1. The subject property, including contiguous property under the same ownership as the subject property, and adjacent properties;
2. Property lines and dimensions for the subject property. Indicate any proposed changes to these;
3. Natural features to be retained;
4. Location, dimensions, and names of all existing or platted roads or other public ways, easements, and railroad rights-of-way on or adjacent to the subject property;
5. The location of at least one temporary benchmark and spot elevations;
6. Location and dimensions of structures, impervious surfaces, and utilities, whether proposed or existing and intended to be retained. For phased developments, include future buildings;
7. Approximate location and size of storm drainage facilities;
8. Relation to transit; parking and loading areas, including dimensions of individual parking and loading spaces and drive aisles; bicycle racks; walkways; and pedestrian crossings;
9. Orientation of structures showing windows and doors;
10. Location and type of lighting;
11. Service areas for waste disposal, recycling, loading, and delivery;
12. Location of mail boxes;
13. Freestanding signs; and
14. Pedestrian amenities

Response: A site plan has been included as part of this Type II Design Review application. Some of the site plan requirements indicated above are located on other sheets of the Plan Set. See Exhibit E, Plan Set, Site Plan, Sheet C2.0.

I. A grading plan, drawn to a scale of not less than one inch equals 50 feet, showing location and extent of proposed grading, general contour lines, slope ratios, slope stabilization proposals, and natural resources protection consistent with Sections 1002 and 1003;

Response: A grading plan has been included as part of this Type II Design Review application. See Exhibit E, Plan Set, Grading Plan, Sheet C3.0.

J. Architectural drawings, including:
1. Building elevations, including any building signs. Identify the dimensions, area, color, materials, and means of illumination of such signs. Identify and show dimensions of any electronic message center or other changeable copy sign areas;
2. Building sections;
3. Floor plans;
4. Color and type of building materials; and
5. Elevation of freestanding sign(s). Identify the dimensions—including total height and height between bottom of sign and ground, area, color, materials, and means of illumination. Identify and show dimensions of any electronic message center or other changeable copy sign areas; and
6. Gross floor area, in square feet, of each structure; floor area ratio if a minimum floor area ratio standard applies; and number of dwelling units;

Response: Architectural plans, sections and elevations have been included as part of this Type II Design Review application. See Exhibit F, Architectural Drawings

K. A general landscaping plan, drawn to a scale of not less than one-inch equals 50 feet, showing the elements required on the proposed site plan and:
   1. Existing plants and groups of plants proposed;
   2. Description of soil conditions; plans for soil treatment such as stockpiling of topsoil or addition of soil amendments; and plant selection requirements relating to soil conditions;
   3. Erosion controls, including plant materials and soil stabilization, if any;
   4. Irrigation system;
   5. Landscape-related structures such as fences, terraces, decks, patios, shelters and play areas; and
   6. Open space and recreational areas and facilities, if applicable.

Response: A Planting Plan has been included as part of this Type II Design Review application. See Exhibit E, Plan Set, Planting Plan, Sheet L1.0. The Planting Plan includes all proposed plants. Soil conditions and planned soil treatment are also addressed in the Planting Plan.

L. A transportation improvement plan that includes proposed cross-sections for roads to be constructed or improved, including widths of travel lanes, bikeways, sidewalks, curbs, pedestrian pathways, and landscape strips. Identify proposed landscape plan for landscape strips, including street tree type, size and location. Identify proposed dedication of right-of-way.

Response: Proposed transportation improvements are identified in the Plan Set, Exhibit E.

1102.03 APPROVAL CRITERIA

Design review requires review as a Type II application pursuant to Section 1307, *Procedures*, and shall be subject to the following standards and criteria:

A. The proposed development shall be subject to Section 1000, *Development Standards*, and the standards of the applicable zoning district.

Response: The subject property and proposed development are not within the PMU District, therefore, only Type II Design Review is required, pursuant to Section 1307. All of the applicable standards of Section 1000, Development Standards, have been addressed in previous sections of this written narrative, with specific responses to each applicable standard.

B. As part of design review in the RCO District and for the PMU1 site, a master plan shall be required if the proposed development does not meet the minimum floor area ratio for the entire site (where phased compliance is permitted by Table 510- 2, Dimensional Standards in the Urban Commercial and Mixed-Use Zoning Districts) or if compliance with Table 510-3: Site-Specific Requirements for the PMU District, is not being achieved for the entire PMU1 site. The master plan shall demonstrate that it is feasible to achieve full compliance with a future phase of development that is not reliant upon adding additional stories to existing or proposed structures or demolishing structures built after the RCO or PMU District was applied to the subject property.

Response: The subject property and proposed development are not within the RCO District, therefore, only Type II Design Review is required, pursuant to Section 1307. All of the applicable standards of Section 1000, Development Standards, have been addressed in previous sections of this written narrative, with specific responses to each applicable standard.

C. As part of design review of development of any portion of the OA District, a master plan shall be required for the subject property and all contiguous lots with a Comprehensive Plan land use designation of Office Apartment. The master plan shall include a plan for consolidation of motor vehicle accesses for the entire Office Apartment site that complies with the access targets of Comprehensive Plan Map X-SC-5, Sunnyside Corridor Community Plan Sunnyside Road Access Management Targets.

Response: The proposed development is not within the PMU, OA or VO Districts. The proposed site is within the Fuller Road Station Community in the Clackamas Regional Center Area Design Plan, as shown on the Comprehensive Plan Map X-CRC-1. However, the proposed development

includes a comprehensive development of the site, precluding any significant future development opportunities and the subsequent need for, nor requirement for, master planning.

1102.04 DESIGN REVIEW COMMITTEE

A Design Review Committee shall be established pursuant to Subsection 1307.03 and shall have the responsibilities assigned to it by Subsection 1102.04.

A. The Planning Director may review and render a decision on a Type II application for design review or forward the application to the Design Review Committee for review and recommendation prior to rendering a decision. In deciding whether to forward an application to the Design Review Committee, the Planning Director shall consider:
   1. The size of the project, including mass of buildings, site area, landscaping, and parking requirements;
   2. The presence of natural features, such as wetlands, steep slopes, treed area, and riparian corridors;
   3. Visual significance; and
   4. Impact on neighboring properties, particularly where a project is adjacent to a residential area.

B. An application shall be forwarded to the Design Review Committee for review and recommendation if requested by the applicant or required by the Hearings Officer or the Board of County Commissioners.

C. The Planning Director may consult with individual members of the Design Review Committee at any point during the evaluation of a design review application or in determining compliance with conditions of design review approval.

Response: The applicant understands the procedural provisions of this Subsection, and that the application have a decision rendered by the Planning Director or the Design Review Committee.

1102.05 APPROVAL PERIOD AND TIME EXTENSION

A. Approval of design review is valid for four years from the date of the final decision. If the County's final decision is appealed, the approval period shall commence on the date of the final appellate decision. During this four-year period, the approval shall be implemented, or the approval will become void.
   1. Implemented means all major development permits shall be obtained and maintained for the approved development, or if no major development permits are required to complete the development contemplated by the design review approval, implemented means all other necessary County development permits (e.g., grading permit, building permit for an accessory structure) shall be obtained and maintained. A major development permit is:
      a. A building permit for a new primary structure that was part of the design review approval; or
      b. A permit issued by the County for parking lot or road improvements required by the design review approval.

B. If the design review approval is not implemented within the initial approval period established by Subsection 1102.05(A), a two-year time extension may be approved pursuant to Section 1310, Time Extension.

C. If the design review approval is implemented, a master plan approved as part of the design review approval remains applicable to future development of the subject property unless a modification to the master plan, or a new master plan, is approved or the requirement for master planning no longer applies to the subject property.

Response: The applicant understands the procedural provisions of this Subsection, including the timelines associated with the approval and any potential extensions.

SECTION 1200 CRITERIA FOR DISCRETIONARY PERMITS
1206 NONCONFORMING USES AND VESTED RIGHTS

1206.06 ALTERATIONS AND CHANGES

B. Alterations Not Required by Law: An alteration of a nonconforming structure or other physical improvements, or a change in the use, requires review as a Type II application pursuant to Section 1307, Procedures, and shall be subject to the following standards and criteria:

1. The alteration or change will, after the imposition of conditions pursuant to Subsection 1206.06(B)(4), have no greater adverse impact on the neighborhood than the existing structure, other physical improvements, or use;

Response: The proposed development will diminish any perceived adverse impacts that might currently exist on the site. The existing unimproved vehicle area and the dilapidated building on the site present a somewhat negative, adverse visual impact to the neighborhood. The proposed improvements to the site include modification of the existing building and a new building with extensive glazing and awnings, new landscaping, a pedestrian network, and public street improvements. This building and site design provides a long list of visually and aesthetically positive attributes to both the proposed buildings and the overall site, thereby creating a positive impact on the neighborhood.

2. The nonconforming use status of the existing use, structure(s), and/or physical improvements is verified pursuant to Subsection 1206.07.

Response: The County has confirmed in writing that the existing building on the site is a nonconforming structure.

3. The alteration or change will not expand the nonconforming use from one lot of record to another unless:

a. The lot of record on which expansion is proposed and the lot of record on which the nonconforming use currently is established have been part of the same tract continuously since the date the nonconforming use became nonconforming; or

b. The expansion would allow only for facilities necessary to support the nonconforming use, such as driveways, storm water management facilities, and on-site wastewater treatment systems.

Response: The proposed development for the subject site is on one lot of record. The existing nonconforming development is on the westerly portion of the lot of record, with new development proposed for the other portion of the lot of record.

4. Conditions of approval may be imposed on any alteration of a nonconforming structure or other physical improvements, or a change in the use, permitted under Subsection 1206.06(B), when deemed necessary to ensure the mitigation of any adverse impacts.

Response: The proposed development will diminish any perceived adverse impacts that might currently exist on the site, therefore, no adverse impacts will occur as part of this development proposal. Actually, the proposed building and site design provides a long list of visually and aesthetically positive attributes to both the proposed buildings and the overall site, thereby creating a positive impact on the neighborhood, not an adverse impact. Therefore, mitigation for adverse impacts should not be necessary.

III. CONCLUSION

The proposed self-storage facility development, consisting of 2 commercial buildings (1 refurbished, 1 new) with associated on-site parking, loading areas, pedestrian walkways, landscaping and required utility and public improvements meets or exceeds all of the standards addressed in the narrative above. In addition, the proposal meets all of the approval criteria, as addressed in the narrative above. Therefore, these Type II Design Review and Nonconforming Development Review applications should be approved as proposed.

Clackamas River Water

Attachment
County Preliminary Statement of Feasibility

To: Jim Fitzpatrick, West Coast Self-Storage

From: Betty Johnson

Date: May 8, 2019

Re: 8319 SE Otty Rd, Happy Valley, 97086

• Comments:

A. *"Water service will be provided only from pipes or mains located within public street, alleys or rights-of-way, or within easements furnished to CRW, and to property or premises with frontage to such mains.... Each dwelling or building will be provided with its own water service connection and meter ...No person shall furnish water to other buildings or premises without the written approval of the Board, which may be granted in the sole discretion of the Board, and then only under the specific terms of an agreement approved by CRW"*

B. Fire hydrant number and distribution shall be in accordance with the Oregon Fire Code C105.1

C. Placement of fire hydrant systems shall be in accordance with the Oregon Fire Code 507.5.1

D. Unless Noted on plans or specified otherwise, all construction and backflow devices are to be in accordance with the most recent version of Clackamas River Water standards and the Oregon Administration Rules (OAR), Chapter 333.

E. All water facilities design, construction, testing and maintenance, where applicable, shall conform to the latest adopted revision of the Oregon state Health Division administrative Rules chapter 333 on Public water System except where provisions outlined in the Clackamas River Water rules and regulations.

F. For design of District's water system improvements, hydraulic system must be analyzed using the worst- case scenario envisioned in the district's current Water System Facilities Plan. The water system analysis shall be conducted using a simultaneous demand for the maximum (peak) day demand or peak hour non-fire demand, whichever is greater, and the fire demand.

G. Any substantial deviation from the approved construction plans must have prior approval of the Water District.

H. Easements for water facilities shall be provided along property lines and designated on the final plat, as deemed necessary by the Water District.

I. Resale of water purchased from the Water District will not be permitted. No user shall resell or permit resale of water directly to any person, or for any use.

16770 SE 82nd Drive
Clackamas, OR 97015-2539
503.722.9240
www.crwater.com

J. An approved water system capable of supplying required fire flow for fire protection shall be provided to all premises upon which buildings are to be constructed.

K. If water service is adequate with the exception of fire flows, the applicant shall submit a statement to Clackamas River Water from the fire district serving the subject property that states that if and /or what alternate method of fire protection is acceptable.

L. Upon plan review there may be additional requirements as set forth by the Water District.

CLACKAMAS COUNTY PLANNING AND ZONING DIVISION
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DEVELOPMENT SERVICES BUILDING
150 BEAVERCREEK ROAD | OREGON CITY, OR 97045
503-742-4500 | ZONINGINFO@CLACKAMAS.US

PRELIMINARY STATEMENT OF FEASIBILITY

To be completed by the applicant:

Applicant's Name: West Coast Self Storage

Property Legal Description: T 1 S, R 2E, Section 28CB, Tax Lot(s) 03000

Site Address: 8319 SE Otty Rd. Project Engineer: Cardno

Project Title/Description of Proposed Development:

Conversion of an existing one-story building into a two-story self-storage building along with the construction of a new three-story, building of approximately 45,000 square feet.

To be completed by the service provider or surface water management authority:

Check all that apply:

- ☐ Sanitary sewer capacity in the wastewater treatment system and the sanitary sewage collection system is available to serve the development or can be made available through improvements completed by the developer or the system owner.
- ☐ Adequate surface water treatment and conveyance is available to serve the development or can be made available through improvements completed by the developer or the system owner.
- ☑ Water service is available in levels appropriate for the development, and adequate water system capacity is available in source, supply, treatment, transmission, storage and distribution or such levels and capacity can be made available through improvements completed by the developer or the system owner. This statement ☐ applies ☑ does not apply to fire flows.*

**If water service is adequate with the exception of fire flows, the applicant shall submit a statement from the fire district serving the subject property that states that an alternate method of fire protection, such as an on-site water source or a sprinkler system, is acceptable.*

- ☑ This statement is issued subject to conditions of approval set forth in the attached.
- ☐ Adequate ☐ sanitary sewer service, ☐ surface water management, ☐ water service cannot be provided.

Betty A Johnson
Signature of Authorized Representative

May 8, 2019
Date

Engineering Associate
Title

Clackamas River Water
Name of Service Provider or Surface Water Management Authority

Completion of this statement does not reserve capacity for the development and does not alter an applicant's obligation to comply with the service provider's or surface water management authority's regulations. Completion of this statement does not obligate the service provider or surface water management authority to finance or construct improvements necessary to provide adequate service for the proposed development. Completion of this statement does not guarantee that land use approval for the proposed development will be granted.

CLACKAMAS COUNTY PLANNING AND ZONING DIVISION
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DEVELOPMENT SERVICES BUILDING
150 BEAVERCREEK ROAD | OREGON CITY, OR 97045
503-742-4500 | ZONINGINFO@CLACKAMAS.US

PRELIMINARY STATEMENT OF FEASIBILITY

To be completed by the applicant:

Applicant's Name: _____

Property Legal Description: T ____ S, R ____, Section _____, Tax Lot(s) _____

Site Address: 8319 SE OTTY RD Project Engineer: CARDNO

Project Title/Description of Proposed Development: _____
WEST COAST SELF STORAGE @ OTTY ROAD

To be completed by the service provider or surface water management authority:

Check all that apply:

☑ Sanitary sewer capacity in the wastewater treatment system and the sanitary sewage collection system is available to serve the development or can be made available through improvements completed by the developer or the system owner.

☑ Adequate surface water treatment and conveyance is available to serve the development or can be made available through improvements completed by the developer or the system owner.

☐ Water service is available in levels appropriate for the development, and adequate water system capacity is available in source, supply, treatment, transmission, storage and distribution or such levels and capacity can be made available through improvements completed by the developer or the system owner. This statement ☐ applies ☐ does not apply to fire flows.*

**If water service is adequate with the exception of fire flows, the applicant shall submit a statement from the fire district serving the subject property that states that an alternate method of fire protection, such as an on-site water source or a sprinkler system, is acceptable.*

☐ This statement is issued subject to conditions of approval set forth in the attached.

☐ Adequate ☐ sanitary sewer service, ☐ surface water management, ☐ water service cannot be provided.

Erik Carr
Signature of Authorized Representative

5/21/19
Date

DEVELOPMENT REVIEW SPECIALIST
Title

WES
Name of Service Provider or Surface Water Management Authority

Completion of this statement does not reserve capacity for the development and does not alter an applicant's obligation to comply with the service provider's or surface water management authority's regulations. Completion of this statement does not obligate the service provider or surface water management authority to finance or construct improvements necessary to provide adequate service for the proposed development. Completion of this statement does not guarantee that land use approval for the proposed development will be granted.

Report of Geotechnical Engineering Services

West Coast Self-Storage Facility

Happy Valley, Oregon

Prepared for

West Coast Self-Storage Group, LLC

March 18, 2019
19415-01

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www.hartcrowser.com

Report of Geotechnical Engineering Services

West Coast Self-Storage Facility

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Prepared for

West Coast Self-Storage Group, LLC

March 18, 2019
19415-01

Prepared by

Hart Crowser, Inc.

REGISTERED PROFESSIONAL ENGINEER
OREGON
MARCH 12, 2002
DANIEL J. TRISLER
RENEWAL DATE: 6/30/20

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1 Vicinity Map
2 Existing Site Plan

APPENDIX A

Field Explorations

APPENDIX B

Laboratory Testing

Report of Geotechnical Engineering Services

West Coast Self-Storage Facility

Happy Valley, Oregon

1.0 INTRODUCTION AND PROJECT DESCRIPTION

Hart Crowser, Inc. is pleased to submit our report for geotechnical engineering services for the proposed West Coast Self-Storage development of the property located at 8319 SE Otty Road in Happy Valley, Oregon. Our work was completed in general accordance with our proposal dated October 18, 2018.

The subject property is comprised of an approximately 1.47-acre rectangular parcel bounded by a strip mall to the north, a small retail center to the west, SE Otty Road to the south, and SE Fuller Road to the east. The property is currently developed with a warehouse on the western half of the property and a partially paved and partially gravel surfaced parking lot on the eastern half of the property. The gravel parking lot covers roughly the northern 3/4 of the parking area, while the paved portion covers roughly the southern 1/4 of the parking area.

We understand that West Coast Self-Storage Group proposes to renovate the existing warehouse, including adding up to one story on top of (or inside of) the existing building and constructing a multi-story storage facility in the east half of the lot. The configuration of the new building is still being planned, although conceptually, it will consist of a two- to three-story building with an estimated footprint of 20,000 square feet. Associated parking, landscaping, and common areas would be included in the development. Based on conceptual drawings provided by Jackson Main Architects, the proposed development will include a 26-foot-wide fire lane that runs between the two buildings, then turns east along the north edge of the new building.

Based on discussions with the structural engineer, we understand that structural loads will be approximately 2 kips/lineal foot for strip footings and 30 kips for columns for improvements to the existing building and approximately 2.5 to 4.5 kips/lineal foot for strip footings and 70 kips for columns for at the for the new building. Based on the relatively level nature of the site, we anticipate that grading will be relatively minor with mass cuts and fills less than approximately 3 feet deep/thick. We assume that stormwater collected on the site will be disposed of via on-site infiltration or directed towards off-site stormwater facilities.

This report contains the results of our analysis and provides geotechnical recommendations for design and construction of the proposed development. The first section of this report provides an overview of the project information discussed in the text. The main body of the report presents our geotechnical engineering findings and recommendations in detail. Figures are presented at the end of the text. The location of the site is shown on Figure 1; and the existing site layout with borings is shown on Figure 2. Supporting information is provided in the appendices. Appendix A contains site subsurface exploration logs, and Appendix B contains the results of laboratory testing completed for our analysis.

2.0 SCOPE OF SERVICES

The purpose of our work was to evaluate subsurface soil and groundwater conditions for the proposed development and to provide geotechnical engineering recommendations for design and construction of specific project elements. Our work was completed in general conformance with the scope of work detailed in our October 18, 2018 proposal and summarized below.

- Reviewed relevant, readily available geologic maps and well logs that cover the site vicinity to evaluate geologic hazards and regional soil mapping.
- Conducted field explorations, including:
  - Notifying the "One Call" service for public utility locates;
  - Advancing six borings to depths of 16.5 and 36.5 feet below ground surface (bgs);
  - Performing downhole infiltration testing at two boring locations; and
  - Maintaining logs of the soils encountered in the explorations and collecting soil samples from the borings for laboratory testing.
- Conducted a program of laboratory testing on select soil samples.
- Conducted engineering analyses to evaluate seismic hazards, ground settlement, and geotechnical design recommendations for foundations and pavements.
- Prepared this report outlining our findings and recommendations.
- Provided project management and support services, including coordinating staff and subcontractors and conducting telephone consultations and email communications with you and the design team.

3.0 SITE CONDITIONS

3.1 Surface Conditions

The project site is an approximately 1.47-acre roughly rectangle-shaped site at the northwest corner of SE Otty Road and SE Fuller Road. The site is currently developed with a warehouse type structure on the western half of the lot and gravel and asphalt parking on the east half. The site is generally level, but slopes down 3 to 4 feet at the warehouse loading dock.

Scattered landscaped areas with trees can be found along the edges of the site. Adjacent to the east edge of the paved parking is an approximately 10-foot-wide by 60-foot-long bioswale that is approximately 1 to 2 feet lower than the surrounding grades. Gravel was used to pave the northern 3/4 of the eastern parking area, while asphalt pavement was used for the southern 1/4 of the parking area. There is a small concrete retaining wall at the loading dock.

3.2 Geologic and Soil Mapping

The geology of the site is mapped in the *Preliminary Digital Compilation Map of the Greater Portland Area* (Madin, ND) as the gravel facies of the Quaternary Missoula Cataclysmic flood deposits. Madin describes these deposits as "Pebble to boulder gravel with silt and coarse sand matrix. The coarse sediments are poorly sorted and sub-rounded to well-rounded and range from openwork gravel to gravel with considerable fine-grained matrix material. Clasts are largely basalt, but other lithologies may dominate downstream from bedrock exposures. The coarse flood sediments are up to 60 m (200 ft) thick in the map area." We encountered materials likely consistent with this mapping in our explorations.

The near-surface soils at the site are mapped on the U.S. Department of Agriculture (USDA) Web Soil Survey website (USDA 2018). The report generated by the Web Soil Survey indicates that the near surface soils at the site is Multnomah silt loam, 0 to 3 percent slopes. The Multnomah silt loam consists of silt loam to approximately 8 inches, then gravelly loam to 38 inches, and finally extremely gravelly loamy sand deeper than 38 inches bgs. Multnomah silt loam is described as having hydraulic conductivity values on the order of 0.20 to 0.57 inches/hour in the most restrictive layer. However, this layer is relatively thin (approximately 38 inches) and the underlying materials have much higher hydraulic conductivity, on the order of 6 to 20 inches/hour.

Groundwater levels for the area are mapped in the *Estimated Depth to Ground Water and Configuration of the Water Table in the Portland, Oregon Area* (Synder 2008). Based on this mapping, groundwater levels near the site are anticipated to be at 40 feet bgs. We also reviewed the Oregon Water Resources Department (OWRD 2018) website for logs of water wells installed or borings advanced near the site. Well logs near the site typically indicate static water levels between 11 and 18 feet bgs.

3.3 Subsurface Soil Conditions

3.3.1 General

We explored subsurface conditions at the site by advancing six borings. The borings were drilled on February 20, 2019, to depths between 16.5 and 36.5 feet bgs. Exploration locations are shown on Figure 2. Appendix A summarizes our exploration methods and presents our boring logs. Appendix B contains the results of our laboratory testing on select soil samples.

Materials encountered in our explorations generally include approximately 1 foot of gravel surfacing or asphalt and base rock, silt soils up to 5 feet bgs, underlain by and sandy and gravelly soils that extend to the base of our explorations (up to 36.5 feet bgs). The upper, fine-grained soils generally consist of stiff to very stiff sandy silts. The lower gravelly and sandy soils generally consist of medium dense to very dense poorly graded gravels or sands with silt, as well as interbeds of silty sand soils and some cobbles. These soils are discussed in more detail in the paragraphs below.

3.3.2 Pavement and Gravel Surfacing

Borings B-1, B-4, and B-6 were advanced in gravel surfaced areas and typically encountered approximately 10 inches of gravel surfacing. Underlying the gravel surfacing in boring B-6, at a depth of approximately 10 inches bgs, we observed a geotextile filter fabric.

Asphaltic concreate (AC) pavement was encountered in borings B-2, B-3, and B-5 at the ground surface underlain by crushed rock base. The AC pavement was approximately 3 inches thick, while the underlying crushed rock base was approximately 7 to 8 inches thick. Underlying the pavement section in all borings was a geotextile fabric. The condition of the pavement was generally very good. Based on aerial imagery, the pavement was installed in 2016 as part of the re-alignment of SE Otty Road.

3.3.3 Fill

Fill was not directly identified in our geotechnical explorations. However, Hart Crowser also conducted a Phase II environmental site assessment, where additional explorations were completed at the site. In those explorations, pieces of brick were observed at depths ranging from 5 to 15 feet. The fill materials did not appear to be appreciably different from the material identified as native gravels and sands, See below in *Section 3.3.5 Gravels and Sands* for a description of the native gravels and sands.

3.3.4 Silty Sand to Sand with Silt

Directly below the AC pavement and gravel surfacing in borings B-1 through B-4, we encountered sandy silt with variable amounts of gravel to depths of 2.5 to 5 feet bgs. This soil was micaceous, had low plasticity, and contained generally fine sand. Some of the soil appeared to have been reworked, like fill. These soils likely represent either a thin layer of the sand and silt facies of the Missoula flood deposits or reworked Missoula flood deposits.

Standard penetration test (SPT) N-values (and corrected large sampler N-values) within this layer varied between 9 and 18 blows per foot (bpf), indicating a stiff to very stiff consistency.

3.3.5 Gravels and Sands

We encountered poorly and well-graded gravel with silt and sand, as well as poorly and well-graded sand with silt and gravel beneath the upper fine-grained soils at depths between 2.5 and 5 feet bgs, or directly under the surfacing in B-5 and B-6. These soils typically contained rounded to subangular gravels and sands with trace amounts of cobbles. Occasional silty zones were also encountered. In addition, we observed what we interpret as a lens of loose silty sand near 15 feet bgs in boring B-6. This lens appeared to extend south and east in explorations associated with our Phase II environmental program. These gravels and sands likely represent the coarse-grained facies of the Missoula flood deposits; however, based on results of our concurrent Phase II investigation, they may also be reworked fill in the upper 15 feet.

Equivalent SPT N values in the gravelly sand and sandy gravel, based on Burmister (1948) correction, ranged from 11 to 65 bpf generally increasing with depth, indicating relative densities ranging from medium dense to very dense. Laboratory moisture contents ranged from approximately 9 to 23 percent. Fines content analyses indicated approximately 6 to 12 percent fines (material passing the US # 200 sieve).

Equivalent SPT N value of the silty sand lens in B-6 was approximately 5 bpf, indicating a loose relative density. Laboratory moisture content on this material was approximately 40 percent

3.4 Groundwater

We did not observe evidence of groundwater during our exploration program. Groundwater mapping for the area indicate that the regional groundwater table should be anticipated near 40 feet bgs.

The groundwater observed at the site is only representative of the time of our explorations. Water levels are expected to vary with time, season, rainfall, temperature and other factors.

3.5 Infiltration Testing

We conducted two *in situ* infiltration tests: IT-1 (near boring B-5) and IT-2 (near boring B-6). The infiltration tests were performed in general conformance with the Encased Falling Head Test Procedure prescribed in Appendix E of *Stormwater Standards Clackamas County Service District No. 1* (2013). The results of the testing are provided in Table 1. The fines contents of samples collected from the test locations are also shown in Table 1. Refer to *Section 8.3 – Infiltration* for recommendations related to the design of stormwater infiltration systems.

Table 1 – Infiltration Test Data

Infiltration Test No.	Approximate Test Depth (feet)	Field Drawdown Rate[a] (inches/hour)	Fines Content (percent)
IT-1	10.4	6.7	10
IT-2	4.75	14.7	6

Note:

a. Drawdown rates are unfactored values.

4.0 SEISMIC AND GEOLOGIC HAZARD ANALYSIS

4.1 Fault Rupture

Based on our review of available geologic maps, the property is located approximately 1.3 miles southwest of the East Bank Fault and 2.3 miles northeast of the Portland Hills Fault. Also, the Damascus-Tickle Creek Fault Zone, which includes multiple fault traces is located less than 2 miles to the south and east of the site. Based on the mapped location of faults, we anticipate the hazard from ground fault rupture to the site to be low, unless occurring on an unmapped or unknown fault underlying the site.

4.2 Seismic Shaking

We evaluated potential seismic shaking at the site using data obtained from the U.S. Geologic Survey (USGS) U.S. Seismic Design Maps (USGS 2018a). The expected peak bedrock acceleration having a 2 percent probability of exceedance in 50 years (2,475-year return period) is 0.421 g. This value represents the peak acceleration on bedrock beneath the site and does not account for ground motion amplification due to site-specific effects. The peak ground acceleration (PGA) is determined by applying a site class

factor to the peak bedrock acceleration. Refer to *Section 4.3 Ground Motion Amplification (Site Class)* for a discussion of ground motion amplification.

We also evaluated a deaggregation of the data found at USGS (2018b) used in determining the anticipated peak bedrock acceleration at the site. Seismic sources contributing to this potential ground shaking included gridded sources (no specific location), local crustal faults, and intraplate (e.g., Cascadia Subduction Zone). The data indicate that the "mean source" for shaking at the site is a magnitude 7.22 earthquake with an epicenter approximately 45.5 kilometers (km) from the site. The "modal source" is a magnitude 6.1 earthquake with an epicenter approximately 5.85 km from the site. The modal value represents the "design level" earthquake.

4.3 Ground Motion Amplification (Site Class)

Thick sequences of unconsolidated, soft sediments typically amplify the shaking of long-period ground motions, such as those associated with subduction zone earthquakes; whereas, areas underlain by shallow soil profiles are not likely to amplify seismic waves.

The "Site Class" is a designation used by the Oregon Structural Specialty Code (OSSC) (ICC 2014) to quantify ground motion amplification. The classification is based on the stiffness in the upper 100 feet of soil and bedrock materials at a site, as evaluated with SPT or shear wave velocity data. Based on our analysis of SPT N-values, the site soils are estimated to have a shear wave velocity profile consistent with **Site Class D**. SPT N-values were extrapolated to a depth of 100 feet.

4.4 Liquefaction

When cyclic loading occurs during an earthquake, the shaking can increase the pore pressure in loose to medium dense saturated sands and cause liquefaction. The rapid increase in pore water pressure reduces the effective stress between soil particles, resulting in the sudden loss of shear strength in the soil. Granular soils, which rely on interparticle friction for strength, are susceptible to liquefaction until the excess pore pressures can dissipate. Sand boils and flows observed at the ground surface after an earthquake are the result of excess pore pressures dissipating upwards, carrying soil particles with the draining water. In general, loose, saturated sand soils with low silt and clay contents are the most susceptible to liquefaction. Silty soils with low plasticity are moderately susceptible to liquefaction under relatively higher levels of ground shaking. For any soil type, the soil must be saturated for liquefaction to occur.

Due to a lack of groundwater within the upper 25 feet bgs and the presence of relatively dense materials generally found below approximately 4 feet bgs, we conclude that the risk due to liquefaction at the site is low.

5.0 CONCLUSIONS

Based on our explorations, testing, and analyses, it is our opinion that the site is suitable for the proposed use, provided the recommendations in this report are included in design and construction. We offer the following general summary of our conclusions.

- The site is blanketed by approximately 3 to 5 feet of silt-rich soil underlain by sandy and gravelly soils. The site shows some history of previous earthwork, as evidenced by buried pieces of brick observed in the connected Phase II explorations. However, existing undocumented fill materials generally appear to be reworked native gravels and sands.
- Groundwater is anticipated to be approximately 40 feet bgs.
- Proposed building improvements may be supported by conventional spread footing foundations bearing on medium dense or denser gravelly or sandy soils. Some overexcavation and replacement (with granular fill) of silty soil and/or old fill may be required beneath footings.
- The site soils generally appear suitable for support of conventional pavements. However, due to the presence of fine-grained soils and potential undocumented fills, there is a potential that localized zones of deleterious materials, soft/loose materials, or wet materials may require removal and replacement.
- The sandy and gravelly soils found below the surficial silty soils appear suitable for infiltration of stormwater. We recommend infiltration systems penetrate into these granular soils, typically found 3 to 5 feet below grade.
- The near-surface soils are typically fine-grained and will be sensitive to disturbance from construction traffic, particularly when moist or wet. Wet weather/soil earthwork measures should be employed during site development.

The following sections present our specific recommendations for earthworks and structural components of the project.

6.0 EARTHWORK RECOMMENDATIONS

6.1 General

Based on available information, we estimate the mass grading for the site will generally be limited to mass excavations and fills less than 3 feet deep/thick; however, localized utility trench backfill and fill for the existing loading dock will be thicker.

All earthwork activities should be conducted in accordance with the Oregon Standard Specifications (OSS), particularly OSS 00330 – Earthwork, OSS 00400 – Drainage and Sewers, and OSS 02600 – Aggregates, depending upon the application (ODOT 2018).

6.2 Site Preparation

6.2.1 Demolition

We anticipate that a partial demolition of the existing building will be performed prior to construction. In the parking area, demolition should include complete removal of existing site improvements, including buried concrete within areas to receive new pavements, buildings, or engineered fill. Underground utility lines, vaults, or tanks encountered in areas of new improvements should be completely removed or grouted full if left in place.

Voids resulting from removal of debris, footings, buried tanks, etc. or loose soil in utility lines should be backfilled with compacted structural fill, as discussed in *Section 6.5 Structural Fill and Backfill*. The bases of such excavations should be completed to a firm subgrade before filling, and their sides sloped at a minimum of 1/2 horizontal to 1 vertical (1/2H:1V) gradient to allow for more uniform compaction at the edges of the excavations.

Materials generated during demolition of existing improvements should be transported off-site for disposal or stockpiled in areas designated by the owner. In general, these materials will not be suitable for reuse as engineered fill. However, AC, concrete, and base rock materials may be crushed and recycled for use as general fill. Such recycled materials should meet the specifications for imported granular material, as described in *Section 6.5 Structural Fill and Backfill*.

6.2.2 Subgrade Preparation and Evaluation

Once demolished materials have been removed, the exposed soils in pavement and building areas should be excavated to subgrade elevation and evaluated by a geotechnical engineer. Prior to placing structural fill or aggregate base in pavement areas, the exposed subgrade in accessible areas should be proof rolled with a fully loaded dump truck or similar heavy rubber-tired construction equipment to identify soft, loose, or unsuitable areas. The proof roll should be conducted prior to placing fill. The proof rolling should be observed by a representative of Hart Crowser who should evaluate the suitability of the subgrade and identify any areas of yielding that are indicative of soft or loose soil. If soft or loose zones are identified during proof rolling, these areas should be scarified and recompacted in place if they are less than 12 inches deep and moisture conditions allow. If the soft soils extend deeper or moisture conditions are not favorable, they should be excavated to the extent indicated by Hart Crowser and replaced with structural fill. Where not accessible to large equipment for proof rolling, the subgrade should be evaluated by probing as noted in the paragraph below.

During wet weather or when the exposed subgrade is wet or unsuitable for proof rolling, the prepared subgrade should be evaluated by observing excavation activity and probing with a steel foundation probe. Observations, probing, and compaction testing should be performed by a member of our staff. Wet soil that has been disturbed due to site preparation activities or soft or loose zones identified during probing should be removed and replaced with compacted structural fill.

In general, we anticipate that the upper 12 inches of the fine-grained soil subgrade in building and pavement areas will need to be moisture conditioned and compacted to create a firm, unyielding condition prior to placement of new structural fill or aggregate base. Alternatively, the fine-grained soils can be removed and replaced by granular fill, or can be overlain by a separation geotextile that underlies new granular fill. The recompacted soils or structural fill should meet the recommendations in *Section 6.5 Structural Fill and Backfill* and be compacted in accordance with the recommendations in *Section 6.6 Fill Placement and Compaction*.

6.3 Wet Soil/Weather Construction

Existing near-surface soils at the site consist primarily of fine-grained silts and silty sands, which will be susceptible to moisture related disturbance, particularly during wet weather. Disturbance to the subgrade should be expected at all times, particularly if site preparation and earthwork are conducted during periods of wet weather. Wet soil construction practices may be necessary throughout most of the year, particularly during periods of wet weather. Wet soil construction practices include using equipment, such as smooth excavator buckets and tracked equipment, and stabilized haul roads and staging areas constructed of quarry spalls and separation geotextile, to limit subgrade disturbance. Mud slabs or "rat slabs" or imported granular material may be necessary to protect footing subgrades during rebar assembly prior to footing concrete placement.

6.4 Excavation

6.4.1 Mass Excavations

Near-surface site soils are generally fine-grained silty soils, although some granular materials are also present, as shown on the boring logs. Below approximately 2.5 to 5 feet, the soils become gravelly and denser. Excavations into all of these materials should be possible with conventional earthwork equipment. Cobbles and dense gravelly soils are also present and may create localized difficult excavation conditions. Also, the presence of these materials may cause trenches and open excavations to cave or slough, resulting in greater than anticipated backfill quantities. The earthwork contractor should be responsible for providing equipment and following procedures as needed to excavate the site soils, as described in this report.

6.4.2 Dewatering

We do not anticipate groundwater to be shallow at the site; however, localized perched conditions may occur within the depths of expected excavations during or after rain storm events. Therefore, trenching and general excavation operations may require temporary dewatering. Dewatering is typically the responsibility of the contractor. Pumping from sumps located within trench excavations will likely be effective in removing water resulting from seepage. Failure to dewater can result in issues, such as base heave, sidewall caving and sloughing, increased backfill and haul off requirements, and project delays.

During grading at the site, the contractor should be made responsible for temporary drainage of surface water as necessary to prevent standing water and/or erosion of the working surface. During rough and finished grading of the roadway alignment, the contractor should keep subgrades free of water.

6.4.3 Temporary Open Cuts

Temporary soil cuts for site excavations that are more than 4 feet deep should be adequately sloped back to prevent sloughing and collapse, in accordance with Occupational Safety and Health Administration (OSHA) guidelines.

The stability and safety of cut slopes depend on a number of factors, including:

- Type and density of the soil;
- Presence and amount of groundwater seepage;
- Depth of cut;
- Proximity and magnitude of the cut to any surcharge loads, such as stockpiled material, traffic loads, or structures;
- Duration of the open excavation; and
- Care and methods used by the contractor.

Because of the variables involved, actual slope angles required for stability in temporary cut areas can only be estimated before construction. It is the responsibility of the contractor to ensure that the excavation is properly sloped or braced for worker protection in accordance with OSHA guidelines. Most of the near-surface site soils generally consist of silt or gravel soils that would be classified as OSHA Class C for excavation purposes.

In lieu of large open cuts, approved temporary shoring may be used for excavation support. A variety of shoring systems are available; consequently, we recommend that the contractor be responsible for selecting the appropriate system. All trench excavations should be made in accordance with applicable OSHA and state regulations.

We note that box shoring is a safety feature used to protect workers and does not prevent caving. If the excavations are left open for extended periods of time, then caving of the sidewalls may occur. The presence of caved material will limit the ability to properly backfill and compact the trenches. The voids between the box shoring and the sidewalls of the trenches should be properly filled with sand or gravel before caving occurs.

6.5 Structural Fill and Backfill

Structural fill should be considered to include any fill that is placed beneath buildings, foundations, slabs, pavements, and other areas intended to support structural elements or within their influence zone.

Fill should only be placed over a subgrade that has been prepared in conformance with the prior sections of this report. Fill should be placed and compacted per *Section 6.6 Fill Placement and Compaction*. A variety of material may be used as structural fill at the site. However, all material used as structural fill should be free of organic matter or other unsuitable materials and should meet specifications provided in the OSS 00330 – Earthwork, OSS 00400 – Drainage and Sewers, and OSS 02600 – Aggregates, depending upon the appropriate application. A brief characterization of some of the acceptable materials and our recommendations for their use as structural fill are provided below.

6.5.1 On-Site Soils

On-site, near-surface soils are generally fine-grained and will require moisture conditioning prior to being used as a structural fill. The on-site material may be used as structural fill only if the materials are properly moisture conditioned and free of debris, organic materials, and particles over 6 inches in diameter. The silty nature of the on-site soils may make their use difficult, particularly during wet weather construction. We recommend against relying on the use of on-site soils for structural fill, unless provisions are made to account for drying of the soils. If used, the on-site soils should be placed and compacted in lifts with maximum uncompacted thicknesses and relative densities as recommended in the tables that follow.

Underlying the silty surface soils are sands and gravels with lower fines content that will be easier for reuse as structural fill. Similarly, the materials may be used as structural fill only if the materials are properly moisture conditioned and free of debris, organic materials, and particles over 6 inches in diameter. If used, the on-site soils should be placed and compacted in lifts with maximum uncompacted thicknesses and relative densities as recommended in the tables that follow.

6.5.2 Imported Select Structural Fill

Imported granular material used as structural fill should be pit or quarry run rock, crushed rock, or crushed gravel and sand and should meet the specifications provided in OSS 00330.14 – Selected Granular Backfill or OSS 00330.15 – Selected Stone Backfill. The imported granular material should also be angular, fairly well graded between coarse and fine material, have less than 5 percent by dry weight passing the U.S. Standard No. 200 Sieve, and have at least two mechanically fractured faces. The material should be placed and compacted in lifts with maximum uncompacted thicknesses and relative densities as recommended in the tables that follow.

6.5.3 Aggregate Base

Imported granular material used as aggregate base (base rock) beneath pavements or the building should be clean, crushed rock or crushed gravel and sand that is fairly well graded between coarse and fine. The base aggregate should meet the specifications of OSS 00641 – Aggregate Subbase, Base, and Shoulders Base Aggregate, depending upon application, with the exception that the aggregate have less than 5 percent by dry weight passing a U.S. Standard No. 200 Sieve and have at least two mechanically fractured faces.

For use beneath pavements or footings, the aggregate base should have a maximum particle size of 1 inch or 1.5 inches, while for use beneath the new building or sidewalk slabs should have a maximum particle size of 0.75 or 1 inch. For use beneath buildings, the base rock should also meet the gradation of OSS 2630.11 – Open-Graded Aggregate.

If soft or fine-grained soils are present in the subgrade beneath aggregate base for paved areas, then a layer of separation fabric should be placed atop the soil subgrade prior to the placement of the aggregate base. The geotextile should meet the specifications provided in OSS 02320.20 – Geotextile Property Values for soil separation. The geotextile should be installed in conformance with the specifications provided in OSS 00350 – Geosynthetic Installation.

The aggregate base material should be placed and compacted in lifts with maximum uncompacted thicknesses and relative densities as recommended in the tables that follow.

6.5.4 Trench Backfill

Trench backfill placed beneath, adjacent to, and for at least 12 inches above utility lines (i.e., the pipe zone) should consist of well-graded granular material with a maximum particle size of 1 inch and should meet the specifications of OSS 00405.13 – Pipe Zone Material and the pipe manufacturer's requirements.

Within pavement and slab subgrades the remainder of the trench backfill up to the subgrade elevation can consist of the above 1-inch material or of granular material with a maximum particle size of 3 inches, have less than 10 percent by dry weight passing the U.S. Standard No. 200 Sieve, and meet the specifications of OSS 00405.14 – Class B, C, or D Trench Backfill, as appropriate.

In landscape areas, trench backfill placed above the pipe zone may consist of general fill materials that are free of organics and materials over 3 inches in diameter and meet the specifications provided in OSS 00405.14 – Class A, B, C, or D Trench Backfill, as appropriate.

The material should be placed and compacted in lifts with maximum uncompacted thicknesses and relative densities as recommended in the tables that follow.

6.5.5 Stabilization Material

If imported granular material is used to create haul roads for construction traffic or is required for stabilization of the bases of excavations, we recommend that material consist of pit or quarry run rock, or crushed rock. The material should generally be sized between 2 and 6 inches, have less than 5 percent by dry weight passing the U.S. Standard No. 4 Sieve, and have at least two mechanically fractured faces. The material should be free of organic matter and other deleterious material. The material should also meet the specifications of OSS 00330.16 – Stone Embankment Material.

Stabilization material should be underlain by a layer of separation fabric. The geotextile should meet the specifications provided in OSS 02320.20 – Geotextile Property Values for soil separation. The geotextile should be installed in conformance with the specifications provided in OSS 00350 – Geosynthetic Installation.

Stabilization material should be placed in lifts between 12 and 18 inches thick and be compacted to a well-keyed condition with appropriate compaction equipment without using vibratory action. In trench excavations, a walk behind sheepsfoot roller or a pinwheel on an excavator typically can provide adequate compaction if carefully used.

If groundwater or an unstable subgrade is present and "quarry spalls" or similar open-graded rocks are used for stabilization of the base of trench excavations or access roadways, then a layer of separation fabric should also be placed atop the stabilization material prior to the placement of the aggregate base of pipe bedding material.

6.6 Fill Placement and Compaction

Structural fill should be placed and compacted in accordance with the following guidelines.

- Place fill and backfill on a prepared subgrade that consists of firm, inorganic native soils or approved structural fill.
- Place fill or backfill in uniform horizontal lifts with a thickness appropriate for the material type and compaction equipment. Table 2 provides general guidance for lift thicknesses.

Table 2 – Guidelines for Uncompacted Lift Thickness

Compaction Equipment	Guidelines for Uncompacted Lift Thickness (inches)		
	Fine-Grained Soil	Granular and Crushed Rock Maximum Particle Size ≤ 1½ inch	Crushed Rock Maximum Particle Size > 1½ inch
Plate Compactors and Jumping Jacks	4 – 8	4 – 8	Not Recommended
Rubber-Tire Equipment	6 – 8	10 – 12	6 – 8
Light Roller	8 – 10	10 – 12	8 – 10
Heavy Roller	10 – 12	12 – 18	12 – 16
Hoe Pack Equipment	12 – 16	18 – 24	12 – 16

Note: The above table is based on our experience and is intended to serve as a guideline. The information provided in this table should not be included in the project specifications.

- Use appropriate operating procedures to attain uniform coverage of the area being compacted.
- Place fill at a moisture content within approximately 3 percent of optimum as determined in accordance with American Society for Testing and Materials (ASTM) Test Method D 1557. Moisture condition fill soil to achieve uniform moisture content within the specified range before compacting.
- If native, fine-grained soils are used for fill at the site, then the soils should be placed at approximately 3 to 5 percent over optimum moisture content and be compacted to a maximum of 90 percent of their maximum dry density as determined by ASTM D 1557.
- Compact fill to a minimum of the levels included in Table 3 below.
- Do not place, spread, or compact fill soils during freezing or unfavorable weather conditions. Frozen or disturbed lifts should be removed or properly recompacted prior to placement of subsequent lifts of fill soils.

Table 3 – Fill and Subgrade Compaction Criteria

Material Type	Percent of Maximum Dry Density Determined in Accordance with ASTM D 1557		
	0-2 Feet Below Subgrade	> 2 feet Below Subgrade	Pipe Bedding and Pipe Zone
Mass Fill (Fine-Grained Soils)	90	90	—
Mass Fill (Granular Materials)	95	90	—
Aggregate Base	95	95	—
Trench Backfill	95	92	90
Nonstructural Trench Backfill	88	88	—
Nonstructural Zones	88	88	90

Note: The table is based on our experience and is intended to serve as a guideline. The information provided in this table should not be included in the project specifications.

During structural fill placement and compaction, a sufficient number of in-place density tests should be completed by Hart Crowser to verify that the specified degree of compaction is being achieved. For structural fill with more than 30 percent retained on the 3/4-inch sieve, Hart Crowser should visually verify proper compaction with a proof roll or other methods.

7.0 STRUCTURAL DESIGN RECOMMENDATIONS

7.1 Foundation Recommendations

Based on our investigation and analysis, the use of conventional spread footings bearing on medium dense or dense sandy or gravelly soil is feasible for the proposed structural improvements. This may require localized overexcavation of fine-grained surficial soils or undocumented fills.

7.1.1 Dimensions and Bearing Capacity

Continuous wall and isolated spread footings should be at least 12 and 20 inches wide, respectively. The bottom of exterior footings should be at least 12 inches below the adjacent finished exterior grade. Interior footings should be embedded at least 8 inches below the adjacent interior grade (e.g., base of slab).

Footings may be designed to bear on the existing medium dense to dense gravelly and sandy soil beneath the surface fine-grained soils or on a minimum of 2 feet of new compacted structural fill overlying fine-grained, near surface soils. An allowable bearing pressure of 2,500 pounds per square foot (psf) for footings bearing on these materials. This value represents a net bearing pressure; the weight of the footings and overlying backfill can be ignored in calculating footing sizes. The recommended allowable bearing pressure applies to the total of dead plus long-term live loads and may be increased by one-third for short-term loads, such as wind or seismic forces.

Lateral loads on footings can be resisted by passive earth pressures on the sides of footings and by friction on the bearing surface. We recommend that passive earth pressures be calculated using an allowable equivalent fluid density of 220 pounds per cubic foot (pcf). We recommend using an allowable friction coefficient of 0.35 for foundations placed on natural gravels or 0.40 for foundations placed on an aggregate base subgrade. The passive earth pressure and friction components may be combined, provided that the passive component does not exceed two-thirds of the total. The passive pressures and friction coefficient values include a safety factor of 1.5.

7.1.2 Foundation Settlement

If the above design and construction recommendations are followed, we estimate that footings should experience total foundation movements less than 1 inch, with differential settlement of less than 1/2 inch over a 20-foot span.

7.1.3 Construction Considerations

Prior to the placement of reinforcing steel in the footing excavations, all loose or disturbed soils should be removed. If water infiltrates and pools in the excavation, the water, along with any disturbed soil, should be removed before placing the reinforcing steel. If construction is undertaken during periods of rain, we recommend that a concrete "rat slab" or "mud slab" or imported granular material be placed over the bases of footing excavations. The protective layer reduces subgrade disturbance from standing water and from foot traffic during forming and tying of reinforcing steel. Typically, 3 to 4 inches of concrete or granular material that is lightly compacted until well-keyed provides sufficient protection from disturbance.

Where footings bear on new fill overlying the near surface, fine-grained soils, the fill should extend beyond the edges of the footing a distance equal to half the overexcavation depth. For example, a 2-foot overexcavation below a 3-foot by 3-foot isolated footing will require a 5-foot by 5-foot overexcavation area at the base of the excavation. Where a 2-foot overexcavation is below a 2-foot-wide strip footing, a 4-foot-wide overexcavation area will be necessary.

7.2 Concrete Floor Slab Recommendations

Satisfactory subgrade support for concrete slabs supporting up to 125 psf areal loading can be obtained from the new structural fill or native subgrade prepared in accordance with the previous recommendations presented in this report. A minimum 6-inch-thick layer of aggregate base should be placed over the prepared subgrade to assist as a capillary break. Aggregate base material placed directly below the slab should be 3/4- to 1-inch maximum size.

Slabs should be reinforced according to their proposed use and per the structural engineer's recommendations. Load-bearing concrete slabs may be designed assuming a modulus of subgrade reaction, k, of 200 pounds per square inch per inch, provided the site is prepared as recommended in this report.

Flooring manufacturers often require vapor barriers to protect flooring and flooring adhesives. Many flooring manufacturers will warrant their product only if a vapor barrier is installed according to their recommendations. Selection and design of an appropriate vapor barrier, if needed, should be based on discussions among members of the design team.

We recommend that Hart Crowser observe slab subgrade preparation before placement of aggregate base.

7.3 Seismic Design

We understand that seismic design will be in accordance with the OSSC (ICC 2014) and the ASCE 7-10 Minimum Design Loads for Buildings and Other Structures (ASCE/SEI 2010). The parameters provided in Table 4 are appropriate for code-level seismic design.

Table 4 – Seismic Design Parameters

Parameter	Value
Site Class	D
Spectral Response Acceleration, S_S	0.969 g
Spectral Response Acceleration, S_1	0.410 g
Site Coefficient, F_a	1.112
Site Coefficient, F_V	1.590
Spectral Response Acceleration (Short Period), S_{DS}	0.719 g
Spectral Response Acceleration (1-Second Period), S_{D1}	0.435 g
Peak Ground Acceleration, PGA	0.421
Site Coefficient, F_{pga}	1.079
Site Class Adjusted PGA, PGA_M	0.454

8.0 DRAINAGE DESIGN RECOMMENDATIONS

8.1 Temporary Drainage

During mass grading at the site, the contractor should be made responsible for temporary drainage of surface water as necessary to prevent standing water and/or erosion at the working surface. During rough and finished grading of the building site, the contractor should keep all subgrades, footing excavations, and building pads free of water.

8.2 Surface Drainage

The finished ground surface around buildings should be sloped away from the foundations at a minimum 2 percent gradient for a distance of at least 5 feet. Downspouts or roof scuppers should discharge into a storm drain system that carries the collected water to an appropriate stormwater system. Trapped planter areas should not be created adjacent to the building without providing means for positive drainage (i.e., swales or catch basins).

8.3 Infiltration

Based on our *in situ* infiltration testing, as described in *Section 3.5 Infiltration Testing*, the use of stormwater infiltration system appears feasible at the site. We recommend that stormwater be discharged into the gravellier soils encountered at 3 to 5 feet bgs. We anticipate the use of drywells or deep infiltration trenches will be chosen. As summarized in Table 1, infiltration rates of 6.7 and 14. 7 inches per hour (average 10.7 inches/hour) were measured in the field.

The average field infiltration rate of 10.7 inches/hour may be used for design of on-site infiltration systems. A minimum correction factor of 3 should be applied to this value. We recommend the bases of infiltration system be founded at least 5 feet below existing site grades. Groundwater is expected to be up to 40 feet bgs, and therefore, is unlikely to interfere with infiltration.

9.0 PAVEMENT DESIGN RECOMMENDATIONS

9.1 Assumptions and Design Parameters

Our pavement design recommendations include options for flexible AC and rigid Portland cement concrete (PCC) pavement. We made the following assumptions regarding, and used the following parameters for, the design of the site pavements. If these assumptions are inaccurate, we should be notified so that updated recommendations can be developed.

- Based on the discussions with the design team, the expected traffic load is relatively light, we assumed the 20-year design life equivalent single-axle loads (ESALs) for different pavement designations (as defined in Table 5 below) are approximately:
  - Light Duty - 20,000 ESALs
  - Heavy Duty - 100,000 ESALs
- A resilient modulus of 6,000 pounds per square inch (psi) was assumed for a soil subgrade that has been prepared moisture conditioned and recompacted in accordance with *Section 6.0 Earthwork Recommendations* of this report. Alternatively, a resilient modulus of 4,500 psi has been used for the *in situ* subgrade.
- A resilient modulus of 25,000 psi was estimated for aggregate base
- Initial and terminal serviceability indices of 4.2 and 2.5, respectively
- Reliability and standard deviation of 85 percent and 0.45, respectively
- Structural coefficients of 0.45 and 0.12 for the flexible asphalt and base rock, layers, respectively
- Minimum moduli of rupture and elasticity of 570 and 3,600,000 psi, respectively, for PCC
- Minimum compressive strength of 4,000 psi for PCC

9.2 Pavement Sections

The AC pavement sections shown in Table 5 may be used, provided the pavement subgrade has been prepared in accordance with *Section 6.0 Earthworks Recommendations*.

Table 5 – AC Pavement Sections

Pavement Designation	Pavement Usage	AC (inches)	Aggregate Base (inches)	
			Compacted Subgrade	*In Situ* Subgrade
Light Duty	Passenger Vehicles Parking Slots	2.5	7.0	9.0
		3.0	5.0	7.5
Heavy Duty	Access Road and Moving Van Parking	3.0	10.0	12.5

The "compacted subgrade" pavement section assumes that the soil subgrade is moisture conditioned and recompacted as an engineered fill per *Section 6.0 Earthwork Recommendations*. The "*in situ* subgrade" pavement section assumes the soil subgrade is generally left undisturbed, except of localized soft spots which are removed, and then is covered with a separation geotextile fabric.

The PCC pavement sections in Table 6 include both reinforced and unreinforced sections and are valid for all the traffic levels provided the pavement subgrade has been prepared in accordance with *Section 6.0 Earthworks Recommendations*. The unreinforced PCC pavement would most typically be used in areas that receive "pass through" traffic, such as decorative crosswalks, etc.; whereas, the reinforced PCC pavement would typically be used as areas with heavy vehicle usage and increased long-term performance requirements, such as at the loading docks.

Table 6 – PCC Pavement Sections

PCC Pavement Type	PCC Thickness (inches)	Aggregate Base Thickness (inches)
Unreinforced	6.0	6.0
Reinforced	5.0	6.0

We note that the design aggregate base thicknesses for pavement areas is intended to support post construction design traffic loads and should not be used to support construction traffic when the subgrade soils are wet. Accordingly, if staging areas or haul roads are proposed, the "design thickness" of the base rock should not be relied upon and additional thicknesses of base rock should be placed.

9.3 Pavement Materials

9.3.1 Flexible AC

The AC should be Level 2, 12.5-mm, dense HMAC according to OSS 00744 – Minor Hot Mixed Asphalt Concrete Pavement. The asphalt cement binder should be PG 64-22 Performance Grade Asphalt Cement. The minimum AC lift thicknesses should be 1.5 inches. The AC should be compacted to 91 percent of Rice Density of the mix, as determined in accordance with ASTM D 2041.

9.3.2 Rigid PCC

Rigid PCC used for pavement should meet the specifications provided in OSS 00756 – Plain Concrete Pavement. The installed concrete should be Class 4000 1.5-inch paving concrete per OSS 02001 – Concrete. The PCC joints should have a maximum spacing of 12 feet and be constructed in accordance with OSS 00756.48 – Joints. Unreinforced PCC should be interlocked at contraction joints (e.g., continuous slab with no dowels), though dowels should be used at construction and expansion joints. Reinforced PCC shall have #4 bars at 18 inches on center, each way at the mid-depth of the PCC.

9.3.3 Aggregate Base and Geotextile Fabric

Imported granular material used as base aggregate (base rock) should meet the criteria specified in *Section 6.5 Structural Fill and Backfill* of this report. The base aggregate should be compacted to not less than 95 percent of the maximum dry density, as determined by ASTM D 1557.

If the existing base rock that blankets the northern portion of the site is documented to be free of debris and other deleterious materials and is of sufficient thickness after site grading, it may be feasible to use the base rock *in situ* for the lower 6 inches of the required aggregate base section beneath new pavements, per ASTM D 1557.

In areas where the "in situ subgrade" pavement section described in Table 5 is used, in lieu of moisture conditioning and recompacting the soil subgrade, the aggregate base should be underlain by a layer of separation geotextile fabric. The geotextile should meet the specifications provided in OSS 02320.20 – Geotextile Property Values for soil separation. The geotextile should be installed in conformance with the specifications provided in OSS 00350 – Geosynthetic Installation.

10.0 CONSTRUCTION OBSERVATIONS

Satisfactory foundation and earthwork performance depends to a large degree on quality of construction. Sufficient monitoring of the contractor's activities is a key part of determining that the work is completed in accordance with the construction drawings and specifications. Subsurface conditions observed during construction should be compared with those encountered during subsurface explorations. Recognition of changed conditions often requires experience; therefore, Hart Crowser or their representative should visit the site with sufficient frequency to detect whether subsurface conditions change significantly from those anticipated.

We recommend that Hart Crowser be retained to monitor construction at the site to confirm that subsurface conditions are consistent with the site explorations and to confirm that the intent of project plans and specifications relating to earthwork and foundation construction are being met. In particular, we recommend that the building and pavement subgrades, shallow footing subgrade preparation, removal of undocumented fill, and compaction of structural fills and aggregate bases be observed and/or tested by Hart Crowser.

11.0 LIMITATIONS

We have prepared this report for the exclusive use of West Coast Self-Storage Group, LLC and their authorized agents for the proposed commercial development to be located at the subject site in accordance with our October 11, 2018 proposal. Our report is intended to provide our opinion of geotechnical parameters for design and construction of the proposed project based on exploration locations that are believed to be representative of site conditions. However, conditions can vary significantly between exploration locations, and our conclusions should not be construed as a warranty or guarantee of subsurface conditions or future site performance.

We have developed our recommendations based on our current understanding of the project and the subsurface conditions encountered by our explorations. If the nature or location of the development is different than we have assumed, we should be notified so we can change or confirm our recommendations.

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

Any electronic form, facsimile, or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by Hart Crowser and will serve as the official document of record.

12.0 REFERENCES

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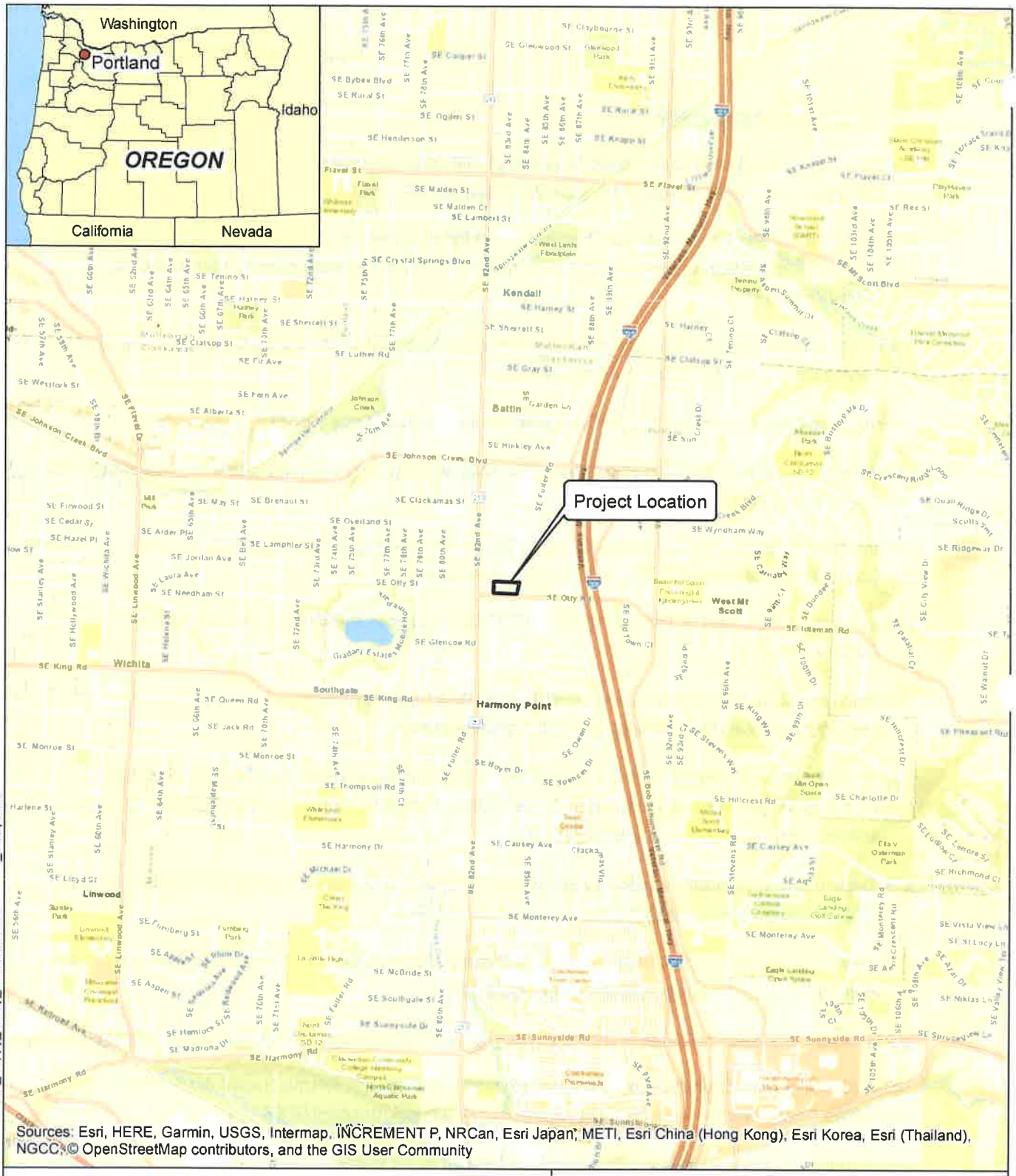

0 1,000 2,000 4,000 Feet

Note: Feature locations are approximate.

N

West Coast Self-Storage Facility
Happy Valley, Oregon

Vicinity Map

19415-01 3/19

HARTCROWSER

Figure 1

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Source: Base map prepared from AutoCAD file "1416-SUR-ALTA.dwg" provided by ALTA Land Title Survey on March 1, 2019. Aerial photograph provided by Hexagon Imagery Program Data.

LEGEND

- Boring
- Infiltration Test
- Tax Lot
- AA-EDL-NOTES
- Existing Building
- Adjacent Property Line
- Road Centerline
- Property Line
- Right-of-Way

0 20 40 80 Feet

Note: Feature locations are approximate.

N

West Coast Self-Storage Facility
Happy Valley, Oregon

Existing Site Plan

19415-01 3/19

HARTCROWSER

Figure 2

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APPENDIX A
Field Explorations

APPENDIX A

Field Explorations

This appendix documents the processes Hart Crowser used to determine the nature (and quality) of the site soils and groundwater conditions. The discussion includes information on the following subjects:

- Explorations and Their Locations,
- Soil Classification,
- Borings, and
- Infiltration Testing.

Explorations and Their Locations

A member of our geologic staff completed subsurface explorations for this project that included six soil borings. The approximate locations of the explorations are shown on Figure 2 of the report. Exploration locations were measured in the field based using a handheld GPS device.

Soil Classification

Materials encountered in the explorations were classified in the field in general accordance with ASTM Standard Practice D 2488, "Standard Practice for the Classification of Soils (Visual-Manual Procedure)." Soil classifications and sampling intervals are shown in the exploration logs in this appendix. Note that soil changes may be gradual. Figure A-1, the *Key to Exploration Logs,* provides a legend explaining the symbols and abbreviations used in the logs.

The field explorations were coordinated by an engineering geologist on our staff, who located the explorations, classified the various soil units encountered, obtained representative soil samples and observed and recorded groundwater conditions, and maintained a detailed log of each boring. Exploration logs are included in this appendix.

Borings

The borings were advanced using a CME-75 truck-mounted drill rig operated by Holt Services, Inc. Samples were obtained from the borings using either a 1.375-inch inner-diameter split-spoon sampler (SPT sampler) or a 2.39-inch inner-diameter split spoon sampler in general accordance with guidelines presented in ASTM D 1586 "Standard Method for Penetration Test and Split-Barrel Sampling of Soils."

The samplers were driven into the soil a total distance of 18 inches with a 140-pound hammer free falling 30 inches. The number of blows required to drive the samplers the final 12 inches is recorded on the boring logs, unless otherwise noted. The N value, or number of blows required to drive the sampler 1 foot or as otherwise indicated into the soils, is shown adjacent to the sample symbols on the boring logs. For samples collected with the larger diameter sampler, the number of blows required to drive the sampler the last 12 inches was correlated to SPT blow counts (N-values), using a Burmister (1948) correction of 64 percent. The corrected blow counts are plotted on the boring logs at their respective sample depths.

Partially disturbed soil samples were obtained from the sampler for subsequent classification and testing. Samples from all borings were placed in watertight bags and delivered to Hart Crowser's laboratory.

Infiltration

We completed two infiltration tests in general accordance with the CCSD #1 (Clackamas County 2013). The infiltration tests were completed in borings located at or adjacent to our "exploration" borings B-5 and B-6.

Infiltration testing was performed in boreholes drilled using a 6-inch-diameter, hollow-stem auger advanced by the same drill rig used for the "exploration" borings. The boreholes were generally drilled near the probe borings and cuttings were closely observed to verify that subsurface conditions were consistent with the "exploration" boring logs. Our observations indicate that subsurface conditions were substantially unchanged between the drilled boreholes and continuous probes.

The infiltration tests consisted of falling head, encased borehole tests conducted in general accordance with Clackamas County (2013) and as briefly described below.

- The infiltration test boreholes were advanced to the test depths. A 4-inch-diameter PVC pipe was then embedded into the bases of the holes.
- The pipe was filled with one foot of water and left to soak. Due to high hydraulic conductivity, the water infiltrated in less than 10 minutes. The pipe was refilled with 1 foot of water, and it seeped away within 10 minutes again.
- The infiltration testing consisted of filling the pipe with approximately 1 foot of water and measuring the time for the water level to drop. The test procedure was repeated until we obtained consistent readings.
- The collected data were used to calculate the coefficient of permeability for each test location.

Refer to the body of this report for a discussion of our findings and recommendations regarding the design of infiltration systems.

Sample Description

Identification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field nor laboratory testing unless presented herein. ASTM D 2488 visual-manual identification methods were used as a guide. Where laboratory testing confirmed visual-manual identifications, then ASTM D 2487 was used to classify the soils.

Relative Density/Consistency

Soil density/consistency in borings is related primarily to the standard penetration resistance (N). Soil density/consistency in test pits and probes is estimated based on visual observation and is presented parenthetically on the logs.

SAND or GRAVEL Relative Density	N (Blows/Foot)	SILT or CLAY Consistency	N (Blows/Foot)
Very loose	0 to 4	Very soft	0 to 1
Loose	5 to 10	Soft	2 to 4
Medium dense	11 to 30	Medium stiff	5 to 8
Dense	31 to 50	Stiff	9 to 15
Very dense	>50	Very stiff	16 to 30
		Hard	>30

Moisture

Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

USCS Soil Classification Chart (ASTM D 2487)

Major Divisions			Symbols Graph	Symbols USCS	Typical Descriptions
Coarse Grained Soils: More than 50% of Material Retained on No. 200 Sieve	Gravel and Gravelly Soils: More than 50% of Coarse Fraction Retained on No. 4 Sieve	Clean Gravels (<5% fines)		GW	Well-Graded Gravel; Well-Graded Gravel with Sand
				GP	Poorly Graded Gravel; Poorly Graded Gravel with Sand
		Gravels (5-12% fines)		GW-GM	Well-Graded Gravel with Silt; Well-Graded Gravel with Silt and Sand
				GW-GC	Well-Graded Gravel with Clay; Well-Graded Gravel with Clay and Sand
				GP-GM	Poorly Graded Gravel with Silt; Poorly Graded Gravel with Silt and Sand
				GP-GC	Poorly Graded Gravel with Clay; Poorly Graded Gravel with Clay and Sand
		Gravels with Fines (>12% fines)		GM	Silty Gravel; Silty Gravel with Sand
				GC	Clayey Gravel; Clayey Gravel with Sand
	Sand and Sandy Soils: More than 50% of Coarse Fraction Passing No. 4 Sieve	Sands with few Fines (<5% fines)		SW	Well-Graded Sand; Well-Graded Sand with Gravel
				SP	Poorly Graded Sand; Poorly Graded Sand with Gravel
		Sands (5-12% fines)		SW-SM	Well-Graded Sand with Silt Well-Graded Sand with Silt and Gravel
				SW-SC	Well-Graded Sand with Clay; Well-Graded Sand with Clay and Gravel
				SP-SM	Poorly Graded Sand with Silt; Poorly Graded Sand with Silt and Gravel
				SP-SC	Poorly Graded Sand with Clay; Poorly Graded Sand with Clay and Gravel
		Sands with Fines (>12% fines)		SM	Silty Sand; Silty Sand with Gravel
				SC	Clayey Sand; Clayey Sand with Gravel
Fine Grained Soils: More than 50% of Material Passing No. 200 Sieve	Silts			ML	Silt; Silt with Sand or Gravel; Sandy or Gravelly Silt
				MH	Elastic Silt; Elastic Silt with Sand or Gravel; Sandy or Gravelly Elastic Silt
	Silty Clay (based on Atterberg Limits)			CL-ML	Silty Clay; Silty Clay with Sand or Gravel; Gravelly or Sandy Silty Clay
	Clays			CL	Lean Clay; Lean Clay with Sand or Gravel; Sandy or Gravelly Lean Clay
				CH	Fat Clay; Fat Clay with Sand or Gravel; Sandy or Gravelly Fat Clay
	Organics			OL/OH	Organic Soil; Organic Soil with Sand or Gravel; Sandy or Gravelly Organic Soil
Highly Organic (>50% organic material)				PT	Peat - Decomposing Vegetation - Fibrous to Amorphous Texture

Minor Constituents

	Estimated Percentage
Sand, Gravel	
Trace	<5
Few	5 - 15
Cobbles, Boulders	
Trace	<5
Few	5 - 10
Little	15 - 25
Some	30 - 45

Soil Test Symbols

%F	Percent Passing No. 200 Sieve
AL	Atterberg Limits (%)
	Liquid Limit (LL)
	Water Content (WC)
	Plastic Limit (PL)
CA	Chemical Analysis
CAUC	Consolidated Anisotropic Undrained Compression
CAUE	Consolidated Anisotropic Undrained Extension
CBR	California Bearing Ratio
CIDC	Consolidated Drained Isotropic Triaxial Compression
CIUC	Consolidated Isotropic Undrained Compression
CK0DC	Consolidated Drained k0 Triaxial Compression
CK0DSS	Consolidated k0 Undrained Direct Simple Shear
CK0UC	Consolidated k0 Undrained Compression
CK0UE	Consolidated k0 Undrained Extension
CRSCN	Constant Rate of Strain Consolidation
DSS	Direct Simple Shear
DT	In Situ Density
GS	Grain Size Classification
HYD	Hydrometer
ILCN	Incremental Load Consolidation
K0CN	k0 Consolidation
kc	Constant Head Permeability
kf	Falling Head Permeability
MD	Moisture Density Relationship
OC	Organic Content
OT	Tests by Others
P	Pressuremeter
PID	Photoionization Detector Reading
PP	Pocket Penetrometer
SG	Specific Gravity
TRS	Torsional Ring Shear
TV	Torvane
UC	Unconfined Compression
UUC	Unconsolidated Undrained Triaxial Compression
VS	Vane Shear
WC	Water Content (%)

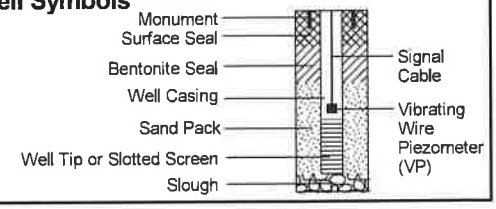
Groundwater Indicators

- Groundwater Level on Date or At Time of Drilling (ATD)
- Groundwater Level on Date Measured in Piezometer
- Groundwater Seepage (Test Pits)

Sample Symbols

- 1.5" I.D. Split Spoon
- 3.25" O.D. Split Spoon
- Modified California Sampler
- Core Run
- Sonic Core
- Thin-walled Sampler
- Grab
- Cuttings

Well Symbols



KEY TO EXP LOGS (SOIL ONLY) - F:\GINTHC_LIBRARY.GLB - 3/12/19 14:42 - \\SEAFS\PROJECTS\NOTEBOOKS\1941501_HAPPY_VALLEY_GEOTECH\FIELD DATA\PERM_GINT\1941501_EXPLORATIONS.GPJ - melissaschweitzer

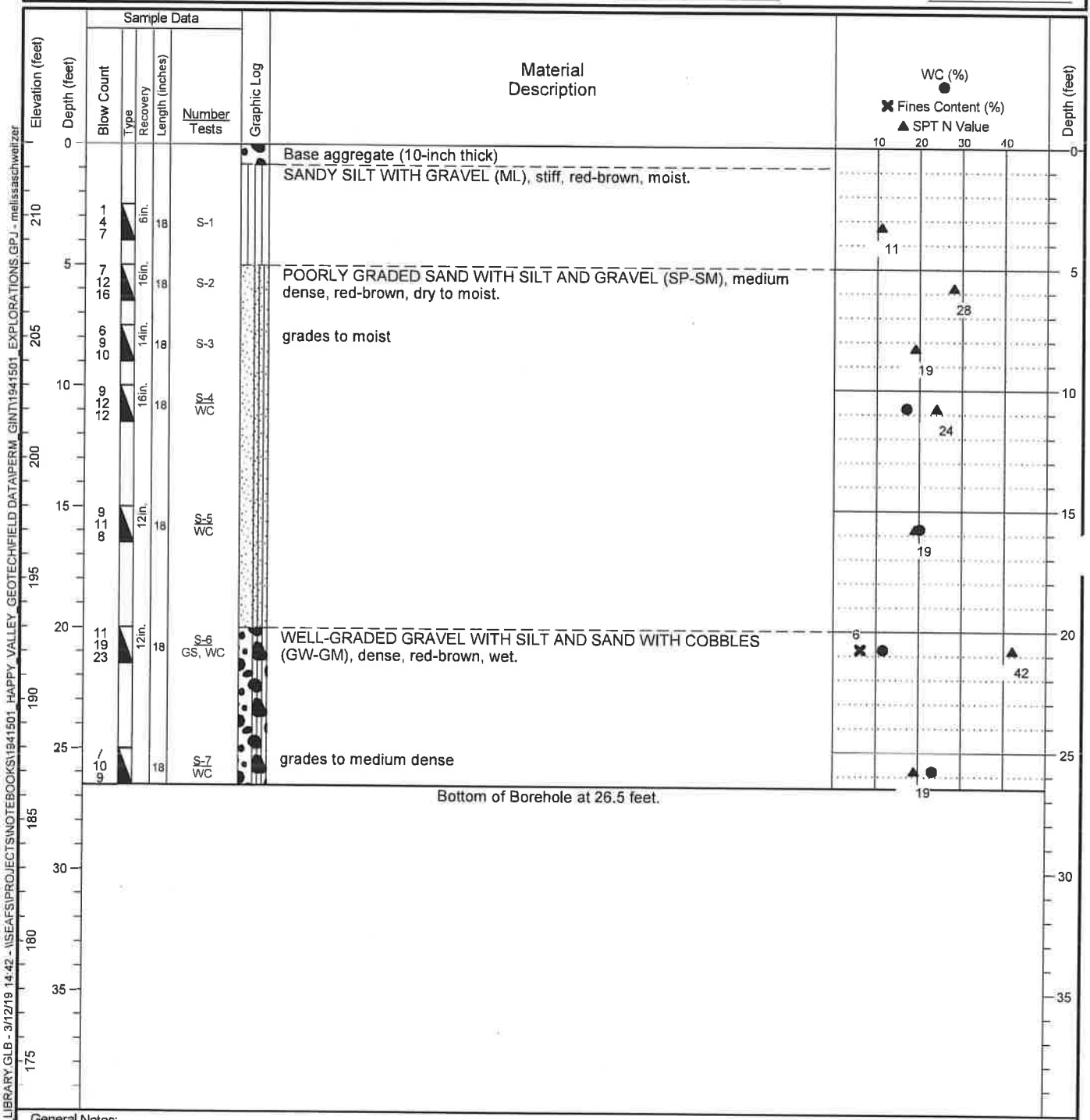
HARTCROWSER

Project: West Coast Self-Storage Facility
Location: Happy Valley, Oregon
Project No.: 19415-01

Key to Exploration Logs

Figure A-1
Sheet 1 of 1

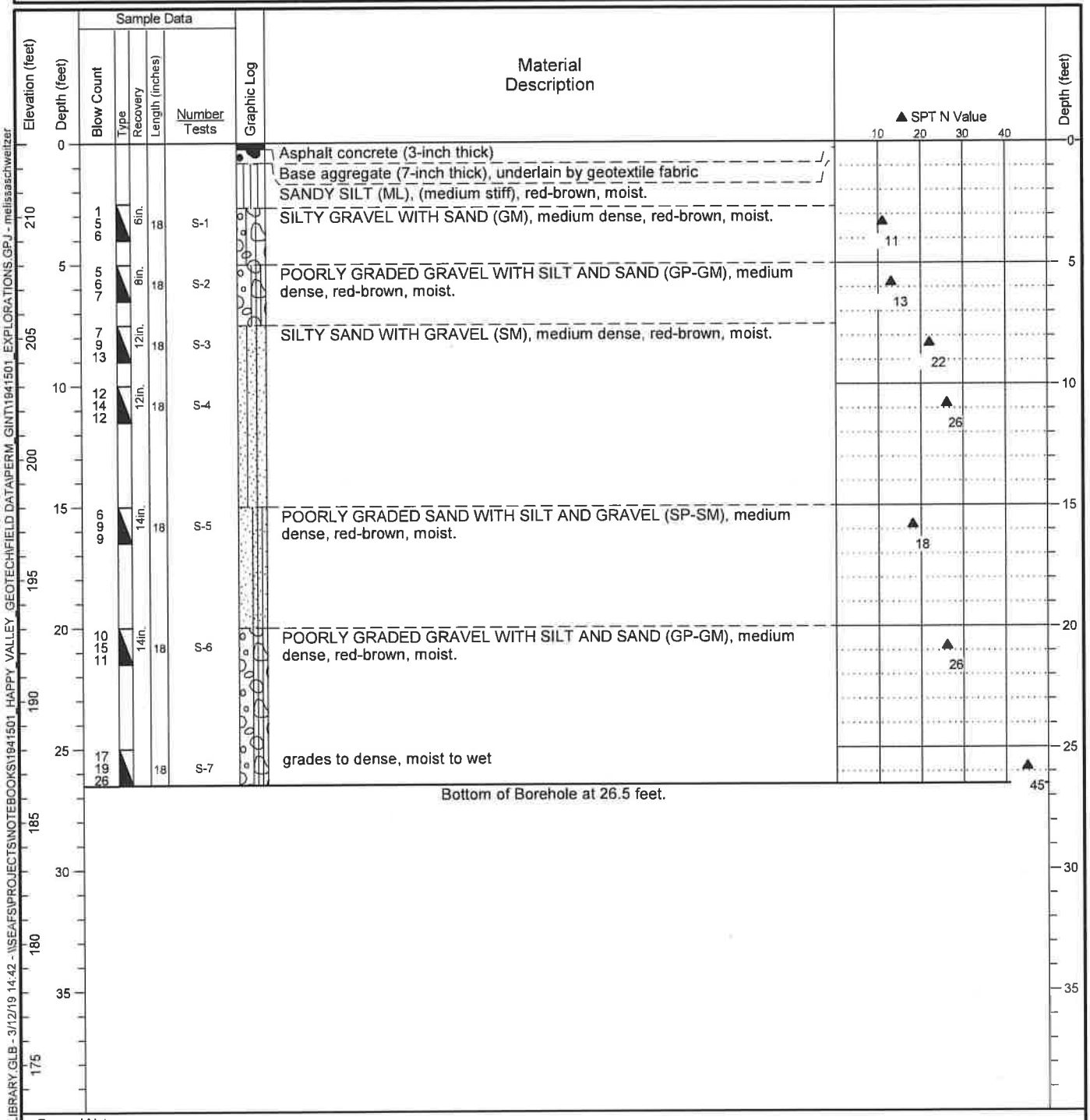
Date Started: 2/20/19	Date Completed: 2/20/19	Drilling Contractor/Crew: Holt Services, Inc.	
Logged by: R. Rosenberg	Checked by: T. Anderson	Drilling Method: Mud Rotary	
Location: Lat: 45.451826 Long: -122.576846		Rig Model/Type: Mobile B-57 / Truck-mounted drill rig	
Ground Surface Elevation: 213 feet		Hammer Type: Auto-hammer	
Horizontal Datum: WGS 84		Hammer Weight (pounds): 140	Hammer Drop Height (inches): 30
Vertical Datum: NAVD 88		Measured Hammer Efficiency (%): NA	
Comments: Location and ground surface elevations are approximate. Blow counts for >1.5" split spoon adjusted to approximate SPT N-values (see report text).		Hole Diameter: 4.875 inches	Casing Diameter: NA
		Total Depth: 26.5 feet	Depth to Groundwater: Not Identified



General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: West Coast Self-Storage Facility Location: Happy Valley, Oregon Project No.: 19415-01	Boring Log **B-1**	Figure **A-2** Sheet **1 of 1**

Date Started: 2/20/19	Date Completed: 2/20/19	Drilling Contractor/Crew: Holt Services, Inc.	
Logged by: R. Rosenberg	Checked by: T. Anderson	Drilling Method: Mud Rotary	
Location: Lat: 45.451558 Long: -122.576999		Rig Model/Type: Mobile B-57 / Truck-mounted drill rig	
Ground Surface Elevation: 213 feet		Hammer Type: Auto-hammer	
Horizontal Datum: WGS 84		Hammer Weight (pounds): 140	Hammer Drop Height (inches): 30
Vertical Datum: NAVD 88		Measured Hammer Efficiency (%): NA	
Comments: Location and ground surface elevations are approximate. Blow counts for >1.5" split spoon adjusted to approximate SPT N-values (see report text).		Hole Diameter: 4.875 inches	Casing Diameter: NA
		Total Depth: 26.5 feet	Depth to Groundwater: Not Identified



General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
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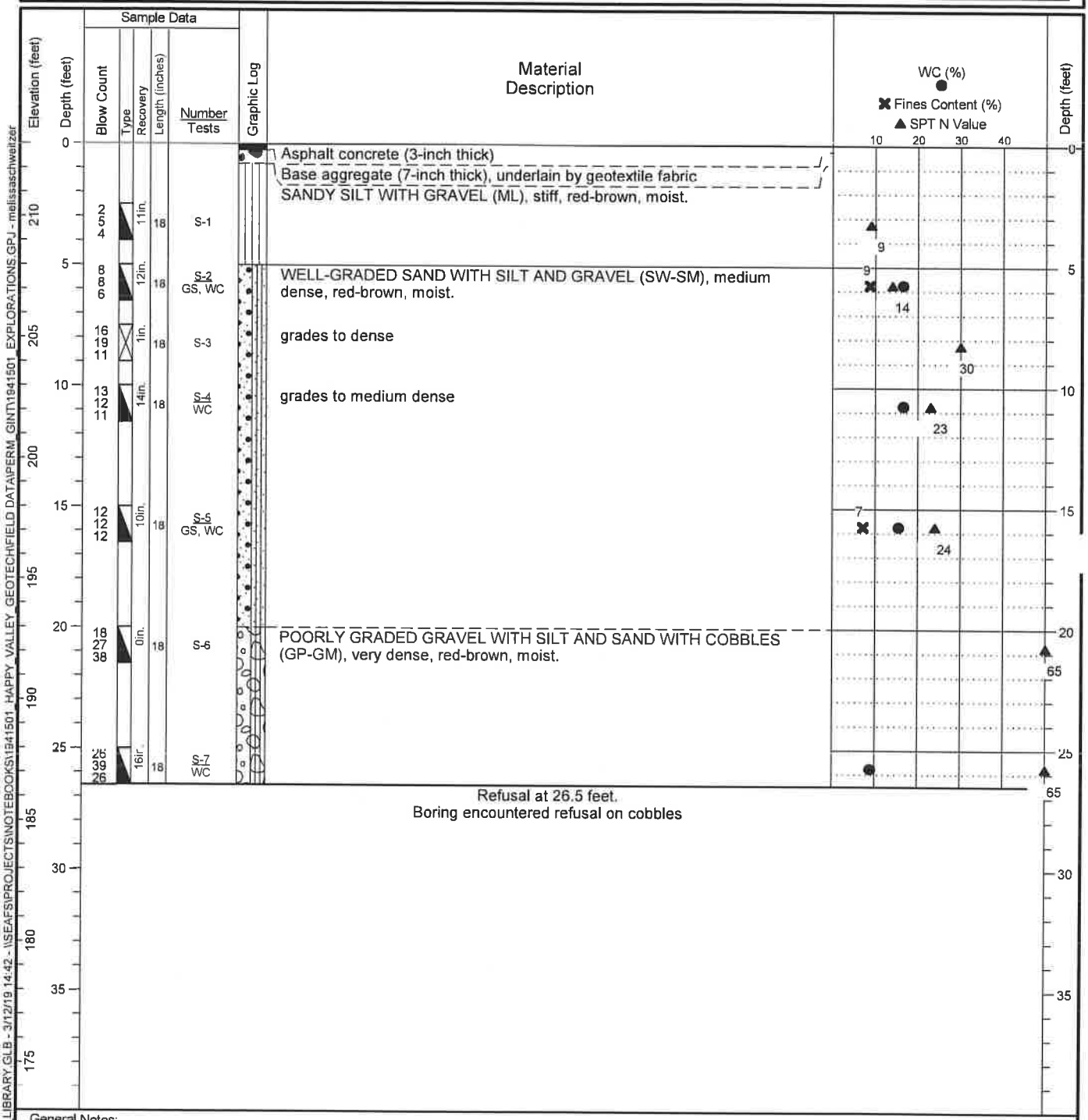
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: West Coast Self-Storage Facility Location: Happy Valley, Oregon Project No.: 19415-01	Boring Log **B-2**	Figure **A-3** Sheet **1 of 1**

Date Started: 2/20/19	Date Completed: 2/20/19	Drilling Contractor/Crew: Holt Services, Inc.	
Logged by: R. Rosenberg	Checked by: T. Anderson	Drilling Method: Mud Rotary	
Location: Lat: 45.451590 Long: -122.577298		Rig Model/Type: Mobile B-57 / Truck-mounted drill rig	
Ground Surface Elevation: 213 feet		Hammer Type: Auto-hammer	
Horizontal Datum: WGS 84		Hammer Weight (pounds): 140	Hammer Drop Height (inches): 30
Vertical Datum: NAVD 88		Measured Hammer Efficiency (%): NA	
Comments: Location and ground surface elevations are approximate. Blow counts for >1.5" split spoon adjusted to approximate SPT N-values (see report text).		Hole Diameter: 4.875 inches	Casing Diameter: NA
		Total Depth: 26.5 feet	Depth to Groundwater: Not Identified



General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
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4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

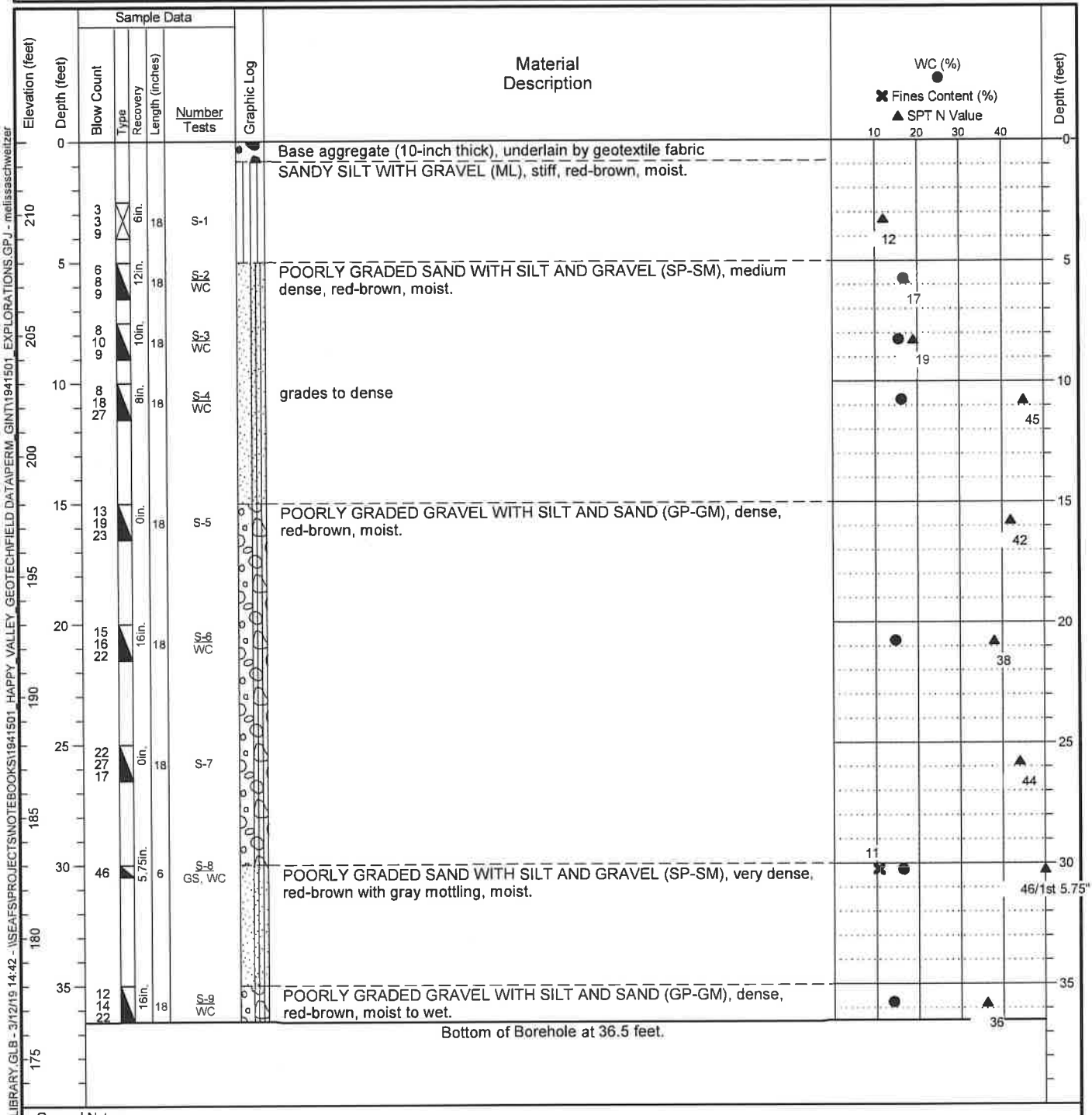
HARTCROWSER

Project: West Coast Self-Storage Facility
Location: Happy Valley, Oregon
Project No.: 19415-01

Boring Log B-3

Figure A-4
Sheet 1 of 1

Date Started: 2/20/19	Date Completed: 2/20/19	Drilling Contractor/Crew: Holt Services, Inc.	
Logged by: R. Rosenberg	Checked by: T. Anderson	Drilling Method: Mud Rotary	
Location: Lat: 45.451718 Long: -122.577135		Rig Model/Type: Mobile B-57 / Truck-mounted drill rig	
Ground Surface Elevation: 213 feet		Hammer Type: Auto-hammer	
Horizontal Datum: WGS 84		Hammer Weight (pounds): 140	Hammer Drop Height (inches): 30
Vertical Datum: NAVD 88		Measured Hammer Efficiency (%): NA	
Comments: Location and ground surface elevations are approximate. Blow counts for >1.5" split spoon adjusted to approximate SPT N-values (see report text).		Hole Diameter: 4.875 inches	Casing Diameter: NA
		Total Depth: 36.5 feet	Depth to Groundwater: Not Identified



General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
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HARTCROWSER

Project: West Coast Self-Storage Facility
Location: Happy Valley, Oregon
Project No.: 19415-01

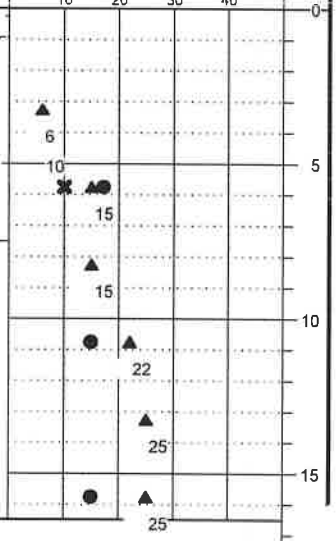
Boring Log **B-4**

Figure **A-5**
Sheet **1 of 1**

Date Started: 2/20/19	Date Completed: 2/20/19	Drilling Contractor/Crew: Holt Services, Inc.	
Logged by: R. Rosenberg	Checked by: T. Anderson	Drilling Method: Mud Rotary	
Location: Lat: 45.451646 Long: -122.577498		Rig Model/Type: Mobile B-57 / Truck-mounted drill rig	
Ground Surface Elevation: 214 feet		Hammer Type: Auto-hammer	
Horizontal Datum: WGS 84		Hammer Weight (pounds): 140	Hammer Drop Height (inches): 30
Vertical Datum: NAVD 88		Measured Hammer Efficiency (%): NA	
Comments: Location and ground surface elevations are approximate. Blow counts for >1.5" split spoon adjusted to approximate SPT N-values (see report text).		Hole Diameter: 4.875 inches	Casing Diameter: NA
		Total Depth: 16.5 feet	Depth to Groundwater: Not Identified

Elevation (feet)	Depth (feet)	Sample Data: Blow Count	Type	Recovery	Length (inches)	Number / Tests	Graphic Log	Material Description
210	0							Asphalt concrete (3-inch thick)
								Base aggregate (8-inch thick), underlain by geotextile fabric
		2 3 3		0in.	18	S-1		POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM), loose, red-brown, moist.
205	5	5 8 7		14in.	18	S-2 GS, WC		WELL-GRADED SAND WITH SILT AND GRAVEL (SW-SM), medium dense, red-brown to yellow-red, moist.
		5 7 8		14in.	18	S-3		POORLY GRADED GRAVEL WITH SILT AND SAND STRATIFIED WITH POORLY GRADED SAND WITH SILT AND GRAVEL (GP-GM), medium dense, red-brown, moist.
200	10	6 6 16		10in.	18	S-4 WC		
		10 14 11		14in.	18	S-5		
195	15	8 11 14		14in.	18	S-6 WC		
								Bottom of Borehole at 16.5 feet.
190	20							
185	25							
180	30							
175	35							

WC (%) ● ✖ Fines Content (%) ▲ SPT N Value



General Notes:
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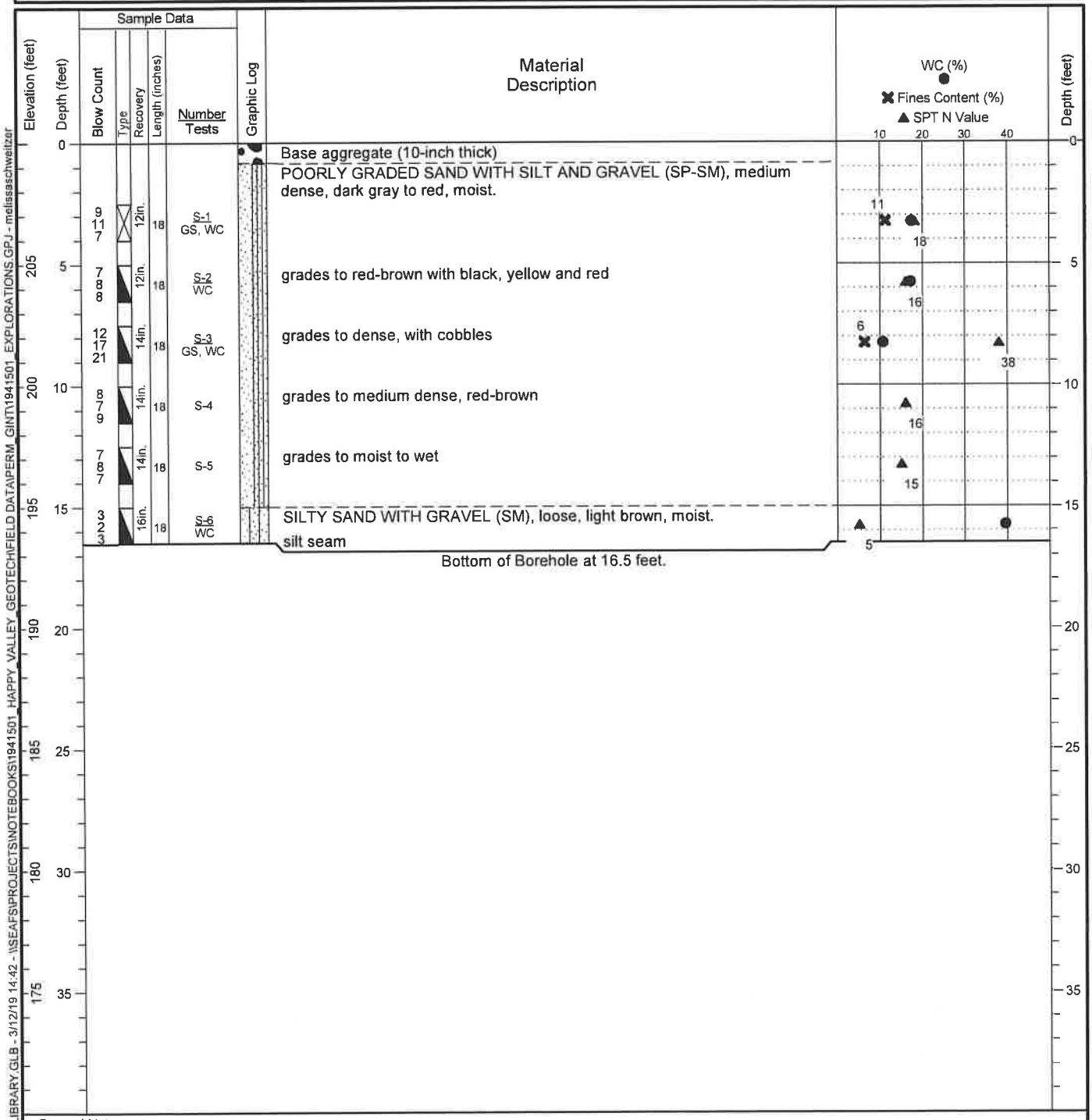
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: West Coast Self-Storage Facility Location: Happy Valley, Oregon Project No.: 19415-01	Boring Log **B-5**	Figure **A-6** Sheet **1 of 1**

Date Started: 2/20/19	Date Completed: 2/20/19	Drilling Contractor/Crew: Holt Services, Inc.	
Logged by: R. Rosenberg	Checked by: T. Anderson	Drilling Method: Mud Rotary	
Location: Lat: 45.451818 Long: -122.577376		Rig Model/Type: Mobile B-57 / Truck-mounted drill rig	
Ground Surface Elevation: 210 feet		Hammer Type: Auto-hammer	
Horizontal Datum: WGS 84		Hammer Weight (pounds): 140	Hammer Drop Height (inches): 30
Vertical Datum: NAVD 88		Measured Hammer Efficiency (%): NA	
Comments: Location and ground surface elevations are approximate. Blow counts for >1.5" split spoon adjusted to approximate SPT N-values (see report text).		Hole Diameter: 4.875 inches	Casing Diameter: NA
		Total Depth: 16.5 feet	Depth to Groundwater: Not Identified



General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HARTCROWSER	Project: West Coast Self-Storage Facility Location: Happy Valley, Oregon Project No.: 19415-01	Boring Log **B-6**	Figure **A-7** Sheet **1 of 1**

APPENDIX B
Laboratory Testing

APPENDIX B

Laboratory Testing

General

Soil samples obtained from the explorations were transported to our laboratory and evaluated to confirm or modify field classifications, as well as to evaluate engineering properties of the soils encountered. Representative samples were then selected for testing at our laboratory. The tests were performed in general accordance with the test methods of the ASTM or other applicable procedures. The results of the tests are included in this appendix.

Laboratory Test Results

Moisture Content

Moisture contents of samples were obtained in general accordance with ASTM Test Method D 2216. The results of these tests are presented on the exploration logs included in Appendix A and summarized on Figure B-1 in this appendix.

Fines Content Analyses

Fines content analyses were performed to determine the percentage of soils finer than the No. 200 sieve—the boundary between sand and silt size particles. The tests were performed in general accordance with ASTM Test Method D 1140. The test results are indicated on the exploration logs included in Appendix A and on Figure B-1 in this appendix.

Sieve Analysis (Grain Size Distribution)

Sieve analysis tests were performed on selected samples to determine the quantitative distribution of particle sizes in the original sample. The tests were performed in general accordance with ASTM D 6913 04. The test results are indicated on the exploration logs included in Appendix A and on Figure B-2 in this appendix.

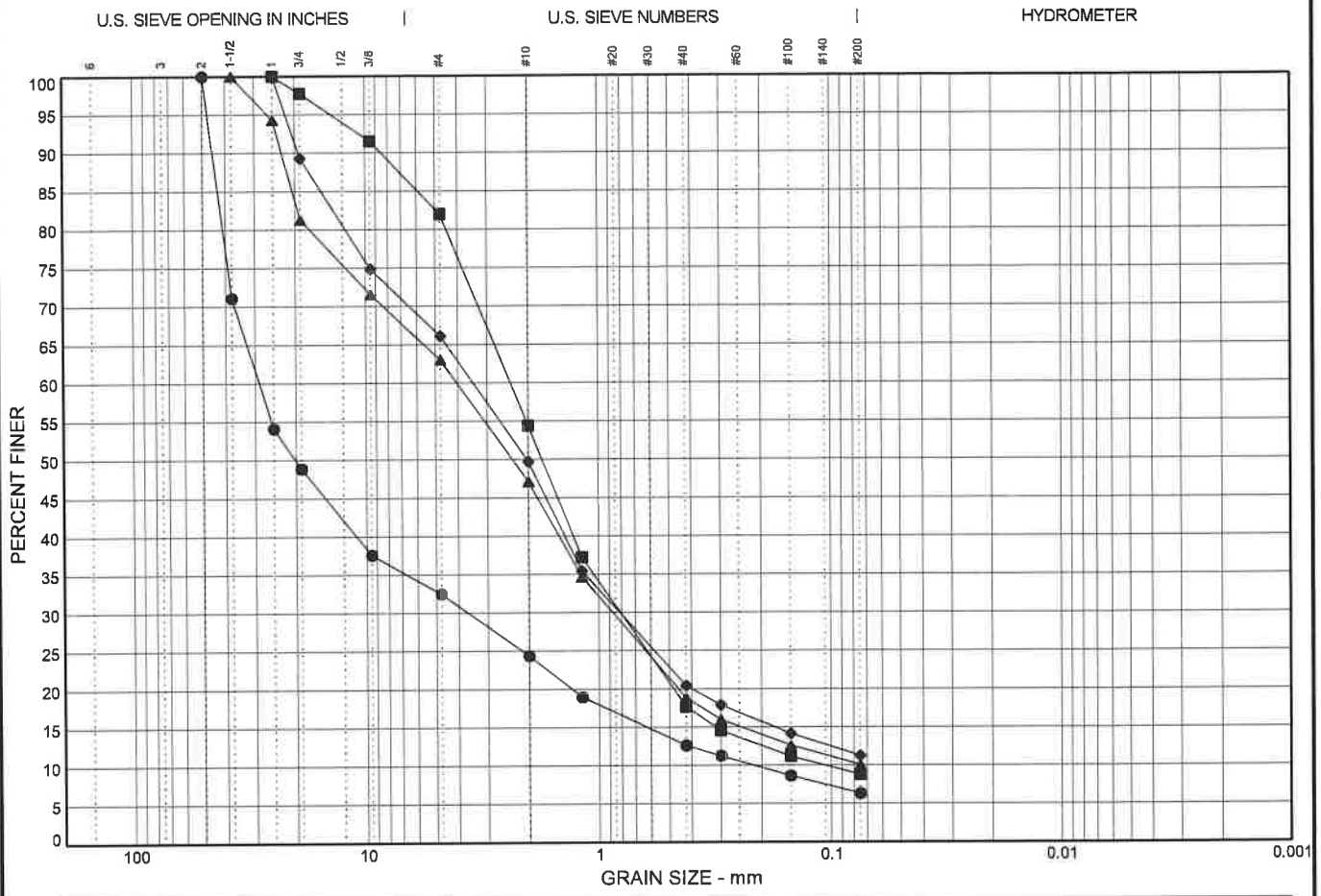
Exploration	Sample ID	Depth	Water Content (%)	Dry Density (pcf)	Fines (%)	Sand (%)	Gravel (%)	Liquid Limit	Plastic Limit	Plasticity Index	Organic Content (%)	Pocket Pen (tsf)	Torvane (tsf)	
B-1	S-4	10.0	16.9											
B-1	S-5	15.0	20.1											
B-1	S-6	20.0	11.6		6	26	68							
B-1	S-7	25.0	23.1											
B-3	S-2	5.0	16.5		9	73	18							
B-3	S-4	10.0	16.6											
B-3	S-5	15.0	15.5		7									
B-3	S-7	25.0	8.9											
B-4	S-2	5.0	16.7											
B-4	S-3	7.5	15.5											
B-4	S-4	10.0	16.2											
B-4	S-6	20.0	14.6											
B-4	S-8	30.0	16.3		11									
B-4	S-9	35.0	14.0											
B-5	S-2	5.0	17.1		10	53	37							
B-5	S-4	10.0	14.9											
B-5	S-6	15.0	14.9											
B-6	S-1	2.5	17.3		11	55	34							
B-6	S-2	5.0	17.1											
B-6	S-3	7.5	10.6		6									
B-6	S-6	15.0	39.5											

HARTCROWSER

Project: West Coast Self-Storage Facility
Location: Happy Valley, Oregon
Project No.: 19415-01

Summary of Laboratory Results

Figure B-1
Sheet 1 of 1



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Location and Description	% Cobbles	% Gravel	% Sand	% Silt	% Clay	MC%	USCS
● **Source:** B-1 **Sample No.:** S-6 **Depth:** 20.0 to 21.5 WELL-GRADED GRAVEL WITH SILT AND SAND	0.0	67.5	26.2	6.3		12	GW-GM
■ **Source:** B-3 **Sample No.:** S-2 **Depth:** 5.0 to 6.5 WELL-GRADED SAND WITH SILT AND GRAVEL	0.0	18.0	73.2	8.8		16	SW-SM
▲ **Source:** B-5 **Sample No.:** S-2 **Depth:** 5.0 to 6.5 WELL-GRADED SAND WITH SILT AND GRAVEL	0.0	37.0	52.9	10.1		17	SW-SM
◆ **Source:** B-6 **Sample No.:** S-1 **Depth:** 2.5 to 4.0 POORLY GRADED SAND WITH SILT AND GRAVEL	0.0	33.9	54.8	11.3		17	SP-SM

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			43.069	28.780	20.166	3.649	0.624	0.215	2.15	133.73
■			5.924	2.384	1.747	0.809	0.315	0.107	2.58	22.37
▲			20.553	4.043	2.344	0.874	0.246		2.57	54.95
◆			15.467	3.446	2.034	0.814	0.175		3.46	61.95

Remarks:

● ■ ▲ ◆

HARTCROWSER

Project: West Coast Self-Storage Facility
Location: Happy Valley, Oregon
Project No.: 19415-01

Particle-Size Analysis

Figure **B-2**
Sheet **1 of 1**

CLACKAMAS COUNTY

CLACKAMAS COUNTY DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
PLANNING AND ZONING DIVISION
150 Beavercreek Rd, Oregon City, OR 97045
Phone: (503) 742-4500, FAX: 503-742-4550

Pre Application Conference – 10/24/2018 @ 9:30

ZPAC0141-DR – Otty Self Storage

Name	Agency / Dept	Phone	E-mail
Anthony Riederer	Clackamas Co. DTD, Planning & Zoning Division (Design Review)	503-742-4528	ariederer@clackamas.us
Matt Lewis	CARDNO	503 419-2500	matt.lewis@cardno.com
HAMID AFGHAN	AAI ENGINEERING	503-620-3030	hamida@aaieng.com
JIM FITZPATRICK	WEST COAST SELF-STORAGE	818-749-8844	JFITZPATRICK@WCSELFSTORAGE.com
Will Godwin-Austen	Northwest Building LLC	206-652-8714	willg@nwbld.com
Robin Murphy	DMA	206 324 4800	robin.murphy@jacksonmain.com
Kenneth Kent	County Engineering	503-742-4673	kenken@co.clackamas.or.us
Erik Carr	WES	503 742 4571	ECARR@CLACKAMAS.US
Wendi Coynell	DTD Engineering Streetlight - TSDC PSDC	503-742-4657	wendicoc@clackamas.us

DESIGN REVIEW PRE-APPLICATION CONFERENCE

ZPAC00141-18

CLACKAMAS COUNTY DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
LAND USE & ENVIRONMENTAL PLANNING DIVISION
Development Service Building, 150 Beavercreek Road, Oregon City OR 97045
Phone: (503) 742-4500 Fax: (503) 742-4550

LOCATION: Room 209, Planning, DSB

DATE & TIME: October 24, 2018, 10:30 a.m.

STAFF CONTACT: Anthony Riederer, AICP - Phone: (503) 742-4528 - E-mail: ariederer@clackamas.us

APPLICANT: Leonardo Maldonato, of behalf of West Coast Storage

LEGAL DESCRIPTION: 12E28CB 03000

SITE ADDRESS: 8319 SE Otty Rd., Clackamas, Oregon

TOTAL AREA INVOLVED: Approximately 1.47 Acres

PRESENT ZONING: CC, Corridor Commercial

PROPOSAL: Conversion of an existing one-story building into a two-story self-storage building along with the construction of a new three-story, building of approximately 45,000 square feet.

APPLICABLE AGENCIES & STAFF:

1. County Planning: Anthony Riederer, (503) 742-4528 - ariederer@clackamas.us
2. County Engineering: Ken Kent, (503) 742-4673 – kenken@clackamas.us
3. County Building: Richard Carlson, (503)742-4769, richardcar@clackamas.us
4. Clackamas County Fire: Matt Amos, matt.amos@clackamasfire.com
5. WES CCSD #1: Eric Carr, (503) 742-4571, ecarr@clackamas.us
6. Clackamas River Water: Betty Johnson, (503) 723-2571, bjohnson@crwater.com
7. SDC charges: Wendi Coryell, (503) 742-4657, wendicor@co.clackmas.or.us
8. County Sustainability: Rick Winterhalter, (503) 742-4466, rickw@clackamas.us

1. ZDO Section 510 (Corridor Commercial)

Proposed use (Services, Commercial - Mini-Storage/Self Storage Facilities) is permitted in the CC zone.

Dimensional Standards:

Setbacks:

- Minimum Lot Size: None
- Maximum Front: 20 Feet
- Minimum Front: 15 feet
- Minimum Rear: 0 feet, unless abuts residential zoning district, then 15 feet plus one foot per foot of building height over 35 feet.
- Minimum Side: 0 feet unless abuts residential zoning district, then 15 feet plus one foot per foot of building height over 35 feet.
- Building Height: No maximum

3. ZDO Section 1005 - Sustainability and Site Design

1005.03: General Site Design Standards

Cluster and modulate building masses to generate efficient site design and sharing of infrastructure, per 1005.03(A).

Where feasible, site buildings such that longest elevations are oriented within 20 degrees of true south, per 1005.03(B).

Provide on-site walkway that meets the standards of 1005.03(D).

Locate buildings such that a minimum of 50 % of the street frontage has buildings located at the minimum front yard depth, per 1005.03(E).

1005.04: Building Design

Design all facades visible from a public or private street such that they comply with the design standards of 1005.04(A and E).

Please specifically note the following:

1005.04(E)(1): Use architectural style, concepts, colors, materials and other features that are compatible with the neighborhood's intended visual identity.

1005.04(E)(3): Walls shall be surfaced with brick, tile, masonry, stucco, stone or synthetic equivalent, pre-cast masonry, gypsum reinforced fiber concrete, wood lap siding, architecturally treated concrete, glass, wood, or a combination of these or other high-image materials.

Design public building entrances such that they are defined, highly visible, and sheltered by an overhang of at least 4 feet, to comply with the standards of 1005.04(B). These public entrances shall be open to the public during all business hours.

Design of roofline shall be defined by cornice or other architectural treatment to provide visual interest, as per 1005.4(D).

Incorporate design elements to increase safety and surveillance as per the standards in 1005.04(G).

Design site and building to address solar access requirements provided per 1005.04(H).

Locate and design mechanical equipment so that it is screened as per the standards provided in 1005.04(J).

Modification of any of the standards of 1005.03 and 1005.04 may be approved as part of the design review if the proposed modification will result in a development that achieves the purpose stated in 1005.01 **as well or better than** the standard being modified.

1005.05: Outdoor Lighting

Design outdoor lighting to comply with the standards in 1005.05(A).

1005.06: Additional Requirements

Meet at least one (5) of the additional requirements listed in 1005.06.

1005.08: Clackamas Regional Center Area Design Standards

This site is in the Clackamas Regional Center Area, and these additional standards related to urban design elements, parking, the treatment of corner properties, setbacks, private streets, and the placement of new development take precedence over any conflicting standards in Section 1000.

1005.10: Fuller Road Station Community Dimensional/Design Standards

The entire site is subject to these standards which take precedence over any conflicting provisions in section 1000. Note that the subject site is not in either Sector 1 or 2, as indicated on Map 1005-1, and so the criteria apply in full.

Both of the site's frontages are classified as "B Streets" by Map 1005-1, and so the allowable building frontage types are Linear, Forecourt, and Porch/Stoop/Terrace.

4. ZDO Section 1006 - Utility Lines & Facilities

Location, design, installation, and maintenance of utility lines and facilities shall be carried out with minimum feasible disturbance of soil/site and consistent with rules/regulations of districts for surface water management, per 1006.01(A).

New electric, gas, communications services shall be installed pursuant to the requirements of the district/company serving the development and installed underground, unless prohibited by utility district or company, per 1006.01(B).

Easements shall be provided along property lines as deemed necessary by the Department of Transportation and Development, special districts, and utility companies, as per 1006.01(D).

Development that has need for, or will be provided with, public or community water shall install water service facilities and grand necessary easements pursuant to the requirements of the district or company serving the development, per 1006.01(E).

Approval of a development that requires public or community water service shall be granted only if the applicant provides a preliminary statement of sufficiency from the water system provider, as per 1006.01(F).

Storm drainage to be reviewed by Water Environment Services. A statement of feasibility is required with your application.

5. ZDO Section 1007 & 1015 - Roads, Circulation & Parking

Circulation and parking to be reviewed by Clackamas County Engineering.

Vehicle access to site is proposed from both Fuller and Otty Roads.

This use is not specifically listed in Table 1015-1 and so the most similar use will govern. In this case, "Warehouse and Storage Distribution, and Terminals" is the most similar use. For a project over 50,000 square feet, developers required to provide 0.2 spaces per 1000 square feet.

Parking shall meet the standards of 1015.02 as appropriate per the project design.

Storage is considered a warehouse/industrial use. One bicycle parking space required for each 10,000 and subject to additional design standards of 1015.03.

Warehousing and Storage projects which have between 64,001 96,000 square feet require four (4) loading berths, Per Table 1015-3.

6. ZDO Section 1009 - Landscaping

The landscape design shall fully address the general provisions as provided per 1009.01.

The application shall demonstrate that the site currently meets or exceeds the 10%

minimum landscaped area requirement as provided per Table 1009-1.

This area shall not include landscaping in adjacent rights-of-way.

The requirements of landscaping, screening and buffering, landscape strips, and outdoor recreation areas set in 1009 apply regardless of whether those areas exceed 10% of the site area.

The application shall demonstrate that the site either meets or is legally non-conforming with regard to the surface parking and loading area landscaping requirements of 1009.03.

Required screening and buffering shall be demonstrated to comply with the requirements of 1009.04.

The application shall demonstrate that the site complies or is legally noncomplying with the landscaping strip requirements of 1009.06.

Graded areas shall be revegetated to ensure erosion control, per 1009.09.

Any new plantings shall be selected, installed, and maintained per the standards of 1009.10.

7. ZDO Section 1010 - Signs

All signs must meet standards of ZDO Subsection 1010.06 (Commercial Signs in Commercial Districts), where applicable.

8. ZDO Section 1021 - Refuse and Recycling Standards

Please indicate location and dimensions and design of recycling and solid waste areas on plans and include site plans and elevation drawings which demonstrate compliance with the pertinent standards listed in ZDO Section 1021.

These include general design standards, the design of enclosures, gates, and receptacles, vehicle access, and requirements for the placement of signs.

For information on hauling and capacity requirements, please contact Rick Winterhaulcr of Clackamas County's Sustainability and Solid Waste program and Waste Management, the local trash/recycling hauler.

Minimum Completeness Checklist for Design Review Applications

1. Pre-application conference held
    a. Include handout materials provided
2. Project narrative
    a. Narrative must indicate how proposed design meets all applicable ordinance standards
3. Required Statement(s) of Feasibility
4. Site plan information that illustrates the following:
    a. Property and surrounding area (and uses) at reasonable scale.
    b. Boundary lines and dimensions of property.
    c. At least one temporary benchmark.
    d. Natural features.
    e. Location, dimensions of all streets, etc.
    f. Location, dimensions of existing structures.
    g. Approximate location and size of storm water facilities.
    h. Relation to transit.
    i. Parking areas, showing number and dimension of spaces and maneuverability.
    j. New structures: footprints and building setbacks
    k. Orientation of buildings (eg, entrances, etc.)
    l. Site lighting plan
    m. Loading areas, maneuverability
    n. Waste/recycling areas, containers
5. Grading plan, if earthwork is proposed.
6. Landscape Plan
7. Architectural Elevations
8. Building Material / Colors Samples
9. Signage plan, if any proposed

Processing Time

Upon receipt of a complete application, processing time will take approximately 8-10 weeks.

WATER ENVIRONMENT SERVICES

Water Quality Protection
Surface Water Management
Wastewater Collection & Treatment

Gregory L. Geist
Director

PRE-APPLICATION MEMO

TO: **Anthony Riederer** / Planning Division

FROM: **Erik Carr** / Water Environment Services (ecarr@clackamas.us, 503-742-4571)

DATE: October 24, 2018

SUBJECT: ZPAC0141-18, West Coast Self-Storage

Location: 8319 SE OTTY RD
Map/Tax Lot: 12E28CB03000
WES Log #: WES302-18

Water Environment Services ("WES/District"), a department of Clackamas County and the service administrator for Clackamas County Service District No. 1 (CCSD#1), offers the following comments:

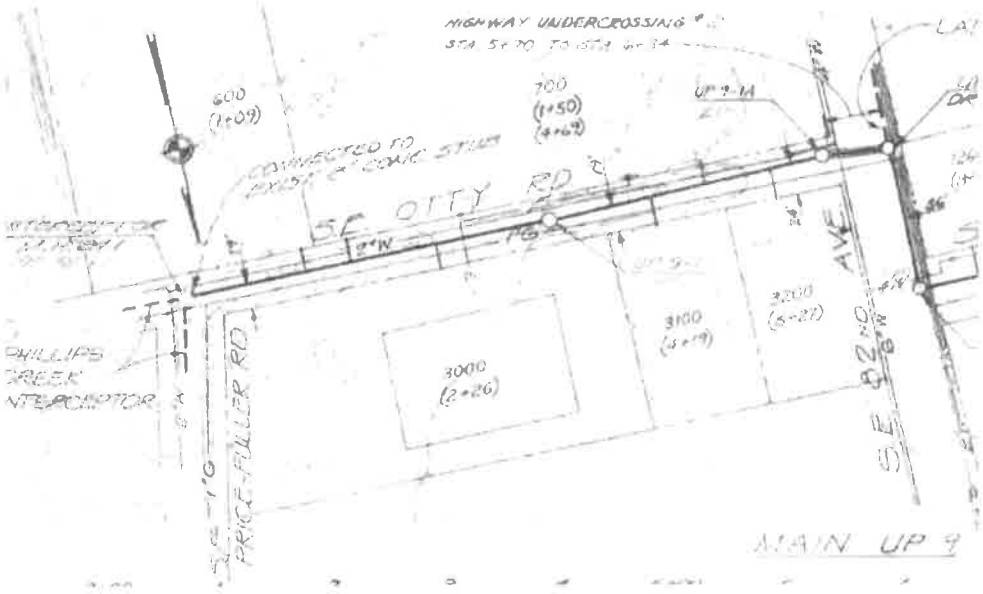
General Comments:

1) The proposed development is located within the service area of Water Environment Services and shall be subject to WES Rules and Regulations, and Standards ("RR&S/Rules") for sanitary sewer services and surface water management, including natural resource and erosion control requirements. The applicant shall procure the necessary plans approvals and permits in accordance with WES RR&S.
2) Information related to engineering services, plans, and specifications can be found in the WES Regulations and adopted Sanitary Sewer and Stormwater Standards, available on the WES website.
3) **WES anticipates an update to the RR&S, effective July 2019. The applicant shall comply with the RR&S in effect at the time of the land use application submittal.**
4) Any requests to modify the Sanitary or Stormwater Standards should be made prior to land use approval, in accordance with *Stormwater Standards, Section 1.6*. The applicant shall provide the necessary information for WES to evaluate prior to the issuance of the conditions of approval.
5) Sanitary and stormwater management plans and calculations stall be stamped and signed by a civil engineer licensed by the State of Oregon. All submittals shall be reviewed and approved by WES. The construction, specifications, and testing must be completed under the direction of the engineer. *(Rules, Section 12.3)*
6) A private plumbing permit through the County's Building Division is required for all private sanitary/storm improvements.
7) The proposed development shall be subject to applicable fees and charges, in accordance with WES RR&S. All fees and charges shall be paid before building permits will be issued, and are subject to change without notice to the applicant(s). Current rates are posted on the WES website. All costs associated with the design,

construction and testing of the sanitary sewer or storm system, including onsite and offsite improvements and easements shall be provided by, and at the sole expense of the applicant/developer/property owner(s).

Sanitary:

8) WES has adequate capacity for sanitary sewer collection and treatment to serve this property.
9) If the development is to remain as a single lot, the new building will connect to public sewer via the existing sewer connection. Plumbing code shall determine the size of connection required for this development. If the property is to be partitioned, a new service connection will be required to service the new lot.
    a. Public sewer mainlines are located in SE Otty and SE Fuller Rd. The existing 4" connection is located in SE Otty Rd.
10) The applicant shall provide an estimate of the development's wastewater discharge (load/volume) to the public sewer system. A Non-Residential Questionnaire (available on the WES website) is due with the first plan submittal.
11) Procedures shall be in place that prevent the discharge of any pollutant, substances, or wastewater that will interfere with the operation or performance of the public sewer system.
12) A Collection Sewer Charge (CSC) shall not apply.
13) Plan review fees for the sanitary system shall apply. A $400.00 minimum plan review fee shall be paid with the first plan submittal.
14) A recalculation of Sanitary System Development Charges may apply per WES rules/rates at the time of building permit application, currently $7,615.00 per EDU. A 6.76 EDU credit will apply for previously paid SDC's.
    a. Self Storage: 1 EDU per office unit
    b. Other Commercial: The lesser of a) 1 EDU per 1,900 sf of interior floor space OR b) 1 EDU per ¼ acre, but not less than 50% of a) or b).



Stormwater Management:

15) All development that creates or modifies 5,000 square feet or more of impervious surface area shall be subject to WES Stormwater Standards. *(SW Standards, Section 5)*

16) The applicant's engineer shall submit a Surface Water Management Plan, including all documentation that demonstrates how the development will conform to WES Standards. The plan shall provide an adequate drainage system for all onsite water and all water entering the property from off-site, as well as all road frontage improvements. *(SW Standards, Section 5.1.1)*

   a. **Water Quality Standard** *(SW Standards, Section 5.2)* – Water quality facilities shall be designed to capture and treat the first 1-inch of stormwater runoff from a 24-hour storm event using either vegetation (Appendix H) or a Basic Treatment proprietary device (Appendix F).

   b. **Infiltration/Retention Standard** *(SW Standards, Section 5.3)* – An approved infiltration facility shall be sized to infiltrate all runoff from the ½", 24-hour storm event within 96 hours.

      i. If infiltration is not feasible, the design engineer shall submit a modification request in accordance with Stormwater Standards, Section 1.6. The request shall include an equivalent alternative design that can accomplish the same design intent of these standards, which is to reduce both the discharge rate and runoff volume. Retention options include:

         1. BMP Tool: WES, in cooperation with other local jurisdictions, has developed a BMP Sizing Tool. The tool sizes facilities so that post-development peak flow durations will match the pre-development peak flow durations ranging from 42% of the 2-year to the 10-year flows, as determined by HSPF continuous rainfall model simulation.
         2. Engineer's Model: The project engineer can develop and submit a continuous rainfall runoff model simulation, so that post-development peak flow durations will match the pre-development peak flow durations ranging from 42% of the 2-year to the 10-year flows as determined by the continuous model simulation.
         3. Flow Control and Retention Standard: Meet the Detention/Flow Control Standard and retain the first ½" of runoff in a 24-hour period onsite within an approved SW facility. Any storage of the infiltration/retention volume within a vegetative facility shall not exceed 6-inches in height above the vegetation.

   c. **Detention/Flow Control Standard for Areas with Limited Downstream Capacity** *(SW Standards, Section 5.4.4.3)* – Additional flow control requirements are necessary in areas with limited downstream capacity that cannot be upgraded, and are in addition to all other water quality and infiltration requirements. Within these designated basins (see maps in Appendix G), onsite detention facilities shall be designed to reduce the 25-year post-developed runoff rate to a 2-year pre-developed discharge rate, AND, from the 2-year post-developed runoff rate to ½ of the 2-year pre-developed discharge rate.

   d. **Conveyance Standards** *(SW Standards, Section 5.4)* –

      i. The conveyance system shall be sized for a minimum 25-year storm event.

ii. Provide an overflow pathway system that will prevent damage to downstream properties in the event of any stormwater facility failure or bypass. The pathway must be clearly identified on the final grading plan. *(SW Standards, Section 1.2)*

17) All development or redevelopment shall provide an acceptable point of discharge (via piped system, curb and gutter, or open channel) and adequate conveyance of stormwater runoff, as approved by WES. *(SW Standards, Section 3)*

18) The SWM Plan shall include the following supporting documentation:

    a. **Downstream Analysis** (*SW Standards, Section 5.4.4.4)* – An analysis of the upstream drainage area and downstream receiving system to ensure adequate conveyance capacity and no adverse impacts to downstream properties. WES may modify this condition if requirements for 25-year onsite retention and emergency overflow can be met.

    b. **Geotechnical Report** *(SW Standards, Section 5.3)* – A geotech report will be required; the infiltration tests must correspond to the location and depth of all proposed stormwater facilities, in accordance with *SW Standards, Appendix E*.

19) If discharge to an existing system is proposed, the applicant must verify that the existing system is functioning as designed and can safely accommodate the additional discharge. Stormwater facilities maintenance records, which verify the existing stormwater system is functioning and maintained as designed, shall be submitted to WES for review prior to final plan approval.

20) Subsurface facilities shall provide a 3-foot minimum vertical separation from the maximum seasonal groundwater elevation. *(SW Standards, Appendix H)*

21) Per *Section 12.10* of WES RR&S, property owners shall annually inspect and maintain all stormwater management systems and submit annual reports to WES. A 'Private Storm Drainage Facilities Maintenance Plan' (available on website) shall be submitted to WES prior to final plan approval.

22) Plan review fees for the stormwater system shall apply (equal to 4% of the installed cost of any surface water management system). A minimum $400.00 plan review fee shall be paid with first plan submittal.

23) Surface Water System Development Charges (SDC's) shall apply for any additional impervious area, per WES rules and rates at the time of building permit application. The current rate is $205 per 2,500 sqft of impervious surface.

Water Quality Resource Areas & Vegetated Buffers:

24) Undisturbed vegetated buffers shall be required on all developments that are bounded by or contain water quality sensitive areas, including wetlands, creeks, and springs. In this instance, due to the extent of previous development, a Sensitive Area Certification will not be required. *(SW Standards, Section 4)*

Erosion Control:

25) All construction sites, regardless of size, shall implement proper erosion prevention and sediment control measures. No grading or construction activity shall commence without an approved erosion control plan/permit. A permit fee shall apply in the amount of $460.00 and is due with first plan submittal. *(SW Standards, Section 6)*

Preliminary Statement of Feasibility (required for Land Use Application):

26) County Planning requires the applicant to submit a signed Preliminary Statement of Feasibility from WES with the land use application. Before WES will provide this document, the applicant shall provide preliminary plans that sufficiently demonstrate the proposed development can conform to WES Standards, including:
    a. One (1) set of preliminary plans for all sanitary and stormwater improvements, presented at an scale appropriate to review the information, including contours, all existing and proposed impervious surface areas (including gravel), and all proposed stormwater facilities.
    b. One (1) preliminary storm report, including infiltration test results and downstream analysis.

27) Receipt of the signed Preliminary Statement of Feasibility does not automatically suggest that the WES requirements can be met. Upon land use approval, all final plans, reports, and forms required by WES RR&S for stormwater management and/or connections to the public sanitary sewer system shall be submitted to WES for review and approval.

Commercial Application and Building Permit Fees (ESTIMATE)	
Fee Descriptions	Estimated Fees*
Sanitary Sewer Plan Review • *$400 due with first plan submittal*	$ 400.00
Surface Water Management Plan Review • *$400 due with first plan submittal*	$ 400.00
Sanitary System Development Charge (SDC) • *$7,615.00 per EDU*	$ TBD
Surface Water System Development Charge (SDC) • *Current rate: $205 per ESU (2,500 sq ft of impervious area surface)*	$ TBD
Erosion Control Permit • *$460 plus $80/acre over 1-acre; due with plan approval*	$ 460.00
Minimum ESTIMATED Fees =	**$ TBD**
**All fees must be paid prior to approval of the building permit(s).*	

PRE-APPLICATION INFORMATION FROM TRAFFIC ENGINEERING AND DEVELOPMENT REVIEW

All information is considered informal, based on current Zoning and Development Ordinance requirements, current Roadway Standards requirements, and current Comprehensive Plan requirements. The information presented here is subject to change as revisions are made to the aforementioned documents and in the formal Design Review Process. Prior to the submittal of a Design Review application, the applicant is encouraged to contact staff to insure that these preapplication comments reflect the current standards.

PROJECT: Self Storage and Retail, SE Otty Road and SE Fuller Road

LEGAL: 12E28CB03000

DATE: October 24, 2018

Engineering staff: Kenneth Kent 503-742-4773
kenken@co.clackamas.or.us

SECTION 1 – COMMENTS AND REQUIREMENTS

1) Applicant shall obtain a **Development Permit** from the County Engineering Section prior to the issuance of a Building Permit. The applicant shall pay the minimum Permit fee deposit ($1,600) for commercial/industrial/multi-family development. The plan review and inspection fee is based upon 8.83 percent of the estimated public street frontage and drainage improvement costs, plus 5 percent of the onsite transportation improvements. Issuance of a Development Permit is dependent upon the formal approval, by Engineering staff, of a set of plans in compliance with Roadway Standards section 130. These plans shall also illustrate road or street frontage features, including any existing and proposed pavement striping for a distance of 200 feet beyond the limits of the property lines, and the plans shall be signed and stamped by a Professional Engineer registered in the State of Oregon.

2) **Right-of-way Dedication** – The project site is located within the Fuller Road Station Community, as identified in the Comprehensive Plane. A special street section has been adopted for both SE Otty Road and SE Fuller Road. Figure X-CRC-8 calls for an ultimate 96-foot wide right-of-way. It appears an 18-foot wide right-of-way dedication will be required on the SE Fuller Road frontage, and a variable width dedication on the SE Otty Road frontage, with a maximum of 28 feet at the east end, tapering to the existing right-of-way near the existing building.

3) Applicant shall design and construct improvements along the entire site frontage of SE Otty Road and SE Fuller Road per Street Type "B" of the Fuller Road Station Community, Clackamas Regional Center Area Design Plan (Figure X-CRC-8). These improvements shall consist of:

   a) Up to a one half-street improvement, approximately 36 feet from right-of-way centerline. On the SE Otty Road frontage curb line can be retained, unless the applicant would prefer creation of on-street parking. The curb return and signal pole will not be modified. On SE Fuller Road. The 36-foot half street will begin after the curb return.

   b) Standard curb or curb and gutter, drainage facilities in conformance with Water Environment Services requirements, *ZDO* section 1008, and *Clackamas County Roadway Standards* Chapter 5.

   c) 12-foot wide sidewalk/Plant area (tree wells). On the SE Otty frontage, widen existing sidewalk from SE Fuller to existing building.

   d) SE Otty is a minor arterial with restricted access. Driveway entrance on SE Fuller frontage only: A minimum 28-foot wide driveway in conformance with *Clackamas County Roadway Standards* Drawing D675.

4) Applicant shall design and construct drainage facilities to serve the buildings, parking and maneuvering areas, adjacent street and the remainder of the site in conformance with Water Environment Services requirements, *ZDO* section 1008 and *Roadway Standards* Chapter 4.

5) Address possible multi-use path along creek.

6) Applicant shall design and construct a five-foot wide (minimum) unobstructed concrete walkway from the sidewalk to the public entrances of the on-site buildings.

7) Applicant shall provide adequate on site circulation for the parking and maneuvering of all vehicles anticipated to use the parking and maneuvering areas, including a minimum of 24 feet of back up maneuvering room for all 90-degree parking spaces. Loading spaces shall also be afforded adequate maneuvering room. The applicant shall show the paths traced by the extremities of the anticipated large vehicles (garbage and recycling trucks, fire apparatus, delivery trucks), including off-tracking, on the site plan to insure adequate turning radii are provided for the large vehicles maneuvering on site. An on site turnaround, which would meet the requirements of the local Fire District and allow fire apparatus to turn around on site, is required. All parking and maneuvering areas shall be paved.

8) Parking spaces shall meet minimum and maximum *ZDO* section 1015 requirements, both in number and dimensions. The plans shall list the number of parking spaces required and the number of parking spaces provided. The applicant shall label all compact, carpool, handicap, and loading berth spaces on the plans.

9) Applicant shall provide and maintain adequate intersection sight distance at the site driveway.

10) All curbs shall typically be type "C", or curb and gutter if curb line slope is less than one percent, if they carry, direct or channel surface water. Alternative curbs will be considered when it is determined by the Clackamas County Department of Transportation and Development that type "C" curbs or curb and gutter are not appropriate. Extruded curbs for carrying, directing or channeling surface water, or used as a vehicle wheel stop, shall not be allowed.

11) Applicant shall provide and implement a signing and pavement-marking plan for on-site parking and circulation. This plan shall be reviewed and approved by the Engineering section and the local Fire Marshal prior to the applicant being issued a Street Construction and Encroachment permit.

12) Prior to the issuance of a building permit the applicant shall submit to Clackamas County Engineering Office:

   a) Written approval from the Clackamas Fire District No. 1 for the planned access, circulation and water source supply.

   b) Written approval from Clackamas River Water District for adequate water supply to service the development.

   c) Written approval from Water Environment Services for surface water detention facilities and erosion control measures.

   d) A copy of the Water Environment Services approved Engineer's hydrology study, analyzing the difference between pre and post development discharge rates and mitigation of downstream impacts, along with the detention calculations.

   e)

SECTION 2 - ENGINEERING REVIEW PROCESS OVERVIEW

1) The development of a project has several phases requiring Engineering staff review. The first phase is this preapplication meeting where preliminary information is provided allowing applicants to better understand the Engineering requirements and applicant's expenses associated with a proposed project. Prior to a submittal for Design Review, Engineering staff is available to assist the applicant in the

development of the plans to help insure that the application is complete and note concerns that may affect the application.

2) The next phase is Engineering staff's review of a project. This is typically performed after a formal Design Review application is submitted by an applicant and Planning staff provides notice to Engineering staff of the proposed project. At this phase, Engineering staff provides written comments to Planning staff and often recommends conditions of approval for incorporation into a land use decision.

3) Following a land use approval of a proposal by Planning staff or a Hearings Officer, typically with conditions, Engineering staff offers an opportunity to applicants to meet with Engineering staff to review conditions of approval during the appeal period. This allows applicants a clearer understanding of the conditions of approval, how those conditions financially impact the applicant's proposal and also allows the applicant to better understand the appropriate level of detail for the engineering that will be necessary in the next phase of a project. Furthermore, the sequencing of requirements to obtain building permits, record plats or obtain a certificate of occupancy may be discussed. Contact Deana Mulder, 503-353-4710, to discuss the aforementioned issues.

4) Engineering is then involved in the next phase of the project. In this phase, applicants typically submit detailed engineered construction plans for review and approval. Once the plans are approved, a permit for construction activities may be issued. The detailed construction plans typically include all required street and frontage improvements, access improvements, parking improvements, and site circulation improvements for vehicles, bicycles and pedestrians. These plans are typically provided for all commercial, industrial, multifamily and conditional use applications.

5) During construction, an Engineering inspector will visit the site to monitor the work to help insure that the construction is in accordance with the conditions of approval. When the applicant believes all necessary work has been completed, the applicant would request a final inspection and Engineering staff would then review the file and inspect the site to determine if all conditions of approval had been met or if additional work was still needed to achieve compliance with all of the Engineering related conditions of approval.

6) <u>For the Design Review application</u>, the applicant shall provide revised, more detailed street, site, grading and drainage plans in conformance with the requirements for preliminary development plans. This shall include, but is not limited to right-of-way lines verified by a professional survey, edges of pavements, curbs, adjacent driveways and driveways on both sides of the roads, outlines of existing structures on adjacent lots and outlines of existing structures on lots on the opposite sides of the roadways. All illustrated features shall be dimensioned. See section 1102 of the *Clackamas County Zoning and Development Ordinance* for specific requirements. Submitted Plans shall be stamped "PRELIMINARY" or "NOT FOR CONSTRUCTION".

Clackamas River Water

Date:	October 16, 2018	**SENT VIA EMAIL**
To:	Jim Fitzpatrick West Coast Self-Storage 808 134th St SW, Bldg. B, Ste 211 Everett, WA 98204	
From:	Betty Johnson, Engineering Associate Clackamas River Water	
Subject:	Design Review Pre-Application Conference:	**File #ZPAC0141-18**
Site Address:	8319 SE Otty Rd, Happy Valley, 97086	
Legal Description:	12E28CB03000	

Comments:

1. **CRW currently has available the following infrastructure available within the public right-of-way to serve the site:**
   a. 12-inch ductile iron waterline located within SE Otty Rd;
   b. 10-inch ductile iron waterline located within SE Fuller Rd

2. **CRW currently is serving the site with the following service:**
   a. A 1-inch domestic meter on SE Otty Rd located near the southwest property corner.
   b. An 8-inch Fire Service on SE Otty Rd located near the southwest property corner.

3. **Water Distribution Design & Infrastructure Requirements:**
   a. CRW reserves the right to require a water main replacement if a development or redevelopment does not meet current water system standards or would demand more capacity for consumption or fire suppression than existing water mains could adequately supply. CRW shall have the sole authority for making the determination of existing mainline capacity and the demand for capacity to the development or redevelopment. The cost of any mainline replacement required to serve the development or redevelopment shall be borne entirely by the Applicant.
   b. The average system pressure range at the hydrant located at the intersection of SE Otty Rd and SE Fuller Rd is approximately 70-74psi.
   c. Any block walls or other fencing shall be designed and constructed around the outside of any easement(s), to allow the District direct access to vault(s) and inlet piping from the adjacent right-of-way.
   d. Water service solely for private fire protection purposes to a customer owned fire sprinkler system are classified as a fire service connection (restricted water use).
      i. Fire services shall be installed where required and shall be provided by, owned, maintained, and tested by the customer. All fire services shall be metered and protected from backflow.

4. **Service Connection and System Development Charges:**
   a. Per Section 8 of the CRW's Rules and Regulations the following will be required when the Clackamas County Development Permit is issued for the parcel or per ZDO1006.05.F:

i. *"Each dwelling or building will be provided with its own water service connection and meter ..."* This means that the proposed building will have its own domestic and or fire service connection from the existing waterline within SE Otty Rd or SE Fuller Rd.
ii. Domestic service will require review and approval of Clackamas River Water to ensure adequate sizing based on site demand in accordance with applicable rules and regulations.

b. The System Development Charges (SDC) is based on the domestic average, peak and irrigation demands for your facilities. SDC credit will be given for the existing domestic meter(s) unless utilized as an irrigation meter.
i. The current SDC will be collected when a Building Permit from Clackamas County has been issued and a CRW Water Service Application has been requested by the owner/builder. 2018-2019 Water Rate, Connection & System Development Charges are attached for reference.

c. Adequate backflow devices are at the property line in accordance with Oregon Administrative Rules 333.061. Ownership and maintenance will remain the property owner's responsibility.

d. The Customer shall pay for the abandonment of the existing water service connection if deemed no longer necessary to serve the property.

5. **District Approvals:**
a. All water infrastructure shall meet the standards of the Clackamas River Water and be reviewed and approved by the Clackamas River Water (Engineering Department) prior to issuance of a Clackamas County Development Permit.
b. Professionally engineered waterline plans reviewed and approved by Clackamas River Water.
c. The Developer will be required to pay a time and materials deposit to the District for a Plan Check and Inspection fee prior to review any construction plans. Any unused portion will be reimbursed or if any monies are due the developer will be billed.
d. Upon construction plan review there may be additional requirements as set forth by the Water District.

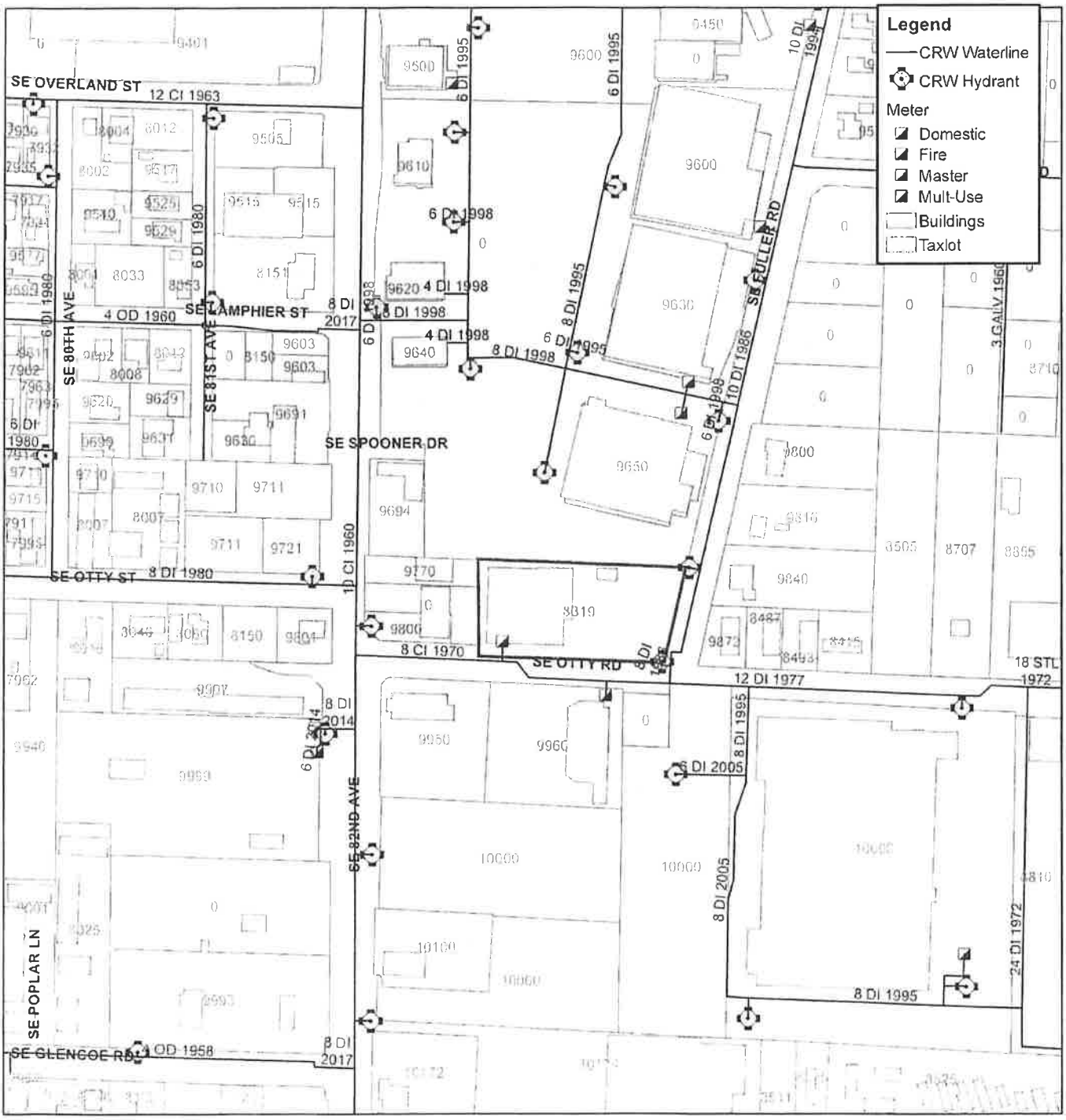
2. **Clackamas County Development Permit:**
a. It will be the developer's responsibility to acquire any necessary easements for water facilities that shall be provided and designated on the final plat, as deemed necessary by the Water District. These easements must have functional access to public right of way and be properly recorded.
b. Fire and domestic water services as approved with this land use application, are intended specifically for the lot and are not intended to serve additional parcels or structures which may be created in the future. In the event that the parcels and/or lots are further divided to create additional parcels or lots, the owner is required to provide separate fire and domestic water services per CRW's "Rules and Regulations".
c. Future fire related improvements will require review and approval of Clackamas County Fire District #1 to ensure proper fire coverage and fire service connection installation in accordance with applicable regulations along with the appropriate backflow prevention assembly and flow detector.

CRW has no objections to this application, however these comments are introductory and may change based on the preliminary/final design.

For further information regarding application please contact Betty Johnson, 503 723 2571.

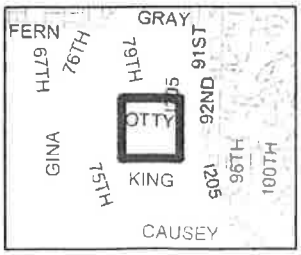
cc: Clackamas Fire
Applicant
file

Clackamas River Water - 8319 SE Otty Rd



Date October 23, 2018
Drawing Name GIS-Development(9-25-18)
Drawing Location I:\Documentation\Facility Data
Drawing By B Johnson

MAP FOR REFERENCE PURPOSES ONLY
The information on this map is derived from Clackamas River Water's digital database However, there may be map errors or omissions Please contact Clackamas River Water directly to verify map information Notification of any errors is appreciated



0 125 250 500
Feet

Clackamas River Water

CLACKAMAS RIVER WATER
GEOGRAPHIC INFORMATION SYSTEM

Clackamas River Water Attachment A

Water Rate, Connection & System Development Charges Table

Bi-Monthly Service Charges for All Direct Service Customers (Effective Dates Below Table)						
Meter Size (Inches)	Domestic Service Charge	Fire Service Charge	Connection Fee Pre-Run/Install	SDC Reimburse-ment	SDC Improve-ment	Total SDC Charges
Full 3/4	49.76	52.08	500 or TMO	2,325	2,884	5,209
1	68.46	52.08	600 or TMO	3,874	4,808	8,682
1 1/2	97.82	62.30		7,747	9,616	17,363
2	131.41	74.22		12,395	15,386	27,781
3	210.92	105.51				
4	324.47	168.15				
6	608.12	293.44	a		b	
8	1,374.47	419.03				
10	2,162.27	669.90				
12	2,612.44	826.51				
Effective:	5/1/2018	5/1/2018	7/1/2018		7/1/2018	
	ORD 01-2018		ORD 01-2018		ORD 01-2018	

a Calculated to cover time, material and overhead. Pre-run refers to service lines installed by developer during subdivision construction as opposed to CRW constructed.

b Calculated based upon anticipated water demand as compared to equivalent residential units (3/4"). The amounts shown for 1 1/2 & 2" are minimum charges.

TMO is Time, Materials, and Overhead to connect to distribution system.

Commodity Charge for Direct Service Customers Per 100 Cubic Feet
(Effective 5/1/2017 Ord 01-2016)

Bi-Month Billing

Single Family Dwelling (3/4 or 1"):

	Volume	Rate
Block 1	1 - 4	$2.12
Block 2	5 - 8	$2.36
Block 3	9 - 24	$2.81
Block 4	25 & up	$3.58
Leak Relief Rate		$1.50

Multi-family, Commercial & Industrial (all sizes & billings):

	Volume	Rate
Block 1	**c**	$2.61
Block 2	**d**	$3.25

c Volume up to 1.5 times average winter consumption.

d Volume above 1.5 times average winter consumption.

Average Winter Consumption: Total consumption (volume) recorded on a customer's December and February or January and March bills, divided by two for bi-monthly billing.

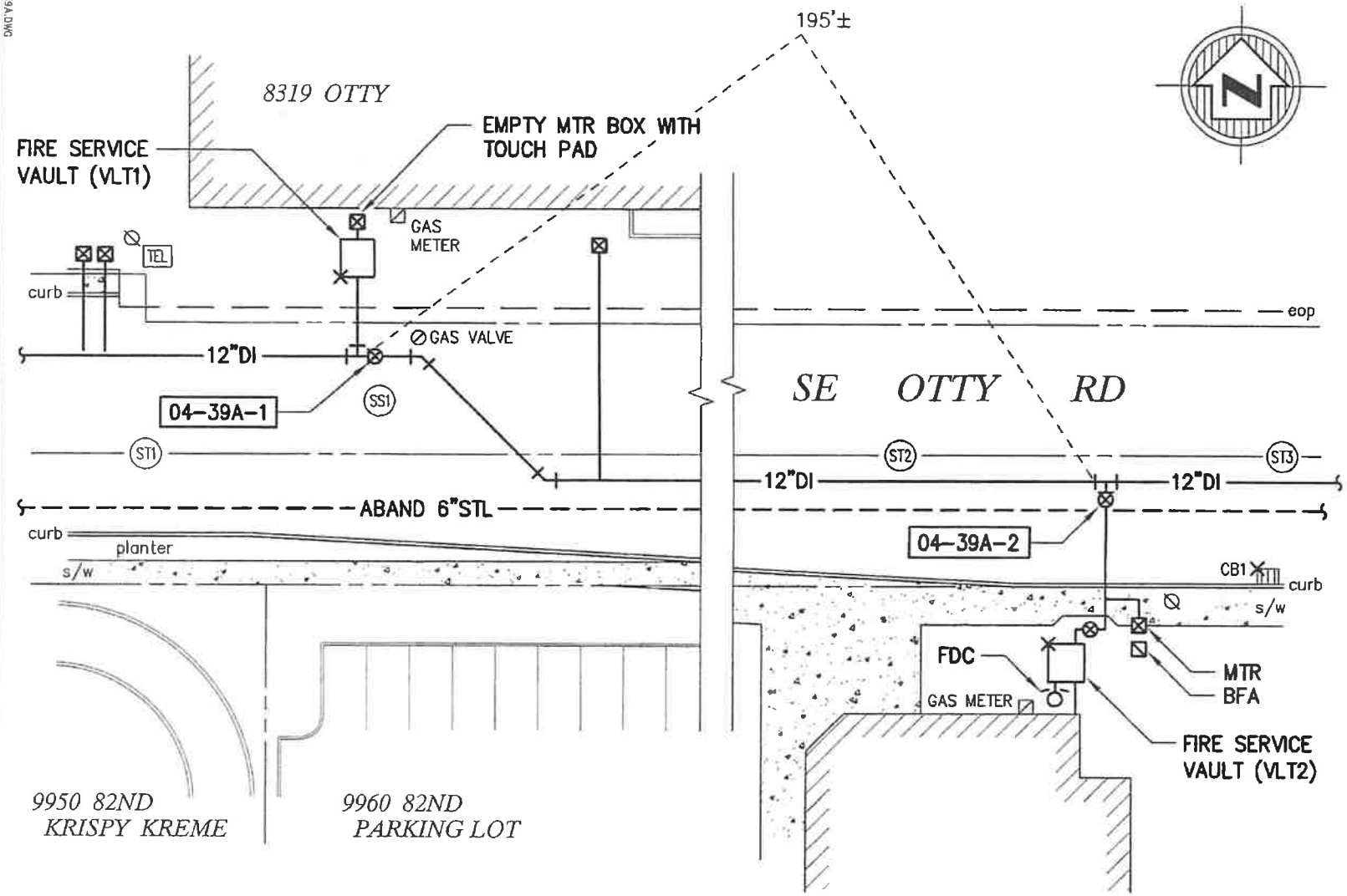
Clackamas River Water

BY	REVISION

SE OTTY RD @ 8319 OTTY

SCALE N.T.S.	DRN BY MJG	DATE APR 2013
DRAWING NO. 04-39A		REV.

04-39A.DWG



VALVE	VLT1	SS1	CB1	VLT2	T.O.N.	TURNS
04-39A-1	15'	13'9"				
04-39A-2			40'3"	31'	23"	

JUL 18 2019

Clackamas County
Planning & Zoning Division

July 17, 2019

RE: File Number Z0229-19-D

To Clackamas County,

The following is in response to the Notice of Incomplete Application Dated 05-31-2019 and received June 3rd. Then each comment below includes statements by the Authority Having Jurisdiction (AHJ) and the design team's response from Larz Hitchcock of Jackson Main Architecture (LH/JMA) or Matt Lewis of Cardno Engineers (ML/ CE). For ease of reference Comments are grayed and responses are in black.

MISSING INFORMATION REQUIRED FOR A COMPLETE APPLICATION:

After reviewing the materials submitted in support of this Design Review application, the following elements appear to be absent from the application. These items are drawn directly from ZDO Section 1102.02 "Submittal Requirements" which outlines the required elements for a Design Review application to be complete.

1) A site plan which includes the following:

   a. Location and type of lighting [1102.02(H)(10)]

      LH/ JMA – Lighting is shown on Sheet A1.01 the site plan Legend on the right side indicates both Wall Sconces and Soffit Downlights are both to be LED. (Location & Type indicated)

   b. Service areas for waste disposal, recycling, loading, and delivery [1102.02(H)(11)]

      LH/ JMA – The Storage Room at the intersection of gridlines L&6 will be the room used for trash.

   c. Pedestrian amenities [1102.02(H)(14)]

      LH/ JMA – Pedestrian Amenities include: Awnings along the sidewalks, Convenient Bicycle Parking from both Pedestrian Entry points and Shade Trees along Fuller road.

      ML/ CE – Additionally pedestrian level site circulation with designated sidewalks protected from vehicular traffic with raised curbs.

2) Architectural drawings, including:

   a. Elevations of signs, with dimensioning [1102.02(J)(5)]

      LH/ JMA – Signage drawings showing dimensions are attached.

3) A general landscaping plan drawn at a scale of not less than 1-inch equals 50 feet showing the site plan elements as well as

   i. Description of soil conditions [1102.02(K)(2)]

      ML/ CE – Based on the Geotechnical Report in Exhibit H, the near surface soils at the site are identified as Multnomah silt loam. Additional planting notes have been added to the Planting Plan on Sheet L1.0, with specific topsoil notes identifying amended soil types.

   ii. Erosion controls, including plant materials and soil stablilication ([1102.02(K)(3)]

      ML/ CE – Additional planting notes have been added to the Grading Plan on Sheet C3.0, and includes erosion control methodology and features, such as inlet protection, perimeter

sediment barriers, and a construction entrance. County staff has confirmed that erosion control elements on the grading plan will be sufficient. A detailed erosion control plan will be provided with construction documents.

iii. Irrigation system [1102.02(K)(4)]

ML/ CE: Note #3/L1.0 under General Landscape Notes indicates *"All new landscape areas to be irrigated with fully automated underground irrigation system and controlled by weather and/or soil moisture sensing technology."* A complete irrigation design will be provided with the construction document plan submittal.

4) A transportation improvement plan that includes proposed cross-sections for roads to be constructed or improved, including widths of travel lanes, bikeways, sidewalks, curbs, pedestrian pathways, and landscape strips.

Identify proposed landscape plan for landscape strips, including street tree type, size and location. Identify proposed dedication of right-of-way. [1102.02(L)]

ML/ CE – A transportation improvement plan is provided by way of Sheets C2.0 and L1.0. The Fuller Road cross-section is provided on sheet C2.0. The cross-section for the proposed Otty Road improvements vary along the frontage, therefore, only plan view details have been provided for Otty Road. The cross-section for Fuller Road has been enhanced to show full right of way. Typical tree and landscape strip locations are referenced to the Planting Plan (Sheet L1.0) for tree type and size. Street trees have not been proposed for Otty Road due to the presence of an underground fiber optic utility line in conflict with the typical tree location. Further, per Linear Frontage requirements for awnings and 0' building setback, the applicant does not find another suitable location for street trees along Otty Road.

Please keep in mind that, though the items listed in ZDO section 1102.02 are necessary for an application to meet the minimum requirements to be deemed 'complete', the onus is on the applicant to provide sufficient evidence that staff can make defensible findings on all pertinent ZDO criteria. As such, staff may seek further information through the review process.

ADDITIONAL ADVISORY INFORMATION

The following are NOT completeness items but are offered to the applicant as areas, identified through this preliminary completeness review, which staff recommends be considered for revision relative to ZDO criteria. This is a preliminary review and it is possible that additional items will be identified as the review process moves forward.

Generally: It appears that a number of the plan sheets referenced in the narrative are missing from the set of submitted drawings.

ML/ CE – Cardno has revised the narrative to correct references within the narrative.

1005.04(D): Consider revising roofline/cornice to create more visual interest along the top of the building.

LH/ JMA – We are applying an additional color at tower elements to "liven" them up.

1005.04(E): Though the façade materials have been indicated in rendering and narrative form, metal is used as a primary exterior building material.

Per 1005.04(E)(4), "Notwithstanding Subsection 1005.04(E)(3) metal may be approved as an exterior building material through design review pursuant to Section 1102 for specific high-image surfaces, canopies, awnings, doors, screening of roof mounted fixtures, or other architectural features." (emphasis added).

LH/ JMA – As the city does not want high end metal panels, for compliance we are now revising all metal panels to cementitious siding.

1005.05: Though some outdoor lighting is plain in the indicated drawings, the placement and nature of the described wall sconces is not clear.

LH/ JMA – Lighting is shown on Sheet A1.01 the site plan Legend on the right side indicates both Wall Sconces and Soffit Downlights are both to be LED. In addition, per the narrative all the exterior window "boxes" shall lit. See A4.04 Night-Time Render.

The narrative is incorrect. The proposal is subject to these standards. Only where they are in conflict with the Fuller Road Station Community Standards, do those standards supersede.

ML/ CE – The narrative has been revised to reflect the accurate applicability of Section 1005.08. The narrative indicates that the standards are applicable, however, there are no design elements within Map X-CRC-3 that specifically pertain to the subject site.

1005.10(I)(2): The floor to ceiling height of the ground floor is not 15 feet, as required by this standard.

LH/ JMA – Floor to ceiling height has been revised

1005.10(I)(9): Metals may be used as indicated in the ordinance, "for specific high-image surfaces, canopies, awnings, doors, screening of roof mounted fixtures, or other architectural features." The scope and extent of metal on this building is significantly beyond the intent of the ordinance.

LH/ JMA – Per above - As the city does not want high end metal panels, for compliance we are revising all metal panels to cementitious siding.

1009.01(B): Given that approximately 80% of the landscaped area is comprised of two species of ground cover, the proposed design does not adequately address the standard:

"A variety of plants, intermixed throughout landscaped areas, shall be provided, as follows:

1. Evergreen and deciduous;
2. Trees, shrubs, and groundcover;
3. Plants of varying textures;
4. Plants of varying widths and heights at maturity; and
5. Plants with seasonal color interest (e.g., foliage, flowering perennials, annuals)."

ML/ CE – The applicant has revised the Planting Plan (Sheet L1.0 of the Plan Set). This includes additional groundcover and shrub species that provide a greater variety of plants, especially on the west and north sides of the existing building, and on the corner of Fuller and Otty Roads;

1009.06: The applicant correctly identifies the potential for the landscape requirement to be reduced, per this section. That said, as an alternative, the landscape strip requirement may be met with a linear arrangement of trellises, hanging baskets, or planters.

ML/ CE: Section 1009.06.C.2. of the code indicates the following:
"If—due to the depth of a front setback and the need to accommodate a required walkway, required pedestrian amenities, or both—there is insufficient area to permit a five-foot-wide landscaping strip, the landscaping strip may be reduced in width or the landscaping requirement may be met with a linear arrangement of trellises, hanging baskets, or planters, any of which shall include plants."

This Section indicates landscaping strip may be reduced or that a landscaping requirement may be met with a linear arrangement. This Section allows the landscape strip to be reduced (in this case to zero) if the proposed depth of the setback and the required walkway do not permit a landscape strip, which is the case along both site frontages. Staff has indicated, through interpretation by the Planning Director, that some kind of linear landscape feature or other element will be required along Otty Road, to offset the reduced setback. Additionally, staff has indicated the need to work through the lack of street trees along Otty Road in greater detail. The applicant will work with staff on the linear arrangement requirement as part of application review.

1010: Signs are indicated in the submitted drawings. If the signs are to be considered and approved through this Design Review application, please provide additional information and dimensional information so that they may be evaluated relative to the standards of ZDO 1010.

LH/ JMA – Per above, signage drawings showing dimensions are attached.

1021: Narrative indicates that the refuse/recycling enclosure is to be internal to the building. The location of this is unclear and so the application cannot be adequately evaluated relative to the standards of ZDO 1021.

LH/ JMA – Per above, the Storage Room at the intersection of gridlines L&6 will be the room used for trash.

END RESPONSE

Do not hesitate to contact me with any questions, comments or considerations.

Sincerely,

Larz Hitchcock, NCARB, LEED AP BD+C

Senior Project Manager

JACKSON | MAIN Architecture, P.S.
311 First Avenue South
Seattle, Washington 98104
206.324.4800 P
www.jacksonmain.com

Attachments: Signage Drawings (5 Sheets); Revised Narrative; Architectural, Civil and Landscape Sheet Replaced in their Entirety

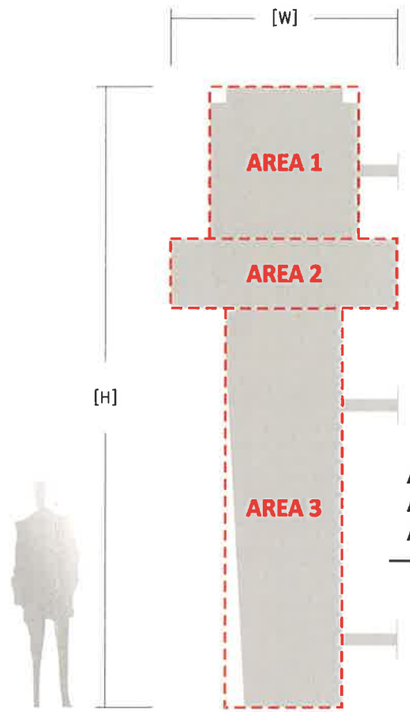
FACE 'A' VIEW
1/2"= 1'- 0"

STREET SIDE VIEW
1/2"= 1'- 0"

FACE 'B' VIEW
1/2"= 1'- 0"

NOTE:

VERIFY PHONE NUMBER
PRIOR TO PRODUCTION



AREA 1: 15.66 SQ. FT.
AREA 2: 10.92 SQ. FT.
AREA 3: 32.27 SQ. FT.

TOTAL: 58.85 SQ. FT.

OPTION 'A'

SIGN AREA CALCULATION
1/4"= 1'- 0"

1 2 D/F PROJECTING SIGN 58.85SF
NEW EXTERIOR IDENTIFICATION QTY: 2

SCOPE OF WORK:

MANUFACTURE & INSTALL TWO [2] NEW DOUBLE-FACE PROJECTING SIGNS WITH OPAQUE BODIES, INTERNALLY-ILLUMINATED LOGOS, CHANNEL LETTERS AND WORDBOXES ON BUILDING WALLS.

SPECIFICATIONS:

DETAILED SPECIFICATIONS AND DIMENSIONS TO FOLLOW DESIGN APPROVAL.

- ALL SPECIFICATIONS T.B.D.

ATTACHMENT:

- THREE [3], 4" SQ. TUBE ALUMINUM ATTACHMENT ARMS WITH 12"[H]x 12"[W]x 1/2"[D] MOUNTING PLATES
- FOUR [4], 3/8" MECHANICAL FASTENERS AS REQUIRED FOR WALL TYPE THRU EACH MOUNTING PLATE

- SEE SHEET 3 FOR BUILDING ELEVATION DRAWINGS WITH SIGN LOCATIONS
- SEE SHEET 4 FOR SITE PLAN WITH SIGN LOCATIONS

DESIGN	PROJECT	INSTALL LOCATION	APPROVED BY/DATE
28214-6290	WEST COAST SELF STORAGE - HAPPY VALLEY	8319 SE OTTY RD, HAPPY VALLEY, OR 97086-2345	X

PLUMB SIGNS, INC
909 SOUTH 28TH ST
TACOMA, WA 98409
TEL# 253-473-3323
FAX#253-472-3107
PLUMBSIGNS.COM

SALES	SCALE	SHEET
DANIELLE MARSTON	AS NOTED	1A OF 4
DRAWN BY	DATE	UPDATED
DAVID MAU	05.15.19	

NOTE:

VERIFY PHONE NUMBER PRIOR TO PRODUCTION

SIDE VIEW
3/8"= 1'- 0"

FRONT VIEW
3/8"= 1'- 0"

NOTE:

- DIMENSIONS SHOWN WITH RED ASTERISK[*] ARE USED FOR CALCULATION OF SIGN AREA

OPTION 'A'

3 4 S/F WALL-MOUNTED SIGN — 185.25SF

NEW EXTERIOR IDENTIFICATION — QTY: 2

SCOPE OF WORK:

MANUFACTURE & INSTALL TWO [2] NEW SINGLE-FACE, WALL-MOUNTED SIGNS WITH INTERNAL ILLUMINATION.

SPECIFICATIONS:

CABINET:

- FABRICATED ALUMINUM BODY
- 2 1/2" FABRICATED ALUMINUM FACE/RETAINER COVER
- PAINT TO MATCH PANTONE BLUE 281 C

- WHITE LED INTERNAL ILLUMINATION FOR FACE
- SELF-CONTAINED POWER SUPPLY

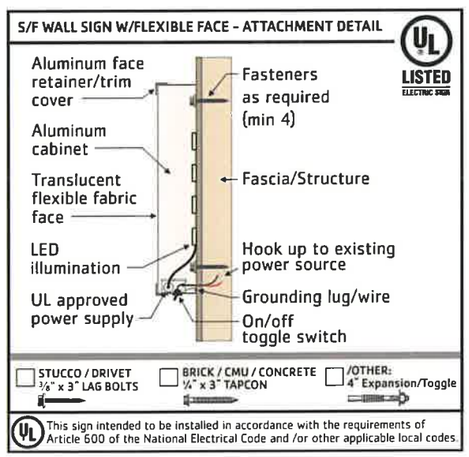
FACE:

- TRANSLUCENT WHITE FLEXIBLE FACE
- FIRST SURFACE TRANSLUCENT VINYL OVERLAYS:
  - BACKGROUND: 3M/GERBER DARK BLUE 230-36
  - LOGO: DIGITAL PRINT
  - LOGOTYPE COPY: REVERSED TO WHITE [FACE]
  - AMENITIES COPY: 3M/GERBER SUNFLOWER 230-25
  - PHONE NUMBER: REVERSED TO WHITE [FACE]

ATTACHMENT:

- INSTALL FLUSH TO EXTERIOR BUILDING WALL WITH MECHANICAL FASTENERS AS REQUIRED FOR WALL TYPE

S/F WALL SIGN W/FLEXIBLE FACE - ATTACHMENT DETAIL



- SEE SHEET 3 FOR BUILDING ELEVATION DRAWINGS WITH SIGN LOCATIONS
- SEE SHEET 4 FOR SITE PLAN WITH SIGN LOCATIONS

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SALES	SCALE	SHEET
DANIELLE MARSTON	AS NOTED	2A OF 4
DRAWN BY	DATE	UPDATED
DAVID MAU	05.15.19	

SIGN AREA ALLOWANCE:

Building 'A'; 181'- 6" (x 1.5 Area for Signage) = : 272.25 SQ. FT.
Building 'B'; 144'- 6 1/2" (x 1.5 Area for Signage) = : 216.81 SQ. FT.

ALLOWABLE TOTAL SIGN AREA: 489.06 SQ. FT.

SIGN PACKAGE - OPTION 'A':

#1: DOUBLE-FACE PROJECTING SIGN: 58.85 SQ. FT.
#2: DOUBLE-FACE PROJECTING SIGN: 58.85 SQ. FT.
#3: SINGLE-FACE WALL SIGN: 185.25 SQ. FT.
#4: SINGLE-FACE WALL SIGN: 185.25 SQ. FT.

PROPOSED TOTAL SIGN AREA: 488.20 SQ. FT.

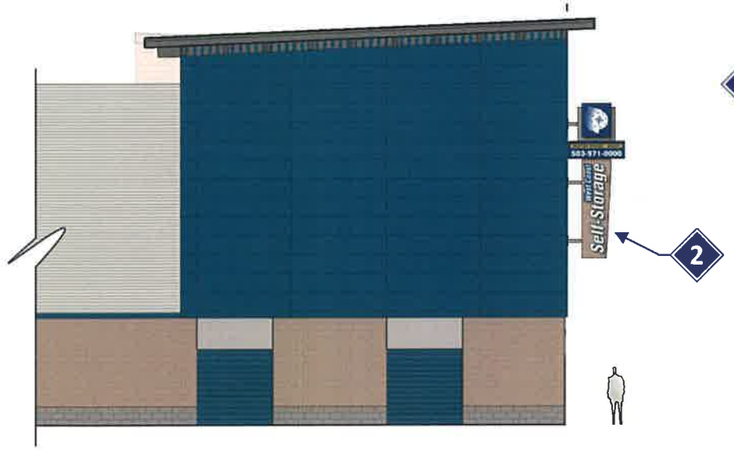
Sign package area based on Building 'A' and Building 'B' primary building wall linear footage.

See Sheet 4 for sign code information and primary building wall dimensions.

EAST ELEVATION / SE FULLER RD - BUILDING A / PROPOSED SIGN LOCATIONS
1/16"= 1'- 0"

SIGN POSITIONING NOTES:

- S/F WALL SIGNS ARE SHOWN CENTERED ON RESPECTIVE WALL FASCIAS AND/OR WITH WALL REVEALS/SIDING JOINTS
- D/F PROJECTING SIGNS ARE SHOWN CENTERED BETWEEN RESPECTIVE WALL REVEALS/SIDING JOINTS, AND ALIGNED WITH TOPS OF S/F WALL SIGNS
- EXACT LOCATIONS TO BE VERIFIED



PARTIAL WEST ELEVATION - BUILDING A / PROPOSED SIGN LOCATION
1/16"= 1'- 0"

SOUTH ELEVATION / SE OTTY RD - BUILDING A / PROPOSED SIGN LOCATIONS
1/16"= 1'- 0"

- SEE SHEETS 1 AND 2 FOR DETAILED SIGN DESIGNS
- SEE SHEET 4 FOR SITE PLAN WITH SIGN LOCATIONS

DESIGN	PROJECT	INSTALL LOCATION	APPROVED BY/DATE
28214-6290	WEST COAST SELF STORAGE - HAPPY VALLEY	8319 SE OTTY RD, HAPPY VALLEY, OR 97086-2345	X

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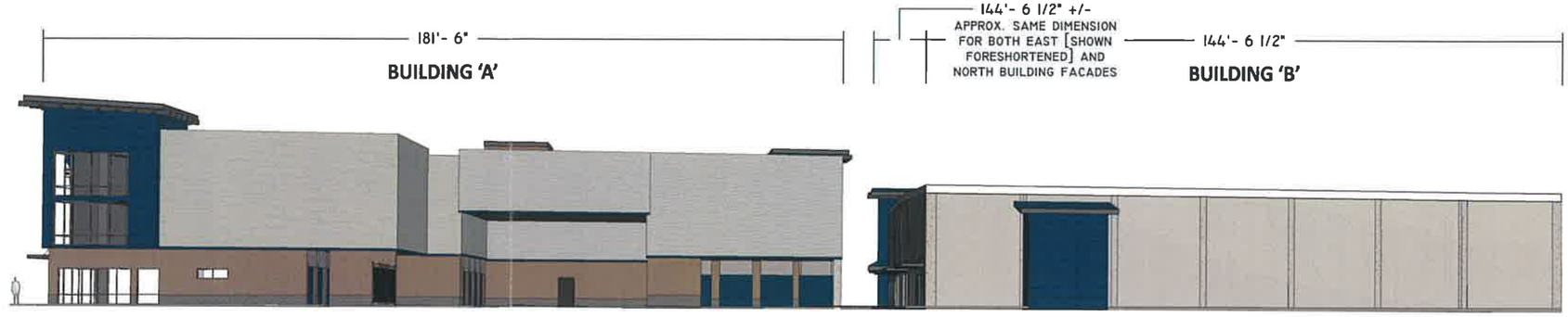
SALES	SCALE	SHEET
DANIELLE MARSTON	AS NOTED	3A OF 4
DRAWN BY	DATE	UPDATED
DAVID MAU	05.15.19	

SIGN CODE INFORMATION:

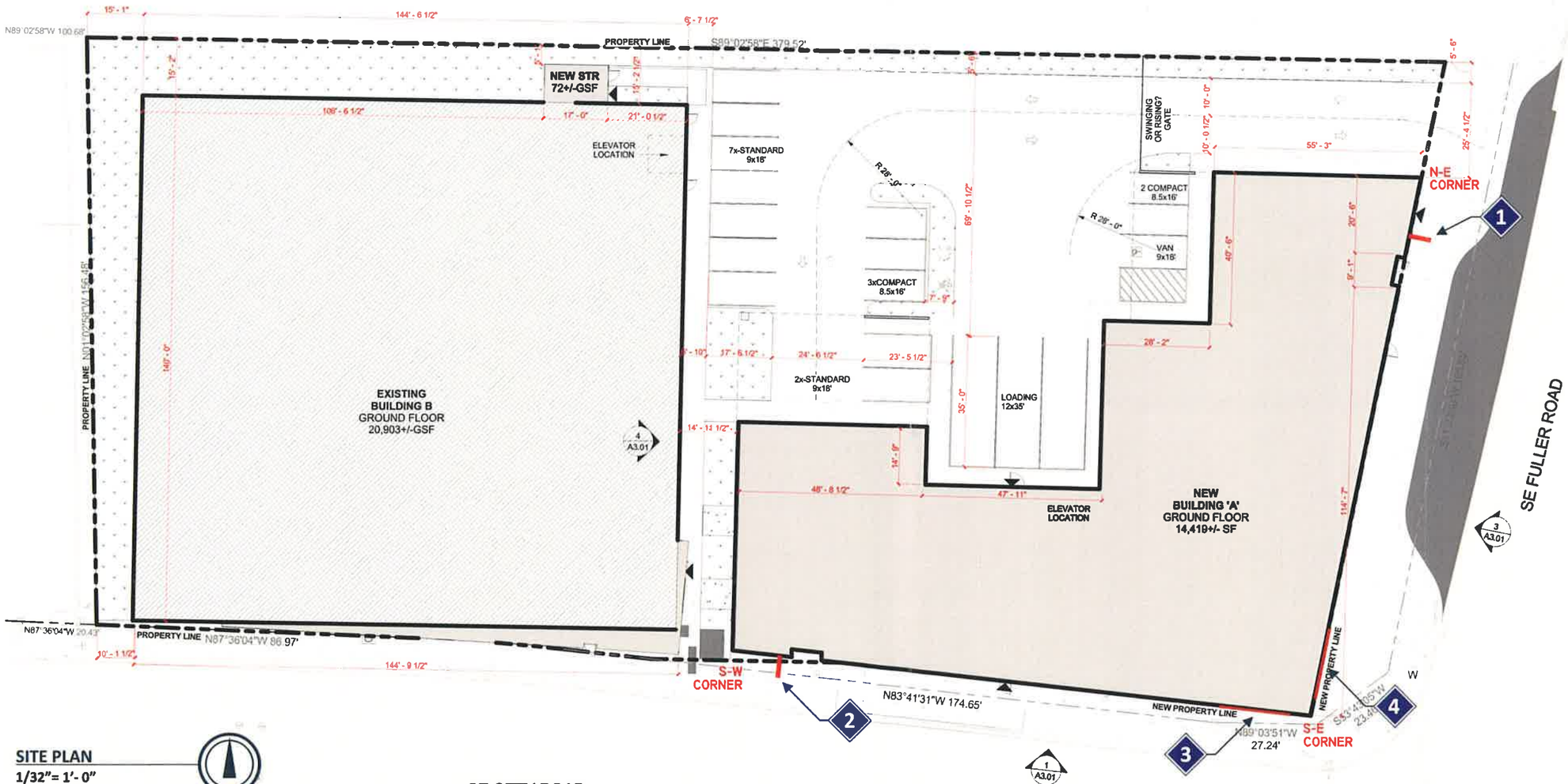
As per Clackamas County Zoning and Development Ordinance sign code; Section 1010.09 Commercial Signs in Commercial and Industrial Districts:

1. The maximum sign area may be distributed among any number of signs.

2. One-and-one-half square feet of sign area per linear footage of the occupant's primary building wall (that which contains a public entrance to the occupant's premises and faces either a street or a parking area).



SITE NORTH ELEVATION - BUILDINGS 'A' AND 'B'
1/32"= 1'- 0"



SITE PLAN
1/32"= 1'- 0"

PROJECT NORTH

- SEE SHEETS 1 AND 2 FOR DETAILED SIGN DESIGNS
- SEE SHEET 3 FOR BUILDING ELEVATION DRAWINGS WITH SIGN LOCATIONS

DESIGN	PROJECT	INSTALL LOCATION	APPROVED BY/DATE
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PLUMBSIGNS.COM

SALES	SCALE	SHEET
DANIELLE MARSTON	AS NOTED	4 OF 4
DRAWN BY	DATE	UPDATED
DAVID MAU	05.15.19	

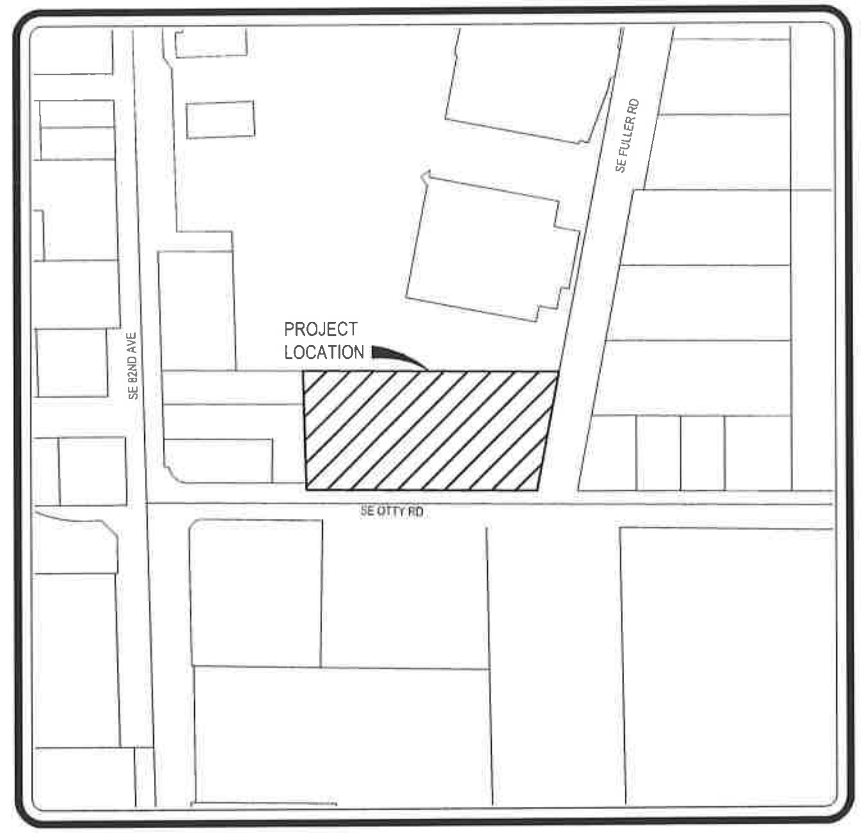
OTTY ROAD STORAGE

PREPARED FOR:

WEST COAST SELF STORAGE

8319 SE OTTY RD, CLACKAMAS COUNTY, OREGON

VICINITY MAP
SCALE: NTS



SITE MAP
SCALE: NTS

INDEX OF SHEETS

C0.0 - COVER SHEET
C1.0 - EXISTING CONDITIONS
C2.0 - SITE PLAN
C2.1 - SIGHT DISTANCE ANALYSIS
C3.0 - GRADING & EROSION CONTROL PLAN
C4.0 - UTILITY PLAN
C4.1 - ACCESS & WATER SUPPLY PLAN
L1.0 - PLANT PLAN

SITE INFORMATION

LOCATED ON THE NORTH SIDE OF SE OTTY ROAD BETWEEN SE FULLER ROAD AND SE 82ND AVENUE.

LOCATED IN SW 1/4 OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 2 EAST, WILLAMETTE MERIDIAN, CLACKAMAS COUNTY, OREGON

DATUM

ELEVATION DATUM: NAVD88 (PER OPUS SOLUTION)
BENCHMARK: TBM PK NAIL 384.50' EAST OF CP #1
LOCATION: ON THE SOUTHERLY SIDE OF OTTY ROAD ON THE WESTERLY SIDE OF THE I-205 OVERPASS.
ELEVATION: 243.36 FEET

BASIS OF BEARINGS

BASIS OF BEARING WAS DERIVED FROM THE FOUND AND HELD MONUMENTS MARKING THE NORTHERLY LINE OF SUBJECT PROPERTY AND WESTERLY EXTENSION THEREOF BEING NORTH 89°02'58" WEST PER SURVEY NO. 22,842, CLACKAMAS COUNTY SURVEY RECORDS.

PROJECT TEAM

APPLICANT

WEST COAST SELF STORAGE
ATTN: JIM FITZPATRICK
808 134TH ST. SW
BLDG B, SUITE 211
EVERETT, WASHINGTON 98204
PHONE: (818)-749-8846

ARCHITECT

JACKSON MAIN ARCHITECTURE
ATTN: ROBIN MURPHY, AIA LEED AP
311 FIRST AVE. S
SEATTLE, WASHINGTON 98104
PHONE: (206) 324-4800

CIVIL ENGINEER

CARDNO
ATTN: MATT LEWIS, PE
6720 SW MACADAM AVE., SUITE 200
PORTLAND, OREGON 97219
PHONE: (503) 419-2500
FAX: (503) 419-2600

GEOTECHNICAL ENGINEER

HART CROWSER
ATTN: DANIEL J. TRISLER, PE, GE
300 WEST 15TH ST.
VANCOUVER, WASHINGTON 98660
PHONE: (360) 448-4189

LANDSCAPE ARCHITECT

CARDNO
ATTN: BECKY STRICKLER, PLA
6720 SW MACADAM AVE., SUITE 200
PORTLAND, OREGON 97219
PHONE: (503) 419-2500
FAX: (503) 419-2600

STRUCTURAL ENGINEER

AAI STRUCTURAL DESIGN
ATTN: HAMID AFGHAN
4875 SW GRIFFITH DRIVE
BEAVERTON, OREGON 97005
PHONE: (503) 620-3030

PLANNING

CARDNO
ATTN: KEVIN BRADY
6720 SW MACADAM AVE., SUITE 200
PORTLAND, OREGON 97219
PHONE: (503) 419-2500
FAX: (503) 419-2600

UTILITY CONTACTS

POWER

PGE
ATTN: TOBY ANDERSON
3700 SE 17TH AVE.
PORTLAND, OREGON 97202
PHONE: (503) 963-6864

TELEPHONE

CENTURYLINK
ATTN: KENNETH SCIULLI
8021 SW CAPITOL HILL RD.
PORTLAND, OREGON 97219
PHONE: (503) 242-0304

WATER

CLACKAMAS RIVER WATER
ATTN: BETTY JOHNSON
16770 SE 82ND DR.
CLACKAMAS, OREGON 97015
PHONE: (503) 723-2571
FAX: (503) 722-9254

CABLE

COMCAST
ATTN: KENNETH WILLS
11308 SW 68TH PKWY.
TIGARD, OREGON 97223
PHONE: (503) 596-3767

NATURAL GAS

NW NATURAL
ATTN: DON GRAHAM
220 NW 2ND AVENUE
PORTLAND, OREGON 97209
PHONE: (503) 220-2433

ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987).

OREGON UTILITY NOTIFICATION CENTER
1-800-332-2344

CALL BEFORE YOU DIG

DESIGN REVIEW

Cardno
PORTLAND
6720 SW MACADAM AVE, STE 200, PORTLAND, OR 97219
TEL: (503) 419-2500 FAX: (503) 419-2600 www.cardno.com

COVER SHEET
OTTY ROAD STORAGE
WEST COAST SELF STORAGE
8319 SE OTTY RD, CLACKAMAS COUNTY, OREGON

BY	DATE	DESCRIPTION

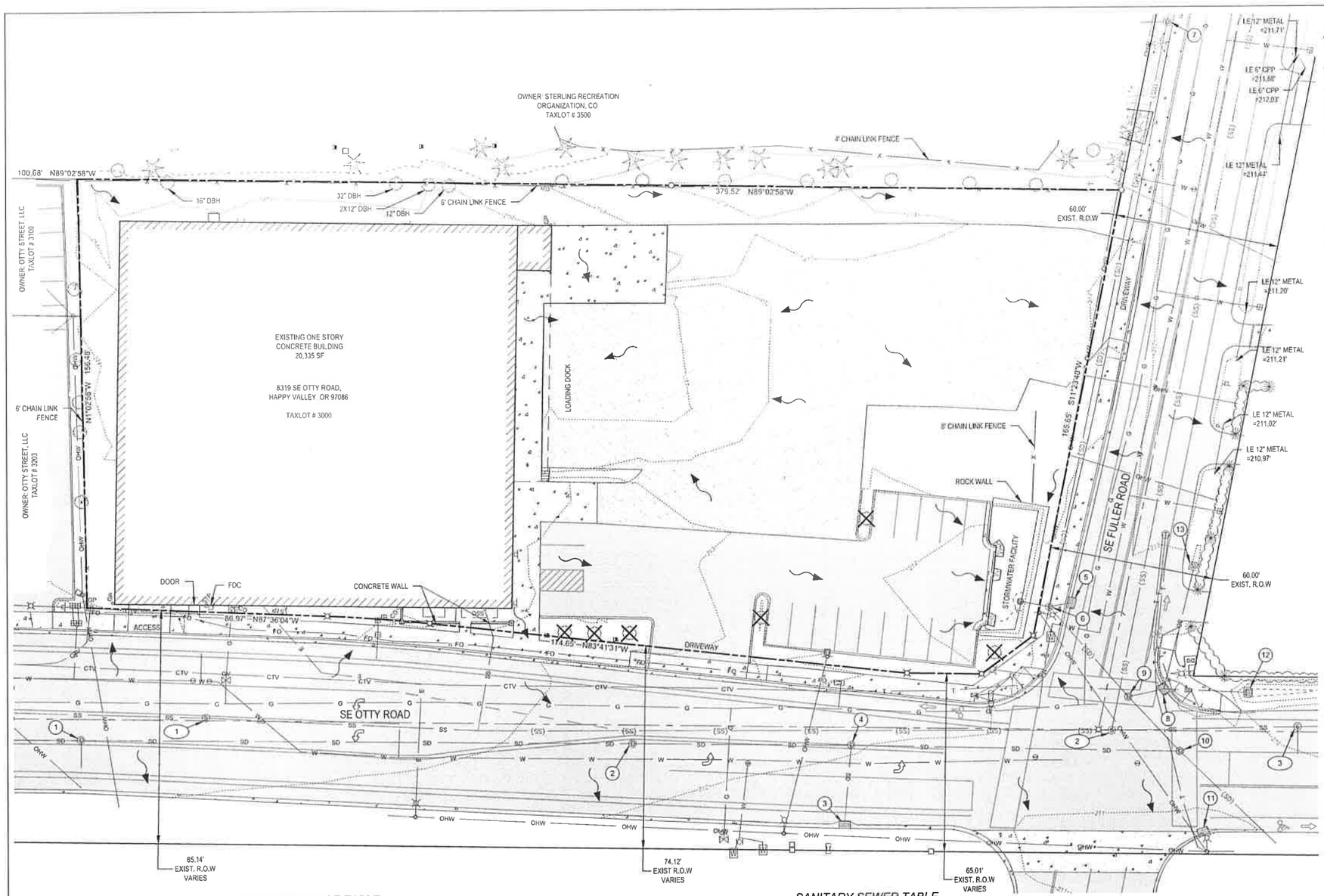
REGISTERED PROFESSIONAL ENGINEER
OREGON
JAN 03, 2007
MATTHEW C. LEWIS
FOR INFORMATION ONLY
RENEWS: 12/31/2020

DATE	07/17/2019
DRAWN	LAG
DESIGNED	LAG
CHECKED	MCL
PROJECT #	21814180

SHEET TITLE
COVER SHEET

SHEET NUMBER
C0.0

LAND USE # —



EXISTING LEGEND

- 215 — MAJOR CONTOUR
- 214 — MINOR CONTOUR
- EXISTING BOUNDARY LINE
- EXISTING CENTERLINE
- EXISTING RIGHT-OF-WAY LINE
- EASEMENT LINE
- FENCE LINE, TYPE AS NOTED
- SD — STORM DRAINAGE LINE
- SS — SANITARY SEWER LINE
- W — UNDERGROUND WATER LINE
- E — UNDERGROUND ELECTRICAL LINE
- T — UNDERGROUND TELEPHONE LINE
- FO — UNDERGROUND FIBER OPTIC LINE
- CTV — UNDERGROUND CABLE TV LINE
- G — UNDERGROUND NATURAL GAS LINE
- INDICATES DATA FROM AS BUILT INFORMATION
- OHW — OVERHEAD WIRE
- BUILDING FACE
- BUILDING OVERHANG LINE
- TREE/VEGETATION LINE
- EXISTING ASPHALT SURFACE
- EXISTING CONCRETE SURFACE
- EXISTING GRAVEL SURFACE
- EXISTING RIP RAP SURFACE
- GAS VALVE
- GAS METER
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- STORM DRAIN MANHOLE
- CATCH BASIN
- DITCH INLET
- AREA DRAIN
- ROOF DRAIN
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
- POST INDICATOR VALVE
- UNDERGROUND WATER VAULT
- WATER VALVE
- WATER METER BOX
- IRRIGATION CONTROL BOX
- SHOEBOX LIGHT (SINGLE)
- ACORN/GLOBE LIGHT
- STREET LIGHT (COBRA ARM)
- UTILITY POLE
- GUY WIRE
- TELEPHONE MANHOLE
- CABLE TELEVISION VAULT
- CABLE TELEVISION RISER
- TRAFFIC SIGNAL POLE AND STREET LIGHT
- PEDESTRIAN SIGNAL POLE
- SIGNAL JUNCTION BOX
- UNKNOWN CLEANOUT
- STAND PIPE
- UNKNOWN RISER
- UNKNOWN UTILITY VAULT
- BOLLARD
- GATE POST
- MAILBOX
- SIGN POST
- CONIFEROUS TREE
- DECIDUOUS TREE
- DRAINAGE PATTERN
- 10" DBH — TREE DIAMETER AT BREAST HEIGHT (DBH)
- TREE TO BE REMOVED

STORM DRAINAGE TABLE

1. STORMDRAIN MANHOLE
   RIM=213.81'
   I.E. 12" CMP IN (S)=207.08'
   I.E. 24" CMP IN (W)=206.17'
   I.E. 24" CMP OUT (E)=206.13'
2. STORM DRAIN MANHOLE (FULL OF DEBRIS)
   RIM=212.63'
   I.E 24" CMP IN (W)=205.87'
   I.E 24" CMP OUT (E)=205.87'
3. CATCH BASIN
   (BIO BAG DID NOT DIP)
   RIM=211.32'
4. STORM DRAIN MANHOLE
   RIM=212.08'
   I.E 12" PVC IN (S)=206.07'
   I.E 24" CMP OUT (W)=205.57'
   I.E 24" CMP OUT (E)=205.52'
5. CATCH BASIN (FULL OF DEBRIS)
   RIM=211.09'
   I.E. 12" CONC OUT (W)=207.38'
   SUMP=206.99'
6. STORM DRAIN MANHOLE
   RIM=212.63'
   (OFFSET TO FAR TO SEE ALL PIPES)
   I.E IN (W)
   I.E 12" IN (E)
   I.E 24" CONC IN (N)=205.45'
   I.E 24" CONC OUT (SE)
7. STORM DRAIN MANHOLE
   RIM=213.34'
   I.E IN (W)=205.94'
   I.E 24" CONC IN (N)=205.96'
   I.E 24" CONC OUT (S)=205.89'
8. STORM DRAIN MANHOLE
   RIM=211.84'
   I.E 12" CPP IN (N)=205.41'
   I.E 12" CPP OUT (E)=207.75'
   I.E 24" CONC OUT (W)=205.17'
   SUMP=205.31'
9. STORM DRAIN MANHOLE (FULL OF DEBRIS)
   RIM=211.92'
   I.E 24" CONC IN (NW)=205.07'
   I.E 24" CONC IN (NE)=204.65'
   I.E 24" CONC OUT (SE)=205.26'
10. STORM DRAIN MANHOLE (FULL OF DEBRIS)
    RIM=211.82'
    I.E 24" CMP IN (W)=205.23'
    I.E 30" CONC IN (NW)=205.08'
    I.E 36" CMP OUT (SE)=205.17'
11. CATCH BASIN
    RIM=210.57'
    I.E 12" CPP OUT (SW)=208.31'
    SUMP=208.27'
12. DITCH INLET
    RIM=209.26'
    I.E 10" CPP OUT (W)=208.61'
    SUMP=205.28'
13. DITCH INLET
    RIM=210.76'
    I.E 10" CPP OUT (SW)=208.63'
    SUMP=206.87'

SANITARY SEWER TABLE

1. SANITARY SEWER MANHOLE
   RIM=213.61'
   IE 10" CONC IN (W)=194.25'
   IE 10" CONC OUT (E)=194.15'
2. SANITARY SEWER MANHOLE
   RIM=211.96'
   I.E. 12" CONC IN (N)=193.11'
   I.E. 12" CONC IN (W)=192.73'
   I.E. 15" CONC OUT (E)=192.74'
3. SANITARY SEWER MANHOLE
   RIM=212.12'
   I.E. 12" CONC IN (E)=193.08'
   I.E. 15" CONC IN (W)=192.46'
   I.E. 18" CONC OUT (S)=192.28'

RECEIVED

JUN 18 2019

Clackamas County
Planning & Zoning Division

SCALE: 1"=20'
20 10 0 20

DESIGN REVIEW

Cardno
PORTLAND
6720 SW MACADAM AVE. STE 200, PORTLAND, OR 97219
TEL: (503) 419 - 2500 FAX: (503) 419 - 2600 www.cardno.com

EXISTING CONDITIONS
OTTY ROAD STORAGE
WEST COAST SELF STORAGE
8319 SE OTTY RD, CLACKAMAS COUNTY, OREGON

NO.	DESCRIPTION	DATE	BY

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 14, 2006
MATTHEW C. LEWIS
RENEWS: 12/31/2020

DATE	07/17/2019
DRAWN	MAW
DESIGNED	MAW
CHECKED	MCL
PROJECT #	21814180

SHEET TITLE
EXISTING CONDITIONS

SHEET NUMBER
C1.0

LAND USE # —

Plot Stamp: 7/17/2019 11:17:54 AM - Luis Giron
File: W:\21814180\CAD\Civil_DD\21814DD-EXCOND.dwg, Tab: C1.0

SITE AREA TABLE

PROJECT SITE	ACRES	SITE %
CONSOLIDATED PARCEL	1.286	93.7%
R.O.W. DEDICATION	0.087	6.3%
TOTAL	1.373	100%

BUILDING GROSS LEASABLE AREA (GLA)

BUILDING	ACRES
EXISTING	41,317 SF
NEW	50,076 SF
TOTAL	91,393 SF

BIKE PARKING TABLE

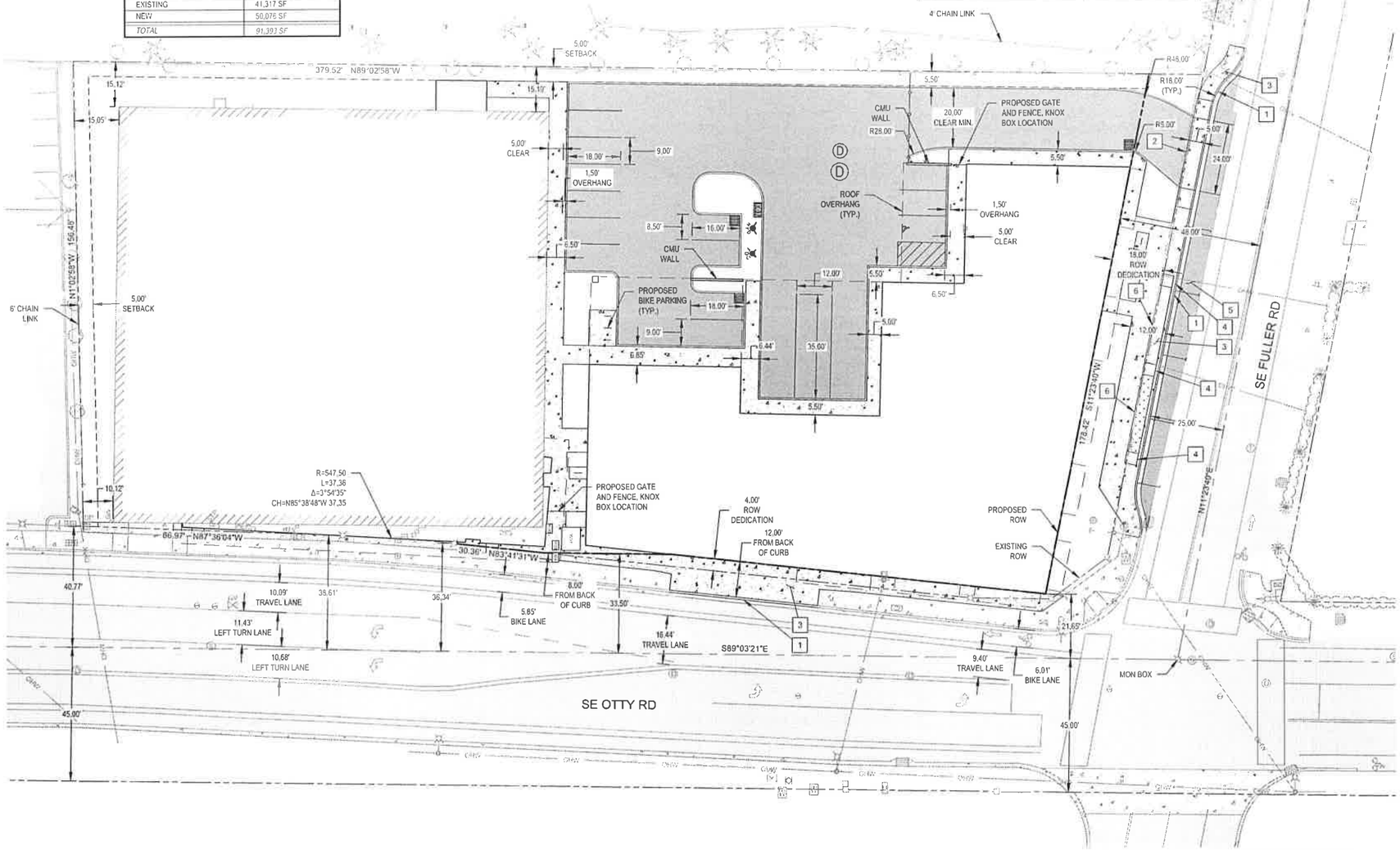
GROSS LEASABLE AREA	STALLS/1000 SF	REQUIRED MIN. PARKING
91,393 SF	1	9
BIKE PARKING PROVIDED		STALLS
SPACES		10

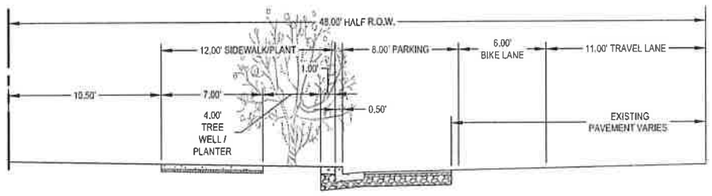
PARKING TABLE

GROSS LEASABLE AREA	STALLS/1000 SF	REQUIRED MIN. PARKING
99,222 SF	0.2	19
PARKING PROVIDED		STALLS
STANDARD STALLS (ON-SITE)		14
STANDARD STALLS (OFF-SITE)		2
ADA COMPLIANT STALLS		3 (1 VAN)
TOTAL		18

LANDSCAPE TABLE

PROPOSED STALLS	MIN. INTERIOR LS	REQUIRED MIN. INTERIOR LS
18	25 SF/STALL	451 SF
PROJECT SITE	MIN. LANDSCAPING	REQUIRED MIN. LANDSCAPING
56,115 SF	10%	5,612 SF
LANDSCAPE PROVIDED		
INTERIOR LANDSCAPING		884 SF
TOTAL LANDSCAPING		6,037 SF
TOTAL IMPERVIOUS AREA		50,078 SF





ULTIMATE FULLER RD. HALF STREET SECTION
NOT TO SCALE

PUBLIC IMPROVEMENT NOTES

1. STANDARD CURB AND GUTTER PER COUNTY DETAIL S150.
2. 24' WIDE STANDARD DRIVEWAY PER COUNTY STANDARD DETAIL D600.
3. STANDARD CONCRETE SIDEWALK PER COUNTY STANDARD DETAIL S960. WIDTH PER PLAN.
4. 4'X4' TREE WELL WITH FRAME AND GRATE. SEE LANDSCAPE PLANS AND COUNTY STANDARD DETAIL L100 AND L200.
5. ASPHALT SECTION FOR COLLECTOR STREET PER COUNTY STANDARD DETAIL C100.
6. INFILTRATION PLANTERS WITH 1' WIDE CONCRETE STEP OUT AND 18" CURB CUTS AT UPSTREAM AND DOWNSTREAM END OF PLANTER. REFER TO SHEET C4.0.

EXISTING LEGEND

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- DOUBLE CHECK DETECTOR ASSEMBLY
- STORM DRAIN MANHOLE
- STORM DRAIN CATCH BASIN
- STORM DRAIN CURB INLET

SCALE: 1"=20'
20 10 0 20

DESIGN REVIEW

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JUN 06 2019
Clackamas County
Planning & Zoning Division

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SITE PLAN
OTTY ROAD STORAGE
WEST COAST SELF STORAGE
8319 SE OTTY RD, CLACKAMAS COUNTY, OREGON

BY	DESCRIPTION	DATE
A		

REGISTERED PROFESSIONAL ENGINEER
OREGON
JANUARY 09, 2002
MATTHEW C. LEWIS
RENEWS: 12/31/2020

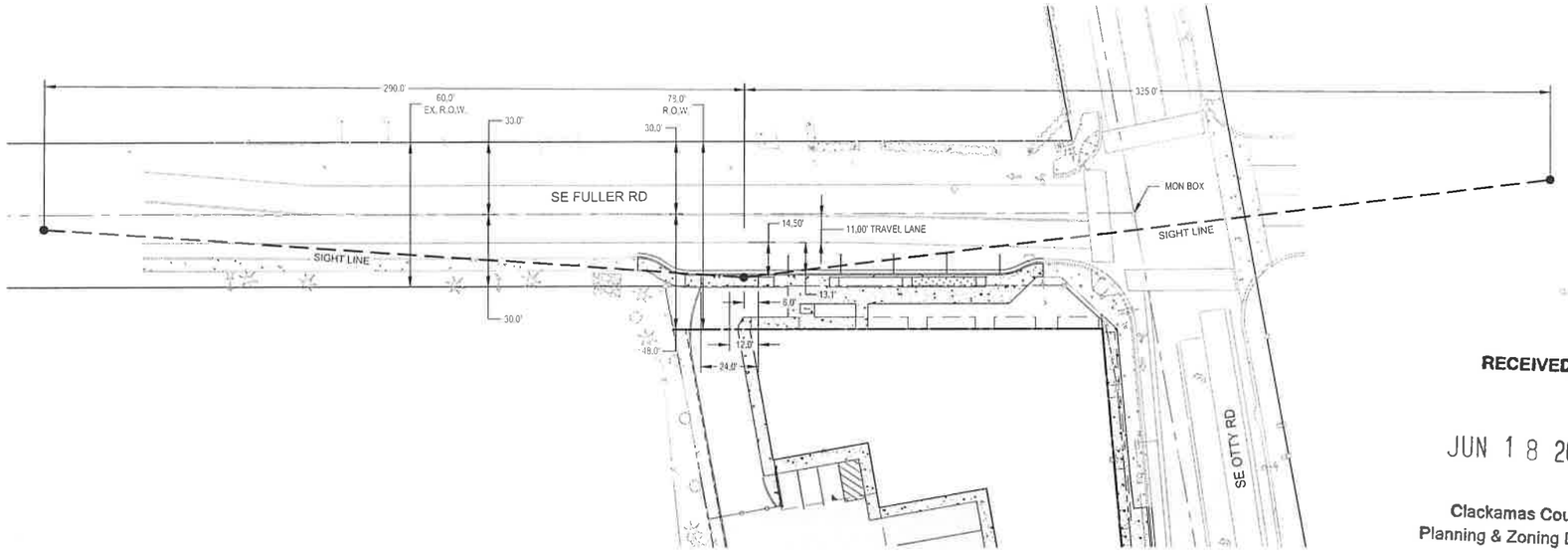
DATE	07/17/2019
DRAWN	LAG
DESIGNED	LAG
CHECKED	MCL
PROJECT #	21814180

SHEET TITLE
SITE PLAN

SHEET NUMBER
C2.0

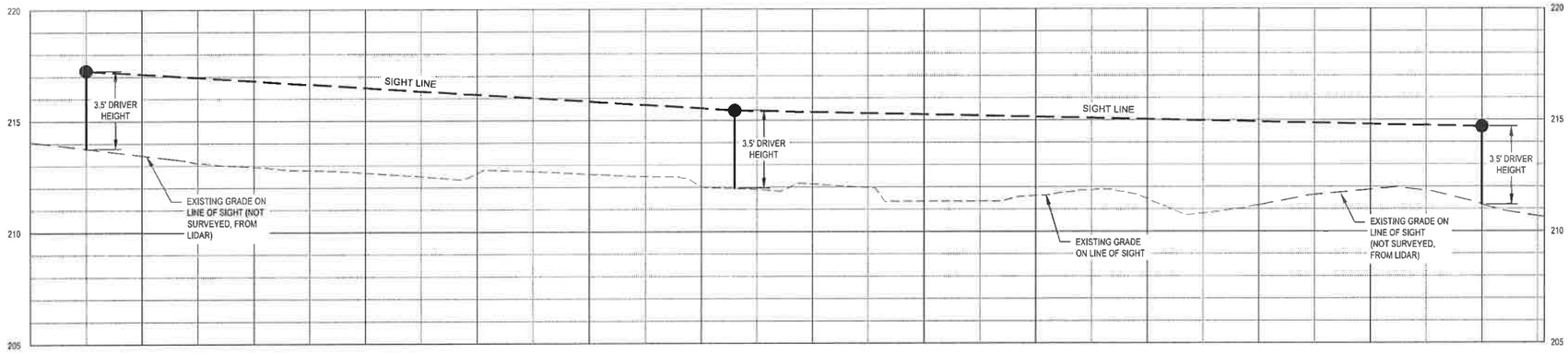
LAND USE # —

Plot Stamp: 7/17/2019 11:18:18 AM - Luis Giron
File: W:\21814180\CAD\Civil_DD\1418-DD-SITE.dwg, Tab: C2.0



INTERSECTION SIGHT DISTANCE PLAN

SCALE: 1"=30'



INTERSECTION SIGHT DISTANCE PROFILE

SCALE: HORIZ. 1"=30'
VERT. 1"=3'

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JUN 18 2019

Clackamas County
Planning & Zoning Division

EXISTING LEGEND

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- MAILBOX
- SIGN POST
- CONIFEROUS TREE
- DECIDUOUS TREE

PROPOSED LEGEND

- PROPOSED PROPERTY LINE
- SAWCUT LINE
- CURB AND GUTTER
- CURB
- FENCE
- STRIPING
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT

SIGHT DISTANCE CRITERIA	
POSTED SPEED	25 MPH
DESIGN SPEED	30 MPH
MIN. INTERSECTION SIGHT DISTANCE (LT TURN FROM STOP)	RIGHT 335'
MIN. INTERSECTION SIGHT DISTANCE (RT TURN FROM STOP)	LEFT 290'

CLACKAMAS COUNTY ROADWAY STANDARDS, ADOPTED APRIL 2018.

SCALE: 1"=30'

30 15 0 30

DESIGN REVIEW

Cardno
PORTLAND
6720 SW MACADAM AVE, STE 209, PORTLAND, OR 97219
TEL (503) 419 - 2500 FAX (503) 419 - 2600 www.cardno.com

SIGHT DISTANCE ANALYSIS
OTTY ROAD STORAGE
WEST COAST SELF STORAGE
8319 SE OTTY RD, CLACKAMAS COUNTY, OREGON

BY	DATE	DESCRIPTION
A		

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 29, 2005
MATTHEW C. LEWIS
FOR INFORMATION ONLY

RENEWS: 12/31/2020

DATE	07/17/2019
DRAWN	LAG
DESIGNED	LAG
CHECKED	MCL
PROJECT #	21814180

SHEET TITLE
ISD ANALYSIS

SHEET NUMBER
C2.1

LAND USE # —

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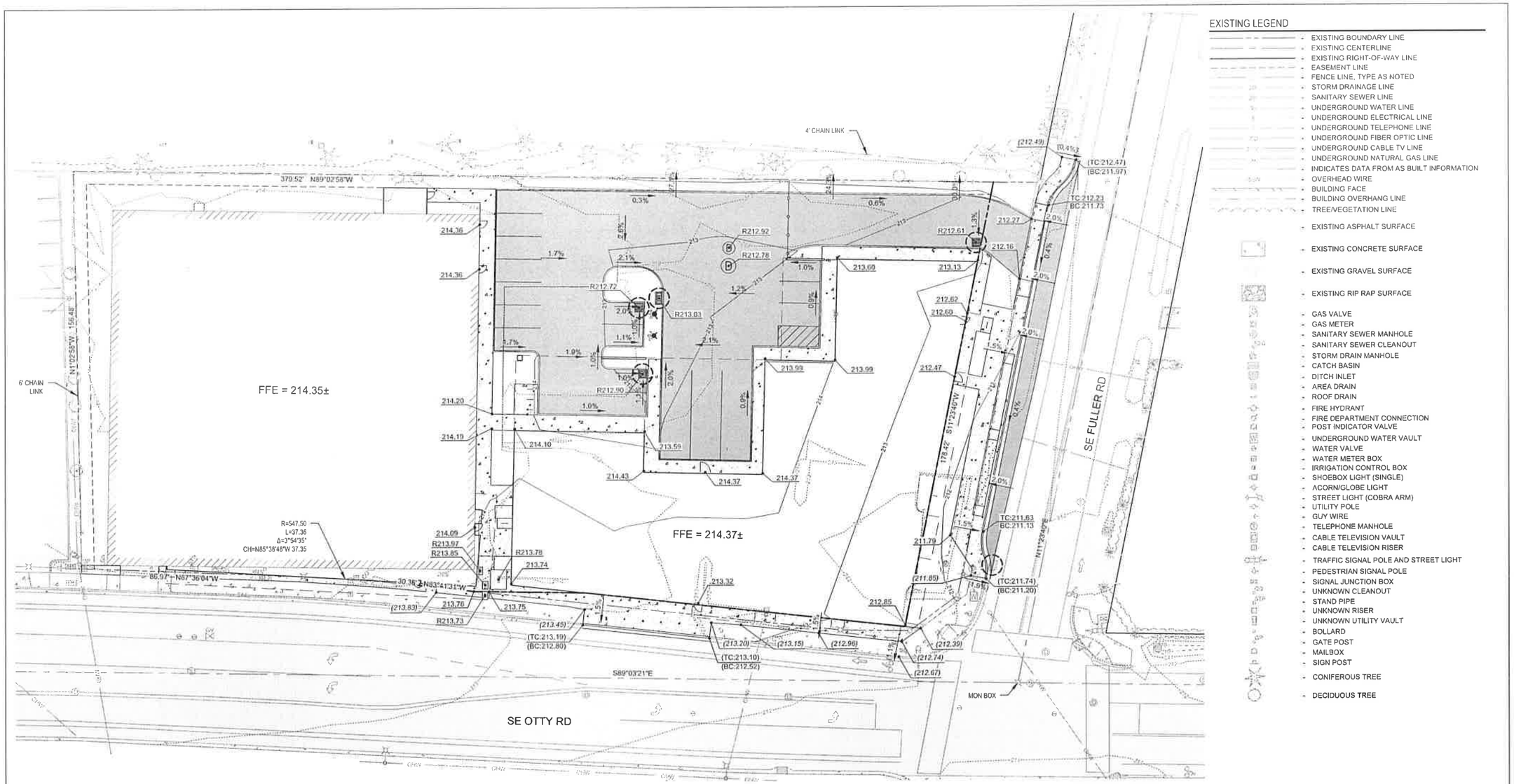
File: W:\21814180\CAD\Civil_DD\14180-DD-SIGHT DISTANCE.dwg, Tab: C2.1



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GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING BEST MANAGEMENT PRACTICES TO STABILIZE ALL SLOPES 3:1 OR GREATER AND PREVENT EROSION OR MOVEMENT OF SOIL FROM SLOPES.
2. THIS COULD INCLUDE, BUT NOT NECESSARILY LIMITED TO, EROSION CONTROL FABRIC, STAKING, NETTING, AND STRAW WATTLES.
3. DETAILED EROSION PROTECTION AND SEDIMENT CONTROL PLAN WILL BE PROVIDED UPON DEVELOPMENT OF CONSTRUCTION DOCUMENTS.

RECEIVED

JUN 18 2019

Clackamas County
Planning & Zoning Division

PROPOSED LEGEND

- PROPOSED PROPERTY LINE
- SAWCUT LINE
- CURB AND GUTTER
- CURB
- FENCE
- STRIPING
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT
- FIRE DEPARTMENT CONNECTION
- FIRE HYDRANT
- WATER METER
- DOUBLE CHECK VALVE ASSEMBLY
- DOUBLE CHECK DETECTOR ASSEMBLY
- STORM DRAIN MANHOLE
- STORM DRAIN CATCH BASIN
- STORM DRAIN CURB INLET
- INLET PROTECTION

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING TOP/BOTTOM CURB ELEVATION
- EXISTING SLOPE
- PROPOSED SPOT ELEVATION
- PROPOSED TOP/BOTTOM CURB ELEVATION
- PROPOSED RIM ELEVATION
- PROPOSED SLOPE

SCALE: 1"=20'
20 10 0 20

DESIGN REVIEW

Cardno
PORTLAND
6720 SW MACADAM AVE. STE 200, PORTLAND, OR 97219
TEL: (503) 419 - 2500 FAX: (503) 419 - 2600 www.cardno.com

GRADING & EROSION CONTROL PLAN
OTTY ROAD STORAGE
WEST COAST SELF STORAGE
8319 SE OTTY RD, CLACKAMAS COUNTY, OREGON

#	DATE	DESCRIPTION	BY

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 09, 2004
MATTHEW C. LEWIS
FOR INFORMATION ONLY
RENEWS: 12/31/2020

DATE	07/17/2019
DRAWN	LAG
DESIGNED	LAG
CHECKED	MCL
PROJECT #	21814180

SHEET TITLE
GRADING PLAN

SHEET NUMBER
C3.0

LAND USE # —

Plot Stamp: 7/17/2019 11:19:33 AM - Luis Giron
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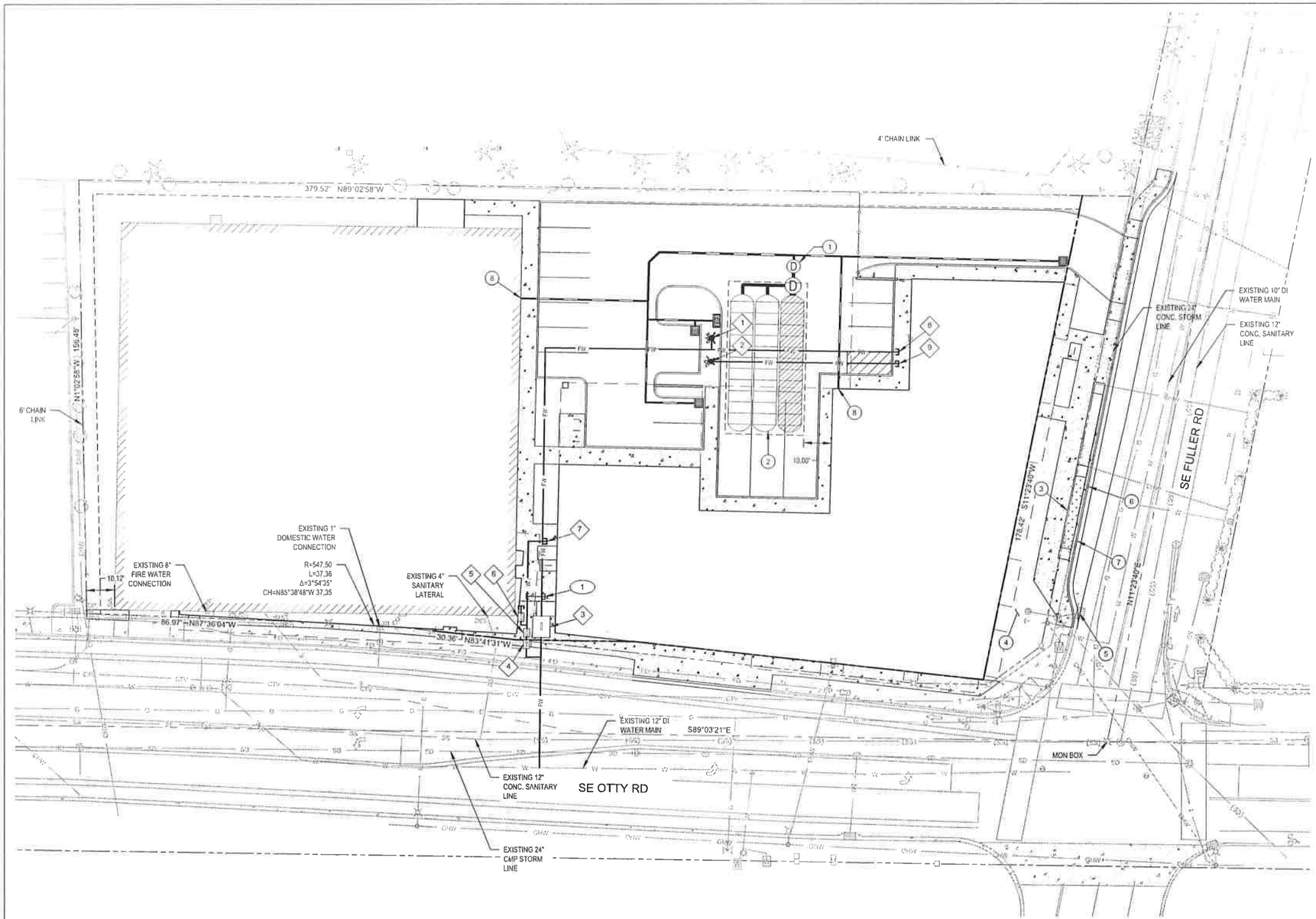

EXISTING LEGEND

- EXISTING BOUNDARY LINE
- EXISTING CENTERLINE
- EXISTING RIGHT-OF-WAY LINE
- EASEMENT LINE
- FENCE LINE, TYPE AS NOTED
- STORM DRAINAGE LINE
- SANITARY SEWER LINE
- UNDERGROUND WATER LINE
- UNDERGROUND ELECTRICAL LINE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND FIBER OPTIC LINE
- UNDERGROUND CABLE TV LINE
- UNDERGROUND NATURAL GAS LINE
- INDICATES DATA FROM AS BUILT INFORMATION
- OVERHEAD WIRE
- BUILDING FACE
- BUILDING OVERHANG LINE
- TREE/VEGETATION LINE
- EXISTING ASPHALT SURFACE
- EXISTING CONCRETE SURFACE
- EXISTING GRAVEL SURFACE
- EXISTING RIP-RAP SURFACE
- GAS VALVE
- GAS METER
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- STORM DRAIN MANHOLE
- CATCH BASIN
- DITCH INLET
- AREA DRAIN
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
- POST INDICATOR VALVE
- UNDERGROUND WATER VAULT
- WATER VALVE
- WATER METER BOX
- IRRIGATION CONTROL BOX
- SHOEBOX LIGHT (SINGLE)
- ACORN/GLOBE LIGHT
- STREET LIGHT (COBRA ARM)
- UTILITY POLE
- GUY WIRE
- TELEPHONE MANHOLE
- CABLE TELEVISION VAULT
- CABLE TELEVISION RISER
- TRAFFIC SIGNAL POLE AND STREET LIGHT
- PEDESTRIAN SIGNAL POLE
- SIGNAL JUNCTION BOX
- UNKNOWN CLEANOUT
- STAND PIPE
- UNKNOWN RISER
- UNKNOWN UTILITY VAULT
- BOLLARD
- GATE POST
- MAILBOX
- SIGN POST
- CONIFEROUS TREE
- DECIDUOUS TREE

PROPOSED LEGEND

- PROPOSED PROPERTY LINE
- SAWCUT LINE
- CURB AND GUTTER
- CURB
- FENCE
- STRIPING
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT
- FIRE DEPARTMENT CONNECTION
- FIRE HYDRANT
- WATER METER
- DOUBLE CHECK VALVE ASSEMBLY
- DOUBLE CHECK DETECTOR ASSEMBLY
- STORM DRAIN MANHOLE
- STORM DRAIN CATCH BASIN
- STORM DRAIN CURB INLET

WATER CONSTRUCTION NOTES

1. INSTALL FIRE HYDRANT ASSEMBLY.
2. INSTALL FIRE DEPARTMENT CONNECTION.
3. INSTALL 6" FIRE WATER DOUBLE CHECK DETECTOR ASSEMBLY AND VAULT.
4. INSTALL 1" DOMESTIC WATER METER AND METER BOX.
5. INSTALL 1" DOMESTIC DOUBLE CHECK VALVE ASSEMBLY AND BOX.
6. INSTALL 1" IRRIGATION DOUBLE CHECK VALVE ASSEMBLY.
7. 1" STUB FOR DOMESTIC WATER SERVICE.
8. 6" STUB FOR FIRE WATER SERVICE.
9. 6" STUB FOR FIRE DEPARTMENT CONNECTION.

SANITARY CONSTRUCTION NOTES

1. INSTALL SANITARY SEWER STUB FROM EXISTING BUILDING.

STORM CONSTRUCTION NOTES

1. INSTALL CDS WATER QUALITY MANHOLE.
2. INSTALL 33 - MC-4500 CHAMBER DETENTION AND INFILTRATION FIELD.
3. INSTALL INFILTRATION PLANTER WITH 2" FREEBOARD, 6" STORAGE DEPTH, 18" GROWING MEDIUM, AND 12" DRAIN ROCK SECTION.
4. EXISTING STORM FACILITY TO BE REMOVED.
5. ADJUST EXISTING CATCH BASIN TO PROPOSED CURB LINE.
6. INSTALL INFILTRATION PLANTER CURB CUT INLET.
7. INSTALL INFILTRATION PLANTER OVERFLOW CURB CUT.
8. STUB FOR ROOF AND FOOTING DRAINS.

SCALE: 1"=20'

20 10 0 20

DESIGN REVIEW

Cardno
PORTLAND
6720 SW MACADAM AVE STE 200 PORTLAND, OR 97219
TEL: (503) 419 - 2500 FAX: (503) 419 - 2600 www.cardno.com

UTILITY PLAN
OTTY ROAD STORAGE
WEST COAST SELF STORAGE
8319 SE OTTY RD, CLACKAMAS COUNTY, OREGON

#	DATE	DESCRIPTION	BY

REGISTERED PROFESSIONAL ENGINEER
FOR PERMIT PURPOSES ONLY
EXPIRES: 06/30/2020
MATTHEW C. LEWIS

RENEWS: 12/31/2020

DATE	07/17/2019
DRAWN	LAG
DESIGNED	LAG
CHECKED	MCL
PROJECT #	21814180

SHEET TITLE
UTILITY PLAN

SHEET NUMBER
C4.0

LAND USE # —

Plot Stamp: 7/17/2019 11:19:55 AM - Luis Giron
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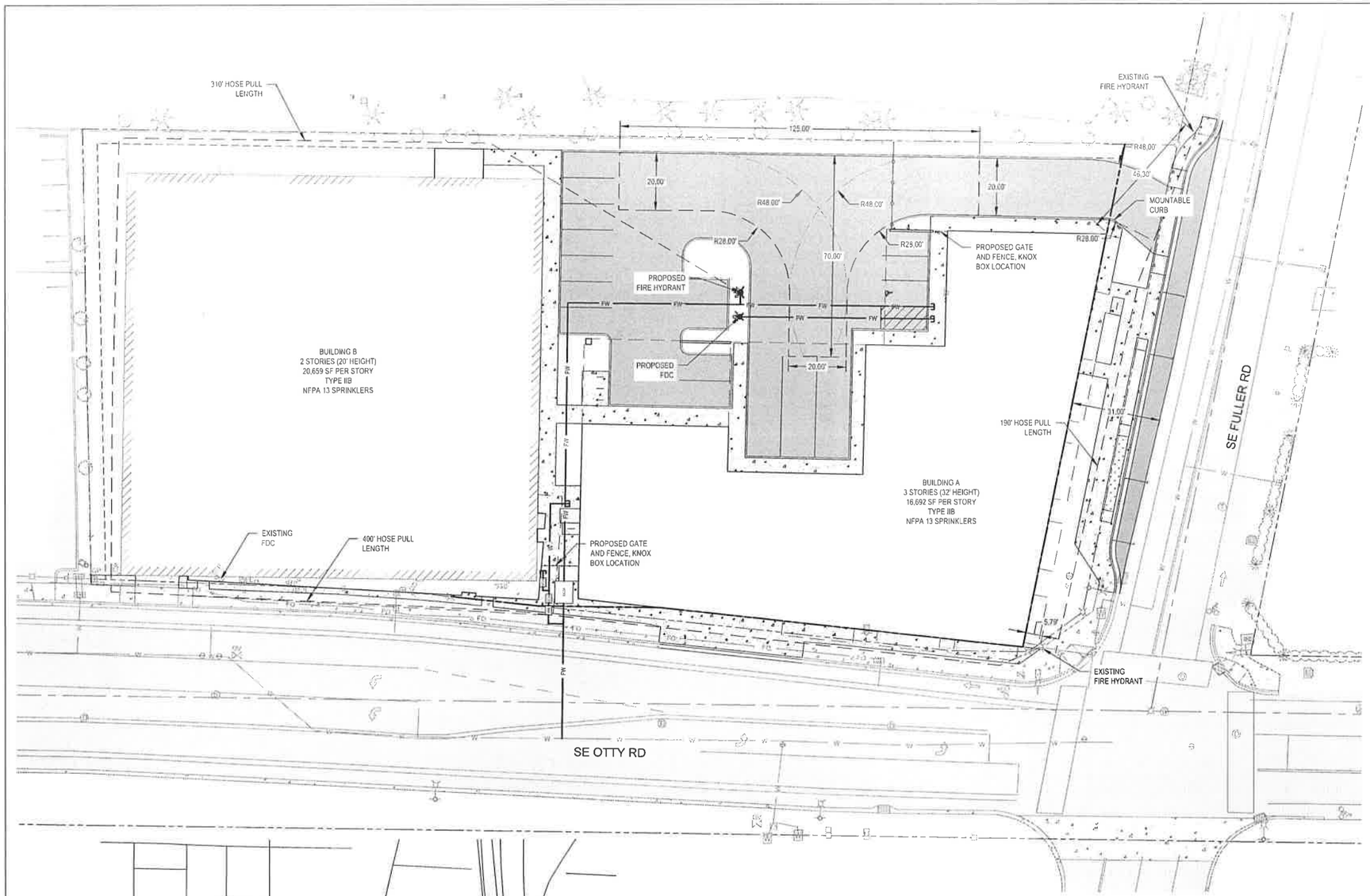

FIRE HYDRANT VICINITY MAP
SCALE: NTS

EXISTING LEGEND

- EXISTING BOUNDARY LINE
- EXISTING CENTERLINE
- EXISTING RIGHT-OF-WAY LINE
- EASEMENT LINE
- FENCE LINE, TYPE AS NOTED
- UNDERGROUND WATER LINE
- INDICATES DATA FROM AS BUILT INFORMATION
- BUILDING FACE
- BUILDING OVERHANG LINE
- TREE/VEGETATION LINE
- EXISTING ASPHALT SURFACE
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- POST INDICATOR VALVE
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PROPOSED LEGEND

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- CURB AND GUTTER
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- FIRE HYDRANT
- WATER METER
- DOUBLE CHECK VALVE ASSEMBLY
- DOUBLE CHECK DETECTOR ASSEMBLY
- STORM DRAIN MANHOLE
- STORM DRAIN CATCH BASIN
- STORM DRAIN CURB INLET
- INLET PROTECTION

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JUN 18 2019

Clackamas County
Planning & Zoning Division

HYDRANT FLOW TEST RESULTS

TEST DATE: _____

FLOW HYDRANT: _____
GAGE HYDRANT: _____

PITOT READING: _____
OBSERVED FLOW RATE: _____
FLOW METHOD: _____
STATIC PRESSURE: _____
RESIDUAL PRESSURE: _____

FLOW AT 20 PSI RESIDUAL (CALCULATED): _____

SCALE: 1"=20'
20 10 0 20

DESIGN REVIEW

Cardno
PORTLAND
6720 SW MACADAM AVE, STE 200 PORTLAND, OR 97219
TEL: (503) 419 - 2500 FAX: (503) 419 - 2600 www.cardno.com

ACCESS & WATER SUPPLY PLAN

OTTY ROAD STORAGE

WEST COAST SELF STORAGE

8319 SE OTTY RD, CLACKAMAS COUNTY, OREGON

BY	DESCRIPTION	DATE
A		

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 29, 2005
MATTHEW C. LEWIS
FOR INFORMATION ONLY
RENEWS: 12/31/2020

DATE	07/17/2019
DRAWN	LAG
DESIGNED	LAG
CHECKED	MCL
PROJECT #	21814180

SHEET TITLE
ACCESS & WATER

SHEET NUMBER
C4.1

LAND USE # —

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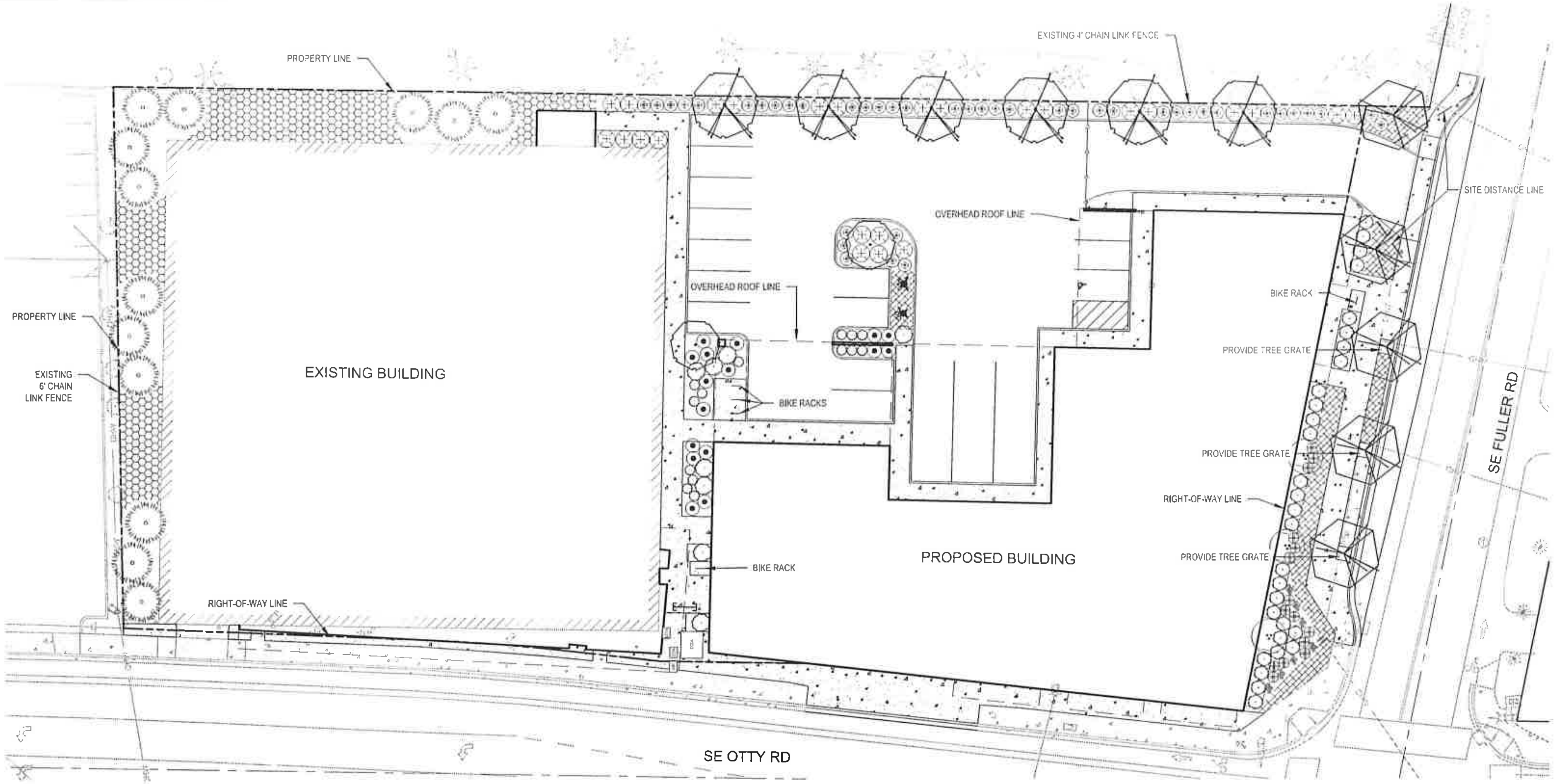

TOPSOIL NOTES:

1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AN ALTERNATE NUMBER IN THE BASE BID TO FURNISH AND INSTALL AMENDED TOPSOIL IN ALL LANDSCAPE BEDS AND SEEDED AREAS AS SPECIFIED BELOW UNLESS OTHERWISE NOTED. AMENDED TOPSOIL SHALL INCLUDE ALL NECESSARY FERTILIZERS, ORGANIC AND INORGANIC AMENDMENTS, BASED ON INDUSTRY STANDARDS FOR EXCEPTIONAL PLANT DEVELOPMENT.
   - SCARIFY ALL PLANTING AREA SUB-GRADE TO A DEPTH OF 6". INSTALL & TILL IN 2" LAYER OF AMENDED TOPSOIL INTO SCARIFIED SUB-GRADE AND RE-COMPACT TO 95%.
   - PROVIDE MIN. 12" DEPTH AMENDED TOPSOIL TO ALL PLANTING AREAS.
   - PROVIDE MIN. 18" DEPTH AMENDED TOPSOIL TO ALL PLANTER ISLANDS PLUS MOUNDING REQUIREMENT.
2. IMMEDIATELY UPON BEING AWARDED THE CONTRACT, THE GENERAL CONTRACTOR SHALL COORDINATE WITH A STATE LICENSED SOIL LABORATORY AND THE LANDSCAPE ARCHITECT, TO DETERMINE THE SUITABILITY AND AVAILABILITY OF THE EXISTING SITE TOPSOIL. THE CONTRACTOR SHALL SEND THE RECOMMENDED TOPSOIL SAMPLES TO A SOIL LABORATORY FOR ANALYSIS, STATING THAT THE TOPSOIL IS TO BE ANALYZED FOR A LANDSCAPE CROP. AFTER RECEIVING RECOMMENDATIONS FROM THE SOILS EXPERT, THE CONTRACTOR SHALL FORWARD A COPY TO THE OWNERS REPRESENTATIVE AT WHICH TIME A DECISION WILL BE MADE BY THE OWNER AS TO WHETHER OR NOT THE EXISTING ON-SITE STOCKPILE WILL BE USED FOR TOPSOIL FOR THE PROJECT.
3. IF THE EXISTING TOPSOIL IS TO BE USED THE CONTRACTOR SHALL ADD THE RECOMMENDED AMENDMENTS AND FERTILIZERS AS STATED IN THE SOILS ANALYSIS ALONG WITH ADDITIONAL AMENDMENTS AND FERTILIZERS LISTED IN NOTE #6 AND #7 BELOW.
4. IN THE EVENT THE EXISTING ON-SITE TOPSOIL IS OF POOR QUALITY (AS DETERMINED BY THE SOIL ANALYSIS) OR IS UNAVAILABLE FOR USE, THE OWNER'S REPRESENTATIVE WILL MAKE A DECISION AS TO WHETHER OR NOT THE ADDITIONAL COST ASSOCIATED WITH IMPORTING 9" OF AMENDED TOPSOIL WILL BE ADDED TO THE SIGNED CONTRACT AGREEMENT.
5. IF AMENDED IMPORTED TOPSOIL IS TO BE USED, THE GENERAL CONTRACTOR WILL BE NOTIFIED IN WRITING BY THE OWNER'S REPRESENTATIVE AND THE CONTRACT MODIFIED ACCORDINGLY. TOPSOIL SHALL BE OBTAINED FROM NATURALLY WELL-DRAINED SITES WHERE TOPSOIL OCCURS AT LEAST 4 INCHES DEEP. DO NOT OBTAIN FROM BOGS OR MARSHES. IMPORTED TOPSOIL SHALL COMPLY WITH ASTM D 5268, WITH A PH RANGE OF 5.5 TO 7.0, FREE OF STONES 1 INCH OR LARGER IN ANY DIMENSION, AND ANY OTHER EXTRANEOUS MATERIALS (ROCKS, STICKS, RUBBISH, SOD) HARMFUL TO PLANT GROWTH. AN ADDITIONAL SOILS ANALYSIS WILL BE REQUIRED FOR THE IMPORTED TOPSOIL.
6. AMENDED IMPORTED TOPSOIL SHALL INCLUDE ALL NECESSARY FERTILIZER AND AMENDMENTS PER THE SOIL ANALYSIS RECOMMENDATIONS. TOPSOIL ANALYSIS SHALL STATE ORGANIC MATTER, INORGANIC MATTER (SILT, CLAY AND SAND), DELETERIOUS MATERIAL, PH, MINERAL AND PLANT-NUTRIENT CONTENT. IN ADDITION THE REPORT SHALL ALSO STATE THE RECOMMENDED QUANTITIES (BY PERCENTAGE OF WEIGHT, I.E. 2 LBS OF 15-15-15 PER 1,000 SF) OF NITROGEN, PHOSPHORUS AND POTASH, NUTRIENTS AND ANY LIMESTONE, ALUMINUM SULFATE, OR OTHER SOIL AMENDMENTS TO BE ADDED TO PRODUCE A SATISFACTORY AMENDED TOPSOIL. CONTRACTOR SHALL FURNISH REPORT AND RECOMMENDATIONS TO LANDSCAPE ARCHITECT FOR REVIEW AND WRITTEN APPROVAL 30 DAYS PRIOR TO MOBILIZATION.
7. IN ADDITION TO THE SOILS ANALYSIS RECOMMENDATIONS, THE LANDSCAPE CONTRACTOR SHALL ADD 1 PART (2 " LAYER) OF APPROVED HUMUS MATERIAL TO 2 PARTS AMENDED TOPSOIL. SUBMIT CUT SHEET OF HUMUS MATERIAL (CERTIFIED FINE COMPOSTED YARD DEBRIS) TO LANDSCAPE ARCHITECT FOR REVIEW AND WRITTEN APPROVAL PRIOR TO MIXING.
8. PRIOR TO PLACEMENT OF TOPSOIL, SCARIFY AND LOOSEN SUB-GRADE OF PLANTING BED AREA TO A MINIMUM DEPTH OF 6 INCHES. REMOVE STONES LARGER THAN 1 INCH IN ANY DIMENSION AND STICKS, ROOTS, RUBBISH AND OTHER EXTRANEOUS MATERIALS. REMOVE WEEDS FROM EXISTING SUB-GRADE AND TREAT WITH NECESSARY HERBICIDE TO PREVENT WEED GROWTH. SPREAD HALF OF THE AMENDED TOPSOIL MIXTURE AND WORK INTO UPPER LAYER OF LOOSENED SUB-GRADE TO CREATE A TRANSITION LAYER. AFTER LIGHT ROLLING AND NATURAL SETTLEMENT, PLACE REMAINING HALF OF THE PLANTING SOIL MIXTURE TO THE DEPTH REQUIRED TO MEET THICKNESS, GRADES, AND ELEVATIONS SHOWN.
9. WITHIN TREE WELLS & PLANTER ISLANDS, REMOVE EXISTING SOIL AND OTHER DEBRIS, TO A MINIMUM DEPTH OF 18" AND REPLACE WITH AMENDED TOPSOIL. ADD ADDITIONAL SOIL, AS REQUIRED PER DETAILS AND NOTES.
10. THE CONTRACTOR SHALL SUBMIT SHIPPING TICKETS FOR IMPORTED TOP SOIL AND HUMUS MATERIAL TO THE LANDSCAPE ARCHITECT 60 DAYS PRIOR TO INSTALLATION FOR REVIEW AND WRITTEN APPROVAL.

STORMWATER FACILITY PLANT MATERIAL SCHEDULE

SYMBOL	HERBACEOUS ITEM	SIZE	QTY.	COMMENTS
106 SF	*CAREX OBNUPTA* SLOUGH SEDGE	SP #4 1' O.C.	53 SF 63 PLANTS	PLANT TO INDUSTRY STANDARDS MATURE: 4' HT. SUN / WET / MASS, EVERGREEN
	SCIRPUS MICROCARPUS SMALL-FRUITED BULRUSH	SP #4 1' O.C.	53 SF 63 PLANTS	PLANT TO INDUSTRY STANDARDS MATURE: 2' HT. / SPREADING SUN / WET / MASS, EVERGREEN

LANDSCAPE PLANT MATERIAL SCHEDULE

TREES

ITEM	SIZE	QTY.	COMMENTS
ACER GINNALA 'FLAME' FLAME MAPLE	1.5" CAL. B&B	5	PLANT TO INDUSTRY STANDARDS MATURE: 20' HT. / 30' WD. FALL: ORANGE-RED
CARPINUS BETULUS 'FASTIGIATA' PYRAMIDAL EUROPEAN HORNBEAM	2" CAL. B&B	6	PLANT TO INDUSTRY STANDARDS MATURE: 35' HT. / 30' WD. FALL: YELLOW
CARPINUS BETULUS 'FRANS FONTAINE' FRANS FONTAINE HORNBEAM	2" CAL. B&B	2	PLANT TO INDUSTRY STANDARDS MATURE: 35' HT. / 15' WD. FALL: YELLOW
OFF-SITE EXISTING TREES TO REMAIN, EVERGREEN & DECIDUOUS CONTRACTOR TO PROTECT WITHIN DRIP LINES			SEE TREE PROTECTION & DEMOLITION PLANS

SHRUBS & ACCENTS

ITEM	SIZE	QTY.	COMMENTS
ACER CIRCINATUM VINE MAPLE	2" CAL. B&B	3	PLANT TO INDUSTRY STANDARDS MATURE: 15' HT. / 10' WD PNW NATIVE
AUCUBA JAPONICA 'ROZANNIE' ROZANNIE JAPANESE AUCUBA	3 GAL. 3' O.C.	14	PLANT TO INDUSTRY STANDARDS MATURE: 3' HT. / 3' WD. FULL SHADE / EVERGREEN
ESCALLONIA 'COMPAKTA' COMPACT ESCALLONIA	5 GAL. 4' O.C.	29	PLANT TO INDUSTRY STANDARDS MATURE: 2'-3' HT. / 4'-6' WD. SUN TO PART SHADE / EVERGREEN
LAVANDULA AUG. 'HIDCOTE BLUE' HIDCOTE BLUE ENGLISH LAVENDER	3 GAL. 2' O.C.	15	PLANT TO INDUSTRY STANDARDS MATURE: 2-3' HT. / 2-3' WD. FULL SUN / EVERGREEN
NANDINA DOMESTICA 'GULF STREAM' GULFSTREAM HEAVENLY BAMBOO	3 GAL. 3' O.C.	43	PLANT TO INDUSTRY STANDARDS MATURE: 3' HT. / 3' WD. / FALL COLOR SUN TO PART SHADE / EVERGREEN
PENNISETUM ALOPECUROIDES 'LITTLE BUNNY' LITTLE BUNNY DWARF FOUNTAIN GRASS	1 GAL. 1' O.C.	28	PLANT TO INDUSTRY STANDARDS MATURE: 1' HT. / 1' WD. FULL SUN / HERBACEOUS
POLYSTICHUM MUNITUM SWORD FERN	3 GAL. 5' O.C.	16	PLANT TO INDUSTRY STANDARDS MATURE: 3-6' HT. / 3-6' WD. / PNW FULL TO PART SHADE / EVERGREEN
SARCOCOCCA RUSCIFOLIA FRAGRANT SWEET BOX	5 GAL. 3' O.C.	8	PLANT TO INDUSTRY STANDARDS MATURE: 3'-5' HT. / 3'-5' WD. FULL SHADE / FRAGRANT / EVERGREEN
TAXUS BACCATA 'REPANDENS' SPREADING ENGLISH YEW	5 GAL. 12' O.C.	13	PLANT TO INDUSTRY STANDARDS MATURE: 2-4' HT. / 12-15' WD. SUN OR SHADE / EVERGREEN
VIBURNUM DAVIDII DAVID VIBURNUM	5 GAL. 5' O.C.	25	PLANT TO INDUSTRY STANDARDS MATURE: 3' HT. / 5' WD. PART SHADE / EVERGREEN

GROUNDCOVERS

ITEM	SIZE	QTY.	COMMENTS
ARCTOSTAPHYLOS 'EMERALD CARPET' EMERALD CARPET KINNIKINNICK	1 GAL. 3' O.C.	1,000 SF 128 PLANTS	PLANT TO INDUSTRY STANDARDS MATURE: 1' HT. / 3-5' WD. FULL SUN / EVERGREEN
GAULTHERIA PROCUMBENS WINTERGREEN	4" POT 3' O.C.	1,692 SF 217 PLANTS	PLANT TO INDUSTRY STANDARDS MATURE: 0.5-1' HT. / 2-3' WD. PART TO FULL SHADE / EVERGREEN

GENERAL LANDSCAPE NOTES:

1. LANDSCAPE PLANTING SHALL CONFORM TO THE STANDARDS ESTABLISHED BY THE CLACKAMAS COUNTY PLANNING DEPARTMENT, AND THE TRANSPORTATION & ENGINEERING DIVISION (PUBLIC RIGHT-OF -WAY).
2. ALL PLANT BEDS SHALL HAVE A 3" DEPTH OF BARK MULCH.
3. ALL NEW LANDSCAPE AREAS TO BE IRRIGATED WITH FULLY AUTOMATED UNDERGROUND IRRIGATION SYSTEM AND CONTROLLED BY WEATHER AND/OR SOIL MOISTURE SENSING TECHNOLOGY.
4. ALL PLANT MATERIAL DELIVERED TO THIS SITE SHALL MEET THE AMERICAN STANDARD FOR NURSERY STOCK STANDARDS.
5. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FOR ALL PLANT MATERIAL SUBSTITUTIONS FROM THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. PLANT SUBSTITUTIONS WITHOUT PRIOR WRITTEN APPROVAL THAT DO NOT COMPLY WITH THE DRAWINGS AND SPECIFICATIONS MAY BE REJECTED BY THE LANDSCAPE ARCHITECT AT NO COST TO THE OWNER. THESE ITEMS MAY BE REQUIRED TO BE REPLACED WITH PLANT MATERIALS THAT ARE IN COMPLIANCE WITH THE DRAWINGS.
6. FOR EROSION AND SEDIMENT CONTROL PLAN, SEE CIVIL GRADING PLAN.

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Clackamas County
Planning & Zoning Division

LANDSCAPE AREA:

TOTAL PROJECT AREA:	56,115 SF
PROJECT AREA IN ACRES:	1.3 ACRES
REQUIRED LANDSCAPE AREA (10%):	5,611 SF
TOTAL LANDSCAPE AREA:	6,037 SF
PERCENTAGE OF LANDSCAPE AREA:	10.8%

SCALE: 1"=20'

20 10 0 20

DESIGN REVIEW

Cardno
PORTLAND
6720 SW MACADAM AVE, STE 200, PORTLAND, OR 97219
TEL (503) 419 - 2500 FAX (503) 419 - 2600 www.cardno.com

LANDSCAPE PLANTING PLAN
OTTY ROAD STORAGE
WEST COAST SELF STORAGE
8319 SE OTTY RD, CLACKAMAS COUNTY, OREGON

BY | DESCRIPTION | DATE

RENEWS 11/30/19

DATE	05/22/2019
DRAWN	BFS
DESIGNED	BFS
CHECKED	MCL
PROJECT #	21814180

SHEET TITLE
PLANTING PLAN

SHEET NUMBER
L1.0

LAND USE # —

WCSS OTTY ROAD - HAPPY VALLEY

8319 S.E. OTTY RD
HAPPY VALLEY, OR 97086
LAND USE PERMIT
MAY 17, 2019
<u>DESING REVIEW SET</u>

SHEET INDEX:

GENERAL	
G0.00	COVER SHEET
G0.01	PROJECT INFORMATION & ANNOTATION KEY
SURVEY	
1 OF 2	ALTA - SITE PLAN
2 OF 2	ALTA - GENERAL INFORMATION
CIVIL	
C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS
C2.0	SITE PLAN
C3.0	GRADING PLAN
C4.0	UTILITY PLAN
C4.1	ACCESS & WATER
ARCHITECTURAL	
A1.01	SITE PLAN
A1.10	UNIT MIX - LVL 1 - BLDG A
A1.12	UNIT MIX - LVL 2 - BLDG A
A1.13	UNIT MIX - LVL 3 - BLDG A
A1.20	UNIT MIX - LVL 1 - BLDG B
A1.21	UNIT MIX - LVL 2 - BLDG B
A2.06	ROOF PLAN - BLDG A
A2.07	ROOF PLAN - BLDG B
A3.01	EXTERIOR ELEVATIONS - BLDG A
A3.02	EXTERIOR ELEVATIONS - BLDG A
A3.03	EXTERIOR ELEVATIONS - BLDG B
A4.01	BUILDING SECTIONS BLDG A
A4.02	BUILDING SECTIONS BLDG A
A4.03	BUILDING SECTIONS BLDG B
A4.04	WALL SECTIONS - BLDG A
A9.02	MISCELLANEOUS DETAILS

JACKSON | MAIN ARCHITECTURE

NOT FOR CONSTRUCTION

WEST COAST SELF STORAGE
808 134TH ST SW, BLDG. B, STE 211
EVERETT, WA 98204

WCSS OTTY ROAD - HAPPY VALLEY
8319 S.E. OTTY ROAD
HAPPY VALLEY, OR 97086

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JUN 18 2019

Clackamas County
Planning & Zoning Division

DATE	NO.	DESCRIPTION
04/12/2019	1	SCHEMATIC DESIGN - SITE PLAN
04/22/2019	2	SCHEMATIC DESIGN SET
05/17/2019	3	LAND USE SUBMITTAL
07/17/2019	4	LAND USE - REVISION

VICINITY MAP
N.T.S.

LOCATION MAP
N.T.S.

LEGAL DESCRIPTION:

LOTS 7, 8, AND 9, MARYLAND FRACTIONAL ACRES, AS RECORDED VOLUME 17, PAGE 19, PLAT RECORDS, IN THE COUNTY OF CLACKAMAS AND STATE OF OREGON
EXCEPTING THEREFROM THAT PORTION CONVEYED TO CLACKAMAS COUNTY FOR RIGHT-OF-WAY PURPOSES
RECORDED MAY 12, 2016, AS RECORDING NUMBER 2016-030755 IN CLACKAMAS COUNTY, DEED RECORDS

SEPARATE SUBMITTALS:

- ELEVATOR
- AUTOMATIC GATE
- FIRE ALARM / SPRINKLER

NOTE

1. SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL SHALL BE SUBMITTED TO THE ARCHITECT FOR DESIGN REVIEW AND APPROVAL **<u>PRIOR</u>** TO SUBMITTAL TO THE AUTHORITY HAVING JURISDICTION.
2. GENERAL CONTRACTOR SHALL SUBMIT AND OBTAIN APPROVAL FOR ALL DEFERRED SUBMITTALS

PROJECT DESCRIPTION:

DEMOLITION OF INTERIOR SPACE OF A 40,000 s.f. TYPE II WAREHOUSE RECONSTRUCTION OF INTERIOR W/ SOME EXTERIOR UPGRADES TO TURN FACILITY INTO SELF-STORAGE FACILITY

CONSTRUCTION OF A NEW 48,800 s.f. TYPE VB FACILITY FOR SELF- STORAGE INCLUDING OFFICE, BREAK AND RESTROOMS

DELEGATED DESIGN:

THE GENERAL CONTRACTOR SHALL SCHEDULE A FIRESTOPPING MEETING WITH THE BUILDING INSPECTOR AND ALL SUBCONTRACTORS THAT WILL BE INSTALLING FIRESTOPPING MATERIALS. EACH SUBCONTRACTOR WILL PROVIDE A LIST OF FIRESTOP MATERIALS / ASSEMBLIES WHICH WILL BE USED AND THE LISTING AND APPROVAL INFORMATION (I.E. ICC OR OTHER APPROVED REPORT / LISTING NUMBERS). THIS INFORMATION MUST BE SUBMITTED TO AND APPROVED BY THE BUILDING INSPECTOR PRIOR TO ANY INSTALLATION.

OWNER:
WEST COAST SELF STORAGE
808 134TH ST SW, BLDG B, STE 211
EVERETT, WA 98204
PHONE (818) 749 8646
EMAIL JFITZPATRICK@WCSELFSTORAGE.COM
CONTACT JIM FITZPATRICK

ARCHITECT:
JACKSON | MAIN ARCHITECTURE P.S.
311 1ST AVE. S.
SEATTLE WA 98104
PHONE (206) 324 4800
EMAIL LARZ.HITCHCOCK@JACKSONMAIN.COM
CONTACT LARZ HITCHCOCK

SURVEY/CIVIL ENGINEER:
CARDINO ENGINEERS
6720 SW MACADAM AVE, SUITE 200
PORTLAND, OR 97219
PHONE (503) 419 2500
EMAIL MATT.LEWIS@CARDINO.COM
CONTACT MATT LEWIS

STRUCTURAL ENGINEER:
AAI STRUCTURAL DESIGN
4875 SW GRIFFITH DRIVE
BEAVERTON, OR 97005
PHONE (503) 620 3030
EMAIL HAMIDA@AAIENG.COM
CONTACT HAMID AFGHAN

GEOTECH ENGINEER:
HART CROWSER
300 W 15TH ST
VANCOUVER, WA
PHONE (360) 446 4183
EMAIL DANIEL.TRISLER@HARTCROWSER.COM
CONTACT DANIEL TRISLER

LANDSCAPE:
CARDNO ENGINEERS
6720 SW MACADAM AVE, SUITE 200
PORTLAND, OR 97219
PHONE (503) 419 2500
EMAIL MATT.LEWIS@CARDNO.COM
CONTACT MATT LEWIS

ELECTRICAL ENGINEER:
TBD
PHONE ?
EMAIL ?
CONTACT ?

M.E.P. ENGINEER:
TBD
PHONE ?
EMAIL ?
CONTACT ?

PROJECT NO.	18181
PROJECT MGR.	LH
DRAWN BY	AK EJH
CHECKED BY	LH

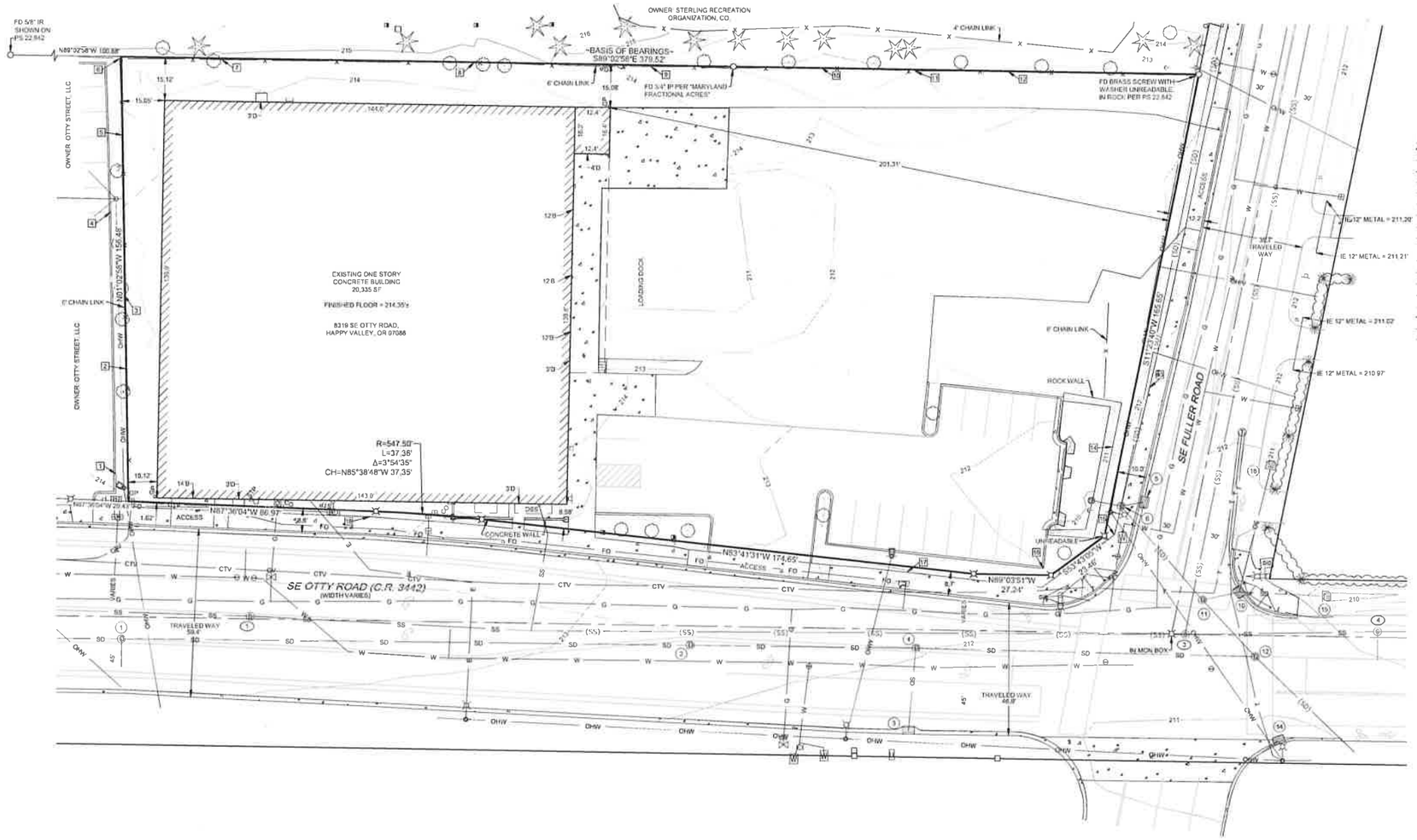
COVER SHEET

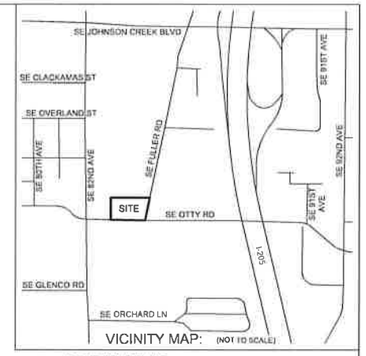
G0.00

A.L.T.A./N.S.P.S. LAND TITLE SURVEY

A PORTION OF LOTS 7, 8, AND 9, MARYLAND FRACTIONAL ACRES
LOCATED IN THE SW 1/4 OF SECTION 28, TOWNSHIP 1 SOUTH,
RANGE 2 EAST, WILLAMETTE MERIDIAN,
CITY OF HAPPY VALLEY, CLACKAMAS COUNTY, OREGON
DATE OF FIELD WORK: MARCH 4, 2019

SCALE: 1"=20'
20 10 0 20





LEGEND:

- EXISTING BOUNDARY LINE
- EXISTING CENTERLINE
- EXISTING RIGHT-OF-WAY LINE
- EASEMENT LINE
- X — FENCE LINE, TYPE AS NOTED
- SD — STORM DRAINAGE LINE
- SS — SANITARY SEWER LINE
- W — UNDERGROUND WATER LINE
- E — UNDERGROUND ELECTRICAL LINE
- T — UNDERGROUND TELEPHONE LINE
- FO — UNDERGROUND FIBER OPTIC LINE
- CTV — UNDERGROUND CABLE TV LINE
- G — UNDERGROUND NATURAL GAS LINE
- ( ) — INDICATES DATA FROM AS BUILT INFORMATION
- OHW — OVERHEAD WIRE
- BUILDING FACE
- BUILDING OVERHANG LINE
- TREE/VEGETATION LINE
- EXISTING ASPHALT SURFACE
- EXISTING CONCRETE SURFACE
- EXISTING GRAVEL SURFACE
- EXISTING RIP RAP SURFACE
- FOUND MONUMENT AS NOTED, HELD UNLESS OTHERWISE NOTED
- FOUND 5/8" IR WITH OPC MARKED "HHPR INC" PER SN 2017-109, HELD - UNLESS OTHERWISE NOTED
- FOUND 1" BRASS PLUG MARKED "CES/NW INC" PER SN 2008-178, HELD - UNLESS OTHERWISE NOTED
- GAS VALVE
- GAS METER
- SANITARY SEWER MANHOLE
- SSC — SANITARY SEWER CLEANOUT
- STORM DRAIN MANHOLE
- CATCH BASIN
- DITCH INLET
- AREA DRAIN
- ROOF DRAIN
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
- POST INDICATOR VALVE
- UNDERGROUND WATER VAULT
- WATER VALVE
- WATER METER BOX
- IRRIGATION CONTROL BOX
- SHOEBOX LIGHT (SINGLE)
- ACORN/GLOBE LIGHT
- STREET LIGHT (COBRA ARM)
- UTILITY POLE
- GUY WIRE
- TELEPHONE MANHOLE
- CABLE TELEVISION VAULT
- CABLE TELEVISION RISER
- TRAFFIC SIGNAL POLE W/ STREET LIGHT
- PEDESTRIAN SIGNAL POLE
- SIGNAL JUNCTION BOX
- UNKNOWN CLEANOUT
- STP — STAND PIPE
- UNKNOWN RISER
- UNKNOWN UTILITY VAULT
- BOLLARD
- GATE POST
- MAILBOX
- SIGN POST
- CONIFEROUS TREE
- DECIDUOUS TREE
- OPC — ORANGE PLASTIC CAP
- YPC — YELLOW PLASTIC CAP
- SF — SQUARE FEET
- SN/PS — SURVEY NUMBER PER COUNTY SURVEY RECORDS
- FD — FOUND
- IR — IRON ROD
- IP — IRON PIPE
- #"D — DOORWAY AND SIZE
- #"B — BAY DOOR AND SIZE

BASIS OF BEARINGS:

BASIS OF BEARING WAS DERIVED FROM THE FOUND AND HELD MONUMENTS MARKING THE NORTHERLY LINE OF SUBJECT PROPERTY AND WESTERLY EXTENSION THEREOF, BEING NORTH 89°02'58" WEST PER SURVEY NO. 22,842, CLACKAMAS COUNTY SURVEY RECORDS.

DATUM:

ELEVATION DATUM: NAVD88 (PER OPUS SOLUTION)
BENCHMARK: TBM PK NAIL 384.50' EAST OF CP #1
LOCATION: ON THE SOUTHERLY SIDE OF OTTY ROAD ON THE WESTERLY SIDE OF THE I-205 OVERPASS.
ELEVATION: 243.36 FEET

REFERENCES:

(1) THE PLAT OF "MARYLAND FRACTIONAL ACRES"
(2) PS 7,649
(3) PS 22,842
(4) PARTITION PLAT 1995-53
(5) PARTITION PLAT 1996-110
(6) SN 2008-178
(7) SN 2010-198
(8) SN 2015-255
(9) SN 2017-109

TOPOGRAPHIC NOTES:

1. 4' CURB IS 4.3' WEST OF PROPERTY LINE
2. 6' FENCE IS ON PROPERTY LINE
3. 6' FENCE IS 0.3' WEST OF PROPERTY LINE
4. 6" CURB IS 4.6' WEST OF PROPERTY LINE
5. 6' FENCE IS ON PROPERTY LINE
6. 6' FENCE IS 0.5' WEST OF PROPERTY LINE
7. 6' FENCE IS 0.5' SOUTH OF PROPERTY LINE
8. 6' FENCE IS ON PROPERTY LINE
9. 6' FENCE IS 0.5' SOUTH OF PROPERTY LINE
10. 6' FENCE IS 0.1' NORTH OF PROPERTY LINE
11. 6' FENCE IS 0.5' SOUTH OF PROPERTY LINE
12. 6' FENCE IS ON PROPERTY LINE
13. 4' SIDEWALK IS 5.5' EAST OF PROPERTY LINE
14. ~ ROCK WALL IS 3.4' WEST OF PROPERTY LINE
15. ~ SIDEWALK IS 3.4' EAST OF PROPERTY LINE
16. ~ CURB IS 2.3' NORTH OF PROPERTY LINE
17. ~ SIDEWALK IS 2.1' SOUTH OF PROPERTY LINE
18. ~ SIDEWALK IS 2.0' SOUTH OF PROPERTY LINE

(S) SANITARY SEWER TABLE:

1 SANITARY SEWER MANHOLE
RIM = 213.61'
IE 10" CONC IN (W) = 194.25'
IE 10" CONC OUT (E) = 194.15'

2 SANITARY SEWER MANHOLE
(REVERSE FLOW)
RIM = 213.65'
IE 10" CONC IN (W) = 204.10'
IE 12" CONC IN (N) = 203.77'
IE 12" CONC OUT (S) = 203.83'

3 SANITARY SEWER MANHOLE
RIM = 211.98'
IE 12" CONC IN (N) = 193.11'
IE 12" CONC IN (W) = 192.73'
IE 15" CONC OUT (E) = 192.74'

4 SANITARY SEWER MANHOLE
RIM = 212.12'
IE 12" CONC IN (E) = 193.08'
IE 15" CONC IN (W) = 192.46'
IE 18" CONC OUT (S) = 192.28'

(D) STORM DRAINAGE TABLE:

1 STORM DRAINAGE MANHOLE
RIM = 213.61'
IE 12" CMP IN (S) = 207.08'
IE 24" CMP IN (W) = 206.17'
IE 24" CMP OUT (E) = 206.13'

2 STORM DRAINAGE MANHOLE
(FULL OF DEBRIS)
RIM = 212.63'
IE 24" CMP IN (W) = 205.83'
IE 24" CMP OUT (E) = 205.83'

3 CATCH BASIN
(BIG BAG DID NOT DIP)
RIM = 211.32'

4 STORM DRAINAGE MANHOLE
RIM = 212.08'
IE 12" PVC IN (S) = 206.07'
IE 24" CMP IN (W) = 205.57'
IE 24" CMP OUT (E) = 205.63'

5 CATCH BASIN
(FULL OF DEBRIS)
RIM = 211.09'
IE 12" CONC OUT (W) = 207.38'
SUMP = 206.99'

6 STORM DRAINAGE MANHOLE
RIM = 211.81'
(OFFSET TO FAR TO SEE ALL PIPES)
IE IN (W)
IE 12" IN (E)
IE 24" CONC IN (N) = 205.45'
IE 24" CONC OUT (SE)

7 STORM DRAINAGE MANHOLE
RIM = 213.34'
IE IN (W) = 205.94'
IE 24" CONC IN (N) = 205.96'
IE 24" CONC OUT (S) = 205.89'

8 STORM DRAINAGE MANHOLE
RIM = 213.68'
IE 12" CONC IN (E) = 206.7'±
IE 18" CMP IN (W) = 206.80'
IE 24" CONC IN (N) = 206.79'
IE 24" CONC OUT (S) = 206.78'±

9 CATCH BASIN
RIM = 212.88'
IE 12" CONC IN (N) = 210.32'
IE 12" CONC OUT (W) = 210.06'
SUMP = 208.36'

10 CATCH BASIN
RIM = 211.84'
IE 12" CPP IN (N) = 205.41'
IE 12" CPP IN (E) = 207.75'
IE 24" CONC OUT (W) = 205.17'
SUMP = 205.31'

11 STORM DRAINAGE MANHOLE
(FULL OF DEBRIS)
RIM = 211.92'
IE 24" CONC IN (NW) = 205.07'
IE 24" CONC IN (NE) = 204.65'
IE 24" CONC OUT (SE) = 205.26'

12 STORM DRAINAGE MANHOLE
(FULL OF DEBRIS)
RIM = 211.82'
IE 24" CMP IN (W) = 205.23'
IE 30" CONC IN (NW) = 205.08'
IE 36" CMP OUT (SE) = 205.17'

13 STORM DRAINAGE MANHOLE
(FULL OF DEBRIS)
RIM = 212.22'
IE 60" CONC
CENTERLINE OF CHANNEL = 205.32'

14 CATCH BASIN
RIM = 210.57'
IE 12" CPP OUT (SW) = 208.31'
SUMP = 208.21'

15 DITCH INLET
RIM = 209.26'
IE 10" CPP OUT (W) = 208.61'
SUMP = 205.26'

16 DITCH INLET
RIM = 210.76'
IE 10" CPP OUT (SW) = 208.63'
SUMP = 206.81'

UNDERGROUND ACCURACY STATEMENT:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH WE CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. DUE TO THE HAZARDOUS NATURE AND APPLICABLE OSHA REQUIREMENTS REGARDING CONFINED SPACES, IT IS CARDNO POLICY TO NOT SEND FIELD STAFF INTO UTILITY MANHOLES TO RETRIEVE DEPTH AND SIZE INFORMATION. INFORMATION SHOWN HEREON IS SUBJECT TO AN UNCERTAINTY IN ACCURACY DEPENDING ON DEPTH, SIZE, FLOW, AND CONSTRUCTION OF MANHOLES. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITY LINES.

RECEIVED
JUN 18 2019
Clackamas County
Planning & Zoning Division

Cardno
PORTLAND
6720 SW MACADAM AVE., #200, PORTLAND, OR 97219
TEL: (503) 419 - 2500 FAX: (503) 419 - 2600
www.cardno.com

A.L.T.A./N.S.P.S. LAND TITLE SURVEY
OTTY ROAD SELF-STORAGE
WEST COAST SELF-STORAGE GROUP, LLC
CITY OF HAPPY VALLEY, CLACKAMAS COUNTY, OREGON

BY	DATE	DESCRIPTION
A		

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JULY 12, 2005
ERIC D. LYNCH
56544
RENEWS 12/31/20
ERIC.LYNCH@CARDNO.COM

DATE	4/24/2019
DRAWN	TLB
SURVEYOR	EDL
CHECKED	EDL
PROJECT #	21814180

SHEET TITLE
ALTA

SHEET NUMBER
1 OF 2

Plot Stamp: 4/24/2019 10:29:19 AM - Travis Bolton
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A.L.T.A./N.S.P.S. LAND TITLE SURVEY

A PORTION OF LOTS 7, 8, AND 9, MARYLAND FRACTIONAL ACRES
LOCATED IN THE SW 1/4 OF SECTION 28, TOWNSHIP 1 SOUTH,
RANGE 2 EAST, WILLAMETTE MERIDIAN,
CITY OF HAPPY VALLEY, CLACKAMAS COUNTY, OREGON
DATE OF FIELD WORK: MARCH 4, 2019

GENERAL NOTES:

1. THE LEGAL DESCRIPTION AND EXCEPTIONS SHOWN HEREON ARE BASED ON THE COMMITMENT FOR TITLE INSURANCE ISSUED BY CHICAGO TITLE COMPANY OF OREGON, ORDER NO. 472518005161, UPDATE 3, EFFECTIVE DATE MARCH 21, 2019.

2. THE PROPERTY HAS DIRECT ACCESS TO SE OTTY ROAD AND SE FULLER ROAD, BEING DEDICATED PUBLIC STREETS.

3. THE WORD "CERTIFY" AND/OR "CERTIFICATE" IS AN EXPRESSION OF PROFESSIONAL OPINION REGARDING THE FACTS OF THE SURVEY AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EXPRESSED OR IMPLIED.

4. MANHOLES SHOWN HEREON ARE TO CENTER OF MANHOLE LID, NOT CENTER OF STRUCTURE.

NOTES RELATING TO TABLE "A":

2. ADDRESS(ES) OF THE SURVEYED PROPERTY AS DISCLOSED IN DOCUMENTS PROVIDED TO OR OBTAINED BY THE SURVEYOR, OR OBSERVED WHILE CONDUCTING THE FIELDWORK ARE AS SHOWN HEREON.

3. THIS SITE APPEARS TO LIE IN UNSHADED ZONE "X", "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN (AREA OF MINIMAL FLOOD HAZARD)" PER FEMA FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 41005C0290, DATED JUNE 17, 2008.

4. GROSS LAND AREA 59,983 SQ. FT. OR 1.375 ACRES.

5. CONTOUR INTERVAL = 1 FOOT, BASED ON GROUND SURVEY, VERTICAL DATUM AND BENCHMARK ARE AS NOTED HEREON.

6(A). NO ZONING REPORT PROVIDED TO THE SURVEYOR.

7(A). THE EXTERIOR DIMENSIONS OF BUILDINGS ARE SHOWN AT GROUND LEVEL.
7(B)(1). THE SQUARE FOOTAGE OF THE EXTERIOR FOOTPRINT OF ALL BUILDINGS AT GROUND LEVEL ARE AS SHOWN HEREON.

8. ALL SUBSTANTIAL FEATURES OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK ARE AS SHOWN HEREON.

9. THERE ARE 2 DISABLED AND 15 REGULAR CLEARLY IDENTIFIABLE PARKING SPACES ON SURFACE PARKING AREAS, LOTS AND IN PARKING STRUCTURES.

11. THE LOCATION OF UTILITIES EXISTING ON OR SERVING THE SURVEYED PROPERTY WERE DETERMINED BY: OBSERVED EVIDENCE COLLECTED PURSUANT TO SECTION 5.E.IV. EVIDENCE FROM PLANS REQUESTED BY THE SURVEYOR AND OBTAINED FROM UTILITY COMPANIES, OR PROVIDED BY CLIENT, AND MARKINGS REQUESTED BY THE SURVEYOR PURSUANT TO AN 811 UTILITY LOCATE OR SIMILAR REQUEST, AND ARE AS SHOWN HEREON.

LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CLIENT IS ADVISED THAT EXCAVATION AND/OR A PRIVATE UTILITY LOCATE REQUEST MAY BE NECESSARY.

13. THE NAMES OF ADJOINING OWNERS ACCORDING TO CURRENT TAX RECORDS ARE AS SHOWN HEREON.

16. NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK.

19. NO PLOTTABLE OFFSITE EASEMENTS AND / OR SERVITUDES WERE DISCLOSED TO OR OBTAINED BY THE SURVEYOR AS A PART OF THE SURVEY.

EXCEPTIONS: PER NOTED TITLE REPORT

E [INTENTIONALLY DELETED]
[NOT A SURVEY LOCATION ITEM]

7 THE LAND IS WITHIN CLACKAMAS COUNTY SERVICE DISTRICT NO. 1 AND IS SUBJECT TO ITS LEVIES AND ASSESSMENTS,

PURPOSE UTILITY
AMOUNT $187.87, BALANCE DUE
REFERENCE NO: 03-02023-01
[NOT A SURVEY LOCATION ITEM]

8 CONDITIONS AND RESTRICTIONS AS ESTABLISHED BY THE CITY OF HAPPY VALLEY

PURPOSE RIGHT OF WAY
ORDINANCE NO. / FILE NO.: 2015-118
RECORDING DATE DECEMBER 17, 2015
RECORDING NO.: 2015-083178
[DECLARATION OF NECESSITY FOR RIGHT OF WAY AND EASEMENT ACQUISITION; AFFECTS SOUTHERLY PORTION OF SUBJECT PROPERTY]

9 CONDITIONS AND RESTRICTIONS AS ESTABLISHED BY THE CITY OF HAPPY VALLEY

PURPOSE RIGHT OF WAY
ORDINANCE NO. / FILE NO.: 2015-113
RECORDING DATE DECEMBER 17, 2015
RECORDING NO.: 2015-083181
[ADDS THAT PORTION OF OTTY ROAD BETWEEN 82ND AVENUE AND FULLER ROAD TO COUNTY ROAD STATUS]

10 TERMS AND PROVISIONS OF THE PERMANENT RIGHT OF WAY EASEMENT FOR ROAD PURPOSES

RECORDING DATE MAY 12, 2016
RECORDING NO.: 2016-030755
[RIGHT OF WAY EASEMENT DEDICATION ALONG SOUTHERLY PORTION OF SUBJECT PROPERTY]

11 PLEASE BE ADVISED THAT OUR SEARCH DID NOT DISCLOSE ANY OPEN DEEDS OF TRUST OF RECORD. IF YOU SHOULD HAVE KNOWLEDGE OF ANY OUTSTANDING OBLIGATION, PLEASE CONTACT THE TITLE DEPARTMENT IMMEDIATELY FOR FURTHER REVIEW PRIOR TO CLOSING.
[NOT A SURVEY LOCATION ITEM]

12 EXISTING LEASES AND TENANCIES, IF ANY, AND ANY INTERESTS THAT MAY APPEAR UPON EXAMINATION OF SUCH LEASES.
[NOT A SURVEY LOCATION ITEM]

13 THE COMPANY WILL REQUIRE THE FOLLOWING DOCUMENTS FOR REVIEW PRIOR TO THE ISSUANCE OF ANY TITLE INSURANCE PREDICATED UPON A CONVEYANCE OR ENCUMBRANCE BY THE CORPORATION NAMED BELOW:

NAME OF CORPORATION: INTERSTATE MANUFACTURING, INC., AN OREGON CORPORATION

A) A COPY OF THE CORPORATION BY-LAWS AND ARTICLES OF INCORPORATION

B) AN ORIGINAL OR CERTIFIED COPY OF A RESOLUTION AUTHORIZING THE TRANSACTION CONTEMPLATED HEREIN

C) IF THE ARTICLES AND/OR BY-LAWS REQUIRE APPROVAL BY A 'PARENT' ORGANIZATION, A COPY OF THE ARTICLES AND BY-LAWS OF THE PARENT

D) A CURRENT DATED CERTIFICATE OF GOOD STANDING FROM THE PROPER GOVERNMENTAL AUTHORITY OF THE STATE IN WHICH THE ENTITY WAS CREATED

THE COMPANY RESERVES THE RIGHT TO ADD ADDITIONAL ITEMS OR MAKE FURTHER REQUIREMENTS AFTER REVIEW OF THE REQUESTED DOCUMENTATION.
[NOT A SURVEY LOCATION ITEM]

14 FACTS, RIGHTS, INTERESTS OR CLAIMS WHICH ARE NOT SHOWN BY THE PUBLIC RECORDS BUT WHICH COULD BE ASCERTAINED BY AN INSPECTION OF THE LAND OR BY MAKING INQUIRY OF PERSONS IN POSSESSION THEREOF.

TO REMOVE THIS ITEM, THE COMPANY WILL REQUIRE AN AFFIDAVIT AND INDEMNITY ON A FORM SUPPLIED BY THE COMPANY.
[NOT A SURVEY LOCATION ITEM]

15 ANY LIEN OR RIGHT TO A LIEN FOR SERVICES, LABOR, MATERIAL, EQUIPMENT RENTAL OR WORKERS COMPENSATION HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.

TO REMOVE THIS ITEM, THE COMPANY WILL REQUIRE AN AFFIDAVIT AND INDEMNITY ON A FORM SUPPLIED BY THE COMPANY.
[NOT A SURVEY LOCATION ITEM]

16 ANY ENCROACHMENT (OF EXISTING IMPROVEMENTS LOCATED ON THE SUBJECT LAND ONTO ADJOINING LAND OR OF EXISTING IMPROVEMENTS LOCATED ON ADJOINING LAND ONTO THE SUBJECT LAND), ENCUMBRANCE, VIOLATION, VARIATION OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE LAND SURVEY OF THE SUBJECT LAND.

THE COMPANY WILL REQUIRE AN INSPECTION OF THE PREMISES, AND THIS EXCEPTION MAY BE ELIMINATED OR LIMITED AS A RESULT THEREOF.
[NOT A SPECIFIC SURVEY LOCATION ITEM]

17 UNPAID BUSINESS PERSONAL PROPERTY TAXES WITH PARTIAL PAYMENT ARE AS FOLLOWS: FISCAL YEAR: 2018-2019

ORIGINAL AMOUNT $3,330.53
UNPAID BALANCE $5,2132.22, PLUS INTEREST, IF ANY
LEVY CODE: 012-730
ACCOUNT NO.: P2078842
MAP NO.: 12E28C003000

PRIOR TO CLOSE OF ESCROW, PLEASE CONTACT THE TAX COLLECTOR'S OFFICE TO CONFIRM ALL AMOUNTS OWING, INCLUDING CURRENT FISCAL YEAR TAXES, SUPPLEMENTAL TAXES, ESCAPED ASSESSMENTS AND ANY DELINQUENCIES.
[NOT A SURVEY LOCATION ITEM]

18 COUNTY TAX WARRANT FOR THE AMOUNT HEREIN STATED, PLUS INTEREST AND STATUTORY CHARGES:

WARRANT NO.: 2841441
AMOUNT $5,2132.22
DEBTOR: INTERSTATE MFG INC.
RECORDING DATE MARCH 20, 2019
RECORDING NO.: 2019-014563
[NOT A SURVEY LOCATION ITEM]

LEGAL DESCRIPTION: PER NOTED TITLE REPORT

LOTS 7, 8, AND 9, MARYLAND FRACTIONAL ACRES, AS RECORDED VOLUME 17, PAGE 19, PLAT RECORDS, IN THE COUNTY OF CLACKAMAS AND STATE OF OREGON.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO CLACKAMAS COUNTY FOR RIGHT-OF-WAY PURPOSES, RECORDED MAY 12, 2016, AS RECORDING NUMBER 2016-030755 IN CLACKAMAS COUNTY, DEED RECORDS.

SURVEYOR'S CERTIFICATE:

TO: WEST COAST SELF-STORAGE GROUP, LLC
CHICAGO TITLE COMPANY OF OREGON

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 6(A), 7(A), 7(B)(1), 8, 9, 11, 13, 16 AND 19 OF TABLE A THEREOF.

THE FIELDWORK WAS COMPLETED ON MARCH 4, 2019.

DATE OF PLAT OR MAP: 04/24/2019.

ERIC D. LYNCH, PLS, CWRE
REGISTRATION/LICENSE NUMBER 56544

RECEIVED

JUN 18 2019

Clackamas County
Planning & Zoning Division

Cardno
PORTLAND
6720 SW MACADAM AVE., #200, PORTLAND, OR 97219
TEL: (503) 419 - 2500 FAX: (503) 419 - 2600
www.cardno.com

A.L.T.A./N.S.P.S. LAND TITLE SURVEY
OTTY ROAD SELF-STORAGE
WEST COAST SELF-STORAGE GROUP, LLC
CITY OF HAPPY VALLEY, CLACKAMAS COUNTY, OREGON

#	DATE	DESCRIPTION	BY

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JULY 12, 2005
ERIC D. LYNCH
56544
RENEWS 12/31/20

ERIC.LYNCH@CARDNO.COM

DATE	4/24/2019
DRAWN	TLB
SURVEYOR	EDL
CHECKED	EDL
PROJECT #	21814180
SHEET TITLE	ALTA
SHEET NUMBER	2 OF 2

Plot Stamp: 4/24/2019 10:28:30 AM - Travis Burton
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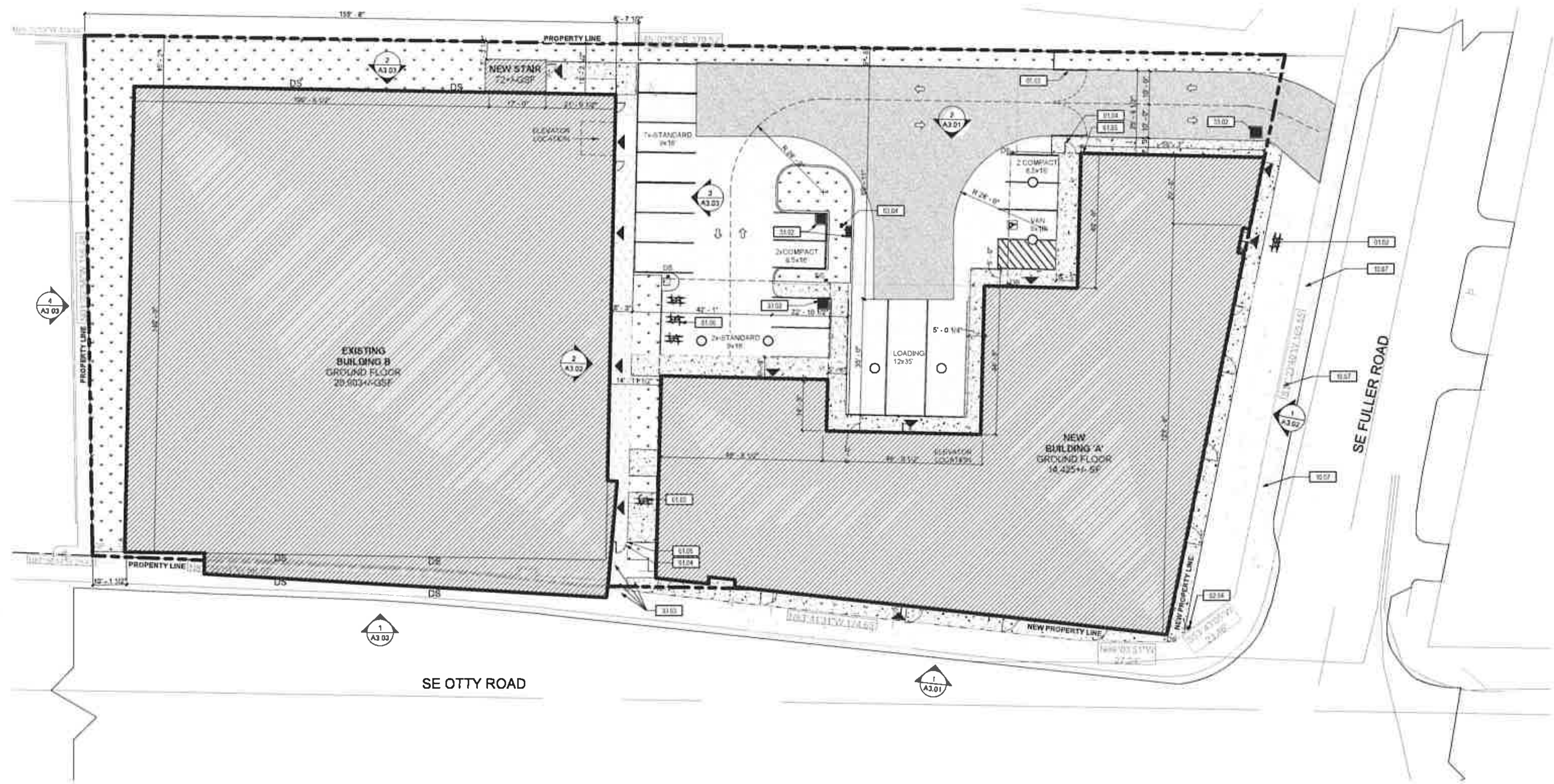

1 SITE PLAN

SHEET NOTES:

AREA CALCULATIONS:

BUILDING A

± 14,425 SF LEVEL 1
± 16,789 SF LEVEL 2
± 18,868 SF LEVEL 3
± 50,082 SF TOTAL

BUILDING B

± 20,903 SF LEVEL 1
± 20,414 SF LEVEL 2
± 41,317 SF TOTAL

ALL BUILDINGS

± 91,399 SF

ZONED: CC (COMMERCIAL CORRIDOR WITHIN THE FULLER STATION OVERLAY)

SITE AREA: +/- 64,033 sf (+/- 1.47 ACRES)

SETBACKS:
FRONT 0' WITH LINEAR SCHEME
REAR: 0'
SIDE: 0'

PARKING STALLS: (CCMC 1015.1)
>50,000 sf .2 PER 1,000 GSF
EXISTING 48,788 sf + NEW 40,297 = 89,085 sf
89,085/1000 = 89.1 * 0.2 = 18 STALLS
(3 STALLS ARE ALLOWED TO BE STREET PARKING) = 15 STALLS REQUIRED

PROVIDED:
9 STANDARD (9x18')
5 COMPACT (8.5x16')
1 ACCESSIBLE (9x18') (1/15 = 6%)

3 LOADING DOCKS (12x36')

BICYCLE:
OFFICE 1:2,500SF = 1 REQ.
WAREHOUSE 1:10,000 = 9 REQ.
PROVIDED = 10 RACKS

SITE PLAN LEGEND:

- PROPERTY LINE
- BUILDING FOOTPRINT
- LANDSCAPING - REF. LANDSCAPE DRAWINGS FOR AREA CALCULATIONS
- NEW PAVED PARKING - REF. CIVIL FOR PERVIOUS CALCULATIONS
- FIRE LANE
- PROPOSED CONCRETE
- POROUS PAVEMENT AT WALKWAYS
- FENCE
- TRAFFIC DIRECTIONAL ARROWS
- LED WALL SCONCES
- CATCH BASIN - REF. CIVIL
- FH FIRE HYDRANT - REF. CIVIL
- DS DOWNSPOUT
- LED SOFFIT DOWNLIGHT LOCATIONS

KEYNOTES:

#	NOTE
01.02	BIKE STORAGE - 2 STALLS
01.04	NEW MAN GATE AND FENCE
01.05	KNOX BOX LOCATION
01.06	BIKE STORAGE - 5 COVERED STALLS
02.04	NEW FIRE HYDRANT - REF. CIVIL
05.03	PROPOSED SWING GATE
10.07	5x5 TREE WELL REF. CIVIL
33.02	CATCH BASIN REF. CIVIL
33.03	VAULTS, REF. CIVIL

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808 134TH ST SW, BLDG. B, STE 211
EVERETT, WA 98204

WCSS OTTY ROAD - HAPPY VALLEY
8319 S.E. OTTY ROAD
HAPPY VALLEY, OR 97086

DATE	NO	DESCRIPTION
[illegible]	1	SCHEMATIC DESIGN - SITE PLAN
[illegible]	2	SCHEMATIC DESIGN SET
05/17/2019	3	LAND USE SUBMITTAL
07/17/2019	4	LAND USE - REVISION

PROJECT NO. 18181
PROJECT MGR. LH
DRAWN BY AK EJH
CHECKED BY LH

SITE PLAN

A1.01

1 FLOOR PLAN - LEVEL 01 - MIX

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SHEET NOTES:

BUILDING A EFFICIENCY:

LEVEL 1

STORAGE: 10,073 SF
BUILDING: 14,419 SF

EFFICIENCY: (10,073 X 100)/14,419 = 69%

LEVEL 2

STORAGE: 12,956 SF
BUILDING: 18,868 SF

EFFICIENCY: (12,128 X 100)/18,868 = 64%

LEVEL 3

STORAGE: 13,137 SF
BUILDING: 18,868 SF

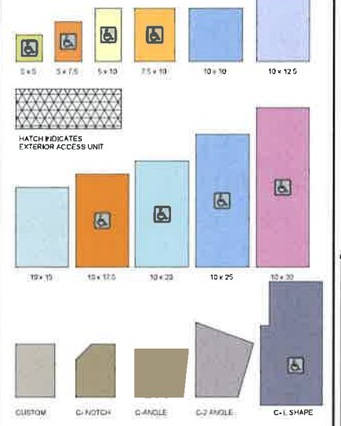
EFFICIENCY: (13,137 X 100)/18,868 = 70%

TOTAL

STORAGE: 10,073 SF + 12,128 SF + 13,137SF = 35,338 SF
TOTAL BUILDING: 14,419 SF + 16,789 SF + 18,868SF = 50,076 SF

EFFICIENCY: (35,338 X 100)/50,076 = 71%

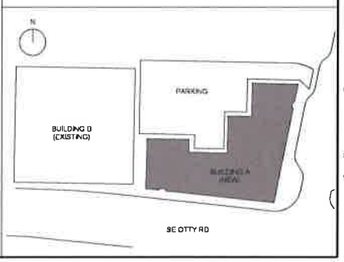
UNIT MIX LEGEND:



KEYNOTES:

#	NOTE

KEYPLAN:



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WCSS OTTY ROAD - HAPPY VALLEY
8319 S.E. OTTY ROAD
HAPPY VALLEY, OR 97086

NO	DESCRIPTION	DATE
2	LAND USE SUBMITTAL	06/17/2019
1	LAND USE - REVISION	07/17/2019

PROJECT NO. 18181
PROJECT MGR. LH
DRAWN BY AK,EJH
CHECKED BY LH

UNIT MIX- LVL 1- BLDG A

A1.10

1 FLOOR PLAN - LEVEL 02 - MIX

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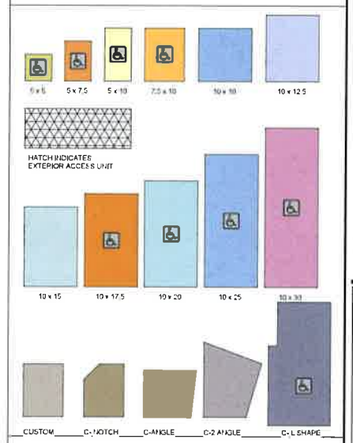
SHEET NOTES:

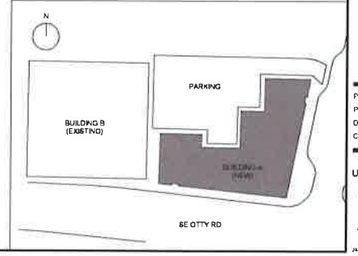
UNIT MIX LEGEND:



KEYNOTES:

#	NOTE

KEYPLAN:



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8319 S.E. OTTY ROAD
HAPPY VALLEY, OR 97086

NO	DESCRIPTION	DATE
3	LAND USE SUBMITTAL	06/17/2019
4	LAND USE - REVISION	07/17/2019

PROJECT NO 1818.1
PROJECT MGR LH
DRAWN BY AK EJH
CHECKED BY LH

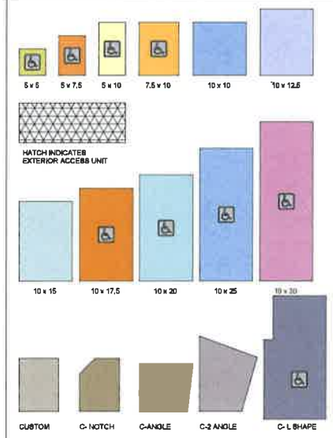
UNIT MIX- LVL 2- BLDG A

A1.12

1 FLOOR PLAN - LEVEL 3
1/8" = 1'-0"

SHEET NOTES:

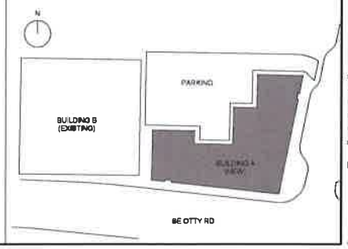
UNIT MIX LEGEND:



KEYNOTES:

#	NOTE

KEYPLAN:



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WCSS OTTY ROAD - HAPPY VALLEY
8319 S.E. OTTY ROAD
HAPPY VALLEY, OR 97086

#	DESCRIPTION	DATE
1	LAND USE SUBMITTAL	3/29/2019
2	LAND USE - REVISION	5/31/2019

PROJECT NO.	18181
PROJECT MGR	LH
DRAWN BY	AK,EJH
CHECKED BY	LH

UNIT MIX- LVL 3- BLDG A

A1.13

1 BLDG B - FLOOR PLAN - LEVEL 01 - UNIT MIX

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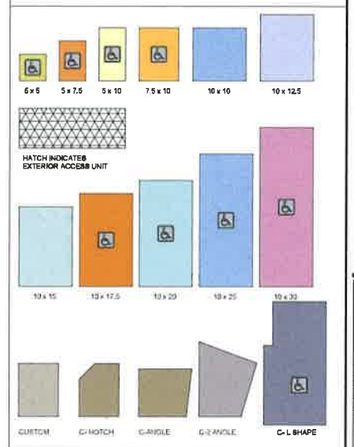
SHEET NOTES:

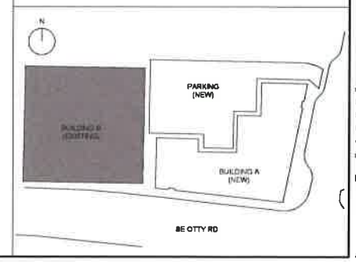
UNIT MIX LEGEND:



KEYNOTES:

#	NOTE

KEYPLAN:



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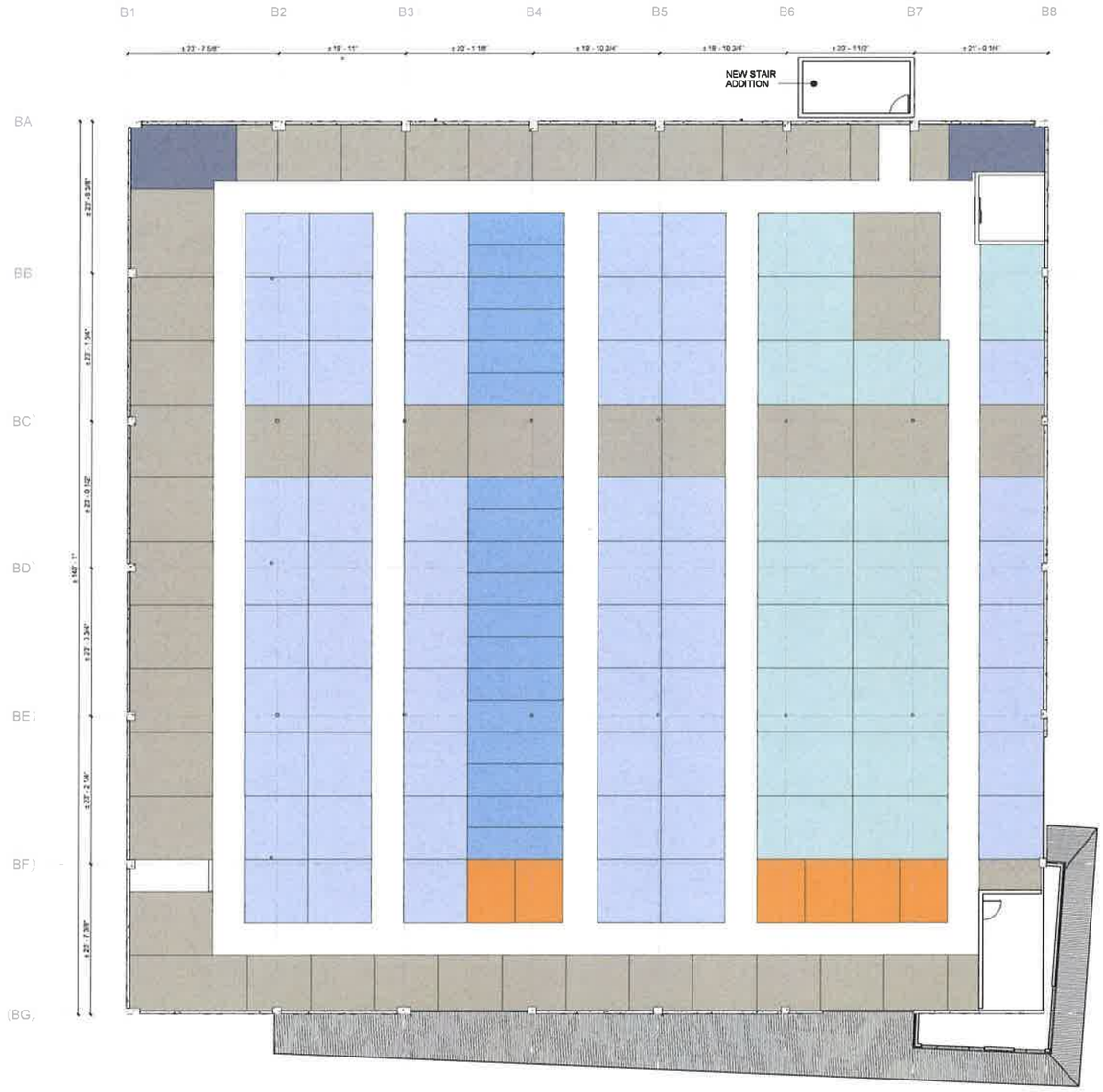
HAPPY VALLEY, OR 97086

NO	DESCRIPTION	DATE
1	LAND USE SUBMITTAL	05/17/2019
2	LAND USE REVISION	

PROJECT NO.	18161
PROJECT MGR	LH
DRAWN BY	AK,EJH
CHECKED BY	LH

UNIT MIX- LVL 1- BLDG B

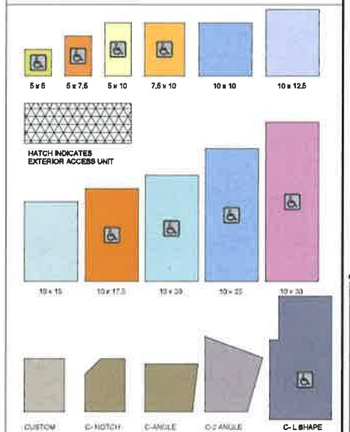
A1.20



1 BLDG B - FLOOR PLAN - LEVEL 02 - UNIT MIX
1/8" = 1'-0"

SHEET NOTES:

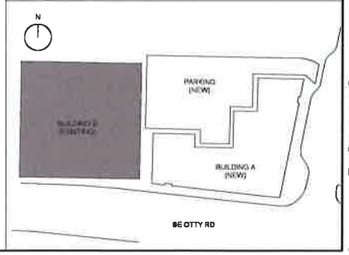
UNIT MIX LEGEND:



KEYNOTES:

#	NOTE

KEYPLAN:



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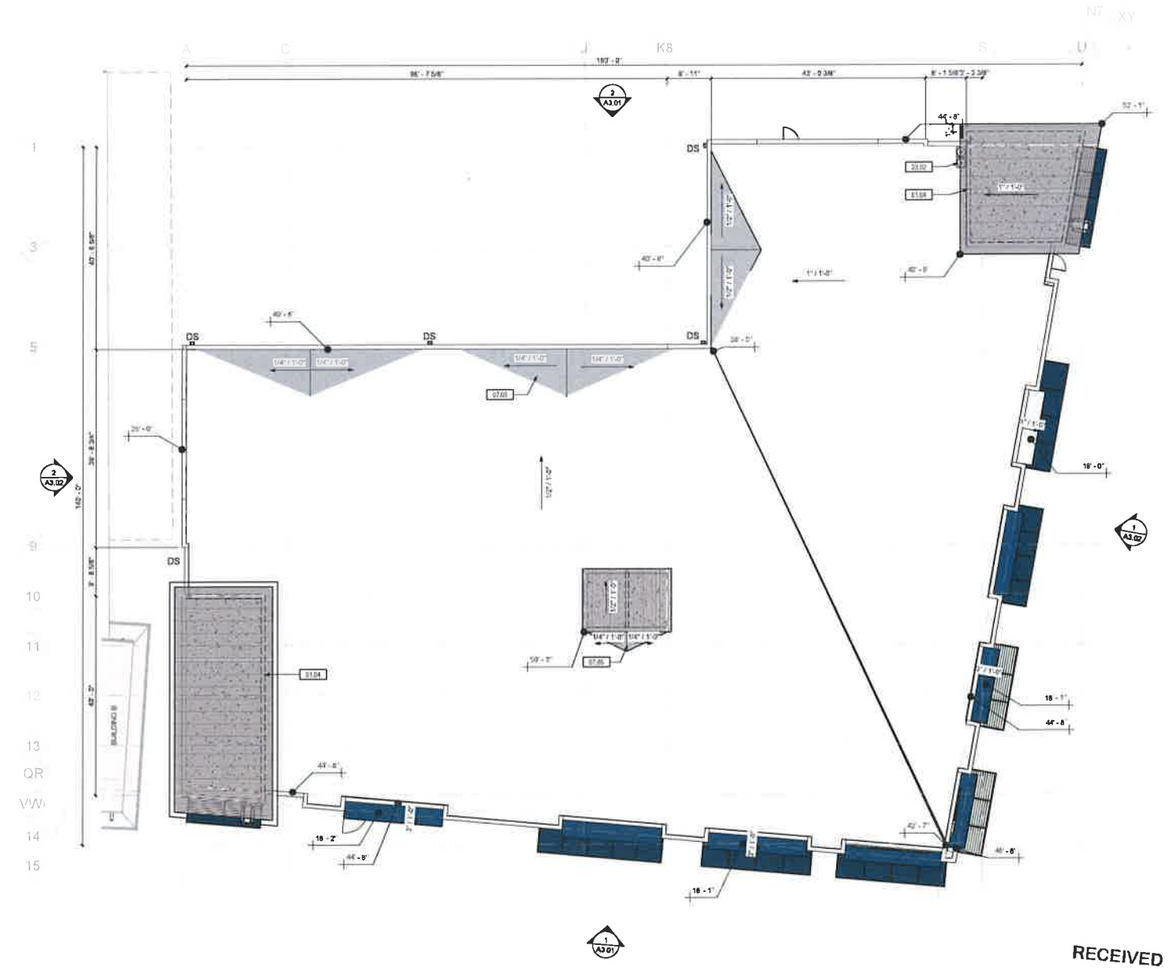
WCSS OTTY ROAD - HAPPY VALLEY
8319 S.E. OTTY ROAD
HAPPY VALLEY, OR 97086

NO	DESCRIPTION	DATE
3	LAND USE SUBMITTAL	05/17/2019
4	LAND USE - REVISION	05/17/2019

PROJECT NO. 18181
PROJECT MGR. LH
DRAWN BY AK,EJH
CHECKED BY LH

UNIT MIX- LVL 2- BLDG B

A1.21



1 BUILDING A - ROOF PLAN
3/32" = 1'-0"

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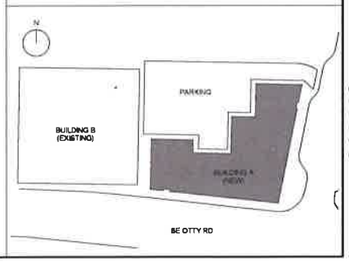
Clackamas County
Planning & Zoning Division

SHEET NOTES:

KEYNOTES:

#	NOTE
31.04	NEW MAN GATE AND FENCE
97.05	ROOF CRICKETS, TYP.
33.02	PROPOSED CONDENSER UNITS ON ROOF NUMBER TBD.

KEY PLAN:



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WCSS OTTY ROAD - HAPPY VALLEY
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HAPPY VALLEY, OR 97086

DATE	NO	DESCRIPTION
05/17/2019	3	LAND USE SUBMITTAL
07/17/2019	4	LAND USE - REVISION

PROJECT NO: 19151
PROJECT MGR: LH
DRAWN BY: AK,EJH
CHECKED BY: LH

ROOF PLAN - BLDG A

A2.06

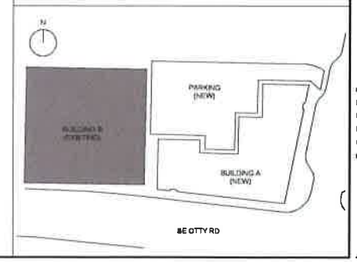
1 **BUILDING B - ROOF PLAN**
3/32" = 1'-0"

SHEET NOTES:

KEYNOTES:

#	NOTE

KEY PLAN:



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WCSS OTTY ROAD - HAPPY VALLEY
8319 S.E. OTTY ROAD
HAPPY VALLEY, OR 97086

NO	DESCRIPTION	DATE
3	LAND USE SUBMITTAL	05/17/2019
4	LAND USE - RESUBMISSION	07/17/2019

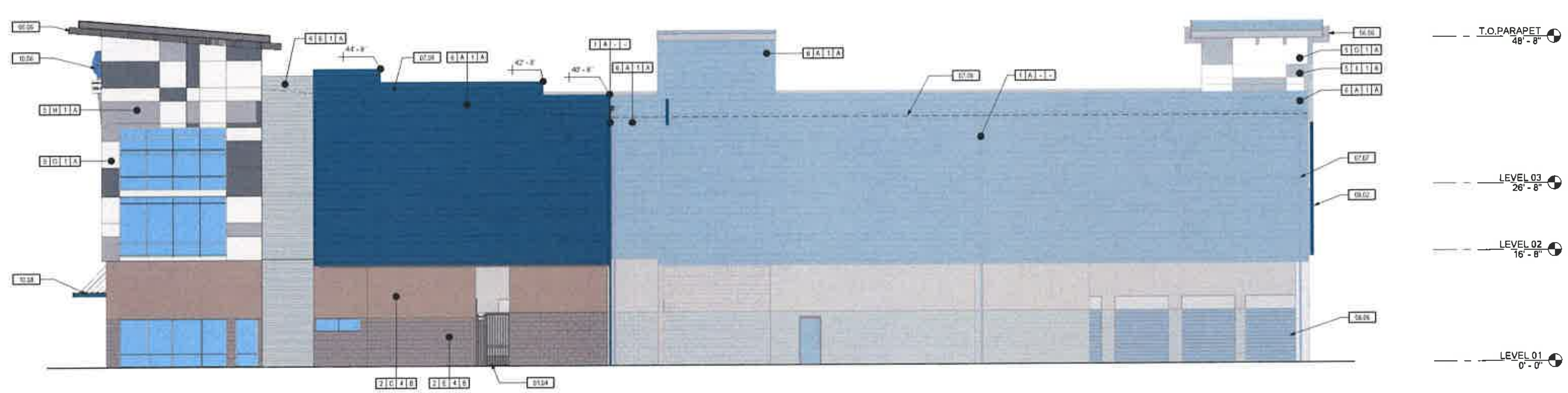
PROJECT NO.	18181
PROJECT MGR	LH
DRAWN BY	AK,EJH
CHECKED BY	LH

ROOF PLAN - BLDG B

A2.07

OTTY ROAD
Total Lineal Feet of Building = 154'-4"
Total Lineal Feet of Glazing = 98'-8"
Glazing Percentage this elevation = 60%

1 SOUTH ELEVATION (OTTY RD.)



2 NORTH ELEVATION (DRIVE AISLE)

SHEET NOTES:

A. REFER TO SHEET A2.00 SERIES FOR DOOR AND WINDOW LOCATIONS
B. REFER TO SHEET A7.00 SERIES FOR DOOR AND WINDOW SCHEDULES
C. GENERAL CONTRACTOR TO COORDINATE ALL VERTICAL CONCRETE AND MASONRY JOINTS WITH ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION
D. MOCK-UPS: CONTRACTOR TO PROPOSE LOCATIONS OF ASSEMBLIES REQUIRING MOCK-UPS. LOCATIONS AND EXTENT OF MOCK-UP TO BE APPROVED BY ARCHITECT
E. FOR ALL ENVIRONMENTAL AIR EXHAUST: 3 FEET FROM PROPERTY LINES, 3 FEET FROM OPERABLE OPENINGS INTO BUILDINGS FOR ALL OCCUPANCIES OTHER THAN GROUP U, AND 10 FEET FROM MECHANICAL AIR INTAKES. SUCH EXHAUSTS SHALL NOT BE CONSIDERED HAZARDOUS OR NOXIOUS
F. ALL EXTERIOR FINISH CLADDING SYSTEMS TO TURN AND TERMINATE AT INTERIOR CORNERS, UNLESS OTHERWISE NOTED
G. GENERAL CONTRACTOR TO COORDINATE ALL VERTICAL AND HORIZONTAL FIBER CEMENT PANEL JOINTS AND BATTENS PER EXTERIOR ELEVATIONS WITH MANUFACTURER
H. BELLY BAND TO BE FIBER CEMENT 1X10 UNLESS OTHERWISE NOTED
I. TRIM AT ALL CORNERS TO BE 1X6 UNLESS OTHERWISE NOTED
J. WINDOW AND DOOR TRIM TO BE 1X4 UNLESS OTHERWISE NOTED
K. FASCIA TRIM TO BE 1X8 UNLESS OTHERWISE NOTED
L. 8" EXPOSURE FOR THE LAP SIDING UNLESS OTHERWISE NOTED
M. PAINT EXTERIOR SOFFITS SAME COLOR AS FASCIA. STOP AT TOP OF SIDING (INSIDE CORNER) UNLESS OTHERWISE NOTED

MATERIALS LEGEND:

PRODUCT / COLOR / PROFILE / MANUFACTURER

PRODUCTS
1. PREFINISHED DOWNSPOUT
2. CONCRETE MASONRY UNITS
3. STANDING SEAM METAL ROOFING
4. CONCRETE
5. CEMENTITIOUS PANEL SIDING
6. CEMENTITIOUS PLANK SIDING

PROFILE / TEXTURE
1. SMOOTH
2. 4" BOX BEAM
3. STANDARD CMU
4. SPLIT FACE CMU

MANUFACTURER
A. JAMES HARDIE
B. MUTUAL MATERIALS

COLOR
A. SW 6804 DIGNITY BLUE
B. SW 7071 GRAY SCREEN
C. MM CASTLE WHITE
D. SW 2849 WESTCHESTER GRAY
E. MM NATURAL
F. SW 1081 SANDSPIT
G. SW 7005 PURE WHITE
H. SW 7073 NETWORK GRAY
I. SW 6236 GRAYS HARBOR

SW = SHERWIN WILLIAMS
MM = MUTUAL MATERIALS

KEYNOTES:

#	NOTE
01.04	NEW MAN GATE AND FENCE
06.06	GLUELAM BEAMS, CAPPED AT ENDS, TYP.
07.07	DOWNSPOUTS, TYP.
07.08	ROOF LINE BEYOND
08.05	SPANDREL GLASS GLAZING, GRAY SW7071
08.06	EXTERIOR UNIT ROLL-UP DOOR, TYP.
09.02	6 INCH VERTICAL BAND AT EXTERIOR CORNER, TYP. 4 INCH VERTICAL BAND AT INTERIOR CORNER, TYP.
10.04	WCSS SIGNAGE - 69 SF - REF. STRUCTURAL FOR ATTACHMENT
10.05	WCSS SIGNAGE - 120 SF - REF. STRUCTURAL FOR ATTACHMENT
10.06	WCSS BLADE SIGNAGE - 75 SF - REF. STRUCTURAL FOR ATTACHMENT
10.08	60" MIN. DEEP CANOPIES, TYP.

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EVERETT, WA 98204

WCSS OTTY ROAD - HAPPY VALLEY
8319 S.E. OTTY ROAD
HAPPY VALLEY, OR 97086

DATE	NO	DESCRIPTION
[illegible]	1	SCHEMATIC DESIGN- SITE PLAN
[illegible]	3	LAND USE SUBMITTAL
[illegible]	4	LAND USE - REVISION

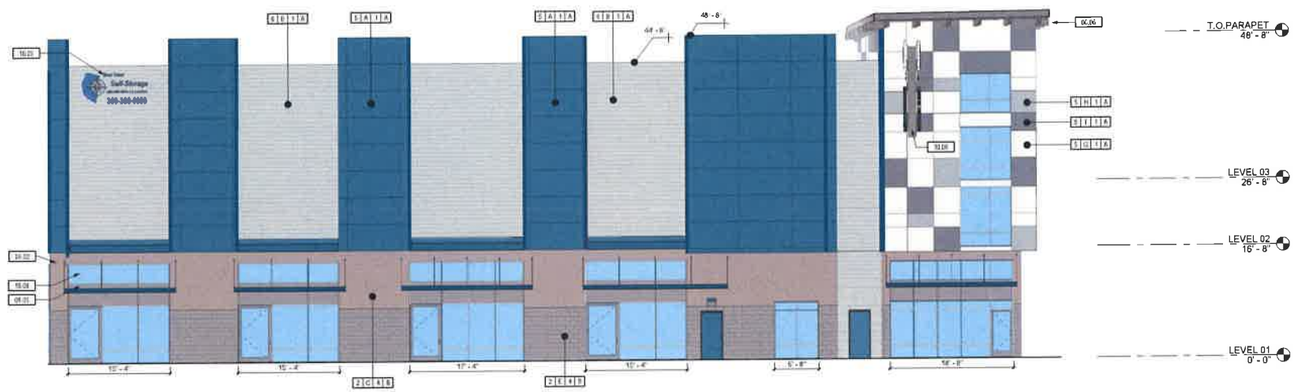
PROJECT NO	18181
PROJECT MGR.	LH
DRAWN BY	AK EJH
CHECKED BY	LH

EXTERIOR ELEVATIONS - BLDG A

A3.01

FULLER ROAD

Total Lineal Feet of Building	= 146'-8"
Total Lineal Feet of Glazing Req.	= 88'-0"
Total Lineal Feet of Glazing Provided	= 88'-8"
Glazing Percentage this elevation	= 60%



1 **EAST ELEVATION (FULLER RD.)**
1/8" = 1'-0"

2 **WEST ELEVATION**
1/8" = 1'-0"

SHEET NOTES:

A. REFER TO SHEET A2.00 SERIES FOR DOOR AND WINDOW LOCATIONS
B. REFER TO SHEET A7.00 SERIES FOR DOOR AND WINDOW SCHEDULES
C. GENERAL CONTRACTOR TO COORDINATE ALL VERTICAL CONCRETE AND MASONRY JOINTS WITH ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.
D. MOCK-UPS: CONTRACTOR TO PROPOSE LOCATIONS OF ASSEMBLIES REQUIRING MOCK-UPS. LOCATIONS AND EXTENT OF MOCK-UP TO BE APPROVED BY ARCHITECT.
E. FOR ALL ENVIRONMENTAL AIR EXHAUST: 3 FEET FROM PROPERTY LINES; 3 FEET FROM OPERABLE OPENINGS INTO BUILDINGS FOR ALL OCCUPANCIES OTHER THAN GROUP U; AND 10 FEET FROM MECHANICAL AIR INTAKES. SUCH EXHAUSTS SHALL NOT BE CONSIDERED HAZARDOUS OR NOXIOUS.
F. ALL EXTERIOR FINISH CLADDING SYSTEMS TO TURN AND TERMINATE AT INTERIOR CORNERS, UNLESS OTHERWISE NOTED.
G. GENERAL CONTRACTOR TO COORDINATE ALL VERTICAL AND HORIZONTAL FIBER CEMENT PANEL JOINTS AND BATTENS PER EXTERIOR ELEVATIONS WITH MANUFACTURER.
H. BELLY BAND TO BE FIBER CEMENT 1X10 UNLESS OTHERWISE NOTED.
I. TRIM AT ALL CORNERS TO BE 1X6 UNLESS OTHERWISE NOTED.
J. WINDOW AND DOOR TRIM TO BE 1X4 UNLESS OTHERWISE NOTED.
K. FASCIA TRIM TO BE 1X4 UNLESS OTHERWISE NOTED.
L. 6" EXPOSURE FOR THE LAP SIDING UNLESS OTHERWISE NOTED.
M. PAINT EXTERIOR SOFFITS SAME COLOR AS FASCIA. STOP AT TOP OF SIDING (INSIDE CORNER) UNLESS OTHERWISE NOTED.

MATERIALS LEGEND:

PRODUCT — MANUFACTURER
COLOR — PROFILE

PRODUCTS
1. PREFINISHED DOWNSPOUT
2. CONCRETE MASONRY UNITS
3. STANDING SEAM METAL ROOFING
4. CONCRETE
5. CEMENTITIOUS PANEL SIDING
6. CEMENTITIOUS PLANK SIDING

PROFILE / TEXTURE
1. SMOOTH
2. 4" HOX BEAM
3. STANDARD CMU
4. SPLIT FACE CMU

MANUFACTURER
A. JAMES HARDIE
B. MUTUAL MATERIALS

COLOR
A. SW 6804 DECANTY BLUE
B. SW 7071 GRAY SCREEN
C. WHITE CASTLE WHITE
D. SW 2849 WESTCHESTER GRAY
E. MM NATURAL
F. SW 9083 SANDSHIFT
G. SW 7005 PURE WHITE
H. SW 7015 NEBULA GRAY
I. SW 6236 GRAY'S HARBOR

SW = SHERWIN WILLIAMS
MM = MUTUAL MATERIALS

KEYNOTES:

#	NOTE
04.04	GLULAM BEAMS, CAPPED AT ENDS, TYP.
07.08	ROOF LINE BEYOND
08.35	SPANDREL GLASS GLAZING, GRAY EAFOTT
08.50	EXTERIOR UNIT ROLL-UP DOOR, TYP.
09.02	8 INCH VERTICAL BAND AT EXTERIOR CORNER TYP. 4 INCH VERTICAL BAND AT INTERIOR CORNER, TYP.
10.01	W.C.S.S. SIGNAGE - 129 SF - REF. STRUCTURAL FOR ATTACHMENT
10.06	W.C.S.S. BLDG. SIGNAGE - 75 SF - REF. STRUCTURAL FOR ATTACHMENT
10.08	60" MIN. DEEP CANOPIES, TYP.

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10'0" SLAB CONSTRUCTION

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EVERETT, WA 98204

WCSS OTTY ROAD - HAPPY VALLEY
8319 S.E. OTTY ROAD
HAPPY VALLEY, OR 97086

NO	DESCRIPTION	DATE
1	LAND USE SUBMITTAL	05.17.2019
2	LAND USE RESUBMITTAL	07.15.2019

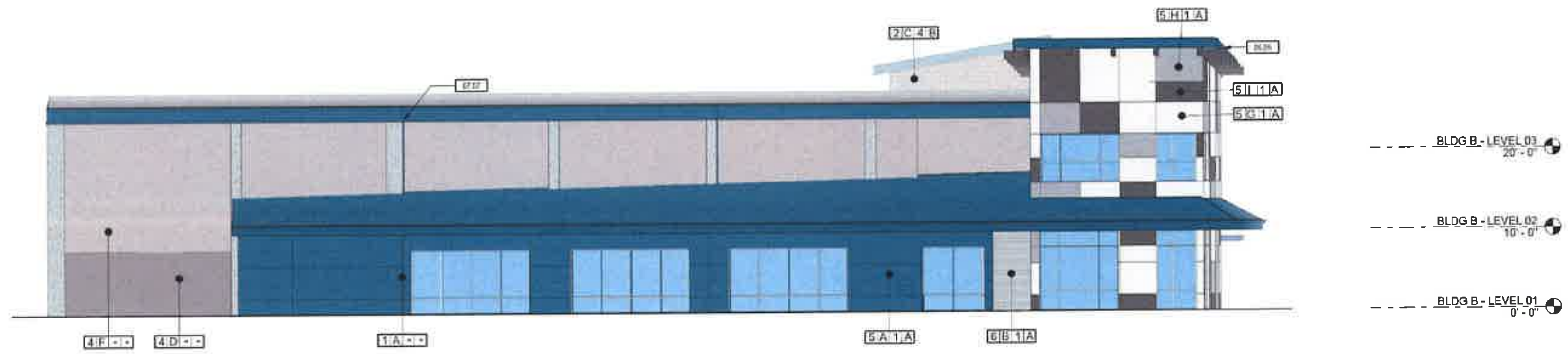
PROJECT NO. 18181
PROJECT MGR. LH
DRAWN BY AK
CHECKED BY LH

EXTERIOR ELEVATIONS - BLDG A

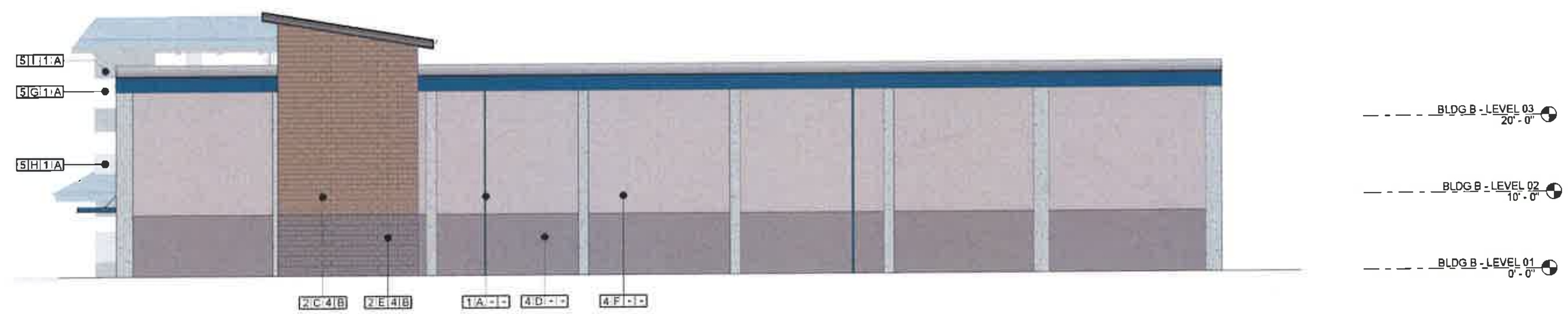
A3.02

7/15/2019 4:05:54 PM

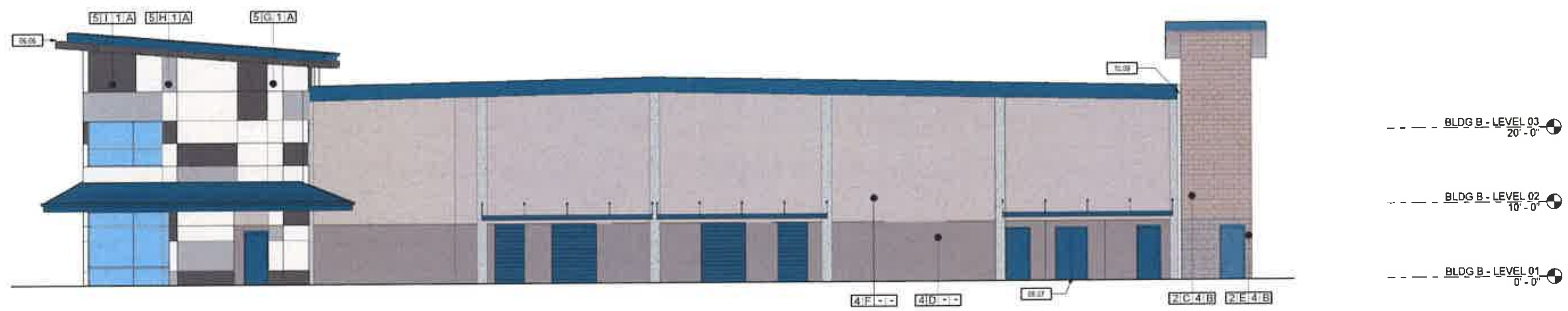
OTTY ROAD
Existing building: No lineal glazing requirement



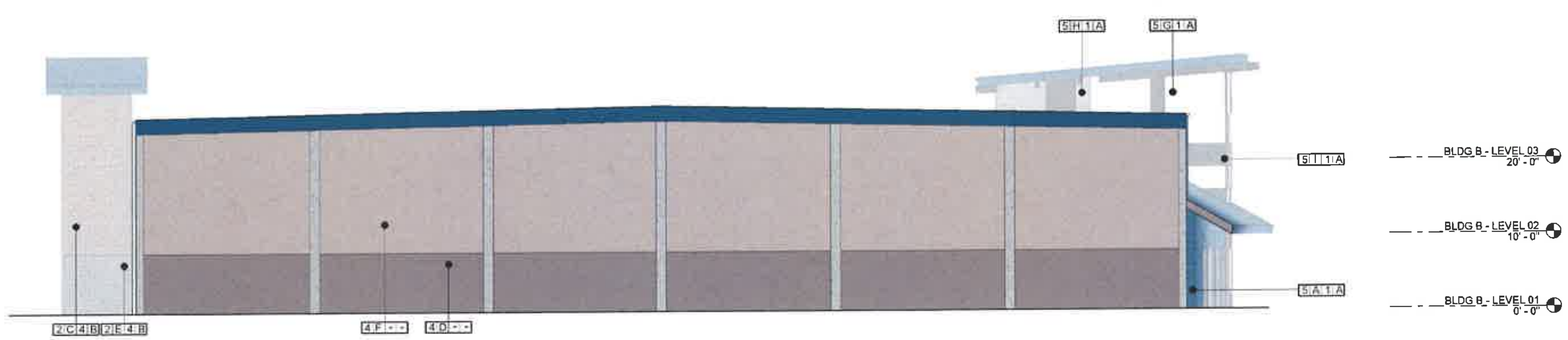
1 BLDG B - SOUTH ELEVATION



2 BLDG B - NORTH ELEVATION



3 BLDG B - EAST ELEVATION



4 BLDG B - WEST ELEVATION

SHEET NOTES:

- A REFER TO SHEET A2.00 SERIES FOR DOOR AND WINDOW LOCATIONS
- B REFER TO SHEET A7.00 SERIES FOR DOOR AND WINDOW SCHEDULES
- C GENERAL CONTRACTOR TO COORDINATE ALL VERTICAL CONCRETE AND MASONRY JOINTS WITH ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION
- D MOCK-UPS: CONTRACTOR TO PROPOSE LOCATIONS OF ASSEMBLIES REQUIRING MOCK-UPS. LOCATIONS AND EXTENT OF MOCK-UP TO BE APPROVED BY ARCHITECT
- E FOR ALL ENVIRONMENTAL AIR EXHAUST: 3 FEET FROM PROPERTY LINES, 3 FEET FROM OPERABLE OPENINGS INTO BUILDINGS FOR ALL OCCUPANCIES OTHER THAN GROUP U, AND 10 FEET FROM MECHANICAL AIR INTAKES. SUCH EXHAUSTS SHALL NOT BE CONSIDERED HAZARDOUS OR NOXIOUS
- F ALL EXTERIOR FINISH CLADDING SYSTEMS TO TURN AND TERMINATE AT INTERIOR CORNERS, UNLESS OTHERWISE NOTED.
- G GENERAL CONTRACTOR TO COORDINATE ALL VERTICAL AND HORIZONTAL FIBER CEMENT PANEL JOINTS AND BATTENS PER EXTERIOR ELEVATIONS WITH MANUFACTURER
- H BELLY BAND TO BE FIBER CEMENT 1X10 UNLESS OTHERWISE NOTED
- I TRIM AT ALL CORNERS TO BE 1X6 UNLESS OTHERWISE NOTED
- J WINDOW AND DOOR TRIM TO BE 1X4 UNLESS OTHERWISE NOTED
- K FASCIA TRIM TO BE 1X8 UNLESS OTHERWISE NOTED
- L 8" EXPOSURE FOR THE LAP SIDING UNLESS OTHERWISE NOTED
- M PAINT EXTERIOR SOFFITS SAME COLOR AS FASCIA. STOP AT TOP OF SIDING (INSIDE CORNER) UNLESS OTHERWISE NOTED

MATERIALS LEGEND:

PRODUCT — COLOR — PROFILE — MANUFACTURER

PRODUCTS
1. PREFINISHED DOWNSPOUT
2. CONCRETE MASONRY UNITS
3. STANDING SEAM METAL ROOFING
4. CONCRETE
5. CEMENTITIOUS PANEL SIDING
6. CEMENTITIOUS PLANK SIDING

PROFILE / TEXTURE
1. SMOOTH
2. 4" BOX BEAM
3. STANDARD CMU
4. SPLIT FACE CMU

MANUFACTURER
A. JAMES HARDIE
B. MUTUAL MATERIALS

COLOR
A. SW 6804 DIGNITY BLUE
B. SW 7071 GRAY SCREEN
C. MM CASTLE WHITE
D. SW 2840 WESTCHESTER GRAY
E. MM NATURAL
F. SW 1081 SANDSPIT
G. SW 7005 PURE WHITE
H. SW 7073 NETWORK GRAY
I. SW 6236 GRAYS HARBOR

SW = SHERWIN WILLIAMS
MM = MUTUAL MATERIALS

KEYNOTES:

#	NOTE
06.06	GLUELAM BEAMS, CAPPED AT ENDS, TYP.
07.07	DOWNSPOUTS TYP.
08.07	EXTERIOR ELEVATOR DOORS
10.09	SEISMIC GAP/JOINT BETWEEN NEW STAIR AND EXISTING BUILDING

JM
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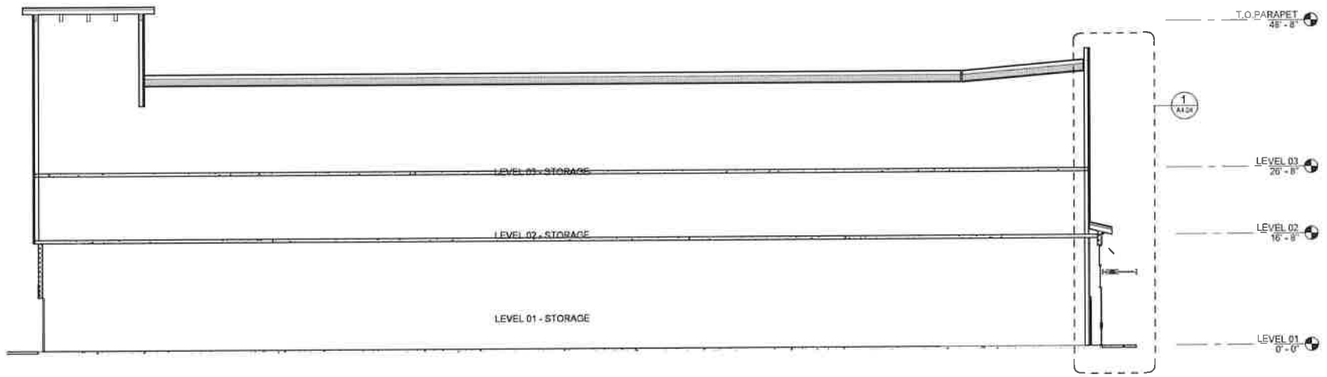
WCSS OTTY ROAD - HAPPY VALLEY
8319 S.E. OTTY ROAD
HAPPY VALLEY, OR 97086

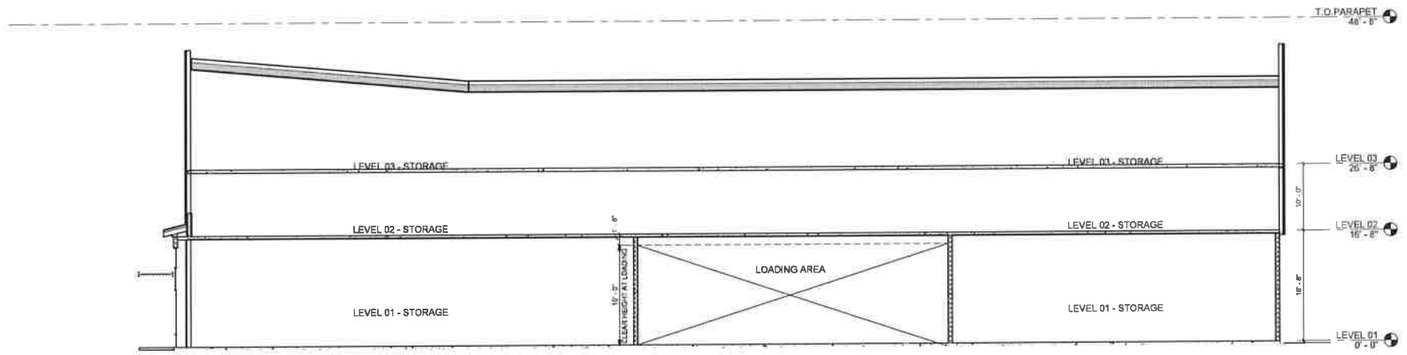
PROJECT NO	18181
PROJECT MGR	LH
DRAWN BY	[illegible]
CHECKED BY	LH

EXTERIOR ELEVATIONS - BLDG B

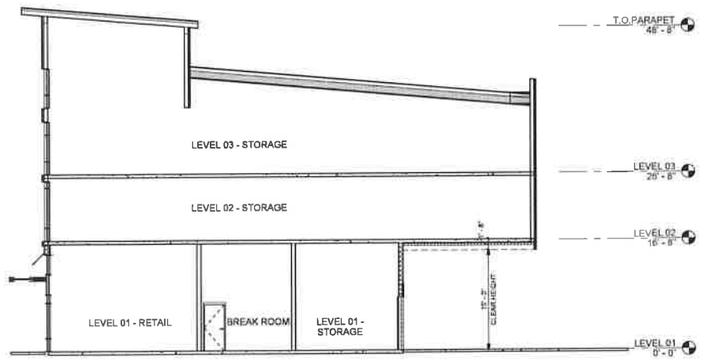
A3.03



1 **BLDG A - LONGITUDINAL SECTION**
3/8" = 1'-0"



2 **BLDG A - LONGITUDINAL SECTION - OVERHANG**
3/8" = 1'-0"



3 **BLDG A - LONGITUDINAL SECTION - RETAIL**
3/8" = 1'-0"

SHEET NOTES:

KEYNOTES:

#	NOTE

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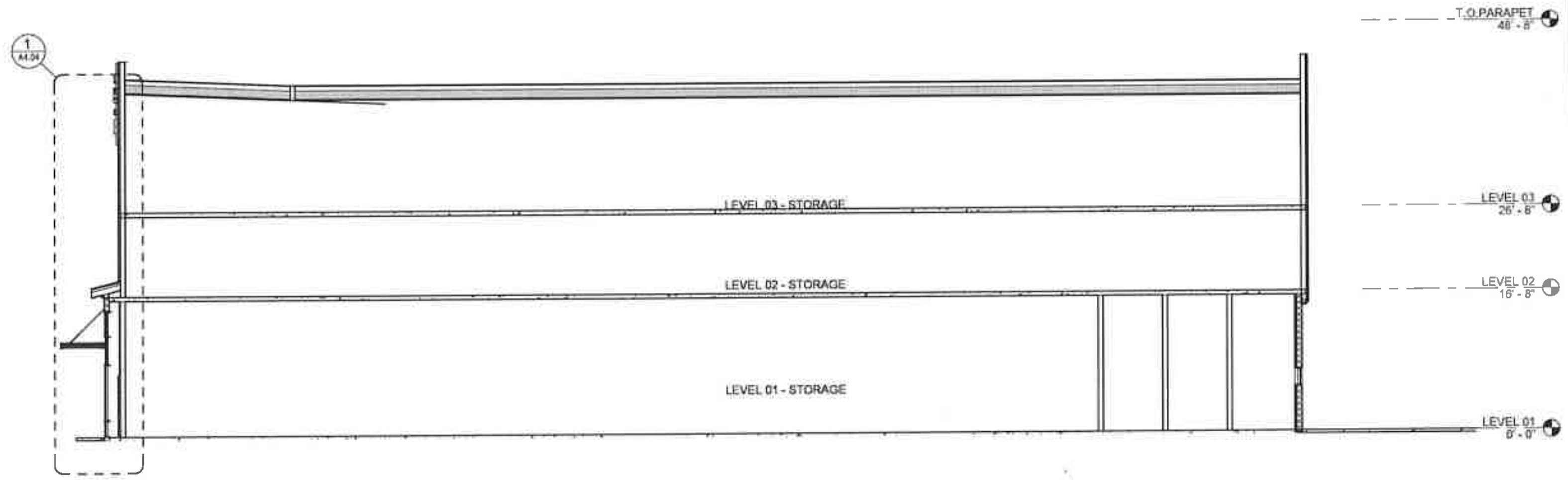
DATE	NO	DESCRIPTION
06/17/2019	2	LAND USE SUBMITTAL
07/01/2019	3	LARGE VEHICLE

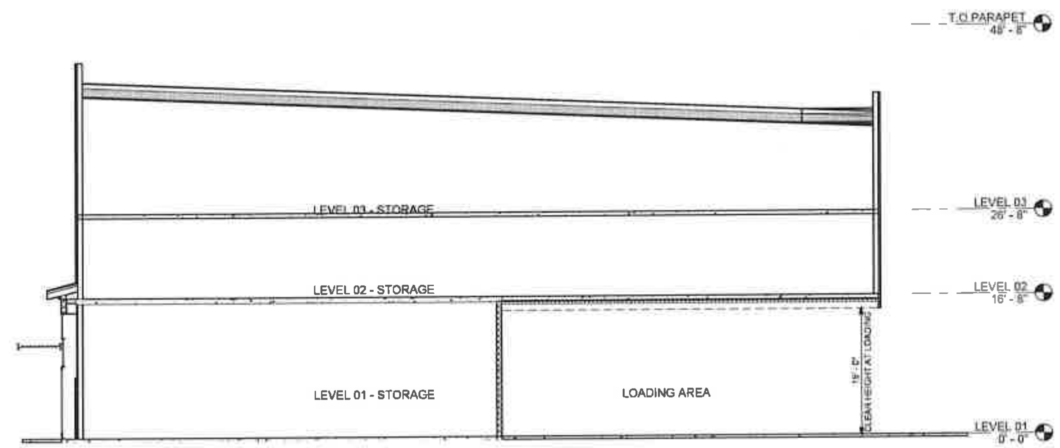
PROJECT NO. 18181
PROJECT MGR. LH
DRAWN BY AK,EJH
CHECKED BY LH

BUILDING SECTIONS
BLDG A

A4.01



1 **BLDG A - CROSS SECTION**
1/8" = 1'-0"



2 **BLDG A - CROSS SECTION - LOADING BAY**
1/8" = 1'-0"

SHEET NOTES:

KEYNOTES:

#	NOTE

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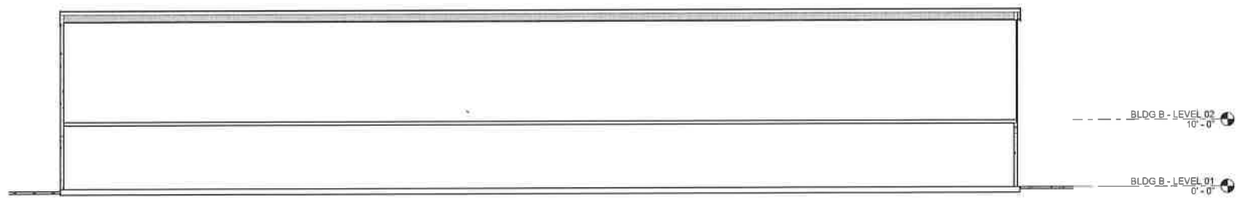
DATE	NO	DESCRIPTION
05/17/2019	3	LAND USE SUBMITTAL
07/17/2019	4	LAND USE - REVISION

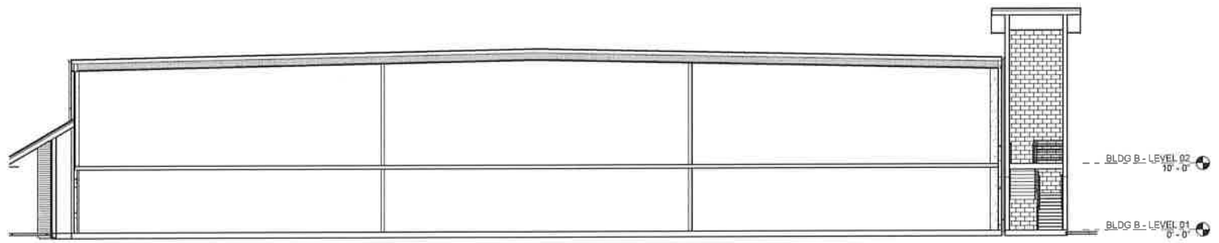
PROJECT NO	18181
PROJECT MGR	LH
DRAWN BY	AK,EJH
CHECKED BY	LH

BUILDING SECTIONS
BLDG A

A4.02



1 **BLDG B - LONGITUNDINAL SECTION**
1/8" = 1'-0"



2 **BLDG B - CROSS SECTION**
1/8" = 1'-0"

SHEET NOTES:

KEYNOTES:

#	NOTE

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NO	DESCRIPTION	DATE
1	LAND USE SUBMITTAL	05/31/2019
2	LAND USE - REVISION	07/17/2019

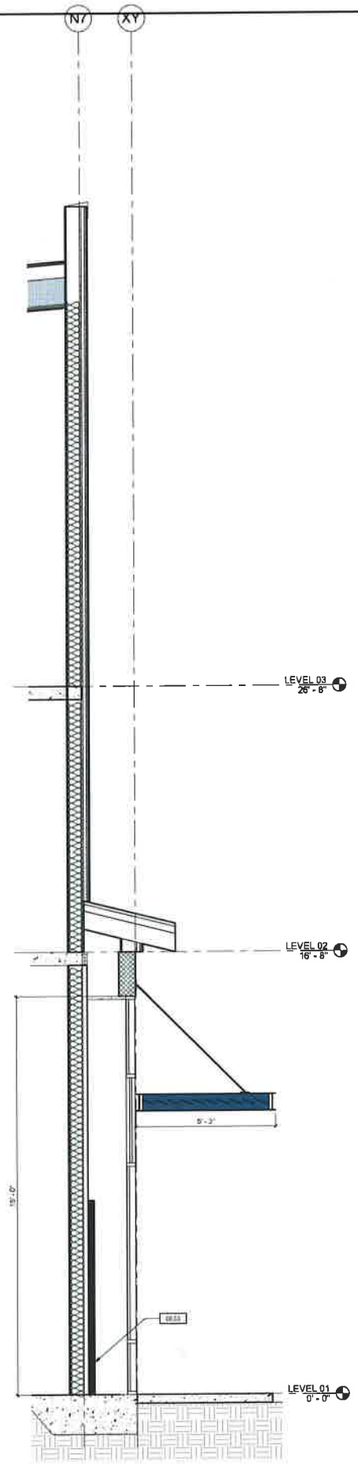
PROJECT NO.	18181
PROJECT MGR.	LH
DRAWN BY	AK,EJH
CHECKED BY	LH

BUILDING SECTIONS
BLDG B

A4.03

DAY TIME RENDER - FAUX DOOR

NIGHT TIME RENDER - FAUX DOOR



1 WALL SECTION - GLAZING - FLUSH WALL
1/2" = 1'-0"

SHEET NOTES:

KEYNOTES:

#	NOTE
08.03	SURFACE MOUNTED 3x8' FAUX ROLL-UP DOOR

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DATE	NO	DESCRIPTION
05/31/2019	3	AMD 2 PE SUBMITTAL
07/17/2019	4	AMD LIFE - REVISION

PROJECT NO.	16181
PROJECT MGR.	LH
DRAWN BY	AA, EJH
CHECKED BY	LH

WALL SECTIONS - BLDG A

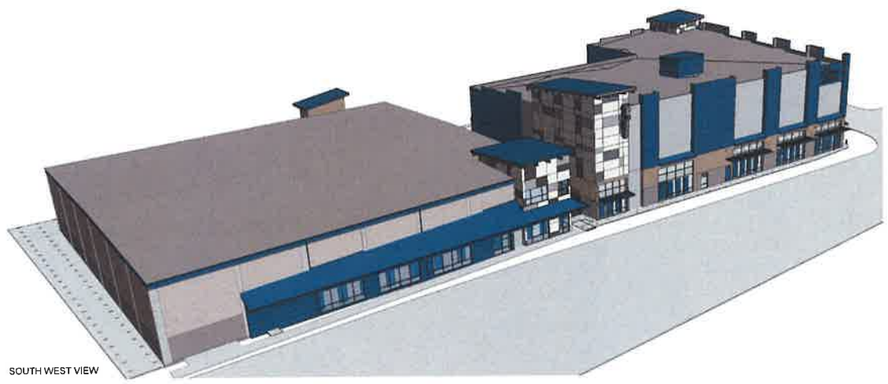
A4.04

SOUTH VIEW

NORTH VIEW

EAST VIEW

SOUTH EAST VIEW



SOUTH WEST VIEW

SOUTH WEST VIEW

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DATE	NO	DESCRIPTION
04/17/2019	3	LAND USE SUBMITTAL
07/12/2019	4	LAND USE REVISION

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PROJECT NO. 18151
PROJECT MGR LH
DRAWN BY AK
CHECKED BY LH

MISCELLANEAOUS DETAILS

A9.02