

Planning & Development • 22500 Salamo Rd #1000 • West Linn, Oregon 97068

Telephone 503.656.4211 • Fax 503.656.4106 • westlinnoregon.gov

## **DEVELOPMENT REVIEW APPLICATION**

	For Office U	se Only		
STAFF CONFICT PORT SOL	PROJECT NO(S).	2-17-08		
NON-REPUNDABLE FEE(S) 300	REFUNDABLE DEPOSIT(S)	20000	TOTAL ZO	300-
Type of Review (Please check all that apply):		'	•	
☐ Conditional Use (CUP)       ☐ Lot Line         ☐ Design Review (DR)       ☐ Minor Parameter         ☐ Easement Vacation       ☐ Non-Cor         ☐ Extraterritorial Ext. of Utilities       ☐ Planned	ve Plan or Change Adjustment (LLA) */* artition (MIP) (Prelimin nforming Lots, Uses & Unit Development (Pi lication Conference (Pi acation	ary Plat or Plan) Structures  JD) A) */**	Water Resource Area Willamette & Tualati Zone Change	Protection/Single Lot (WAP Protection/Wetland (WAP) n River Greenway (WRG) tions require
Site Location/Address: 2330 Debok Road, West Linn Oregon 97068			essor's Map No.: 21E35BC02900	21E35BC03000
,			Lot(s):	
		Tota	I Land Area: 2.3	3 acres
Facility.	sign Review to de			
Applicant Name: Robin Scholetzky, Urban Address: 2744 SE 34th Avenue	Lens Planning LL		Phone: 971-706	
City State Zip: Portland Oregon 97202	1 1		Email: robin@ur	banlensplanning.net
Owner Name: (required): Terri Waldroff	* * * * * * * *	No. of the last of	Phone: 503-344	-6065
Address: 1800 Blankenship Road, #475 City State Zip: West Linn, Oregon 97068	700	4 2017	Email: terriw@b	eniciallc.com
Consultant Name: Mark Miller, Ankrom Moi	san Architects	& BU WEST	Phone: 503-245-	-7100
Address: 38 NW Davis, #300		TIARI	mail: markcm@a	nkrommoisan.com>
City State Zip: Portland Oregon 97209				
1. All application fees are non-refundable (excluding 2. The owner/applicant or their representative shou 3. A denial or approval may be reversed on appeal.  4. Three (3) complete hard-copy sets (single sided) One (1) complete set of digital application mater If large sets of plans are required in application.  No CD required / ** Only one hard-copy set not the undersigned property owner(s) hereby authorizes the comply with all code requirements applicable to my applicable.	Ild be present at all p No permit will be in of application mater rials must also be sul please submit only t eeded e filing of this application	ublic hearings. effect until the app rials must be submi bmitted on CD in PI wo sets.  n, and authorizes on s	eal period has expir tted with this appli OF format.	red. cation. ed staff. I hereby agree to
to the Community Development Code and to other regular Approved applications and subsequent development is no	ations adopted after the	application is approx	ed shall be enforced w	vhere applicable.
	9/19/2017	Wa	will	9/19/17
Applicant's signature	Date	Owner's signatu	re (required)	Davte /

# Application for Design Review

2330 Debok Road, West Linn Oregon Taxlot ID #: 21E35BC03000 and 21E35BC02900



Submittal date:	October 4, 2017					
Project:	Rose Linn Care Center					
Location:	2330 Debok Road					
	21E35BC03000 and 21E35BC02900					
Property ID:						
Applicant:	Robin Scholetzky, AICP, UrbanLens Planning					
Architecture	Mark Miller, Ankrom Moisan Architects					
Firm:						
Zoning:	Zoning: R4.5					
Request:	Class II Design Review					
Submittal	City of West Linn Application Form					
includes:						
	Application Narrative/Approval Criteria					
	PreApplication Conference Meeting Summary Notes, PA 17-31					
	Neighborhood Outreach:					
	Affidavit of Mailing Notice					
	Meeting notice letter					
	Map of mailing area					
	Mailing list					
	Certified mail receipt for Willamette Neighborhood Association					
	Affidavit of Posting Notice					
	Photo of Site Posting					
	Willamette Neighborhood Association Meeting sign in sheet					
	Willamette Neighborhood Association Meeting minutes					
	Copy of audio file of meeting is included on CD with this application					
	Stormwater Report and Calculations					
	Plan Set:					
	Cover Sheet					
	General Notes					
	Existing Conditions					
	Demolition Plan					
	Site Plan (Engineering C1.0)					
	Overall Grading and Erosion Control Plan					
	Enlarged Grading Plan					
	Utility Plan					
	Engineering Details					
	Landscape Plan					
	Landscape Plan Details and Specifications					
	Trees to be Removed (Tree Removal Plan)					
	Site Plan (Architectural A1.01)					
	Floor Plan - Addition					
	Building Elevations – Color					
	Dunding Lievations - Color					

#### **Table of Contents**

- I. Project Overview
- II. Site Zoning/Standards
- III. Response to Applicable Criteria, Development Standards
- IV. Conclusion

#### I. Project Overview

This project is an addition to an existing skilled nursing facility of approximately 6,000 square feet as part of the ground floor. There will be a net zero change in the total number of beds as a result of converting some existing 3-bed units into singles and doubles. Total bed count will remain at 111. The project will provide a new sidewalk connection with a new ramp and railing to the existing parking area and building. One parking space will be removed for a total of 57 spaces.

## **Site History**

This project was originally approved through CU 98-05/DR 98-19. The project received approval to expand the facility from 62 to 71 beds and construct an assisted nursing facility for 44 beds. (115 beds total).

#### Comprehensive Plan designation/Zoning classification

Comprehensive Plan is Low Density Residential/Zoning is R4.5

#### **Street Designations**

Site has access from Debok Road, a Neighborhood Route. Summerlinn Drive is a private street which forms an intersection at the site. Additionally, the site is adjacent to Interstate 205, but does not have access or direct frontage due to grade changes.

## II. Site Zoning/Standards

All applicable development standards for the R4.5 zone are noted in Table 1, Development Standards. The remaining base zone standards are noted in Table 2, Development Standards.

**Table 1, Development Standards** 

City of West Linn	R4.5 Standard	Other Standard	Applicant Response
Standard Primary Use: Skilled nursing facility	Allowed as a Conditional use per 14.060.5, Nursing home		This project is an addition to an approved Conditional use. It is not changing the capacity, staff or services at the site. The application is for a Design Review per 60.030.B.
14.070 Development	t Standards	•	
Setback standards	Front yard, 20 feet; except for steeply sloped lots where the provisions of CDC 41.010 shall apply. For an interior side yard, five feet. For a side yard abutting a street, 15 feet. For a rear yard, 20 feet.		The project has frontage on Debok Road. As per PreApplication Conference notes PA-17-31, the setbacks and dimensional requirements for the R4.5 zone have been met as follows: Front yard setback at 20 feet Site yard setback at 5 feet Rear yard setback at 5 feet These setbacks are shown on the Site Plan, A1.01

City of West Linn Standard	R4.5 Standard	Other Standard	Applicant Response
Building Height	F. The maximum building height shall be 35 feet except for steeply sloped lots in which case the provisions of Chapter 41 apply.		This project is not changing the existing building height: The entire building is two stories, but the section of the building with the addition is one story, with an existing building height at 26'9". This is less than the maximum height of 35 feet.  These heights are shown on the <b>Building</b>
Lot coverage	G. The maximum lot coverage shall be 40 percent.		Elevations – Color, A3.02  Lot coverage is area covered by buildings requiring a building permit. The site size is 2.33 acres/101,494 square feet. Lot coverage can be as much as 40,597 square feet. The proposed building footprint is 39,007 square feet which is less than the total allowable lot coverage. See Site Plan, A1.01 for a Site Area Analysis.
Floor Area Ratio	I. The floor area ratio is 0.45.		Total FAR possible is 45,672 square feet. This project will not exceed the total FAR allowable.
14.090.A Other Dev	elopment Standards	•	
Chapter 34, Accessory Structures, Accessory Dwelling Units, and Accessory Uses Chapter 35,	No ADU's being proposed; se		ore, this section is not applicable.
Temporary Structures and Uses			
Chapter 38, Additional Yard Area Required; Exceptions to Yard Requirements; Storage in Yards; Projections into Yards	No additional yard area is requ	uired and therefore, this	s section is not applicable.
Chapter 40 Building	Height (repealed)		
Chapter 41, Structures on Steep Lots, Exceptions			ed on the steep portion of the site.
Chapter 42, Clear Vision Areas	This section does not apply to	the site as no changes	to the entry or exit are proposed.
Chapter 44 Fence s	No new fences proposed; this	section is not applicable	le

Chapter 46 Off-Street Parking, Loading and Reservoir Areas

Standard: 46.090.B.1 Hospital/nursing care facility. 1 offstreet space for each 3 units plus 1 space for two employees. The following items are noted in the Code for analysis:

- A. The delineation of individual parking and loading spaces and their dimensions;
- B. The identification of compact parking spaces;
- C. The location of the circulation area necessary to serve spaces;
- D. The access point(s) to streets, alleys, and properties to be served;
- E. The location of curb cuts;
- F. The location and dimensions of all landscaping, including the type and size of plant material to be used, as well as any other landscape material incorporated into the overall plan;
- G. The proposed grading and drainage plans and the slope (percentage) of parking lot;
- H. Specifications as to signs and bumper guards;
- I. Identification of disabled parking spaces;
- J. Location of pedestrian walkways and crossings; and
- K. Location of bicycle racks.

The items noted in Chapter 46, A-K have been noted on the various plans in the Plan Set.

Items A-E are noted on the **Site Plan**, C1.0 and on the **Site Plan**, A1.01.

Items F and G are noted on the Landscaping Plans L1.0 and L2.0 and Site Grading is noted on the Overall Grading and Erosion Control Plan and the Enlarged Grading Plan, C2.0; C2.1.

Proposed Parking to provide 57 spaces: 20 compact @ 8 x 18 34 standard @ 9 x 20 3 ADA standard spaces

Code standard: 37 + (54 (peak employees/2) for 64 spaces. This application is proposing to reduce the number of required spaces from 64 to 57 in the following manner:

As per 55.170(B): Parking can be reduced by 10% for transit-accessible and/or mixed use. The site is within walking distance of TriMet Route 154 with a stop at Debok/Blankenship Road approximately 900 feet from site. This provides for a 6.4 stall space reduction, rounded to 7 spaces.

As the operations of the site include daily employees, Section 46.150E provides for Transportation Demand Management to reduce trips to the site. The owners of the project provide a number of Transportation Demand Management measures for employees including: free TriMet bus passes to staff and availability of staff carpools. The facility also provides offsite parking with shuttle service, that is mainly used in the winter months.

Resident mobility. Residents do not drive as a result of their health condition.

These options, along with the availability of bicycle parking, will work to reduce automobile trips to the site.

The project contains two existing bicycle parking racks containing four spaces each. These are located at the western side of the two-story portion of the building and adjacent to the entry of the single-story portion of the building, near the entrance. The Development Code is silent on the number of bicycle spaces required for a Nursing Care Facility, however, we

City of West Linn Standard	R4.5 Standard	Other Standard	Applicant Response
		'	believe this number of spaces to be adequate for employee and visitor needs of the site. The spaces are noted on the <b>Site Plan</b> , <b>A1.01</b> .
	Loading area 46.130 Loading spaces. Buildings or structures to be built or substantially altered, which receive and distribute material or merchandise by truck, shall provide and maintain off-street loading and maneuvering space.		There is an existing off-street loading area at the back entrance on the east side of the site. This should be adequate as no capacity is being increased.
Chapter 48 Access, Egress and Circulation			This project will not increase capacity of the project, therefore, the existing site access from Debok Road will remain the same as well as the current number of trips.  A discussion with Seth Brumley, Planner with ODOT noted that ODOT's traffic analysist would not require any additional information due to the low traffic generation. (August 9, 2017)
Chapter 52 Signs			No signage changes are being proposed as part of this application.
Chapter 54 Landscaping	E.2 Non-residential. Minimum	a of 20%	Using a site size of 101,494 square feet; 20% of the site is 20,298 square feet. The <b>Site Plan, A1.01</b> , includes 31,118 square feet of landscaping which exceeds the standard by nearly 10%. Details on the landscaping and planting are noted on <b>Landscaping Plans L1.0</b> and <b>L2.0</b> .

## III. Response to Applicable Criteria, Development Standards

55.010 Purpose and Intent - General

**Response:** No response required for this section.

55.020 Classes of Design Review

**Response:** No response required for this section.

55.025 Exemptions

**Response:** No response required for this section.

55.030 Administration and Approval Process

**Response:** No response required for this section.

55.040 Expiration or Extension of Approval

**Response:** No response required for this section.

55.050 Design Review Amendment Trigger

**Response:** No response required for this section.

55.060 Staged or Phased Development

**Response:** No response required for this section.

55.070 Submittal Requirements

**Response:** No response required for this section.

55.085 Additional Information Required and Waiver of Requirements

**Response:** No response required for this section.

55.090 Approval Standards – Class I Design Review

**Response:** This application is for a Class II Design Review; no response needed.

55.100.A Design Review standards include:

Chapter 34; Chapter 38; Chapter 40; Chapter 42; Chapter 44; Chapter 46; Chapter 48; Chapter 52; Chapter 54.

**Response:** As applicable to this proposal, these standards are noted in Table 1, Development Standards. Responses reflect the proposal's ability to address/meet these standards.

55.100.B Relationship to the natural and physical environment.

(1) Preservation of Heritage Trees. The buildings and other site elements shall be designed and located so that all heritage trees, as defined in the municipal code, shall be saved. Diseased heritage trees, as determined by the City Arborist, may be removed at his/her direction.

**Response:** No Heritage Trees on-site.

(2). All heritage trees, as defined in the municipal code, all trees and clusters of trees ("cluster" is defined as three or more trees with overlapping driplines; however, native oaks need not have an overlapping dripline) that are considered significant by the City Arborist, either individually or in consultation with certified arborists or similarly qualified professionals, based on accepted arboricultural standards including consideration of their size, type, location, health, long term survivability, and/or numbers, shall be protected pursuant to the criteria of subsections (B)(2)(a) through (f) of this section. In cases where there is a difference of opinion on the significance of a tree or tree cluster, the City Arborist's findings shall prevail. It is important to acknowledge that all trees are not significant and, further, that this code section will not necessarily protect all trees deemed significant.

a. Non-residential and residential projects on Type I and II lands shall protect all heritage trees and all significant trees and tree clusters by either the dedication of these areas or establishing tree conservation easements. Development of Type I and II lands shall require the careful layout of streets, driveways, building pads, lots, and utilities to avoid heritage trees and significant trees and tree clusters, and other natural resources pursuant to this code. The method for delineating the protected trees or tree clusters ("dripline + 10 feet") is explained in subsection (B)(2)(b) of this section. Exemptions of subsections (B)(2)(c), (e), and (f) of this section shall apply.

b. Non-residential and residential projects on non-Type I and II lands shall set aside up to 20 percent of the area to protect trees and tree clusters that are determined to be significant, plus any heritage trees. Therefore, in the event that the City Arborist determines that a significant tree cluster exists at a development site, then up to 20 percent of the non-Type I and II lands shall be devoted to the protection of those trees, either by dedication or easement. The exact percentage is determined by establishing the driplines of the trees or tree clusters that are to be protected. In order to protect the roots which typically extend further, an additional 10-foot measurement beyond the dripline shall be added. The square footage of the area inside this "dripline plus 10 feet" measurement shall be the basis for calculating the percentage (see figure below). The City Arborist will identify which tree(s) are to be protected. Development of non-Type I and II lands shall also require the careful layout of streets, driveways, building pads, lots, and utilities to avoid significant trees, tree clusters, heritage trees, and other natural resources pursuant to this code. Exemptions of subsections (B)(2)(c), (e), and (f) of this section shall apply. Please note that in the event that more than 20 percent of the non-Type I and II lands comprise significant trees or tree clusters, the developer shall not be required to save the excess trees, but is encouraged to do so.

**Response:** As per confirmation with the City of West Linn Arborist, there are no significant trees or tree clusters on-site. The nine trees to be removed are all under 12" DBH. The location of the trees to be removed is shown on the **Demo Plan/Tree Removal**, **A0.52** included in the Plan Set.

c. Where stubouts of streets occur on abutting properties, and the extension of those streets will mean the loss of significant trees, tree clusters, or heritage trees, it is understood that tree loss may be inevitable. In these cases, the objective shall be to minimize tree loss. These provisions shall also apply in those cases where access, per construction code standards, to a lot or parcel is blocked by a row or screen of significant trees or tree clusters.

**Response:** This addition/remodel is not creating any stubouts of streets that would impact area trees.

d. For both non-residential and residential development, the layout shall achieve at least 70 percent of maximum density for the developable net area. The developable net area excludes all Type I and II lands and up to 20 percent of the remainder of the site for the purpose of protection of stands or clusters of trees as defined in subsection (B)(2) of this section.

**Response:** This project does not change the density of the site.

e. For arterial and collector street projects, including Oregon Department of Transportation street improvements, the roads and graded areas shall avoid tree clusters where possible. Significant trees, tree clusters, and heritage tree loss may occur, however, but shall be minimized.

**Response:** This addition/remodel is not affecting any arterial or collector streets.

f. If the protection of significant tree(s) or tree clusters is to occur in an area of grading that is necessary for the development of street grades, per City construction codes, which will result in an adjustment in the grade of over or under two feet, which will then threaten the health of the tree(s), the applicant will submit evidence to the Planning Director that all reasonable alternative grading plans have been considered and cannot work. The applicant will then submit a mitigation plan to the City Arborist to compensate for the removal of the tree(s) on an "inch by inch" basis (e.g., a 48-inch

Douglas fir could be replaced by 12 trees, each four-inch). The mix of tree sizes and types shall be approved by the City Arborist.

**Removal, A0.52** included in the Plan Set. This project will be removing 9 trees and will provide protection as needed for any trees near the construction area. The project will be providing a variety of landscaping in conjunction with the construction and will add favorably to the building design. Planting detail and locations are noted on the Landscape Plan, L1.0 and L2.0 includes the details and specifications of planting.

(3) The topography and natural drainage shall be preserved to the greatest degree possible.

**Response:** The site does contain some slopes to the northwest, however these areas will not be disturbed and the remainder of the site's topography and natural drainage will be utilized for stormwater management associated with the new development. As described in the Stormwater Report and Calculations, the runoff from the proposed improvements will be treated in an existing vegetated basin.

(4) For slumping and sliding, the City's Comprehensive Plan Background Report's Hazard Map, or updated material as available and as deemed acceptable by the Planning Director, shall be the basis for preliminary determination. The structures shall not be located in areas subject to slumping and sliding.

**Response:** The West Linn geologic hazard maps (SLIDO) indicates no slumping or sliding in the area of the addition/remodel.

(5) There shall be adequate distance between buildings and on adjoining properties to provide for adequate light and air circulation and for fire protection. There shall be adequate distance between onsite buildings and on-site and off-site buildings

**Response:** This item is in reference to the distance between on-site buildings and off-site buildings and to insure adequate distance to maintain light and air separation. In this situation, the existing setbacks on the north and west building edges have been maintained. For the southern side of the site, the project is within the setback minimum of 5 feet and on the side of the site with the highest increase of floor area, the east, the reduction in setback distance from the property line is minimal. The separation between the adjoining residential properties has been maintained with this addition.

The proposed addition is located at the furthest point east, maintaining light and air separation between the existing on-site buildings. In reference to off-site buildings, the addition is to be located adjacent to the front property line along Debok Road. The addition will add building area along the southern side of the site, adjacent to existing multifamily, however, due to grade changes and the maintenance of a five-foot side setback, adequate air and light separation will be met.

In regards to fire protection, in a preliminary communication from Tualatin Valley Fire and Rescue on August 1<sup>st</sup>, Ty Darby noted that the existing fire apparatus appeared acceptable and no fire flow test would be required.

- (6) Architecture (contextual design, human scale, depth and roofline)
- a. The proposed structure(s) scale shall be compatible with the existing structure(s) on site and on adjoining sites. Contextual design is required. Contextual design means respecting and incorporating prominent architectural styles, building lines, roof forms, rhythm of windows, building scale and massing of surrounding buildings in the proposed structure. The materials and colors shall be complementary to the surrounding buildings.

**Response:** Item (6) criteria applicable to this project include architectural compatibility, massing, human scale elements, variations in depth and roof line, micro-climate and a compatible pedestrian environment.

In response to this criteria, the design will provide for architectural compatibility with the existing buildings in terms of building height, roof line, scale and materials. The project will provide a stronger pedestrian environment along Debok Road, by creating a strong, yet not overwhelming, building wall at the street. This will provide a stronger sense of enclosure for the public realm, while the grade changes and maintenance of landscaping will help to insure privacy and separation for the residents. The materials and colors, as shown on **Building Elevations-Color**, **A3.02**, are compatible with the existing buildings and surrounding projects.

b. While there has been discussion in Chapter 24 CDC about transition, it is appropriate that new buildings should architecturally transition in terms of bulk and mass to work with, or fit, adjacent existing buildings. This transition can be accomplished by selecting designs that "step down" or "step up" from small to big structures and vice versa. Transitions may also take the form of carrying building patterns and lines (e.g., parapets, windows, etc.) from the existing building to the new one.

**Response:** The subject property is adjacent to a variety of multifamily dwellings, including apartment buildings and condominium development. However, as noted, this is not a new building, but an addition and remodel. The scale and design of the addition and remodel has been established in order to fit the building patterns of the existing buildings. The adjacent buildings on the opposite side of Debok Road are two-story multifamily structures. The planned addition is similar in height, size, and style to these neighbors. Additionally, the remodel, with a closer street presence to Debok Road will be in-line with the setbacks across the street. The proposed windows and roofline, as shown on the **Building Elevations-Color, A3.02,** are compatible with the existing windows. These maintain individual window openings on the first floor that are similar in shape, sill, and head heights to what is provided on the existing buildings.

c. Contrasting architecture shall only be permitted when the design is manifestly superior to adjacent architecture in terms of creativity, design, and workmanship, and/or it is adequately separated from other buildings by distance, screening, grade variations, or is part of a development site that is large enough to set its own style of architecture.

**Response:** The proposal does not utilize contrasting architecture.

d. Human scale is a term that seeks to accommodate the users of the building and the notion that buildings should be designed around the human scale (i.e., their size and the average range of their perception). Human scale shall be accommodated in all designs by, for example, multi-light windows that are broken up into numerous panes, intimately scaled entryways, and visual breaks (exaggerated eaves, indentations, ledges, parapets, awnings, engaged columns, etc.) in the facades of buildings, both vertically and horizontally. The human scale is enhanced by bringing the building and its main entrance up to the edge of the sidewalk. It creates a more dramatic and interesting streetscape and improves the "height and width" ratio referenced in this section.

**Response:** The project design achieves human scale through the use of multi-light windows, intimately scaled entryways, parapets, awnings, and the building's location at the edge of the sidewalk. The façade is divided into distinct sections that emphasize a pleasing height-to-width ratio.

e. The main front elevation of commercial and office buildings shall provide at least 60 percent windows or transparency at the pedestrian level to create more interesting streetscape and window shopping opportunities. One side elevation shall provide at least 30 percent transparency. Any additional side or rear elevation, which is visible from a collector road or greater classification, shall also have at least 30 percent transparency. Transparency on other elevations is optional. The transparency is measured in lineal fashion. For example, a 100-foot-long building elevation shall have at least 60 feet (60 percent of

100 feet) in length of windows. The window height shall be, at minimum, three feet tall. The exception to transparency would be cases where demonstrated functional constraints or topography restrict that elevation from being used. When this exemption is applied to the main front elevation, the square footage of transparency that would ordinarily be required by the above formula shall be installed on the remaining elevations at pedestrian level in addition to any transparency required by a side elevation, and vice versa. The rear of the building is not required to include transparency. The transparency must be flush with the building elevation.

**Response:** The proposal is for residential development and the provided window area is commensurate with residential development. This criterion does not apply.

f. Variations in depth and roof line are encouraged for all elevations. To vary the otherwise blank wall of most rear elevations, continuous flat elevations of over 100 feet in length should be avoided by indents or variations in the wall. The use of decorative brick, masonry, or stone insets and/or designs is encouraged. Another way to vary or soften this elevation is through terrain variations such as an undulating grass area with trees to provide vertical relief.

**Response:** This project is an addition/remodel, so this remodel is working to maintain the roofline and depths of the existing buildings. As shown on the **Building Elevations-Color**, **A3.02**, the single story roofline has been maintained and the variations in depth respond to the overall site shape.

g. Consideration of the micro-climate (e.g., sensitivity to wind, sun angles, shade, etc.) shall be made for building users, pedestrians, and transit users, including features like awnings.

**Response:** This project is an addition/remodel, so the location of the site's existing buildings have responded to the microclimate of the area. The exterior spaces surrounding the project area continue to provide for pedestrians by offering connections to the existing sidewalk and the use of landscaping and low-scale shrubs provides for building protection while maintaining building visibility.

h. The vision statement identified a strong commitment to developing safe and attractive pedestrian environments with broad sidewalks, canopied with trees and awnings.

**Response:** The project will bring the building closer to the existing sidewalk and tree-lined street. As described previously, this feature will enhance the pedestrian environment.

i. Sidewalk cafes, kiosks, vendors, and street furniture are encouraged. However, at least a four-foot-wide pedestrian accessway must be maintained per Chapter 53 CDC, Sidewalk Use.

**Response:** This project is a multifamily project and will not include any ground floor retail elements.

- (7) Transportation Planning Rule (TPR) compliance. The automobile shall be shifted from a dominant role, relative to other modes of transportation, by the following means:
- a. Commercial and office development shall be oriented to the street. At least one public entrance shall be located facing an arterial street; or, if the project does not front on an arterial, facing a collector street; or, if the project does not front on a collector, facing the local street with highest traffic levels. Parking lots shall be placed behind or to the side of commercial and office development. When a large and/or multi-building development is occurring on a large undeveloped tract (three plus acres), it is acceptable to focus internally; however, at least 20 percent of the main adjacent right-of-way shall have buildings contiguous to it unless waived per subsection (B)(7)(c) of this section. These buildings shall be oriented to the adjacent street and include pedestrian-oriented transparencies on those elevations.

For individual buildings on smaller individual lots, at least 30 lineal feet or 50 percent of the building must be adjacent to the right-of-way unless waived per subsection (B)(7)(c) of this section. The elevations oriented to the right-of-way must incorporate pedestrian-oriented transparency.

**Response:** This project is a residential project; this criterion does not apply.

b. Multi-family projects shall be required to keep the parking at the side or rear of the buildings or behind the building line of the structure as it would appear from the right-of-way inside the multi-family project. For any garage which is located behind the building line of the structure, but still facing the front of the structure, architectural features such as patios, patio walls, trellis, porch roofs, overhangs, pergolas, etc., shall be used to downplay the visual impact of the garage, and to emphasize the rest of the house and front entry.

The parking may be positioned inside small courtyard areas around which the units are built. These courtyard spaces encourage socialization, defensible space, and can provide a central location for landscaping, particularly trees, which can provide an effective canopy and softening effect on the courtyard in only a few years. Vehicular access and driveways through these courtyard areas is permitted.

**Response:** The locations of the existing parking areas will be maintained with this project.

c. Commercial, office, and multi-family projects shall be built as close to the adjacent main right-of-way as practical to facilitate safe pedestrian and transit access. Reduced frontages by buildings on public rights-of-way may be allowed due to extreme topographic (e.g., slope, creek, wetlands, etc.) conditions or compelling functional limitations, not just inconveniences or design challenges.

**Response:** This project is a residential project. This criterion does not apply.

d. Accessways, parking lots, and internal driveways shall accommodate pedestrian circulation and access by specially textured, colored, or clearly defined footpaths at least six feet wide. Paths shall be eight feet wide when abutting parking areas or travel lanes. Paths shall be separated from parking or travel lanes by either landscaping, planters, curbs, bollards, or raised surfaces. Sidewalks in front of storefronts on the arterials and main store entrances on the arterials identified in CDC 85.200(A)(3) shall be 12 feet wide to accommodate pedestrians, sidewalk sales, sidewalk cafes, etc. Sidewalks in front of storefronts and main store entrances in commercial/OBC zone development on local streets and collectors shall be eight feet wide.

**Response:** The sidewalks at the north and east retail elevations are existing. 10'0" and 8'0" respectively.

e. Paths shall provide direct routes that pedestrians will use between buildings, adjacent rights-of-way, and adjacent commercial developments. They shall be clearly identified. They shall be laid out to attract use and to discourage people from cutting through parking lots and impacting environmentally sensitive areas.

**Response:** The pedestrian access sidewalks along the eastern edge of the site; no changes to these sidewalks is proposed with this project. An interior pathway connecting the addition to the parking area is proposed

f. At least one entrance to the building shall be on the main street, or as close as possible to the main street. The entrance shall be designed to identify itself as a main point of ingress/egress.

**Response:** There are no changes to the existing main entrances of the buildings associated with this project. There will be two emergency exits located on the north and southwest sides of the addition/remodel. Their locations are shown on the **Floor Plan – Addition**, **A2.01**.

g. Where transit service exists, or is expected to exist, there shall be a main entrance within a safe and reasonable distance of the transit stop. A pathway shall be provided to facilitate a direct connection.

Response: TriMet Route 154 has a stop at Debok/Blankenship Road approximately 900 feet from site.

h. Projects shall bring at least part of the project adjacent to or near the main street right-of- way in order to enhance the height-to-width ratio along that particular street. (The "height-to-width ratio" is an architectural term that emphasizes height or vertical dimension of buildings adjacent to streets. The higher and closer the building is, and the narrower the width of the street, the more attractive and intimate the streetscape becomes.) For every one foot in street width, the adjacent building ideally should be one to two feet higher. This ratio is considered ideal in framing and defining the streetscape.

**Response:** This project will provide an addition/remodel for a small portion of the existing building. It will result in new square footage of 2,979 square feet or 8% of the current building area. The design of the addition will bring the project building line closer to Debok Road and will provide a stronger height-to-width ratio along the street.

i. These architectural standards shall apply to public facilities such as reservoirs, water towers, treatment plants, fire stations, pump stations, power transmission facilities, etc. It is recognized that many of these facilities, due to their functional requirements, cannot readily be configured to meet these architectural standards. However, attempts shall be made to make the design sympathetic to surrounding properties by landscaping, setbacks, buffers, and all reasonable architectural means.

**Response:** This project is a residential building. The requirements of this criterion do not apply.

j. Parking spaces at trailheads shall be located so as to preserve the view of, and access to, the trailhead entrance from the roadway. The entrance apron to the trailhead shall be marked: "No Parking," and include design features to foster trail recognition.

**Response:** This project is not located at a trailhead. The requirements of this criterion do not apply.

- 55.100.C. Compatibility between adjoining uses, buffering and screening
- 1. In addition to the compatibility requirements contained in Chapter 24 CDC, buffering shall be provided between different types of land uses; for example, buffering between single-family homes and apartment blocks. However, no buffering is required between single-family homes and duplexes or single-family attached units. The following factors shall be considered in determining the adequacy of the type and extent of the buffer:
- a. The purpose of the buffer, for example to decrease noise levels, absorb air pollution, filter dust, or to provide a visual barrier.
- b. The size of the buffer required to achieve the purpose in terms of width and height.
- c. The direction(s) from which buffering is needed.
- d. The required density of the buffering.
- e. Whether the viewer is stationary or mobile.

**Response:** This project will provide an addition for residential housing for senior residents. The surrounding land uses in closest proximity to the site include multiple multi-family buildings. These uses are compatible as they are both residential uses. Buffering between the addition located at the southwest of the site and adjacent uses was described above in item (6). Screening through the use of a retaining wall (noted on the **Site Plan, A1.01)** and maintaining existing landscaping as well as new plantings are noted on **Landscaping** Plans **L1.0** and **L2.0**. One of the site challenges is the proximity to I-205, and this addition will be located on the site as far as possible from this transportation corridor.

2. On-site screening from view from adjoining properties of such things as service areas, storage areas, and parking lots shall be provided and the following factors will be considered in determining the

adequacy of the type and extent of the screening: a. What needs to be screened? b. The direction from which it is needed. c. How dense the screen needs to be. d. Whether the viewer is stationary or mobile. e. Whether the screening needs to be year-round.

**Response:** This project provides ample screening for the existing parking area through the maintenance of the site's overall courtyard design. The service and storage areas of the site are existing and will be maintained in their current locations as shown on the **Site Plan, A1.01** 

3. Rooftop air cooling and heating systems and other mechanical equipment shall be screened from view from adjoining properties.

**Response:** Although the final rooftop location of the HVAC/mechanical units has not been determined, the project team expects that this addition/remodel would generate the need for one additional unit which would be screened with a roof well and walls.

#### 55.100.D. Privacy and noise

- 1. Structures which include residential dwelling units shall provide private outdoor areas for each ground floor unit which is screened from view from adjoining units.
- 2. Residential dwelling units shall be placed on the site in areas having minimal noise exposure to the extent possible. Natural-appearing sound barriers shall be used to lessen noise impacts where noise levels exceed the noise standards contained in West Linn Municipal Code Section 5.487.
- 3. Structures or on-site activity areas which generate noise, lights, or glare shall be buffered from adjoining residential uses in accordance with the standards in subsection C of this section where applicable.
- 4. Businesses or activities that can reasonably be expected to generate noise in excess of the noise standards contained in West Linn Municipal Code Section 5.487 shall undertake and submit appropriate noise studies and mitigate as necessary to comply with the code. (See CDC 55.110(B)(11) and 55.120(M).) If the decision-making authority reasonably believes a proposed use may generate noise exceeding the standards specified in the municipal code, then the authority may require the applicant to supply professional noise studies from time to time during the user's first year of operation to monitor compliance with City standards and permit requirements.

**Response:** This residential addition will provide safe and secure housing for elderly residents. Residents are quiet and activities on the site will not generate excessive noise or odors or other incompatible elements

#### 55.100.E. Private outdoor area

- 1. In addition to the requirements of residential living, unit shall have an outdoor private area (patio, terrace, porch) of not less than 48 square feet in area;
- 2. The outdoor space shall be oriented towards the sun where possible; and
- 3. The area shall be screened or designed to provide privacy for the users of the space.
- 4. Where balconies are added to units, the balconies shall not be less than 48 square feet, if they are intended to be counted as private outdoor areas.

**Response:** As per PreApplication Conference notes PA-17-31, these standards are not applicable to this project. However, for reference, this portion of the project will continue to provide approximately 8,500 square feet of protected outdoor area for the residents located along the southern edge of the site.

#### 55.100.F. Shared outdoor recreation facilities;

This section only applies to multi-family projects and projects with 10 or more duplexes or single-family attached dwellings on lots under 4,000 square feet. In those cases, shared outdoor recreation areas are

calculated on the duplexes or single-family attached dwellings only. It also applies to qualifying PUDs under the provisions of CDC 24.170.

**Response:** As per PreApplication Conference notes PA-17-31, these standards are not applicable to this project. However, for reference, this portion of the project will continue to provide approximately 8,500 square feet of protected outdoor area for the residents located along the southern edge of the site.

55.100.G. Demarcation of public, semi-public, and private spaces. The structures and site improvements shall be designed so that public areas such as streets or public gathering places, semi-public areas, and private outdoor areas are clearly defined in order to establish persons having a right to be in the space, to provide for crime prevention, and to establish maintenance responsibility. These areas may be defined by:

- 1. A deck, patio, fence, low wall, hedge, or draping vine;
- 2. A trellis or arbor;
- 3. A change in level;
- 4. A change in the texture of the path material;
- 5. Sign; or
- 6. Landscaping.

Use of gates to demarcate the boundary between a public street and a private access driveway is prohibited.

**Response:** As described above, the addition does not include private outdoor areas. However, elements of the façade of the addition include items that help to demarcate the tiers between public, semi-public and private space. These include grade changes and a retaining wall at the front property line; compatible materials with the existing buildings and internal pathways

55.100.H. Public Transit

**Response:** TriMet Route 154 has a stop at Debok/Blankenship Road approximately 900 feet from site.

55.100.I. Public Facilities. (Streets, Water, Sanitary sewer, solid waste and recycling)

Streets.

**Response:** No capacity changes, therefore, no changes to the existing facilities will be needed. In a preliminary communication from Tualatin Valley Fire and Rescue on August 1<sup>st</sup>, Ty Darby noted that the existing fire apparatus is acceptable and no fire flow test would be required based on the provided Site Plan.

Municipal Water.

Sanitary Sewer.

**Response:** This project is an addition and remodel to an existing project and water and sanitary sewer are already serving the site. No changes to the existing facilities will be needed. A Utility Plan is provided with the Plan Set as **Utility Plan**, **C3.0**.

Solid waste and recycling storage areas.

**Response:** Existing trash facilities are located at the western edge of the site. No changes to capacity, therefore, no changes to the existing trash facilities will be needed.

55.100.J. Crime prevention and defensible space Lockable windows, sight lines, provide security fences for utilities; (locations of mailboxes, laundry rooms, public spaces).

- 2. Interior laundry and service areas shall be located in a way that they can be observed by others.
- 3. Mailboxes, recycling, and solid waste facilities shall be located in lighted areas having vehicular or pedestrian traffic.
- 4. The exterior lighting levels shall be selected and the angles shall be oriented towards areas vulnerable to crime.
- 5. Light fixtures shall be provided in areas having heavy pedestrian or vehicular traffic and in potentially dangerous areas such as parking lots, stairs, ramps, and abrupt grade changes.
- 6. Fixtures shall be placed at a height so that light patterns overlap at a height of seven feet which is sufficient to illuminate a person. All commercial, industrial, residential, and public facility projects undergoing design review shall use low or high pressure sodium bulbs and be able to demonstrate effective shielding so that the light is directed downwards rather than omni- directional. Omni-directional lights of an ornamental nature may be used in general commercial districts only.
- 7. Lines of sight shall be reasonably established so that the development site is visible to police and residents.
- 8. Security fences for utilities (e.g., power transformers, pump stations, pipeline control equipment, etc.) or wireless communication facilities may be up to eight feet tall in order to protect public safety. No variances are required regardless of location.

**Response:** Defensible space principles include architectural and site features which provide for a combination of privacy in resident's private spaces as well as "eyes on the street" that allows residents feel connected to public spaces surrounding the site.

This project provides housing for a unique population, often with a variety of age and health issues. It serves a population 62 years and older with an average age of 83. Safety is of paramount concern for residents, employees and visitors and is addressed in the following manner:

For public spaces, the exterior of the building is lighted and the parking areas are well-lit with new LED lamps to provide security, without over-lighting the site. New landscaping to be provided will be chosen in order to provide screening in conjunction with views outward. The building has two entrances, one for the Skilled Nursing Facility and one for the Resident Care Facility; both entrances face the street and/or parking lot.

Internally, semi-public spaces are limited, due to the population being served—staff are responsible for mail delivery and laundry for residents. Semi-public spaces shared by the community are monitored by staff. The building will feature the following security measures: electronic keypad-activated locks on the exterior doors, and all outdoor areas are fenced and gated. In the units, windows at resident-accessible rooms will have stops to prevent them from opening more than a few inches. The community is staffed 24/7.

#### 55.100.K. Provisions for persons with disabilities

1. The needs of a person with a disability shall be provided for. Accessible routes shall be provided between all buildings and accessible site facilities. The accessible route shall be the most practical direct route between accessible building entries, accessible site facilities, and the accessible entry to the site. An accessible route shall connect to the public right-of-way and to at least one on-site or adjacent transit stop (if the area is served by transit). All facilities shall conform to, or exceed, the Americans with Disabilities Act (ADA) standards, including those included in the Uniform Building Code.

**Response:** Accessible provisions are provided throughout the building as a result of the population being served. This includes the following measures: Additional parking is being provided at the parking area and the new pedestrian connection is accessibility-compliant. Internally, accessibility features will include the following:

All resident rooms will be fully Accessible units which include a turning circle and storage provided within accessible reach ranges. All public and resident bathrooms will have a turning circle, lavatories that allow for front approach, grab bars, and wheel-in showers (where applicable), doors that swing outward, and a nurse-call station. Corridor walls will have no projections beyond 4"; there will be handrails on both sides of the corridor, with ends returning to the wall. Floor surfaces will be non-slip and without level changes beyond an accessible threshold; the addition is only one story so no stairs or elevators are present in it. Lighting throughout will be of a higher intensity suitable for a senior's diminished eyesight.

55.100.L. Signs

**Response:** The facility has adequate site signage; no changes are proposed with this application. Existing site signage is noted on the **Existing Conditions Plan, C0.1.** 

55.100.M. Utilities. The developer shall make necessary arrangements with utility companies or other persons or corporations affected for the installation of underground lines and facilities. Electrical lines and other wires, including but not limited to communication, street lighting, and cable television, shall be placed underground, as practical. The design standards of Tables 1 and 2 above, and of subsection 5.487 of the West Linn Municipal Code relative to existing high ambient noise levels shall apply to this section.

**Response:** All utilities to the site are existing and are available. No changes are proposed with this application.

55.100.N. WCF. Wireless communication facilities,

**Response:** No wireless communication facility is being proposed; this is not applicable.

55.100.O. Refuse and Recycling

**Response:** As per PreApplication Conference notes PA-17-31, this criterion is not applicable to this project.

55.110 Site Analysis

A. A vicinity map showing the location of the property in relation to adjacent properties, roads, pedestrian and bike ways, transit stops and utility access.

Response: This information is provided on the Cover Page, A0.00.

- B. A site analysis on a drawing at a suitable scale (in order of preference, one inch equals 10 feet to one inch equals 30 feet) which shows:
- 1. The property boundaries, dimensions, and gross area.
- 2. Contour lines at the following minimum intervals:
- a. Two-foot intervals for slopes from zero to 25 percent; and
- b. Five- or 10-foot intervals for slopes in excess of 25 percent.

**Response:** This information is provided on the **Existing Conditions Plan, C0.1** for the portion of the site that is affected by the addition/remodel.

- 3. A slope analysis which identifies portions of the site according to the slope ranges as follows:
- a. Type I (under 15 percent);
- b. Type II (between 15 to 25 percent);
- c. Type III (between 25 to 35 percent);

d. Type IV (over 35 percent).

**Response:** This information is provided on the **Existing Conditions Plan, C0.1** for the portion of the site that is affected by the addition/remodel.

4. The location and width of adjoining streets.

**Response:** Adjoining streets include Debok Road, a Neighborhood Route and Summerlinn Drive, a private street. Additionally, the site is adjacent to Interstate 205, but does not have access or direct frontage due to grade changes. This information is provided on the **Existing Conditions Plan, C0.1** for the portion of the site that is affected by the addition/remodel.

5. The drainage patterns and drainage courses on the site and on adjacent lands.

Response: This information is provided on the Overall Grading and Erosion Control Plan, C2.0.

- 6. Potential natural hazard areas including:
- a. Floodplain areas pursuant to the site's applicable FEMA Flood Map panel;
- b. Water resource areas as defined by Chapter 32 CDC;
- c. Landslide areas designated by the Natural Hazard Mitigation Plan, Map 16; and
- d. Landslide vulnerable analysis areas, designated by the Natural Hazard Mitigation Plan, Map 17.

**Response:** As available for this site, this information is provided on the **Existing Conditions Plan**, **C0.1** 

- 7. Resource areas including:
- a. Wetlands:
- b. Riparian corridors;
- c. Streams, including intermittent and ephemeral streams;
- d. Habitat conservation areas; and
- e. Large rock outcroppings.

**Response:** As available for this site, this information is provided on the **Existing Conditions Plan**, **C0.1** 

8. Potential historic landmarks and registered archaeological sites. The existence of such sites on the property shall be verified from records maintained by the Community Development Department and other recognized sources.

**Response**: None exist on the site. This criterion is not applicable.

9. Identification information including the name and address of the owner, developer, project designer, lineal scale and north arrow.

**Response:** This information is provided on the **Cover Page**, **A0.00**, associated with the Plan Set.

10. Identify Type I and II lands in map form. Provide a table which identifies square footage of Type I and II lands also as percentage of total site square footage.

Response: This information is provided on the Existing Conditions Plan, C0.1.

55.120 Site Plan. The site plan shall be at the same scale as the site analysis (CDC 55.110) and shall show:

- A. The applicant's entire property and the surrounding property to a distance sufficient to determine the relationship between the applicant's property and proposed development and adjacent property and development.
- B. Boundary lines and dimensions for the perimeter of the property and the dimensions for all proposed lot or parcel lines.
- C. Streams and stream corridors.
- D. Identification information, including the name and address of the owner, developer, project designer, lineal scale and north arrow.
- E. The location, dimensions, and names of all existing and proposed streets, public pathways, easements on adjacent properties and on the site, and all associated rights-of-way.
- F. The location, dimensions and setback distances of all:
- 1. Existing and proposed structures, improvements, and utility facilities on site; and
- 2. Existing structures and driveways on adjoining properties.
- *G.* The location and dimensions of:
- 1. The entrances and exits to the site;
- 2. The parking and circulation areas;
- 3. Areas for waste disposal, recycling, loading, and delivery;
- 4. Pedestrian and bicycle routes, including designated routes, through parking lots and to adjacent rights-of-way;
- 5. On-site outdoor recreation spaces and common areas;
- 6. All utilities, including stormwater detention and treatment; and
- 7. Sign locations.
- H. The location of areas to be landscaped.

**Response:** Depending on whether the information is referencing an existing condition to be maintained or a change to the project based on this addition/remodel, this information is located on the **Existing Conditions, C0.1** and/or the **Site Plan, A1.01**.

#### 55.125 Transportation Analysis

Certain development proposals required that a Traffic Impact Analysis (TIA) be provided which may result in modifications to the site plan or conditions of approval to address or minimize any adverse impacts created by the proposal. The purpose, applicability and standards of this analysis are found in CDC 85.170(B)(2).

**Response:** No Traffic Impact Analysis has been required for this addition/remodel as no changes to the existing trips to the site is proposed—no changes to staffing, visitors or services to the site is expected as no changes to capacity are being proposed. On August 9, 2017, Seth Brumley, Planner with ODOT noted that ODOT's traffic analysists would not require any additional information due to the low traffic generation.

#### 55.130 Grading Plan

The grading and drainage plan shall be at a scale sufficient to evaluate all aspects of the proposal and shall include the following:

- A. The location and extent to which grading will take place indicating general contour lines, slope ratios, slope stabilization proposals, and location and height of retaining walls, if proposed.
- B. A registered civil engineer shall prepare a plan and statement that shall be supported by factual data that clearly shows that there will be no adverse impacts from increased intensity of runoff off site, or the plan and statement shall identify all off-site impacts and measures to mitigate those impacts. The plan and statement shall, at a minimum, determine the off-site impacts from a 10-year storm.
- C. Storm detention and treatment plans may be required.
- D. Identification, information, including the name and address of the owner, developer, project designer, and the project engineer.

**Response:** A Stormwater Report and Calculations has been prepared to demonstrate how the additional runoff will be collected into an existing vegetated basin. Information on where this will be located is noted on the **Overall Grading and Erosion Control Plan, C2.0.** 

## 55.140 Architectural Drawings

This section does not apply to single-family residential subdivisions or partitions, or up to two duplexes or single-family attached dwellings. Architectural drawings shall be submitted showing:

- A. Building elevations and sections tied to curb elevation;
- B. Building materials: color and type; and
- C. The name of the architect or designer.

**Response:** The Plan set provided includes **Building Elevations – Color,** and includes elevation information as well as details on the building materials. The architect is Ankrom Moisan Architects and is noted on all applicable plans.

#### 55.150 Landscape Plan

This section does not apply to detached single-family residential subdivisions or partitions, or up to two duplexes or single-family attached dwellings.

- A. The landscape plan shall be prepared and shall show the following:
  - 1. Preliminary underground irrigation system, if proposed;
  - 2. The location and height of fences and other buffering of screening materials, if proposed; The location of terraces, decks, patios, shelters, and play areas, if proposed;
  - 3. The location, size, and species of the existing and proposed plant materials, if proposed; and
  - 4. Building and pavement outlines.
- B. The landscape plan shall be accompanied by:
  - 5. The erosion controls that will be used, if necessary;
  - 6. Planting list; and
  - 7. Supplemental information as required by the Planning Director or City Arborist.

**Response:** Site landscaping in the vicinity of the addition and remodel is noted on **Landscaping Plan L1.0** and includes a planting list. Details about the planting methods are included on the **Landscape Plan L2.0**.

- 55.170 Exceptions to Underlying Zone, Yard, Parking, Sign Provisions and Landscaping Provisions.
- A. The Planning Director may grant an exception to the dimensional building setback or yard requirements in the applicable zone based on findings that the approval will satisfy the following criteria:
- 1. A minor exception that is not greater than 20 percent of the required setback.
- 2. A more efficient use of the site.
- 3. The preservation of natural features that have been incorporated into the overall design of the project.
- 4. No adverse affect to adjoining properties in terms of light, air circulation, noise levels, privacy, and fire hazard.
- 5. Safe vehicular and pedestrian access to the site and safe on-site vehicular and pedestrian circulation.

**Response:** No setback or yard exceptions are being requested as part of this application.

- B. The Planning Director may grant an exception to the off-street parking dimensional and minimum number of space requirements in the applicable zone so long as the following criteria are met:
- 1. The minor exception is not greater than 10 percent of the required parking;
- 2. The application is for a use designed for a specific purpose which is intended to be permanent in nature (for example, a nursing home) and which has a low demand for off-street parking; or
- 3. There is an opportunity for sharing parking and there is written evidence that the property owners are willing to enter into a legal agreement; or

4. Public transportation is available to the site reducing the standards and will not adversely affect adjoining uses, and there is a community interest in the preservation of particular natural feature(s) of the site which make it in the public interest to grant an exception to parking standards.

**Response:** A reduction in parking for 7 spaces has is being requested as part of this application. This application is proposing to reduce the number of required spaces from 64 to 57 in the following manner:

As per 55.170(B): Parking can be reduced by 10% for transit-accessible and/or mixed use. The site is within walking distance of TriMet Route 154 with a stop at Debok/Blankenship Road approximately 900 feet from site. This provides for a 6.4 stall space reduction, rounded to 7 spaces.

As the operations of the site include daily employees, Section 46.150E provides for Transportation Demand Management to reduce trips to the site. The owners of the project provide a number of Transportation Demand Management measures for employees including: free TriMet bus passes to staff and availability of staff carpools. The facility also provides offsite parking with shuttle service, that is mainly used in the winter months.

As described, the residents of this facility do not drive as a result of their health condition, this situation is permanent in nature as the facility is designed for these residents. These options, along with the availability of bicycle parking, will work to reduce automobile trips to the site.

- C. The Planning Director may grant an exception to the sign dimensional requirements in the applicable zone when the following criteria are met:
- 1. The minor exception is not greater than 10 percent of the required applicable dimensional standard for signs;
- 2. The exception is necessary for adequate identification of the use on the property; and
- 3. The sign will be compatible with the overall site plan, the structural improvements, and with the structures and uses on adjoining properties.

**Response:** No sign exceptions are being requested as part of this application.

- D. The Planning Director may grant an exception to the landscaping requirements in the applicable zone based on findings that the following criteria will be met:
- 1. A minor exception that is not greater than 10 percent of the required landscaped area.
- 2. A more efficient use of the site.
- 3. The preservation of natural features that have been incorporated into the overall design of the project.
- 4. No adverse effect to adjoining property.

**Response**: No landscaping exceptions are being requested as part of this application.

55.180 Maintenance

All on-site improvements shall be the ongoing responsibility of the property owner or occupant.

**Response:** This responsibility is understood by the applicant and project owner.

55.190 Shared Open Space

Where the open space is designated on the plan as common open space, the following shall apply:

- A. The open space area shall be shown on the final plan and recorded with the Planning Director.
- B. The open space shall be conveyed in accordance with one of the following methods:
- 1. By dedication to the City as publicly owned and maintained as open space. Open space proposed for dedication to the City must be acceptable to it with regard to the size, shape, location, improvement, and budgetary and maintenance limitations.
- 2. By leasing or conveying title (including beneficial ownership) to a corporation, home association, or other legal entity with the City retaining the development rights to the property. The terms of such lease

or other instrument of conveyance must include provisions suitable to the City Attorney for guaranteeing the following:

- a. The continued use of such land for intended purposes.
- b. Continuity of property maintenance.
- c. When appropriate, the availability of funds required for such maintenance.
- d. Adequate insurance protection.
- e. Recovery for loss sustained by casualty and condemnation, or otherwise.
- 3. By any method that achieves the objectives set forth in subsection (B)(2) of this section.

**Response**: As described previously in this application, there is no common open space requirement associated with this addition/remodel.

## 55.195 Annexation and Street Lights

As a condition of approval for design review for any project that is being annexed to the City, the developer and/or homeowners association shall pay for all expenses related to street light energy and maintenance costs until annexed into the City. The approval for any property annexed must state: "This approval is contingent on voter approval of annexation of the subject property." This means that no permit, final plat, or certificate of occupancy may be issued or approved until annexation is complete. (Ord. 1442, 1999; Ord. 1604 § 53, 2011).

**Response:** The subject property is located within the City limits. The requirements of this section are not applicable.

#### IV. Conclusion

In summary, this project will continue to provide needed housing for older members of the population. The design meets all the standards of the West Linn Development Code as reviewed in Table 1, Development Standards. A minor exception in the form of parking is being requested, but is well-justified given the proximity to transit, employer benefits and population served.

The proposed building changes to this existing project will not adversely affect the surrounding residents or commercial properties. Site landscaping and screening will continue to be a higher percentage than required by code. The scale of the project and enhancements proposed to the project site including landscaping and pathways will continue to ensure its compatibility with surrounding neighbors. The maintenance of the facility to adjust room sizes will help to maintain its longevity in the community and allow residents of West Linn to age-in-place and remain in their community.

# City of West Linn PRE-APPLICATION CONFERENCE MEETING SUMMARY NOTES July 20, 2017

SUBJECT: Application for a 6,000 square foot addition to the Rose Linn Care Facility (nursing

home) at 2330 Debok Road

FILE: PA-17-31

ATTENDEES: Applicants: Robin Scholetzky, Mark Miller Attendees: Gail Holmes, Kathy Halicki,

Staff: Peter Spir (Planning); Amy Pepper (Engineering)

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

#### **SITE INFORMATION:**

Site Address: 2330 Debok Road Site Area: 101,494 square feet

Neighborhood: Willamette

Comp. Plan: Low density residential

Zoning: R-4.5 (single family residential attached and detached duplex)

Applicable code: Community Development Code (CDC) Chapter 60 (Conditional Use Permit (CUP)) 55

(Design Review) 14 (R-4.5) Option: 66 (Alteration/Enlargement of a Non-Conforming

Structure)

PROJECT DETAILS: The owners of the Rose Linn Care facility received approval of a significant expansion in 1998 (CUP-98-05 and DR-98-19). The owner now wants to demolish about 3,600 square feet of the building at the southeast corner of the property and replace it with a 6,000 square foot single story addition. The 1998 staff report noted that the site was also non-conforming regarding access separation on Debok Road. Since then, the TSP was amended to reclassify Debok Road as a Neighborhood Route which is between a Collector and a Local Street on the classification hierarchy. CDC 48.060 (C) (5) only requires a 35 foot separation between the driveway curb cut for this nursing home and the Summerlin Drive (private street) intersection. The intersection separation is 40 feet so the structure is conforming in terms of access. Another non-conformity is parking. According to the submittal, the total bed count will remain at its current amount of 111. The property has 58 parking spaces (including ADA spaces). That number will be reduced by one space to 57 to accommodate the addition. Based on the land use category of "nursing facilities", CDC 46.090 requires one parking space for each three beds and one per every two employees. The 111 beds require 37 spaces. The peak shift employment, which will not change with the addition, is 54 employees which requires 27 spaces. Total on-site parking is seven spaces shy of the required 64 parking spaces. The shortfall can be addressed by responding to 55.170(B) which allows for a 10 percent reduction of 6.4 spaces which arguably could be rounded up to cover the seven space shortfall. Also, whereas Parking Demand Management plans are only listed as appropriate for office and industrial office uses in 46.150(E), the applicant could propose that their use is similar to an office use and then go ahead and provide a PDM plan to address the shortfall. An option would be to apply for an alteration of a non-conforming structure permit per CDC Chapter 66.

46.150(D) explains the bicycle parking requirement. If no bike parking is available, that would be a non-conformity. The applicant could propose that this is an unlisted use and therefore exempt. More likely is the finding that this is similar to the "hospital" category which could be satisfied by 22 bicycle parking spaces. Landscaping criteria 54.020(E) (3) (e) is met since the parking lot does not comprise 50 percent or more of frontage on Debok Road. Thirteen percent of the parking lot is landscaped which exceeds the required 10 percent. Total site landscaping exceeds the requisite 20 percent. Tree removal is permitted in the building footprint and graded areas with one to one mitigation as addressed in 55.100 (B) (2) (f). The setbacks and dimensional standards of the underlying zone is R-4.5 are met, but the Planning Commission has the authority under Chapter 60 to modify the appropriate lot or parcel size for a conditional use based upon the criteria set forth in CDC 60.070(A) and (B). Design review will focus on the architectural design of the addition, design compatibility, and defensible space/surveillance/lighting. Shared outdoor recreation areas are not required.

<u>Engineering Comments</u>: Contact Amy Pepper at <u>apepper@westlinnoregon.gov</u> for Engineering comments. The applicant should address and resolve the issue of vacated ROW on the north edge of the site. Contact ODOT for traffic study requirement; otherwise, no Traffic Impact Analysis is required by the City. See also storm water detention and treatment facility requirements.

**PROCESS:** The Conditional Use Permit (CUP) submittal requirements and approval criteria are explained in CDC Chapter 60. Class II Design Review submittal requirements and approval criteria are explained in CDC Chapter 55. Also address the discuss compliance with the provisions of the R-4.5 zone, CDC Chapters 52, 54, 46, 48, and 96 shall be addressed where applicable. (Option: The Expansion of a Non-Conforming Structure submittal requirements and approval criteria are explained in CDC Chapter 66.) The CUP deposit fee is 4,700. The Class II Design Review deposit fee is \$4,000 plus four percent of the construction value to a maximum deposit fee of \$20,000. (Option: The Non-Conforming Structure fee is \$3,000.)

A neighborhood meeting is required by CDC Chapter 99.038. Please follow the procedures exactly. The Willamette Neighborhood Association may be contacted at <a href="WillametteNA@westlinnoregon.gov">WillametteNA@westlinnoregon.gov</a>. The applicant should initiate this neighborhood meeting as soon as possible. Once the application and fee are submitted, the City has 30 days to determine if the application is complete or not. If the application is not complete, the applicant has 180 days to make it complete or provide written notice to staff that no other information will be provided. Once the submittal is deemed complete, staff will provide notice per CDC Chapter 99 and schedule a Hearing date by the Planning Commission. Appeals of the Planning Commission's decision are heard by City Council and subsequently LUBA. The City has 120 days from date of submittal of a complete application to exhaust all local review.

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

Typical land use applications can take 6-12 months from beginning to end.

**DISCLAIMER:** This summary discussion covers issues identified to date. It does not imply that these are the only issues. The burden of proof is on the applicant to demonstrate that all approval criteria have been met. These notes do not constitute an endorsement of the proposed application *or provide any assurance of potential outcomes*. Staff responses are based on limited material presented at this pre-application meeting. New issues, requirements, etc. could emerge as the application is developed. *A new pre-application conference would have to be scheduled after 18 months and these notes would no longer be valid. Any changes to the CDC standards may require a different design or submittal.* 

# Affidavit of Mailing Notice

Description: ROSE LINN CARE CENTER

I, Robin Scholetzky, being first duly sworn; say that I am (represent) the party submitted an application to the CITY OF WEST LINN for a proposed CLASS II DESIGN REVIEW affecting land located at 2330 DEBOCK ROAD and that pursuant to WEST LINN process did on JULY 20, 2017 personally mail public notice to those noted on the attached mailing list.

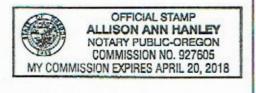
This has been signed and dated in the presence of a Notary Public.

Signature:	2000	
DATE:	July 20, 2017	

Subscribed and sworn to before me this 20th day of July 2017

Notary Public for the State of Oregon

My Commission expires: APRil 20,2018



July 20, 2017

RE: Rose Linn Care Center Neighborhood Meeting

Dear Willamette Neighborhood Association representative/Resident,

UrbanLens Planning and Ankrom Moisan Architects are representing the Rose Linn Care Center located at 2330 Debok Road in West Linn. The site is zoned R4.5 and is shown on the attached map. The site currently contains a skilled nursing facility with 111 beds.

The owners are considering an addition/remodel to the existing skilled nursing facility of approximately 6,000 square feet on the ground floor. There will be a net-zero change in the total number of beds as a result of converting some existing 3-bed units into singles and doubles. Total bed count will remain at 111. The project will provide a new pathway connection with a new ramp and railing to the existing parking area and building. One parking space will be removed for a total of 57 remaining spaces. All operations will remain as-is, without changes to staffing or programming.

A land use permit application for a Class II Design Review is planned to be submitted to the City of West Linn. Prior to applying for this necessary land use approval, we would like to discuss this project in more detail with the Willamette Neighborhood Association and surrounding property owners and residents. The purpose of the meeting is to provide a forum for the applicant and surrounding property owners/residents to review the proposal and to identify issues so that they may be considered before a land use application is submitted to the City. This meeting gives you the opportunity to share with us any special information you know about the property involved. You are invited to attend a meeting on:

DATE/TIME: August 9, 2017, 7 PM to 8 PM LOCATION: Police Station Community Room 1800 8th Avenue, West Linn Oregon

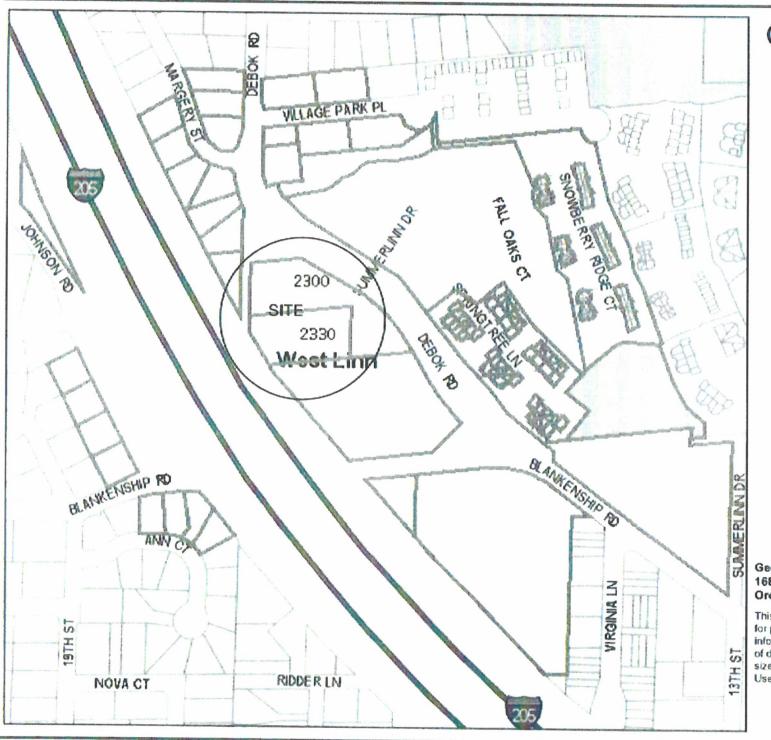
Please note that this is an informal meeting on preliminary plans. These plans may be modified slightly before being submitted to the City of West Linn. You may also receive an official notice from the City of West Linn after the application has been accepted and is considered complete, advising you of your opportunity to participate in the City process. We look forward to discussing this project with you at this meeting. Contact us at 971-706-8720 or at <a href="mailto:robin@urbanlensplanning.net">robin@urbanlensplanning.net</a> if you have questions about this meeting.

Sincerely,

Robin Scholetzky, AICP, LEED AP ND

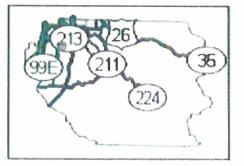
UrbanLens Planning LLC

Attachments: Tax Map



# **Clackamas County**

2330 & 2300 DEBOK 500' BUFFER







Geographic Information Systems 168 Warner Milne Road Oregon City, OR 97045

This map and all other information have been compiled for preliminary and/or general purposes only. This information is not intended to be complete for purpose of determining land use restrictions, zoning, title, parce size, or suitability of any property for a specific use. Users are cautioned to field verify all information before

Wee, 12 Jul 2017 14:27:05

Sail Holmes VNA President IO1 Wendy Court Vest Linn, OR 97068

lizabeth Rocchia VNA Treasurer 157 Willamette Falls Dr. Vest Linn, OR 97068 Julia Simpson WNA Vice President 1671 Killarney Drive West Linn, OR 97068

Kathie Halicki WNA Secretary 2307 Falcon Dr. West Linn, OR 97068







U.S. Postal Service™

CERTIFIED MAIL® RECEIPT



# Affidavit of Posting Notice

Description: ROSE LINN CARE CENTER

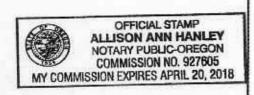
I, Robin Scholetzky, being first duly sworn; say that I am (represent) the party submitted an application to the CITY OF WEST LINN for a proposed CLASS II DESIGN REVIEW affecting land located at 2330 DEBOCK ROAD and that pursuant to WEST LINN process did on JULY 20, 2017 personally post public notice.

Signature:	5	COQ	
DATE:	July 20	,2017	

Subscribed and sworn to before me this 20th day of July 2017

Notary Public for the State of Oregon

My Commission expires: APRI 20, 2018





WNA sign-in sheet ( 8-9-17

NAME	Ph#	EMAIL	ADDRESS	Concerns
Kathie Hal! da	on Sice		um AA-Ossanius Sitaurus esti ja kanalyyen, sukilaini sitä kiiki sisaniati Aproper sattiya kus olisuse sisatak kiirikii ja jarjaksistististististi	
Dandy Wellette		4	Rose Linn Carel	70 -O
Tardi Maisko	FF 503 655-08	37	11 11 11	0
DIANE, AWA	ITI. 903-655-49	60	1847 5" AVE	WILLAMETISIST
Charles Awa	At 1)		- 11	1(
Work Miller	503.952-139	7	38 NW Davis #300	Hard
Evan T Millinley	971 373 3630	ance taled with an works 2-or un	3045 Deschutes Ln	Creek
Barbura Crock	503-557-1943	dabarcrooksags	nail.com 2765 5th Ale	
Marisa Michae	1 503-303-795			
Broad Hulquis	st 503-860-771			
Pauline Beath				
DAVID BYKO	5037948100	,	Simmaclinin	CARE CENTER EXPANSA
Gail Holmes	added by			
Elrzaisala Rocch	11 & Holick U	14h permission		

## Willamette Neighborhood Association Draft Minutes 8/9/2017

Gail brought the meeting to order @ 7:00 p.m.

Kathie read the minutes from 7/12/17. Gail wished to have the wording about 50+ houses removed. Elizabeth made the motion to approve the minutes with the correction, Sandy Ouellette seconded, motion passed.

Elizabeth informed us that we had \$3691.32 last month. We received our stipend from the city of \$1323.35, thus giving us a balance of \$5,014.67.

Gail informed us of the pre-app updates.

Robin Scholetzky of Urban Lens Planning made a presentation on the Rose Linn Care Center remodel and expansion (on Debok Rd). It is a skilled nursing/assisted living facility. Currently there are 111 beds. They are going to remodel and add 3000 square ft. to the existing structure. They had their pre-app with the city in July (both Gail and Kathie attended). It is a Class II design review. Urban Lens has had conversations with TVFR, ODO, and the City Arborist. No issues were found. It will be a neutral palette, increased energy efficiency and longevity. They will maintain the 27% of the site landscaping, the will be an enclosed court yard. They will include water retention, large water retention in the back already. After the construction starts it will take 6 months to complete. They are in a conversation with the city over parking on the ODOT parcel.

Gazebo House- questions still an unknown.

Evan McKinley- Boy Scout, would like to name unnamed creek #1, Robert Baden-Powell Creek. It is a 4 season creek, running through the Willamette

Neighborhood. Mr. Powell was the founder of the Boy Scouts (1908) and a war hero. Evan has a petition with signatures in agreement with this. He went to City Hall and Parks and Rec. for their blessing. The last person he saw asked if he had gone to his Neighborhood Assoc. and his answer was no. We all felt that the city fell down on their duty to direct this young man to the correct order for projects. City Hall is not following this order. Some of the suggestions from WNA members were: name the creed after someone local, perhaps the first WL Scout Master, build a historic context, go visit the Clackamas County Historic Society Museum — (they have photographs of boy scouting events from the early turn of the 1900s.

The photographer is world renown and from WL.), local names for local landmarks, tie into local. Diane and Charles Awalt have offered to assist Evan.

The idea was brought forward that WNA would like to have someone from the Waterfront Project come to our Oct. meeting to fill us in on what is going on.

Diane Awalt – is writing a letter to the mayor about the Trolley Stairs being reduced to rubble and hauled off. Lance (city staff) said they were not in compliance/safety hazard. They were not marked of designated, they were not in the historic district. The city did not inform anyone at WNA that this was happening. City, again, not following their own guidelines for projects and communication. WNA can still "interpret" the stairs with signage. We would like to see the stairs replaced with basalt stairs. There are 3 sets of stairs.

Main Street mailing- Main Street has asked WNA for \$784.40 to cover printing and mailing costs for their next mailing. Several of us felt that the mailing was still insufficient due to not all of WNA (no one above I-205) will receive mailing (questionnaire/survey). Main Street said this was due to cost. Barbara made the motion to give \$784.40 to Main Street, Paula seconded, 4 yeses 4 abstentions, motion passed with submittal of invoice. Pauline voiced the need for more volunteerism, especially for city destination functions (carriage rides, parade, Halloween, dance, etc.)

The suggestion was made that perhaps we should get in contact with Maurey @ WL Food Pantry and see what they need on a regular basis.

The meeting was adjourned @8:17 p.m.

Submitted by Kathie Halicki, Willamette Neighborhood Association Secretary.



# **Rose Linn Care Center**

# Stormwater Report and Calculations

2330 Debok Rd West Linn, OR 97068

September 30, 2017

The information contained in this report was prepared by and under direct supervision of the undersigned:



Craig Harris PE

**AAI** Engineering

4875 S.W. Griffith Drive

Suite 300

Beaverton, Oregon 97005 PH 503.620.3030 FX 503.620.5539

craigh@aaieng.com

AAI Project Number: A170419.11

# TABLE OF CONTENTS

- I. Project Overview
- II. Water Quality Design
- III. Water Quantity Design
- IV. HydroCAD Calculations
- V. Conveyance Pipe Design and Diagram
- VI. Downstream Analysis
- VII. Details
- VIII. O&M

I. Project Overview

#### Project Overview

The proposed Rose Linn Care Center project is located at 230 Debok Rd. in West Linn, Oregon. The current site is improved with a residential care facility, parking, pedestrian pathways and associated utilities. The project is proposing to add 1,152SF of impervious area to the site by the way of a building addition. The total site area is 101,385SF. After construction of the building addition the site will contain 88,969SF of impervious and 12,416SF of pervious areas. Water quality will be accomplished with an existing vegetated facility and detention will be accomplished within this same facility. There is a large portion of the site (73,606SF) which will not be impacted during these improvements (62,566SF impervious, 11,041SF pervious). That portion has its own conveyance and water quality facility which will remain undisturbed. The flow control device serves the entire site and has been modeled showing both existing and post improvements flow rates.

Conveyance pipe sizing was performed using the 25-year, 24-hour design storm event (2.65in/hr). Conveyance pipe sizing was performed using Manning's Equation  $(Q = \frac{0.463D^{8/3}S^{1/2}}{n})$ , where D is pipe diameter in feet, S is pipe slope in feet/feet, and n is the Manning's Coefficient and is based on the pipe material. A value of 0.013 (concrete) was used for this project and is conservative if PVC piping is utilized for the project.

Please see the attached calculations showing that the stormwater system meets the said requirement.

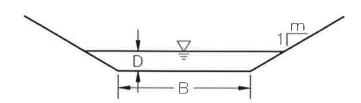
II. Water Quality Design

#### Water Quality Design

The runoff from the proposed improvements will be treated in an existing vegetated basin. This basin was designed to treat the flows that are directed to it. During this construction we will be adding 1,152SF of impervious area to the flows. We ran the existing basins geometry with the new impervious area total to determine if it met current residency time for treatment. The calculations show that the residency time is 13.05 minutes which exceeds minimum standards. The basin will be reshaped and replanted to meet current codes.

# **Vegetated Swale Equation**

Water Quality Flow	0.12 cfs
Depth	0.280 ft
Mean Residence Time	13.05 min



Q=_	(0.36 in) (Ai sq.ft.)	Per CWS Design
15	(12 in/ft)(4 hr)(60 min/hr)(60 sec/min)	Standards (2007)
Q	Water Quality Flow	0.12 cf
Ai	Impervious Area	26404 sf
В	Base Width	2 feet
m	Side Slope	4 :1
D	Depth*	0.28 feet
Ac	Cross Sectional Area	0.87 sq ft
$P_{w}$	Wetted Perimeter	4.31 feet
R	Hydraulic Radius	0.20 feet
S	Longitudinal Slope	0.006 ft/ft
n	Manning's Roughness Coefficient	0.3
V1	Velocity (Q/A)	0.13 ft/sec
V2	Velocity (Manning's Equation)	0.13 ft/sec
L	Length	104 feet
t	Mean Residence Time	13.05 min

\* Depth is determined by iteration to satisfy the equation Q/A=Manning's Equation

III. Water Quantity Design

#### Water Quantity Design

The existing flow control manhole was used to model the existing and post improvement flows using the Santa Barbara Urban Hydrograph methodology and the HydroCAD software. The proposed site improvements add 1,152SF of impervious area to the site. The existing flow control manhole is proposed to release the required storm events through a standpipe with an exiting orifice. Storm events are conveyed to the existing public storm conveyance system located along Hwy 205. Per AsBuilt plans provided by the owner the existing manhole has a single 4.26" dia orifice which controls the flows from the site. The emergency overflow elevation is 2.8' above the orifice which will allow high volume rain events to pass though the system without surcharging the upstream elements and causing flooding.

Storm Event	Existing	Required	Post-	Additional cfs
	Conditions	Q	Developed	added to
	Q (cfs)	(cfs)	Q (cfs)	discharge
2-yr	1.16	1.16	1.17	0.01
5-yr	1.41	1.41	1.42	0.01
10-yr	1.64	1.64	1.65	0.01
25-yr	1.88	1.88	1.88	0.00
100-yr	2.11	2.11	2.12	0.01

This minimal increase in discharge is negligible and will have no impact to any downstream facilities.

See HydroCAD calculations for design verification.

IV. HydroCAD Calculations



# Undetained and Undesturbed









# A17049.11 - Rose Linn Care Center

Prepared by AAI Engineering
HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017 Page 2

# Area Listing (selected nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
0.253	61	>75% Grass cover, Good, HSG B (1S)
1.436	98	Roof/Concrete (1S)
1.690	92	TOTAL AREA

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017

Page 3

#### **Summary for Subcatchment 1S: Undetained and Undesturbed**

Runoff

=

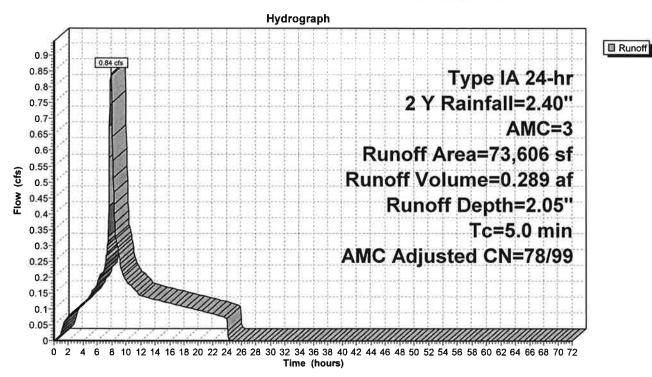
0.84 cfs @

7.90 hrs, Volume=

0.289 af, Depth= 2.05"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 2 Y Rainfall=2.40", AMC=3

A	rea (sf)	CN .	Adj De	Description					
*	62,565	98	Ro	of/Concrete					
	11,041	61	>7	5% Grass co	ver, Good, HSG B				
	73,606	92	97 W	Veighted Average, AMC Adjusted					
	11,041		15	.00% Perviou	us Area				
	62,565		85	.00% Impervi	ous Area				
Тс	Length	Slope	Velocit	y Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec	c) (cfs)	·				
5.0					Direct Entry.				



HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 4

## Summary for Subcatchment 1S: Undetained and Undesturbed

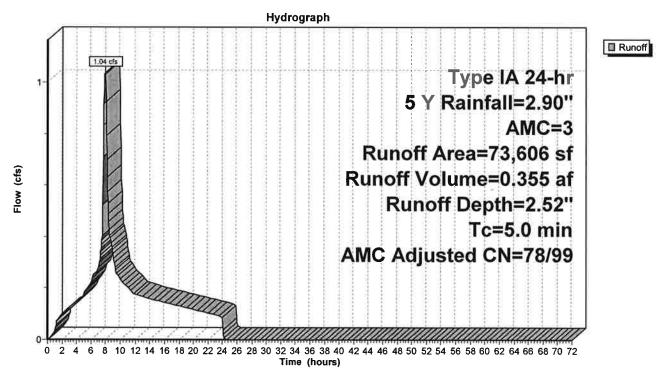
Runoff

1.04 cfs @ 7.90 hrs, Volume=

0.355 af, Depth= 2.52"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 5 Y Rainfall=2.90", AMC=3

	A	rea (sf)	CN	Adj De	escription					
1	•	62,565	98	Ro	Roof/Concrete					
- 2		11,041	61	>7	75% Grass cover, Good, HSG B					
		73,606	92	97 W	Veighted Average, AMC Adjusted					
		11,041		15	.00% Perviou	us Area				
		62,565		85	.00% Impervi	ious Area				
	Тс	Length	Slope	Velocit	y Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec	c) (cfs)	·				
	5.0					Direct Entry				



HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 5

#### Summary for Subcatchment 1S: Undetained and Undesturbed

Runoff

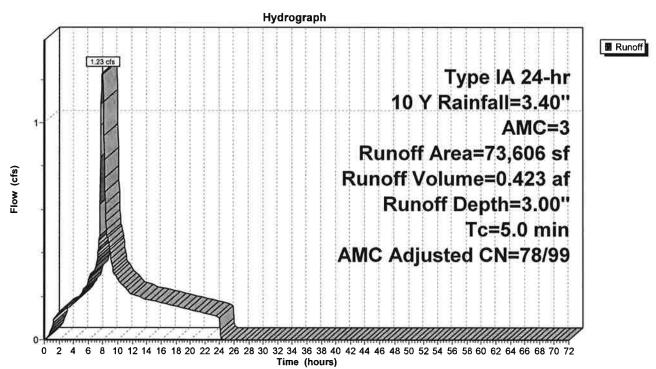
= 1.2

1.23 cfs @ 7.90 hrs, Volume=

0.423 af, Depth= 3.00"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 10 Y Rainfall=3.40", AMC=3

	Α	rea (sf)	CN	Adj 🛭	Description				
*		62,565	98	F	Roof/Concrete				
		11,041	61	>	>75% Grass cover, Good, HSG B				
		73,606	92	97 V	Veighted Average, AMC Adjusted				
		11,041		1	15.00% Pervio	us Area			
		62,565		8	35.00% Imperv	ious Area			
	Тс	Length	Slope	Veloc	city Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/se	ec) (cfs)				
	5.0					Direct Entry			



HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 6

#### **Summary for Subcatchment 1S: Undetained and Undesturbed**

Runoff =

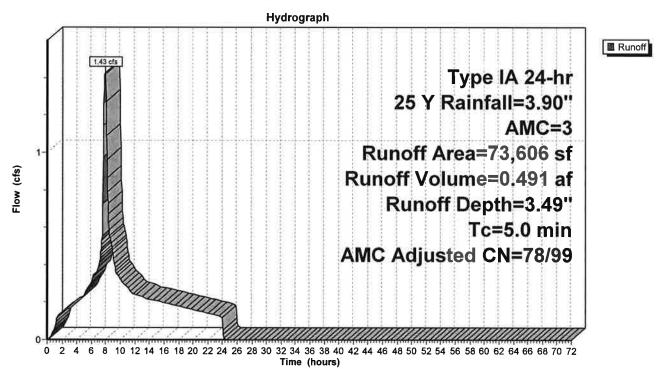
1.43 cfs @

7.90 hrs, Volume=

0.491 af, Depth= 3.49"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 25 Y Rainfall=3.90", AMC=3

_	A	rea (sf)	CN	Adj D	escription				
*		62,565	98	R	Roof/Concrete				
		11,041	61	>	>75% Grass cover, Good, HSG B				
		73,606	92	97 W	Veighted Average, AMC Adjusted				
		11,041		15	5.00% Perviou	s Area			
		62,565		8	5.00% Impervi	ous Area			
	Тс	Length	Slope	Veloc	ity Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/se	c) (cfs)				
	5.0				41 31	Direct Entry			



Printed 9/30/2017

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 7

# **Summary for Subcatchment 1S: Undetained and Undesturbed**

Runoff

=

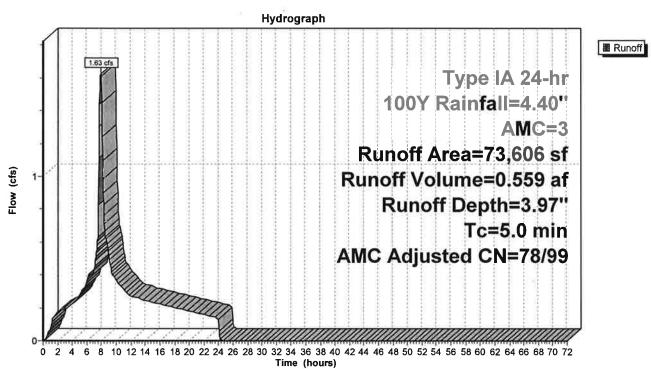
1.63 cfs @

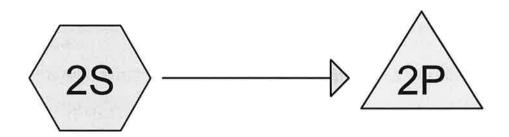
7.90 hrs, Volume=

0.559 af, Depth= 3.97"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 100Y Rainfall=4.40", AMC=3

	Αı	rea (sf)	CN	Adj	Desc	Description					
*		62,565	98		Roof	Roof/Concrete					
		11,041	61		>75%	75% Grass cover, Good, HSG B					
		73,606	92	97	Weig	Veighted Average, AMC Adjusted					
		11,041			15.00	0% Perviou	s Area				
		62,565			85.00	0% Impervi	ous Area				
(	Tc min)	Length (feet)	Slope (ft/ft)		locity /sec)	Capacity (cfs)	Description				
	5.0						Direct Entry,				





Exisitng Conditions (Detained)

**Detention Basin** 









# A17049.11 - Rose Linn Care Center

Prepared by AAI Engineering
HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017 Page 2

# Area Listing (selected nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
0.058	61	>75% Grass cover, Good, HSG B (2S)
0.580	98	Roof/Concrete (2S)
0.638	95	TOTAL AREA

Printed 9/30/2017

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 3

## **Summary for Subcatchment 2S: Exisitng Conditions (Detained)**

Runoff

=

0.34 cfs @

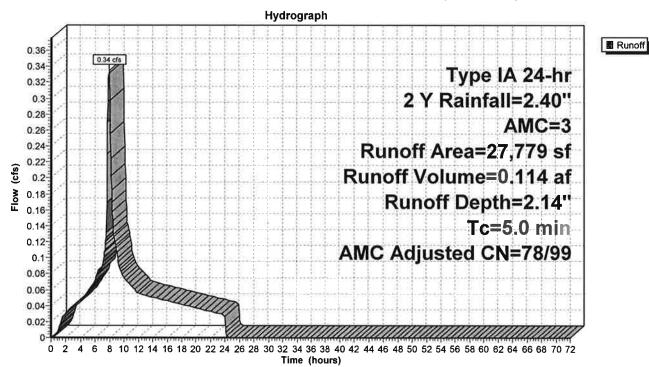
7.90 hrs, Volume=

0.114 af, Depth= 2.14"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 2 Y Rainfall=2.40", AMC=3

	Α	rea (sf)	CN	Adj Des	scription					
*		25,252	98	Roo	of/Concrete					
		2,527	61	>75	75% Grass cover, Good, HSG B					
		27,779	95	98 We	/eighted Average, AMC Adjusted					
		2,527		9.1	0% Pervious	s Area				
		25,252		90.	90.90% Impervious Area					
	Тс	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)							
	5.0					Direct Entry				

#### **Subcatchment 2S: Exisitng Conditions (Detained)**



Printed 9/30/2017

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 4

# **Summary for Pond 2P: Detention Basin**

Inflow Area = 0.638 ac, 90.90% Impervious, Inflow Depth = 2.14" for 2 Y event

Inflow = 0.34 cfs @ 7.90 hrs, Volume= 0.114 af

Outflow = 0.32 cfs @ 8.01 hrs, Volume= 0.114 af, Atten= 5%, Lag= 6.7 min

Primary = 0.32 cfs @ 8.01 hrs, Volume= 0.114 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 161.11' @ 8.01 hrs Surf.Area= 281 sf Storage= 47 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.3 min ( 663.5 - 663.2 )

Volume	Invert	Avail.Sto	orage	Storage	Description	
#1	160.77'	2,0	69 cf	Custom	Stage Data (Pri	smatic) Listed below (Recalc)
Elevation (feet)	Su	ırf.Area (sq-ft)	Inc. (cubic	Store -feet)	Cum.Store (cubic-feet)	
160.77		0		0	0	
161.00		187		22	22	
162.00		1,056		622	643	
163.00		1,795		1,426	2,069	
Device R	Couting	Invert	Outle	t Device:	5	

Primary OutFlow Max=0.32 cfs @ 8.01 hrs HW=161.11' (Free Discharge)

160.50' **4.3" Vert. 25yr** C= 0.600

**1=25yr** (Orifice Controls 0.32 cfs @ 3.15 fps)

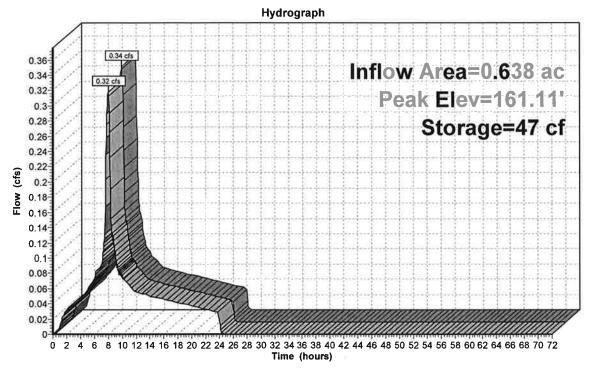
#1

Primary

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017 Page 5

#### **Pond 2P: Detention Basin**





HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017

Page 6

#### **Summary for Subcatchment 2S: Exisitng Conditions (Detained)**

Runoff

=

0.41 cfs @

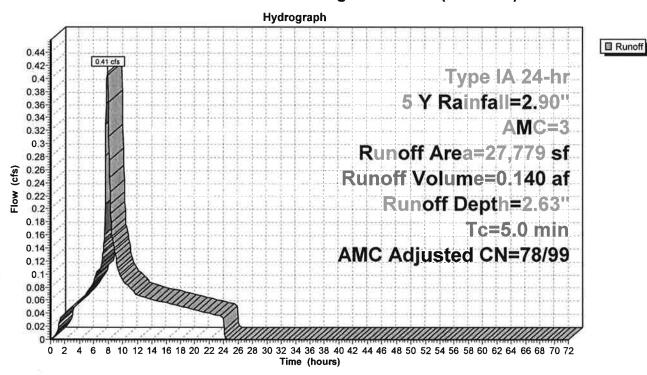
7.90 hrs, Volume=

0.140 af, Depth= 2.63"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 5 Y Rainfall=2.90", AMC=3

	A	rea (sf)	CN	Adj l	Descrip	tion						
4	·	25,252	98	1	Roof/Concrete							
		2,527	61	:	>75% Grass cover, Good, HSG B							
		27,779	95	98	Weighte	Veighted Average, AMC Adjusted						
		2,527		,	9.10% Pervious Area							
		25,252		!	90.90%	Impervi	ous Area					
	Тс	Length	Slope	Velo	citv C	apacity	Description					
	(min)	(feet)	(ft/ft)		sec)	(cfs)						
	5.0						Direct Entry.					

#### **Subcatchment 2S: Exisitng Conditions (Detained)**



#### A17049.11 - Rose Linn Care Center

Prepared by AAI Engineering

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017

Page 7

#### **Summary for Pond 2P: Detention Basin**

Inflow Area =

0.638 ac, 90.90% Impervious, Inflow Depth = 2.63" for 5 Y event

Inflow =

0.41 cfs @ 7.90 hrs, Volume=

0.140 af

Outflow =

0.37 cfs @

8.04 hrs, Volume=

0.140 af, Atten= 10%, Lag= 8.5 min

Primary =

0.37 cfs @

8.04 hrs, Volume=

0.140 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 161.26' @ 8.04 hrs Surf.Area= 410 sf Storage= 98 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.5 min ( 660.6 - 660.1 )

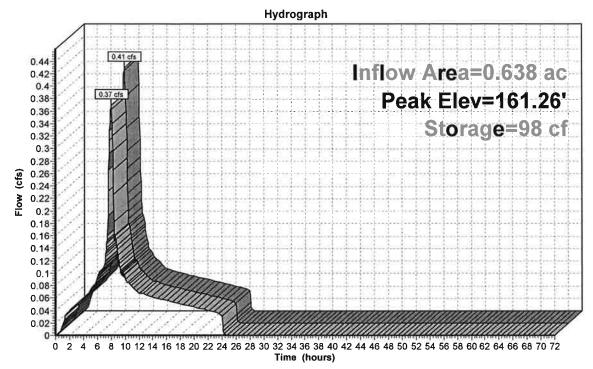
Volume	Inv	ert Avail.	.Storage	Storage [	Description	
#1	160.	77'	2,069 cf	Custom \$	Stage Data (Pr	ismatic) Listed below (Recalc)
<b>-</b> 1		0	l	04	Our Otama	
Elevation	on	Surf.Area	inc	.Store	Cum.Store	
(fee	et)	(sq-ft)	(cubi	c-feet)	(cubic-feet)	
160.7	7	0		0	0	
161.0	00	187		22	22	
162.0	00	1,056		622	643	
163.0	00	1,795		1,426	2,069	
Device	Routing	Inv	ert Outle	et Devices		
#1	Primary	160.	50' <b>4.3"</b>	Vert. 25yr	C= 0.600	

Primary OutFlow Max=0.37 cfs @ 8.04 hrs HW=161.25' (Free Discharge) 1=25yr (Orifice Controls 0.37 cfs @ 3.65 fps)

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017 Page 8

#### **Pond 2P: Detention Basin**





HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017 Page 9

#### **Summary for Subcatchment 2S: Exisitng Conditions (Detained)**

Runoff

=

0.48 cfs @

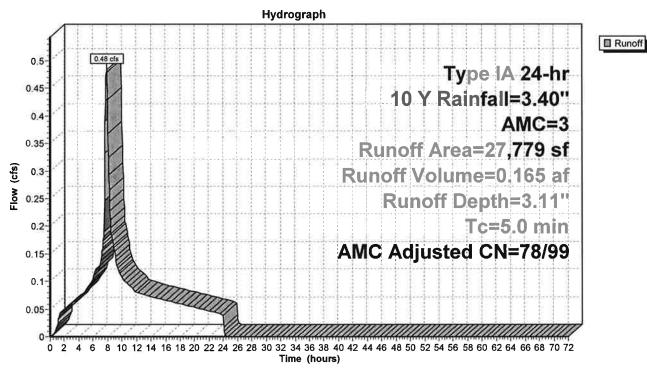
7.90 hrs, Volume=

0.165 af, Depth= 3.11"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 10 Y Rainfall=3.40", AMC=3

	Are	a (sf)	CN	Adj	Desc	ription						
*	2	5,252	98		Roof	Roof/Concrete						
		2,527	61		>75%	>75% Grass cover, Good, HSG B						
	2	7,779	95	98	Weig	eighted Average, AMC Adjusted						
		2,527			9.10	9.10% Pervious Area						
	2	5,252			90.90	)% Impervi	ous Area					
		Length	Slope		ocity	Capacity	Description					
(r	min)	(feet)	(ft/ft)	(ft	/sec)	(cfs)						
	5.0						Direct Entry,					

## **Subcatchment 2S: Exisitng Conditions (Detained)**



Printed 9/30/2017

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 10

#### **Summary for Pond 2P: Detention Basin**

Inflow Area = 0.638 ac, 90.90% Impervious, Inflow Depth = 3.11" for 10 Y event

Inflow = 0.48 cfs @ 7.90 hrs, Volume= 0.165 af

Outflow = 0.41 cfs @ 8.06 hrs, Volume= 0.165 af, Atten= 15%, Lag= 9.9 min

Primary = 0.41 cfs @ 8.06 hrs, Volume= 0.165 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 161.40' @ 8.06 hrs Surf.Area= 532 sf Storage= 164 cf

Plug-Flow detention time= 0.8 min calculated for 0.165 af (100% of inflow)

Center-of-Mass det. time= 0.8 min (658.5 - 657.7)

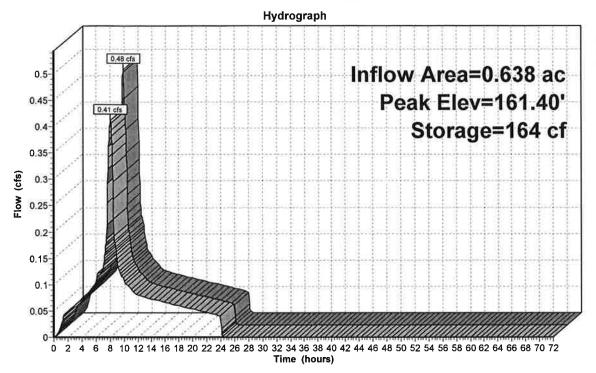
Volume	Inve	ert Avail.S	torage Storage [	Storage Description				
#1	160.7	7' 2,	069 cf Custom	Stage Data (Pri	smatic) Listed below (Recalc)			
Elevatio		Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)				
160.7	7	0	0	0				
161.00	0	187	22	22				
162.00	0	1,056	622	643				
163.00	0	1,795	1,426	2,069				
Device	Routing	Inve						
#1	Primary	160.50	D' 4.3" Vert. 25vı	· C= 0.600				

Primary OutFlow Max=0.41 cfs @ 8.06 hrs HW=161.39' (Free Discharge) 1=25yr (Orifice Controls 0.41 cfs @ 4.07 fps)

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017 Page 11

#### **Pond 2P: Detention Basin**





HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017

Page 12

# **Summary for Subcatchment 2S: Exisitng Conditions (Detained)**

Runoff

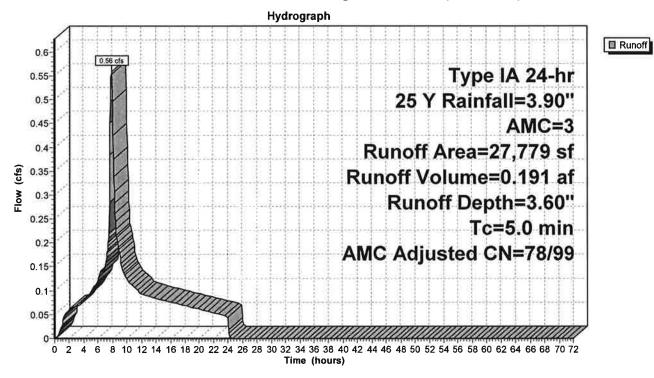
0.56 cfs @ 7.90 hrs, Volume=

0.191 af, Depth= 3.60"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 25 Y Rainfall=3.90", AMC=3

- 12	A	rea (sf)	CN	Adj De	escription					
3	e	25,252	98	R	Roof/Concrete					
		2,527	61	>7	>75% Grass cover, Good, HSG B					
		27,779	95	98 W	eighted Avera	age, AMC Adjusted				
		2,527			10% Pervious					
		25,252 90.90% Impervio				ous Area				
	Тс	Length	Slope	Veloci	ty Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/se	c) (cfs)	·				
-	5.0 Direct					Direct Entry,				

#### **Subcatchment 2S: Exisitng Conditions (Detained)**



Printed 9/30/2017

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 13

#### **Summary for Pond 2P: Detention Basin**

Inflow Area =

0.638 ac, 90.90% Impervious, Inflow Depth = 3.60" for 25 Y event

Inflow =

0.56 cfs @ 7.90 hrs, Volume= 0.191 af

Outflow =

0.45 cfs @

8.09 hrs, Volume=

0.191 af, Atten= 20%, Lag= 11.3 min

Primary

0.45 cfs @

8.09 hrs, Volume=

0.191 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 161.53' @ 8.09 hrs Surf.Area= 647 sf Storage= 242 cf

Plug-Flow detention time= 1.1 min calculated for 0.191 af (100% of inflow)

Center-of-Mass det. time= 1.1 min ( 656.9 - 655.8 )

Volume	Inv	ert Avail.	Storage	Storage Description				
#1	160.	77'	2,069 cf	Custom Stage Data (Prismatic) Listed below (Recalc)				
Elevation	on	Surf.Area	Inc	Store	Cum.Store			
(fee	et)	(sq-ft)	(cubic-feet)		(cubic-feet)			
160.7	77	0	0		0			
161.0	00	187		22	22			
162.0	00	1,056		622	643			
163.0	00	1,795		1,426	2,069			
Device	Routing	Inv	ert Outle	et Devices				
#1	Primary	160.	50' <b>4.3"</b>	Vert. 25yr	C= 0.600			

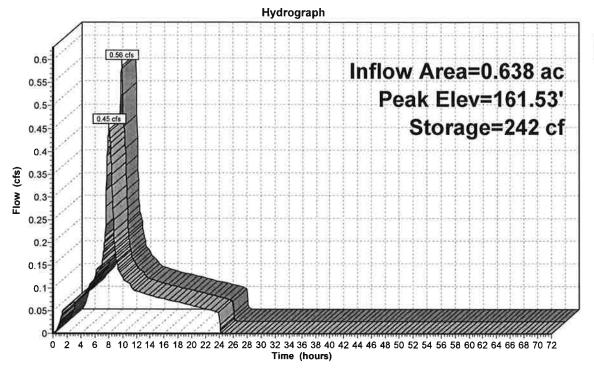
Primary OutFlow Max=0.45 cfs @ 8.09 hrs HW=161.53' (Free Discharge)
1=25yr (Orifice Controls 0.45 cfs @ 4.44 fps)

Printed 9/30/2017

Prepared by AAI Engineering
HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 14

#### Pond 2P: Detention Basin





HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 15

# **Summary for Subcatchment 2S: Exisitng Conditions (Detained)**

Runoff

=

0.64 cfs @

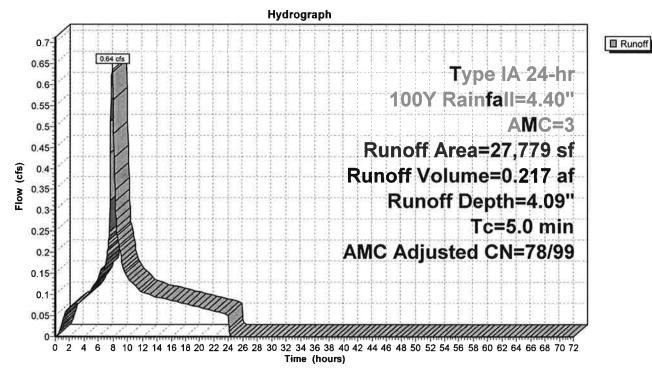
7.90 hrs, Volume=

0.217 af, Depth= 4.09"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 100Y Rainfall=4.40", AMC=3

-	A	rea (sf)	CN	Adj [	Description					
*		25,252	98	F	Roof/Concrete					
_		2,527	61	>	>75% Grass cover, Good, HSG B					
		27,779	95	98 \	/eighted Average, AMC Adjusted					
		2,527		Ş	9.10% Pervious Area					
		25,252		(	90.90% Imperv	rious Area				
	Тс	Length	Slope	Velo	city Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/s	ec) (cfs)	,				
	5.0				Direct Entry					

#### **Subcatchment 2S: Exisitng Conditions (Detained)**



Printed 9/30/2017

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 16

#### **Summary for Pond 2P: Detention Basin**

Inflow Area =

0.638 ac, 90.90% Impervious, Inflow Depth = 4.09" for 100Y event

Inflow = Outflow =

0.64 cfs @ 7.90 hrs, Volume= 0.217 af

0.217 af, Atten= 25%, Lag= 12.5 min

Primary =

0.48 cfs @ 8 0.48 cfs @ 8

8.11 hrs, Volume= 0.217 af, 8.11 hrs, Volume= 0.217 af

0.217 al

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 161.66' @ 8.11 hrs Surf.Area= 757 sf Storage= 331 cf

Plug-Flow detention time= 1.5 min calculated for 0.217 af (100% of inflow)

Center-of-Mass det. time= 1.5 min (655.8 - 654.2)

Volume	Inv	ert Ava	il.Storage	Storage D	escription	
#1	160.	77'	2,069 cf	Custom S	Stage Data (Pr	ismatic) Listed below (Recalc)
Elevation (fee		Surf.Area (sq-ft)		c.Store ic-feet)	Cum.Store (cubic-feet)	
160.7	<del></del>	0	(	0	0	
161.0	00	187		22	22	
162.0	00	1,056		622	643	
163.0	00	1,795		1,426	2,069	
Device	Routing	In	vert Out	let Devices		
#1	Primary	160	0.50' <b>4.3'</b>	' Vert. 25yr	C = 0.600	

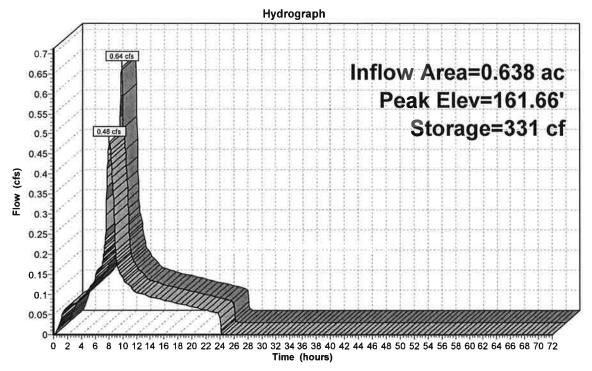
Primary OutFlow Max=0.48 cfs @ 8.11 hrs HW=161.66' (Free Discharge) 1=25yr (Orifice Controls 0.48 cfs @ 4.76 fps)

Printed 9/30/2017

Prepared by AAI Engineering
HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 17

#### Pond 2P: Detention Basin







Post-Development (Detained)

**Detention Basin** 









# A17049.11 - Rose Linn Care Center

Prepared by AAI Engineering
HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017 Page 2

# Area Listing (selected nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
0.032	61	>75% Grass cover, Good, HSG B (3S)
0.606	98	Roof/Concrete (3S)
0.638	96	TOTAL AREA

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017 Page 3

#### **Summary for Subcatchment 3S: Post-Development (Detained)**

Runoff

=

0.35 cfs @

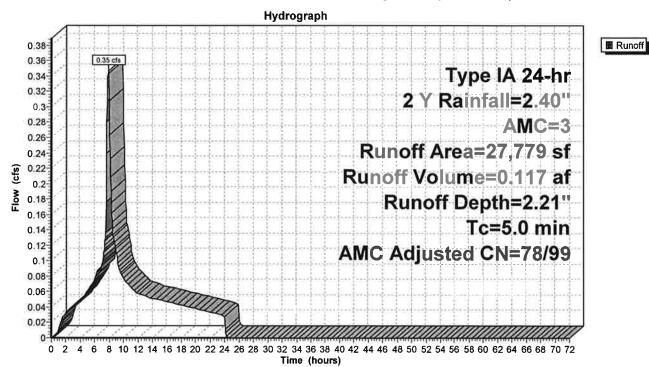
7.90 hrs, Volume=

0.117 af, Depth= 2.21"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 2 Y Rainfall=2.40", AMC=3

	Α	rea (sf)	CN	Adj De	escription					
-	ŧ	26,404	98	Ro	Roof/Concrete					
72		1,375	61	>7	5% Grass co	ver, Good, HSG B				
		27,779	96	99 W	eighted Avera	age, AMC Adjusted				
		1,375		4.9	95% Pervious	s Area				
		26,404		95	i.05% Impervi	ious Area				
	Тс	Length	Slope	Velocit	ty Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sed	c) (cfs)					
	5.0				-2	Direct Entry				

#### **Subcatchment 3S: Post-Development (Detained)**



Printed 9/30/2017

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 4

#### **Summary for Pond 3P: Detention Basin**

Inflow Area =

0.638 ac, 95.05% Impervious, Inflow Depth = 2.21" for 2 Y event

Inflow =

0.35 cfs @ 7.90 hrs, Volume=

0.117 af

Outflow =

0.33 cfs @

8.02 hrs, Volume=

0.117 af, Atten= 6%, Lag= 7.2 min

Primary =

0.33 cfs @

8.02 hrs, Volume=

0.117 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 161.13' @ 8.02 hrs Surf.Area= 302 sf Storage= 54 cf

Plug-Flow detention time= 0.3 min calculated for 0.117 af (100% of inflow)

Center-of-Mass det. time= 0.3 min ( 660.3 - 660.1 )

Volume	Inve	ert Avail.	Storage	Storage D	Description	
#1	160.7	77'	2,069 cf	Custom S	Stage Data (Pr	ismatic) Listed below (Recalc)
<b>-</b>			•	•		
Elevatio	n	Surf.Area	Inc	.Store	Cum.Store	
(fee	t)	(sq-ft)	(cubic	:-feet)	(cubic-feet)	
160.7	7	0		0	0	
161.0	0	187		22	22	
162.0	0	1,056		622	643	
163.0	0	1,795		1,426	2,069	
Device	Routing	Inve	ert Outle	et Devices		
#1	Primary	160.5	50' <b>4.3"</b>	Vert. 25vr	C= 0.600	

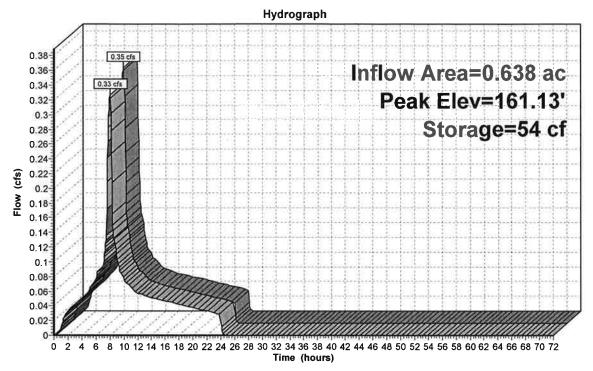
Primary OutFlow Max=0.33 cfs @ 8.02 hrs HW=161.13' (Free Discharge)
1=25yr (Orifice Controls 0.33 cfs @ 3.24 fps)

Printed 9/30/2017

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 5

#### **Pond 3P: Detention Basin**





HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017

Page 6

#### **Summary for Subcatchment 3S: Post-Development (Detained)**

Runoff

=

0.42 cfs @

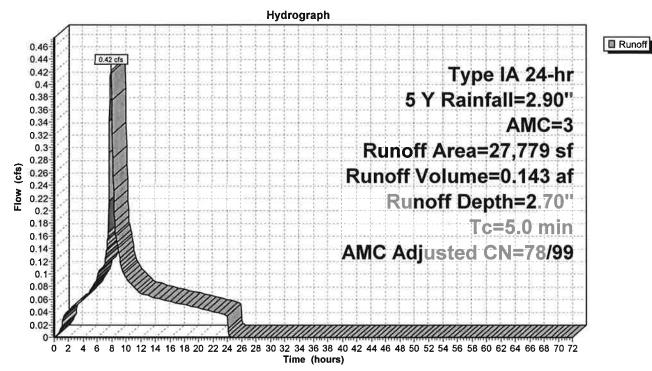
7.90 hrs, Volume=

0.143 af, Depth= 2.70"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 5 Y Rainfall=2.90", AMC=3

	A	rea (sf)	CN	Adj Des	cription				
*	•	26,404	98	Roc	of/Concrete				
		1,375	61	>75	% Grass co	ver, Good, HSG B			
-		27,779	96	99 We	ighted Avera	age, AMC Adjusted			
		1,375							
		26,404		95.0	05% Impervi	ious Area			
	Тс	Length	Slope	Velocity	Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	5.0					Direct Entry.			

#### **Subcatchment 3S: Post-Development (Detained)**



Printed 9/30/2017

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 7

#### **Summary for Pond 3P: Detention Basin**

Inflow Area =

0.638 ac, 95.05% Impervious, Inflow Depth = 2.70" for 5 Y event

Inflow =

0.42 cfs @ 7.90 hrs, Volume=

0.143 af

Outflow =

0.38 cfs @

8.04 hrs, Volume=

0.143 af, Atten= 11%, Lag= 8.8 min

Primary :

0.38 cfs @

8.04 hrs, Volume=

0.143 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 161.28' @ 8.04 hrs Surf.Area= 431 sf Storage= 108 cf

1 ear Elev- 101.20 @ 0.04 his Odin.Alea- 401 Si Storage- 100 Ci

Plug-Flow detention time= 0.5 min calculated for 0.143 af (100% of inflow) Center-of-Mass det. time= 0.5 min (657.2 - 656.7)

Volume	Inv	ert Avai	I.Storage	Storage D	escription	
#1	160.7	77'	2,069 cf	Custom S	tage Data (Pr	ismatic) Listed below (Recalc)
Elevation		Surf.Area		:Store	Cum.Store	
(fee	et)	(sq-ft)	(cubi	c-feet)	(cubic-feet)	
160.7	7	0		0	0	
161.0	00	187		22	22	
162.0	00	1,056		622	643	
163.0	00	1,795		1,426	2,069	
Device	Routing	In	vert Outl	et Devices		
#1	Primary	160	.50' <b>4.3''</b>	Vert. 25yr	C= 0.600	

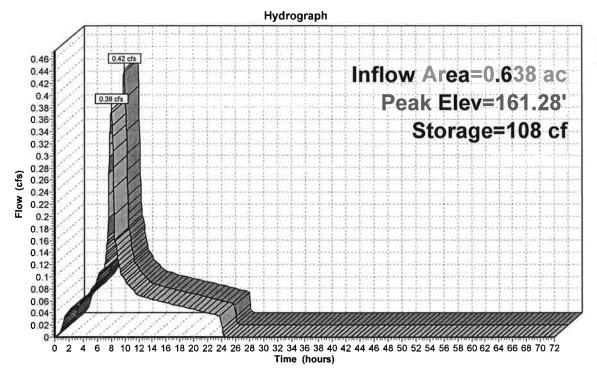
Primary OutFlow Max=0.38 cfs @ 8.04 hrs HW=161.28' (Free Discharge)
1=25yr (Orifice Controls 0.38 cfs @ 3.73 fps)

Printed 9/30/2017

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 8

#### Pond 3P: Detention Basin





HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017

#### Page 9

#### **Summary for Subcatchment 3S: Post-Development (Detained)**

Runoff

= 0.5

0.50 cfs @ 7.90 hr

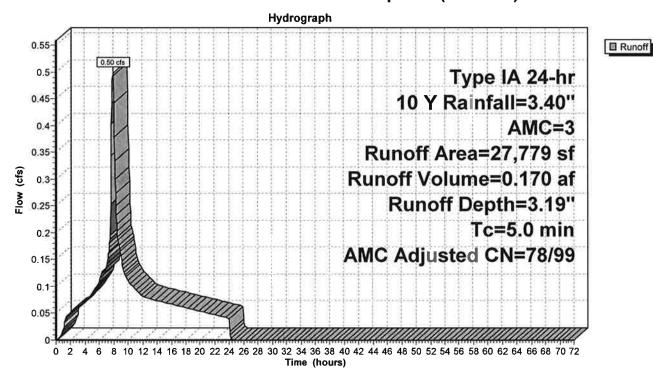
7.90 hrs, Volume=

0.170 af, Depth= 3.19"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 10 Y Rainfall=3.40", AMC=3

	Α	rea (sf)	CN	Adj [	Description					
4	•	26,404	98	F	Roof/Concrete					
		1,375	61 >75% Grass cover, Good, HSG B							
	27,779 96 99 Weighted Average, AMC Adjusted									
		1,375								
		26,404		(	95.05% Imper	rious Area				
	Тс	Length	Slope	Velo	city Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/s	ec) (cfs)					
	5.0					Direct Entry				

#### **Subcatchment 3S: Post-Development (Detained)**



#### A17049.11 - Rose Linn Care Center

Type IA 24-hr 10 Y Rainfall=3.40", AMC=3

Prepared by AAI Engineering

Printed 9/30/2017

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 10

#### **Summary for Pond 3P: Detention Basin**

Inflow Area =

0.638 ac, 95.05% Impervious, Inflow Depth = 3.19" for 10 Y event

Inflow

7.90 hrs, Volume= 0.50 cfs @

0.170 af

Outflow

0.170 af, Atten= 16%, Lag= 10.3 min

0.42 cfs @

8.07 hrs, Volume=

Primary

0.42 cfs @

8.07 hrs, Volume=

0.170 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 161.42' @ 8.07 hrs Surf.Area= 553 sf Storage= 177 cf

Plug-Flow detention time= 0.8 min calculated for 0.169 af (100% of inflow)

Center-of-Mass det. time= 0.8 min (655.1 - 654.2)

Volume	Inv	ert Avail	.Storage	Storage	Description	
#1	160.7	77'	2,069 cf	Custom	Stage Data (Pri	ismatic) Listed below (Recalc)
Clauatia		Curf Aras	lno	Ctoro	Cum Store	
Elevation		Surf.Area		Store	Cum.Store	
(fee	et)	(sq-ft)	(cubic	:-feet)	(cubic-feet)	
160.7	77	0		0	0	
161.0	00	187		22	22	
162.0	00	1,056		622	643	
163.0	00	1,795		1,426	2,069	
Device	Routing	Inv	vert Outle	et Devices	S	14
#1	Primary	160.	.50' <b>4.3''</b>	Vert. 25y	r C= 0.600	

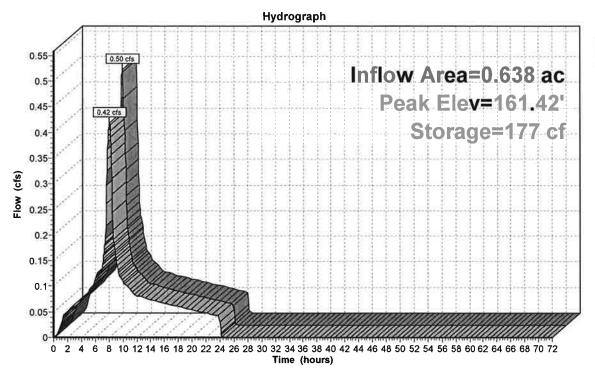
Primary OutFlow Max=0.42 cfs @ 8.07 hrs HW=161.42' (Free Discharge) 1=25yr (Orifice Controls 0.42 cfs @ 4.14 fps)

Printed 9/30/2017

Prepared by AAI Engineering
HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 11

#### Pond 3P: Detention Basin





HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017

Page 12

#### **Summary for Subcatchment 3S: Post-Development (Detained)**

Runoff

=

0.57 cfs @

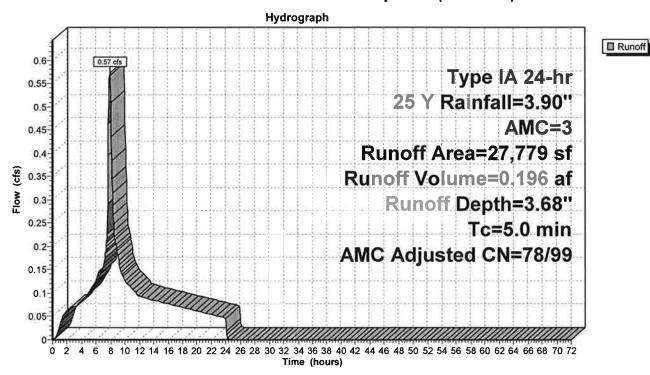
7.90 hrs, Volume=

0.196 af, Depth= 3.68"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 25 Y Rainfall=3.90", AMC=3

	Α	rea (sf)	CN	Adj D	escription					
-	ł:	26,404	98	R	Roof/Concrete					
		1,375	61	>7	75% Grass cover, Good, HSG B					
-		27,779 96 99 Weighted Average, AMC Adjusted								
		1,375 4.95% Pervious Area								
		26,404		98	5.05% Impervi	ous Area				
	Тс	Length	Slope	Veloci	ity Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/se	c) (cfs)					
	5.0					Direct Entry.				

#### **Subcatchment 3S: Post-Development (Detained)**



#### A17049.11 - Rose Linn Care Center

Prepared by AAI Engineering

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017 Page 13

#### Summary for Pond 3P: Detention Basin

Inflow Area =

0.638 ac, 95.05% Impervious, Inflow Depth = 3.68" for 25 Y event

Inflow

0.57 cfs @ 7.90 hrs, Volume=

0.196 af

Outflow =

0.45 cfs @

8.09 hrs, Volume=

0.196 af, Atten= 21%, Lag= 11.6 min

Primary

0.45 cfs @ 8.09 hrs, Volume=

0.196 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 161.55' @ 8.09 hrs Surf.Area= 668 sf Storage= 258 cf

Plug-Flow detention time= 1.2 min calculated for 0.196 af (100% of inflow)

Center-of-Mass det. time= 1.2 min (653.5 - 652.3)

Volume	Inve	ert Avail	l.Storage	Storage I	Description	
#1	160.7	<b>'</b> 7'	2,069 cf	Custom	Stage Data (Pr	ismatic) Listed below (Recalc)
<b>-</b> 1		O A	1	04	O Ot	
Elevatio	n	Surf.Area	inc	.Store	Cum.Store	
(feet	t)	(sq-ft)	(cubi	c-feet)	(cubic-feet)	
160.7	7	0		0	0	
161.0	0	187		22	22	
162.0	0	1,056		622	643	
163.0	0	1,795		1,426	2,069	
Device	Routing	Inv	vert Outl	et Devices		
#1	Primary	160	.50' <b>4.3"</b>	Vert. 25yı	C= 0.600	

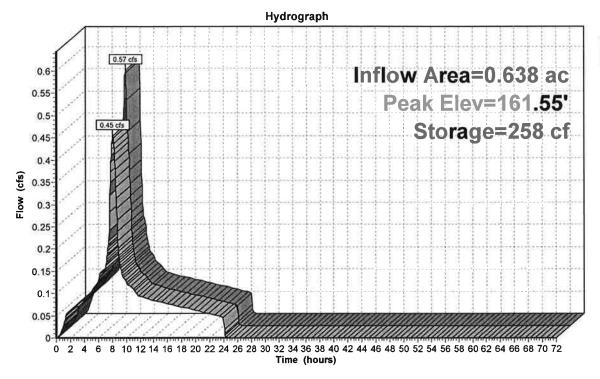
Primary OutFlow Max=0.45 cfs @ 8.09 hrs HW=161.55' (Free Discharge) 1=25yr (Orifice Controls 0.45 cfs @ 4.50 fps)

Printed 9/30/2017

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 14

#### **Pond 3P: Detention Basin**





HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Printed 9/30/2017

Page 15

#### Summary for Subcatchment 3S: Post-Development (Detained)

Runoff

0.65 cfs @

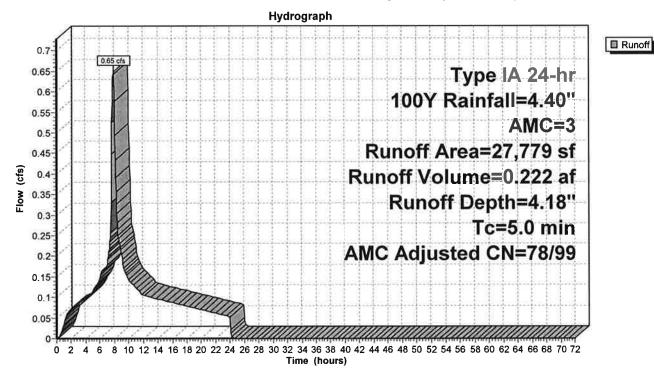
7.90 hrs, Volume=

0.222 af, Depth= 4.18"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Type IA 24-hr 100Y Rainfall=4.40", AMC=3

	Α	rea (sf)	CN	Adj	Desc	ription					
*		26,404	98		Roof	'Concrete					
		1,375	61		>75%	5% Grass cover, Good, HSG B					
	27,779 96 99 Weighted Average, AMC Adjusted										
	1,375 4.95% Pervious Area										
		26,404			ous Area						
	Тс	Length	Slope	. Vel	ocity	Capacity	Description				
	(min)	(feet)	(ft/ft)		sec)	(cfs)					
-	5.0						Direct Entry.				

#### Subcatchment 3S: Post-Development (Detained)



Printed 9/30/2017

HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 16

#### **Summary for Pond 3P: Detention Basin**

Inflow Area = 0.638 ac, 95.05% Impervious, Inflow Depth = 4.18" for 100Y event

Inflow = 0.65 cfs @ 7.90 hrs, Volume= 0.222 af

Outflow = 0.49 cfs @ 8.11 hrs, Volume= 0.222 af, Atten= 25%, Lag= 12.8 min

Primary = 0.49 cfs @ 8.11 hrs, Volume= 0.222 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs Peak Elev= 161.68' @ 8.11 hrs Surf.Area= 778 sf Storage= 350 cf

Plug-Flow detention time= 1.6 min calculated for 0.222 af (100% of inflow)

Center-of-Mass det. time= 1.6 min ( 652.3 - 650.7 )

Volume	Inv	ert Avail	.Storage	Storage D	escription	
#1	160.7	77'	2,069 cf	Custom S	tage Data (Pr	rismatic) Listed below (Recalc)
Elevatio		Surf.Area (sq-ft)		:.Store c-feet)	Cum.Store (cubic-feet)	
160.7		0	(000)	0	0	
161.0	00	187		22	22	
162.0	00	1,056		622	643	
163.0	00	1,795		1,426	2,069	
Device	Routing	lnv	vert Outl	et Devices		
#1	Primary	160.	.50' <b>4.3"</b>	Vert. 25yr	C= 0.600	

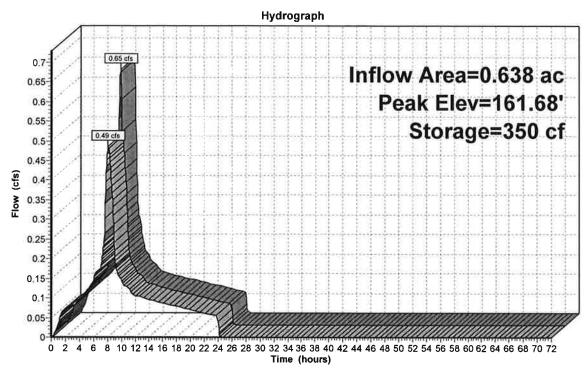
Primary OutFlow Max=0.49 cfs @ 8.11 hrs HW=161.68' (Free Discharge) 1=25yr (Orifice Controls 0.49 cfs @ 4.81 fps)

Printed 9/30/2017

Prepared by AAI Engineering
HydroCAD® 10.00-13 s/n 01638 © 2014 HydroCAD Software Solutions LLC

Page 17

#### **Pond 3P: Detention Basin**

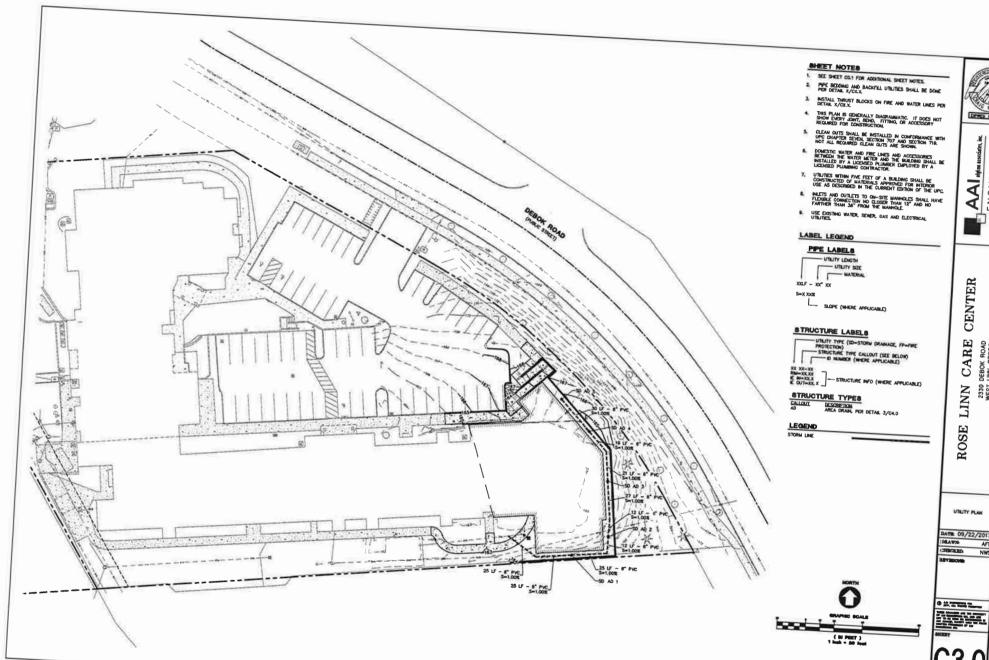




V. Conveyance Pipe Design and Diagram

#### Conveyance Pipe Design and Diagram

At this time the storm layout is preliminary. A more detailed design and calculations will be provided once the project has progressed further.



DIRECT SANSONS

ENGINEERICA in EERING

CENTER

LINN CARE (
2330 DEBOK ROAD
WEST LINN, OREGON

UTLITY PLAN

0 = = =

A17049.11 LAND USE SUBMITTAL

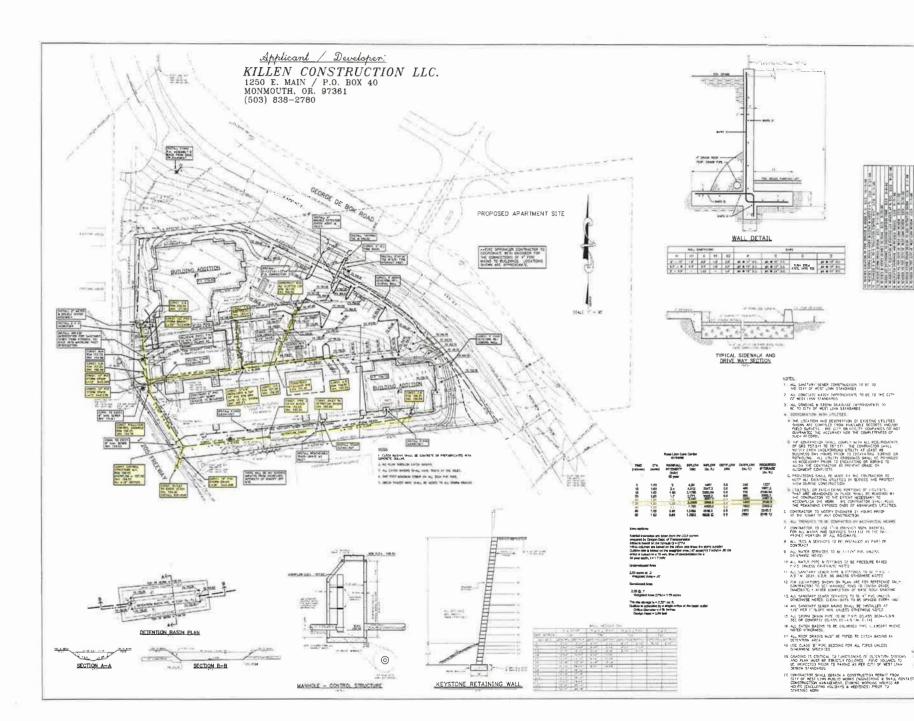
VI. Downstream Analysis

#### **Downstream Analysis**

Our project, as designed, will release the required detained discharge volume to the public system at levels that are equal to or a maximum of 0.01cfs above those of the current rates for up to and including the 100-yr, 24 hour storm event. The existing public conveyance system already receives flows from this site with no reported deficiencies. During this construction we will be adding a total of 1,152SF of impervious area to the site.

A visual analysis was conducted of the downstream system. The flows are conveyed within a drainage ditch to the NW for approximately 2,000' which then flows into a drainage area that directs the flows westerly under Hwy 205. From this point the flow travels approximately 1,100' where it joins the Tualatin River. There are no observed signs of erosion or flooding along the downstream path. Since we will not be changing the outflow location, elevation or substantially increasing the current flows from our site, the proposed site improvements will not have any adverse affects on the downstream conveyance system.

VII. Details



SOS MULTI/TECH

GRADING, DRAINAGE AND UTIËITY PLAN

ADDITION TO: ROSE LINN CARE CENTER BUILDING

NO CHANGE, MEDITICATIONS OF THE PROPOSITIONS OF THE PROPOSITION TRUE TO CHANGE THE CASE OF THE PROPOSITION OF THE PROPOSITION

2

VIII. O&M

#### STORMWATER OPERATIONS & MAINTENANCE PLAN

#### Rose Linn Care Center

September 30, 2017

Prepared by: Craig Harris AAI Engineering 47875 SW Griffith Drive, Suite 300 Beaverton, OR 97005

#### Responsibility

The Area Drains, Conveyance Piping, Water Quality Basin and Flow Control Manhole are to be maintained by Rose Linn Care Center. These facilities have been designed for ease of maintenance outlined herein.

Rose Linn Care Canter contact info:

Primary:

**TBD** 

Department of Environmental Quality - (503) 229-5696 Oregon Emergency Response System - (800) 452-0311

#### **Description**

The runoff from the proposed building addition will be collected in new downspouts. The runoff from the proposed improvements will be routed through a new on-site storm conveyance system, to an existing Water Quality facility. The treated water will be released via a standpipe within the flow control manhole. Once released through the flow-control manhole runoff flows into the existing storm conveyance system running along Hwy 205.

#### **Facilities Description Table**

Facility Name	Туре	Size (SF)	Area Treated	* IA Treated (SF)	Discharge Point
Basin 1	Vegetated basin	104' LF	Roof	26,404	Existing public drainage way along Hwy 205.

<sup>\*</sup> IA = Impervious Area

An emergency overflow is provided in the flow control manhole to allow the large design storm to drain directly into the existing conveyance system to avoid ponding on the surface (flows above the 25yr design storm).

#### Inspection/Maintenance Schedule

Each part of the system shall be inspected and maintained quarterly and within 48 hours after each major storm event. For this O&M Plan, a major storm event is defined as 1.0 inches of rain (or more) in 24 hours. All components of the storm system as described above must be inspected and maintained frequently or they cease to function effectively. The Facility owner shall keep a log, recording all inspection dates, observations, and maintenance activities. Receipts shall be saved when maintenance is performed and there is record of expense. Inspection and maintenance reports will be submitted upon request.

• The following items shall be inspected and maintained as stated:

#### Area Drains, Pipes, Storm System (Conveyance and Detention), Flow Control Manhole:

- Sediment shall be removed biannually, more frequently if site produces a high volume of sediment.
- Debris shall be removed from inlets and outlets quarterly, or as necessary to maintain free flow of runoff.
- Quarterly inspections for clogging shall be performed, or if "ponding" is observed in manholes or at Area Drain inlets.
- Grates shall be tamper proof.

#### **Vegetated Basin:**

- Vegetation or roots from large shrubs and trees that limit or interfere with Basin operations shall be prevented.
- Fallen leaves and debris from deciduous plant foliage shall be raked and removed biannually.
- Nuisance and prohibited vegetation of all species shall be removed biannually. Invasive vegetation shall be removed and replaced with approved species.
- Dead vegetation shall be removed to maintain less than 10% of area coverage or when basin function is impaired. Vegetation shall be replaced within 3 months or immediately if the season is appropriate in order to maintain cover density and control erosion where soils are exposed.
- Inlets and outlets shall be inspected quarterly and after any large rain event.
- Any trash or debris that collects in the Basin and may inhibit Basin function shall be removed quarterly.

#### Source Control

Source control measures prevent pollutants from mixing with stormwater. Typical non-structural control measures include raking and removing leaves, pavement sweeping, vacuum sweeping, and limited and controlled application of pesticides, herbicides and fertilizers.

- Source control measures shall be inspected and maintained quarterly.
- Signage shall be maintained.

#### **Spill Prevention**

Spill prevention measures shall be exercised when handling substances that can contaminate stormwater. Virtually all sites present dangers from spills. It is important to exercise caution when handling substances that can contaminate stormwater. Activities that pose the chance of hazardous material spills shall not take place near collection facilities.

- The proper authority and property owner shall be contacted immediately if a spill is observed.
- A spill kit shall be kept near spill-prone operations and refreshed annually.
- Employees shall be trained on spill control measures.
- Shut-off valves shall be tested quarterly.
- Release of pollutants shall be corrected within 12 hours.

#### **Insects and Rodents**

Insects and Rodents shall not be harbored in any part of the storm system.

- Pest control measures shall be taken when insects/rodents are found to be present. Standing water and food sources shall be prevented.
- Holes in the ground shall be filled.
- Inlets and outfalls shall be inspected and cleaned regularly to ensure no rodent activity, which can clog or decrease the efficiency of the storm system.
- Pest control measures shall be taken when insects/rodents are found to be present. Standing water and food sources shall be prevented.

#### Access

Access shall be maintained for the Catchbasins and Manholes so operations and maintenance can be performed as regularly scheduled.

#### **Stormwater Facility Monitoring Log**

#### **Pollution prevention**

• All sites shall implement best management practices (BMP's), to prevent hazardous wastes, litter, or excessive oil and sediment from contaminating stormwater. Record Time/Date, weather and site conditions if site activities are found to contaminate stormwater.

#### Maintenance

• Record date, description and contractor (if applicable) for all structure repairs, landscape maintenance and facility cleanout activities.

Date:	Initials:
Work performed by:	
Work performed:	
Details:	
Date:	Initials:
Work performed by:	
Work performed:	



# ROSE LINN CARE CENTER ADDITION

# SHEET INDEX

A0.00 COVER SHEET

C0.0 GENERAL NOTES
C0.1 EXISTING CONDITIONS
C0.2 DEMOLITION PLAN

C1.0 SITE PLAN
C2.0 OVERALL GRADING AND EROSION CONTROL PLAN
C2.1 ENLARGED GRADING PLAN

C2.1 ENLARGED GRA
C3.0 UTILITY PLAN
C4.0 DETAILS
L1.0 LANDSCAPE PL

L1.0 LANDSCAPE PLAN
L2.0 DETAILS AND SPECS
A0.52 TREES TO BE REMOVED
A1.01 SITE PLAN

SITE PLAN
PHASE I FLOOR PLAN - ADDITION

BUILDING ELEVATIONS - COLOR

# PROJECT DESCRIPTION

Rose Linn Care center is a 71 bed Medicare certified nursing facility. We primarily take care of those with advanced memory loss and those with difficult behaviors

nursing facility. We primarily take care of those with advanced memory loss and those with difficult behaviors. There are currently Thirteen 3-bed rooms in the nursing facility. The planned addition will add 5 semi-private rooms and 2 private rooms. This will allow all the 3-bedrooms to become semi-private rooms with a privacy divider between the beds. The building will continue to

# ZONING INFORMATION APPLICABLE CODES

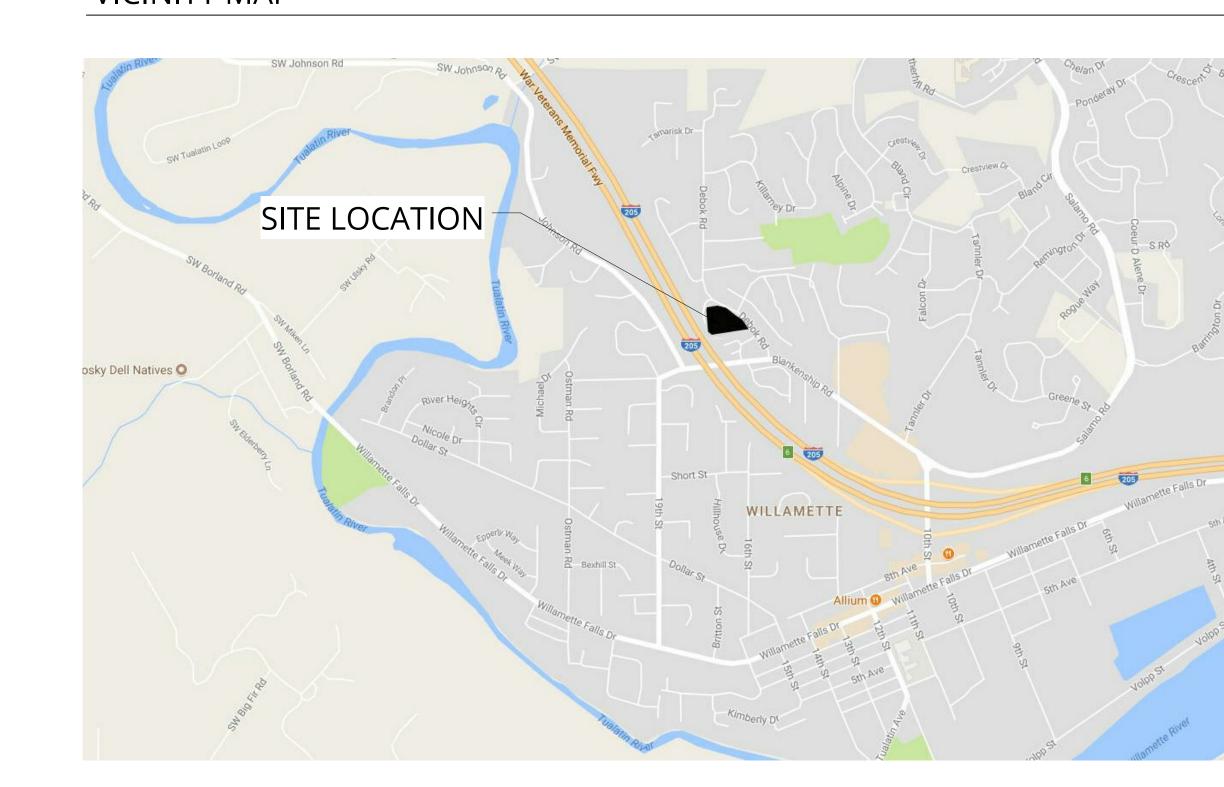
ZONE: R4.5

Taxlot ID #: 21E35BC03000

2014 OSSC NFPA 13

VICINITY MAP

be licensed to care for 71 residents.



ARCHITECTURAL
ANKROM MOISAN

38 NW DAVIS ST
SUITE 300
PORTLAND OR 97209
PROJECT MANAGER - MARK MILLER
PROJECT ASSOCIATE - RACHEL BROWNE
PROJECT DESIGNER - RICHARD GRIMES

PROJECT DESIGNER - RICHARD GRIMES

PROJECT SOME PROJECT DESIGNER - RICHARD GRIMES

STRUCTURAL
SFA DESIGN GROUP

9020 SW WASHINGTON SQUARE RD
SUITE 505
PORTLAND, OR 97223

JEFF FITCH - PE
Jifitch@sfadg.com

LOGAN MILLER - PE
Imiller@sfadg.com

CIVIL
AAI ENGINEERING

4875 SW GRIFFITH DRIVE
SUITE 300
BEAVERTON, OR 97005

CRAIG HARRIS, P.E., PRINCIPAL

PH: 503-620-3030

craigh@aaieng.com

INTERIORS
ANKROM MOISAN

38 NW DAVIS ST
SUITE 300
PORTLAND OR 97209

tbd

PORTLAND OR 97209

LANDSCAPE
OTTEN LANDSCAPE ARCHITECTS, INC.

3933 SW KELLY AVEENUE
SUITE B
PORTLAND, OR 97239

JANET OTTEN, PRESIDENT

PH: 502.972.0311

janet@ottenla.com

TERRI WALDROFF, PRINCIPAL

LAND USE
URBANLENS PLANNING
2744 SE 34TH
PORTLAND, OR 97202

ROBIN SCHOLETZKY

robin@urganlensplanning.net

PH: 503.344.6065

<u>OWNER</u> BENICIA SENIOR LIVING

1800 BLANKENSHIP, SUITE 475

ROSE LINN CARE CENTER REMODEL/ADDIT 2330 Debok Rd., West Linn, OR 97068

SION DATE REASON FOR ISSUE

COVER SHEET

LAND USE SUBMITTAL

DATE 10/03/2017

PROJECT NUMBER 160770

SCALE

REVISION

REVISION

A 0.00

### GENERAL NOTES

- SURVEY PROVIDED BY NORTHWEST SURVEYING, INC, DATED MAY 3RD, 2017. ELEVATIONS ARE BASED ON CLACKAMAS COUNTY 1988 VERTICAL DATUM THAT WERE GPS DERIVED.
- 2. CONSTRUCTION LAYOUT (ALL ACTUAL LINES AND GRADES) SHALL BE STAKED BY A PROFESSIONAL SURVEYOR, REGISTERED IN THE STATE OF OREGON, BASED ON COORDINATES, DIMENSIONS, BEARINGS, AND ELEVATIONS, AS SHOWN, ON THE PLANS.
- 5. PROJECT CONTROL SHALL BE FIELD VERIFIED AND CHECKED FOR RELATIVE HORIZONTAL POSITION PRIOR TO BEGINNING CONSTRUCTION LAYOUT.
- 4. PROJECT CONTROL SHALL BE FIELD VERIFIED AND CHECKED FOR RELATIVE VERTICAL POSITION BASED ON THE BENCHMARK STATED HEREON, PRIOR TO BEGINNING CONSTRUCTION LAYOUT.
- 5. WHEN DIMENSIONS AND COORDINATE LOCATIONS ARE REPRESENTED DIMENSIONS SHALL HOLD OVER COORDINATE LOCATION. NOTIFY THE CIVIL ENGINEER OF RECORD IMMEDIATELY UPON DISCOVERY.
- BUILDING SETBACK DIMENSIONS FROM PROPERTY LINES SHALL HOLD OVER ALL OTHER CALLOUTS. PROPERTY LINES AND ASSOCIATED BUILDING SETBACKS SHALL BE VERIFIED PRIOR TO CONSTRUCTION LAYOUT.
- CONTRACTOR SHALL PRESERVE AND PROTECT FROM DAMAGE ALL EXISTING MONUMENTATION DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND PAYING FOR THE REPLACEMENT OF ANY MONUMENTS DAMAGED OR REMOVED DURING CONSTRUCTION. NEW MONUMENTS SHALL BE REESTABLISHED BY A LICENSED SURVEYOR.
- 3. SOME SITE DEMOLITION AND UTILITY RELOCATION HAS BEEN PERFORMED. SURVEY MAY NOT BE COMPLETE OR ACCURATE. CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
- 9. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THESE PLANS, THE PROJECT SPECIFICATIONS AND THE APPLICABLE REQUIREMENTS OF THE 2015 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE 2014 OREGON PLUMBING SPECIALTY CODE AND REQUIREMENTS OF THE CITY OF WEST LINN.
- 10. THE COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES AND REGULATIONS. ALL PERMITS, LICENSES AND INSPECTIONS REQUIRED BY THE GOVERNING AUTHORITIES FOR THE EXECUTION AND COMPLETION OF WORK SHALL BE SECURED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION.
- 11. 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). EXCAVATORS MUST NOTIFY ALL PERTINENT COMPANIES OR AGENCIES WITH UNDERGROUND UTILITIES IN THE PROJECT AREA AT LEAST 48 BUSINESS-DAY HOURS, BUT NOT MORE THAN 10 BUSINESS DAYS PRIOR TO COMMENCING AN EXCAVATION, SO UTILITIES MAY BE ACCURATELY LOCATED.
- 12. THE LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE. CONTRACTOR SHALL VERIFY ELEVATIONS, PIPE SIZE, AND MATERIAL TYPES OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WITH CONSTRUCTION AND SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF AAI ENGINEERING, 72 HOURS PRIOR TO START OF CONSTRUCTION TO PREVENT GRADE AND ALIGNMENT CONFLICTS.
- 13. THE ENGINEER OR OWNER IS NOT RESPONSIBLE FOR THE SAFETY OF THE CONTRACTOR OR HIS CREW. ALL O.S.H.A. REGULATIONS SHALL BE STRICTLY ADHERED TO IN THE PERFORMANCE OF THE WORK.
- 14. TEMPORARY AND PERMANENT EROSION CONTROL MEASURES SHALL BE IMPLEMENTED. THE CONTRACTOR SHALL ADHERE TO CLACKAMAS COUNTY FOR MINIMUM EROSION CONTROL MEASURES. THE ESC FACILITIES SHOWN IN THESE PLANS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT LEAVE THE SITE.
- 15. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL ROADWAYS, KEEPING THEM CLEAN AND FREE OF CONSTRUCTION MATERIALS AND DEBRIS, AND PROVIDING DUST CONTROL AS REQUIRED.
- 16. TRAFFIC CONTROL SHALL BE PROVIDED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN TO CLACKAMAS COUNTY FOR REVIEW AND APPROVAL PRIOR TO COMMENCING CONSTRUCTION.
- 17. CONTRACTOR SHALL MAINTAIN ALL UTILITIES TO BLDG. AT ALL TIMES DURING CONSTRUCTION.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING ALL WORK WITH THE OWNER.
- 19. NOTIFY CLACKAMAS COUNTY INSPECTOR {72} HOURS BEFORE STARTING WORK. A PRECONSTRUCTION MEETING WITH THE OWNER, THE OWNER'S ENGINEER, CONTRACTOR AND THE CLACKAMAS COUNTY REPRESENTATIVE SHALL BE REQUIRED.

#### CONSTRUCTION NOTES

#### **GENERAL**

- 1. ACTUAL LINES AND GRADES SHALL BE STAKED BY A PROFESSIONAL SURVEYOR, REGISTERED IN THE STATE OF OREGON, BASED ON DIMENSIONS, ELEVATIONS AND BEARINGS AS SHOWN ON THE PLANS.
- 2. SUBGRADE AND TRENCH BACKFILL SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698. FLOODING OR JETTING THE BACKFILLED TRENCHES WITH WATER IS NOT PERMITTED.
- 3. SPECIAL INSPECTION REQUIRED FOR ALL COMPACTION TESTING.

#### **DEMOLITION**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND DISPOSAL OF EXISTING AC, CURBS, SIDEWALKS AND OTHER SITE ELEMENTS WITHIN THE SITE AREA IDENTIFIED IN THE PLANS.
- 2. EXCEPT FOR MATERIALS INDICATED TO BE STOCKPILED OR TO REMAIN ON OWNER'S PROPERTY, CLEARED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY, REMOVED FROM THE SITE, AND DISPOSED OF PROPERLY.
- 3. ITEMS INDICATED TO BE SALVAGED SHALL BE CAREFULLY REMOVED AND DELIVERED STORED AT THE PROJECT SITE AS DIRECTED BY THE OWNER.
- 4. ALL LANDSCAPING, PAVEMENT, CURBS AND SIDEWALKS, BEYOND THE IDENTIFIED SITE AREA, DAMAGED DURING THE CONSTRUCTION SHALL BE REPLACED TO THEIR ORIGINAL CONDITION OR BETTER.
- 5. CONCRETE SIDEWALKS SHOWN FOR DEMOLITION SHALL BE REMOVED TO THE NEAREST EXISTING CONSTRUCTION JOINT.
- 6. SAWCUT STRAIGHT MATCHLINES TO CREATE A BUTT JOINT BETWEEN THE EXISTING AND NEW PAVEMENT.

#### <u>UTILITIES</u>

- ADJUST ALL INCIDENTAL STRUCTURES, MANHOLES, VALVE BOXES, CATCH BASINS, FRAMES AND COVERS, ETC. TO FINISHED GRADE.
- 2. CONTRACTOR SHALL ADJUST ALL EXISTING AND/OR NEW FLEXIBLE UTILITIES (WATER, TV, TELEPHONE, ELEC., ETC.) TO CLEAR ANY EXISTING OR NEW GRAVITY DRAIN UTILITIES (STORM DRAIN, SANITARY SEWER, ETC.) IF CONFLICT OCCURS.
- 3. CONTRACTOR SHALL COORDINATE WITH PRIVATE UTILITY COMPANIES FOR THE INSTALLATION OF OR ADJUSTMENT TO GAS, ELECTRICAL, POWER AND TELEPHONE SERVICE.
- 4. BEFORE BACKFILLING ANY SUBGRADE UTILITY IMPROVEMENTS CONTRACTOR SHALL SURVEY AND RECORD MEASUREMENTS OF EXACT LOCATION AND DEPTH AND SUBMIT TO ENGINEER AND OWNER.

#### STORM AND SANITARY

- I. CONNECTIONS TO EXISTING STORM AND SANITARY SEWERS SHALL CONFORM TO THE 2015 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, SECTION 00490, "WORK ON EXISTING SEWERS AND STRUCTURES".
- BEGIN LAYING STORM DRAIN AND SANITARY SEWER PIPE AT THE LOW POINT OF THE SYSTEM, TRUE TO GRADE AND ALIGNMENT INDICATED WITH UNBROKEN CONTINUITY OF INVERT. THE CONTRACTOR SHALL ESTABLISH LINE AND GRADE FOR THE STORM AND SANITARY SEWER PIPE USING A LASER.
- 3. ALL ROOF DRAIN AND CATCH BASIN LEADERS SHALL HAVE A MINIMUM SLOPE OF 2 PERCENT UNLESS NOTED OTHERWISE IN THE PLANS.

### <u>WATER</u>

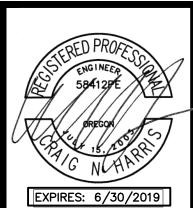
- . ALL WATER AND FIRE PROTECTION PIPE SHALL HAVE A MINIMUM 36-INCH COVER TO THE FINISH GRADE.
- 2. ALL WATER AND FIRE PRESSURE FITTINGS SHALL BE PROPERLY RESTRAINED WITH THRUST BLOCKS PER DETAIL.
- 3. ALL WATER MAIN / SANITARY SEWER CROSSINGS SHALL CONFORM TO THE OREGON STATE HEALTH DEPARTMENT REGULATIONS, CHAPTER 333.

### <u>EARTHWORKS</u>

- 1. CONTRACTOR SHALL PREVENT SEDIMENTS AND SEDIMENT LADEN WATER FROM ENTERING THE STORM DRAINAGE SYSTEM.
- 2. TRENCH BEDDING AND BACKFILL SHALL BE AS SHOWN ON THE PIPE BEDDING AND BACKFILL DETAIL, THE PROJECT SPECIFICATIONS AND AS REQUIRED IN THE SOILS REPORT. FLOODING OR JETTING THE BACKFILLED TRENCHES WITH WATER WILL NOT BE PERMITTED.

### PAVING

1. SEE ARCHITECTURAL PLANS FOR SIDEWALK FINISHING AND SCORING PATTERNS.



ENGINEERING

th Drive | Suite 300 | Beaverton, OR | 97005

tel | 503.620.5539 fax | www.aaieng.com

CENTER

2330 DEBOK RO WEST LINN, OREC

GENERAL NOTES

 DATE:
 09/22/2017

 DRAWN:
 AFR

 CHECKED:
 NWS

REVISIONS:

AAI ENGINEERING INC.
2017, ALL RIGHTS RESERVED

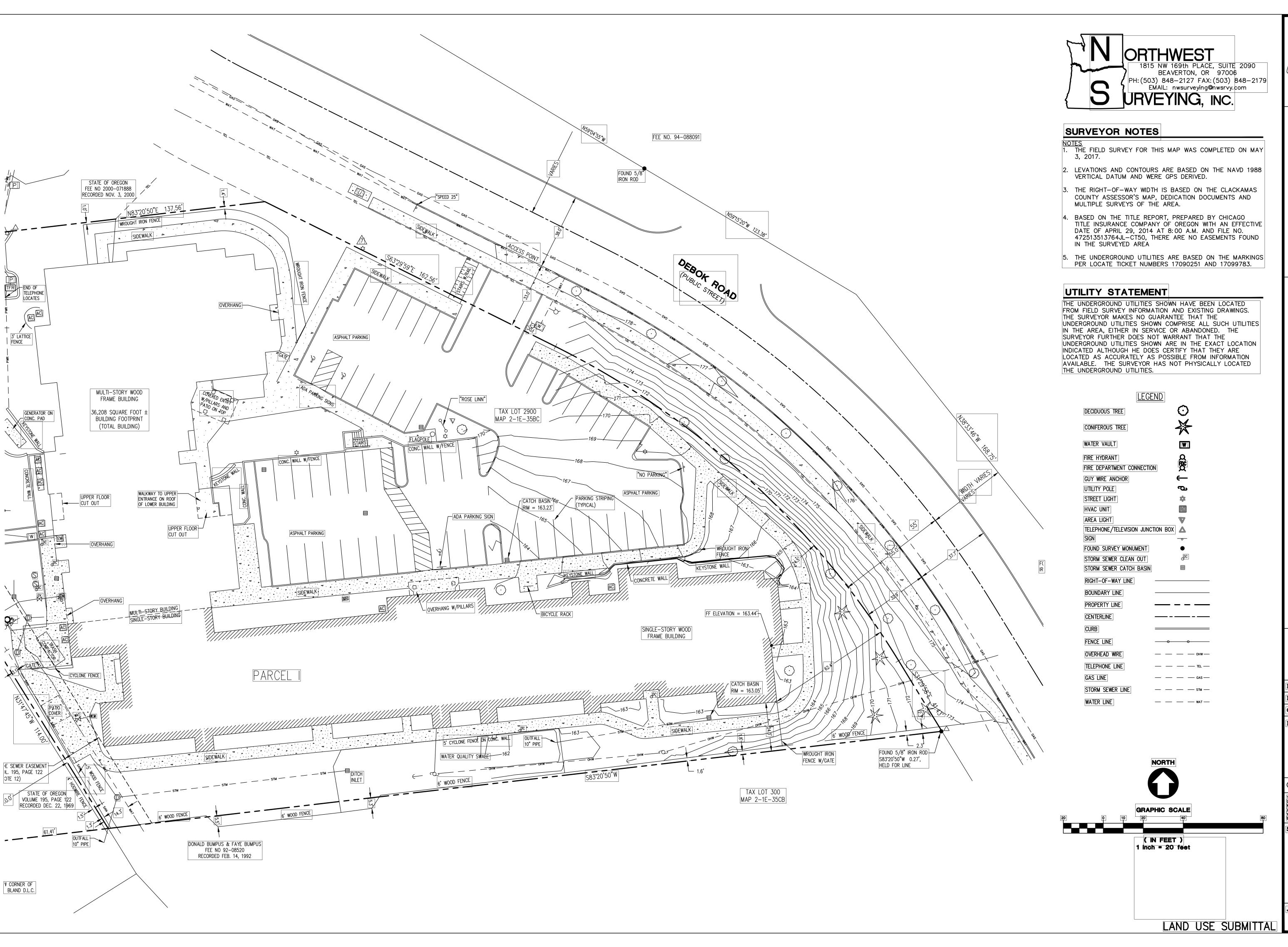
THESE DRAWINGS ARE THE PROPERTY
OF AAI ENGINEERING INC. AND ARE
NOT TO BE USED OR REPRODUCED IN
ANY MANNER. EXCEPT WITH THE PRIOR
WRITTEN PERMISSION OF AAI
ENGINEERING INC.

SHEET

C0.0

JOB NUMBER: A17049.11

LAND USE SUBMITTAL



SELRED PROFESSION SHOWN THE PROFESSION SHOWN THE PROFESSION TO A PROFESSION TO

EXPIRES: 6/30/2019

Signature | Control | Cont

ENGINE ERIN

**E** N 4875 SW Griffith Drive 503.620.3030 tel | 5

ENTER

2330 DEBOK ROAD WEST LINN, OREGON

ROSE LIN

EXISTING CONDITIONS

**DATE:** 09/22/2017 **DRAWN:** AFR

CHECKED: [REVISIONS:

ISIONS:

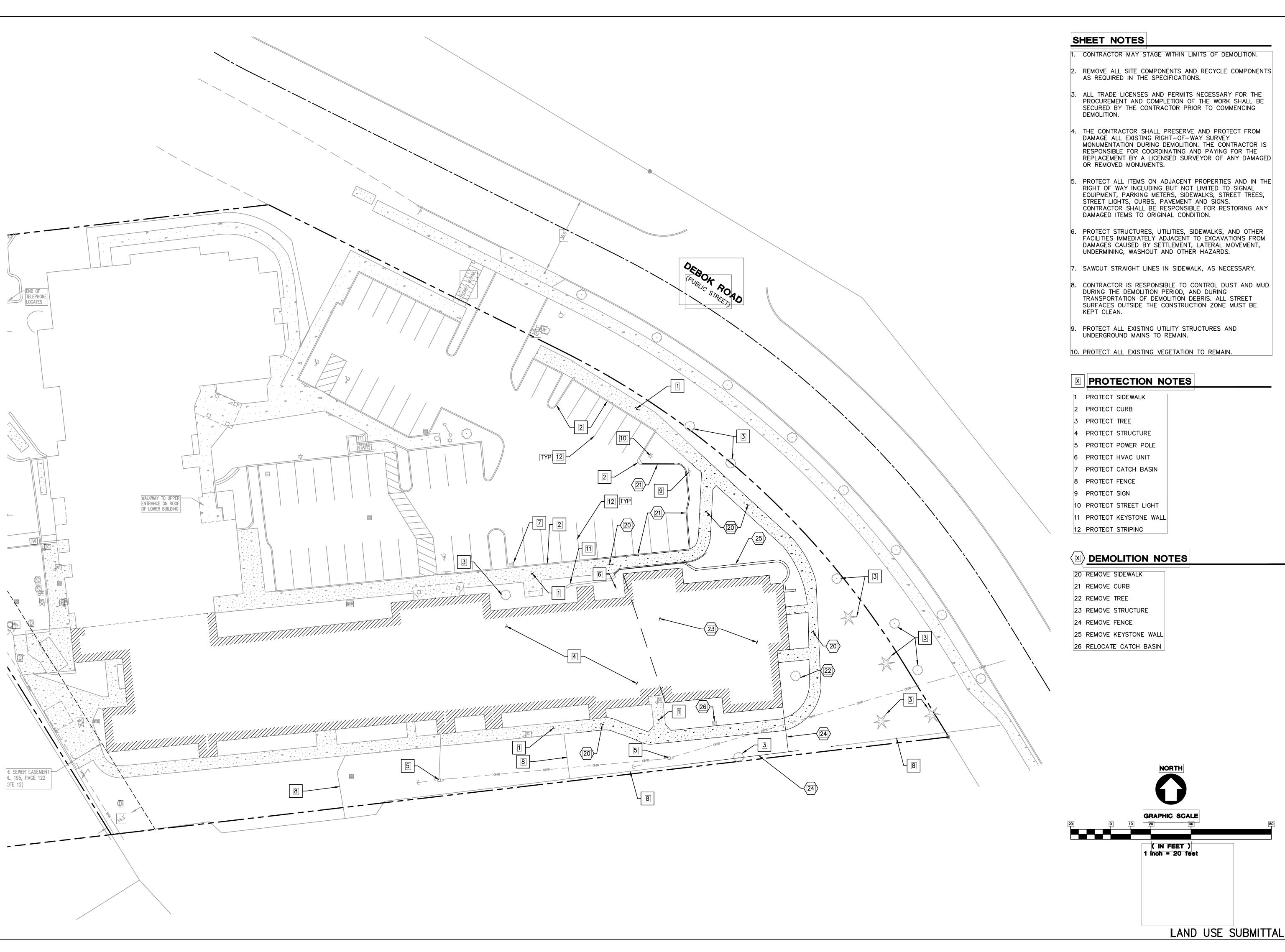
(C) AAI ENGINEERING INC.
2017, ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPER

THESE DRAWINGS ARE THE PROPERTY
OF AAI ENGINEERING INC. AND ARE
NOT TO BE USED OR REPRODUCED IN
ANY MANNER, EXCEPT WITH THE PRIOR
WRITTEN PERMISSION OF AAI
ENGINEERING INC.

SHEET

C0.1

JOB NUMBER: A17049.11





- CONTRACTOR MAY STAGE WITHIN LIMITS OF DEMOLITION.
- REMOVE ALL SITE COMPONENTS AND RECYCLE COMPONENTS AS REQUIRED IN THE SPECIFICATIONS.
- ALL TRADE LICENSES AND PERMITS NECESSARY FOR THE PROCUREMENT AND COMPLETION OF THE WORK SHALL BE SECURED BY THE CONTRACTOR PRIOR TO COMMENCING
- THE CONTRACTOR SHALL PRESERVE AND PROTECT FROM DAMAGE ALL EXISTING RIGHT-OF-WAY SURVEY MONUMENTATION DURING DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND PAYING FOR THE REPLACEMENT BY A LICENSED SURVEYOR OF ANY DAMAGED
- PROTECT ALL ITEMS ON ADJACENT PROPERTIES AND IN THE RIGHT OF WAY INCLUDING BUT NOT LIMITED TO SIGNAL EQUIPMENT, PARKING METERS, SIDEWALKS, STREET TREES, STREET LIGHTS, CURBS, PAVEMENT AND SIGNS. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY DAMAGED ITEMS TO ORIGINAL CONDITION.
- PROTECT STRUCTURES, UTILITIES, SIDEWALKS, AND OTHER FACILITIES IMMEDIATELY ADJACENT TO EXCAVATIONS FROM DAMAGES CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS.
- SAWCUT STRAIGHT LINES IN SIDEWALK, AS NECESSARY.
- CONTRACTOR IS RESPONSIBLE TO CONTROL DUST AND MUD DURING THE DEMOLITION PERIOD, AND DURING TRANSPORTATION OF DEMOLITION DEBRIS. ALL STREET SURFACES OUTSIDE THE CONSTRUCTION ZONE MUST BE
- PROTECT ALL EXISTING UTILITY STRUCTURES AND UNDERGROUND MAINS TO REMAIN.
- 10. PROTECT ALL EXISTING VEGETATION TO REMAIN.

# **☑** | PROTECTION NOTES

DEMOLITION PLAN

**DATE:** 09/22/2017 DRAWN:

2330 WEST

EXPIRES: 6/30/2019

(C) (C)

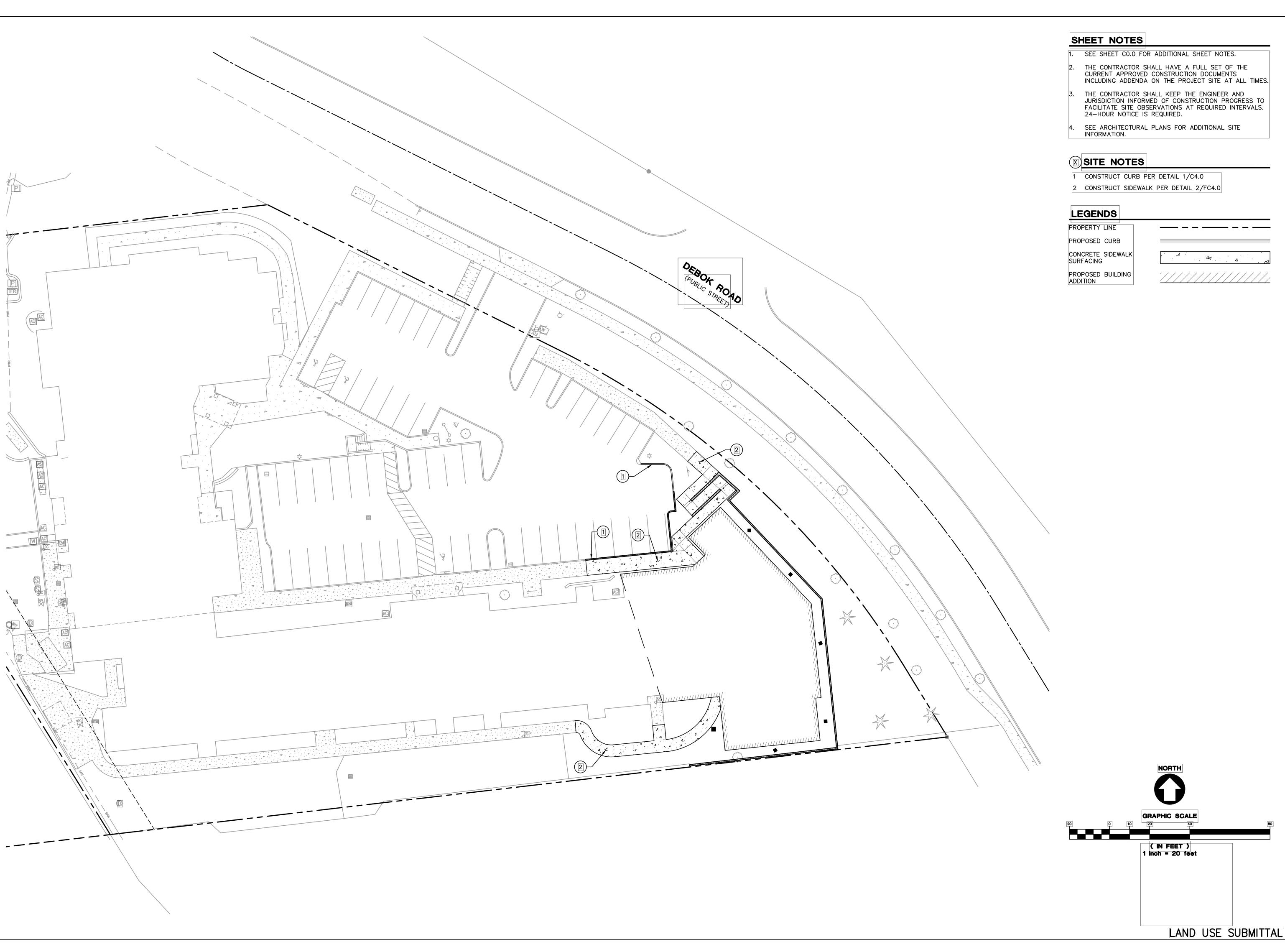
**– –** OR | 970

 $\alpha$ 

CHECKED: **REVISIONS:** 

SHEET

JOB NUMBER: A17049.11





EXPIRES: 6/30/2019

**Z**  $\alpha$ 

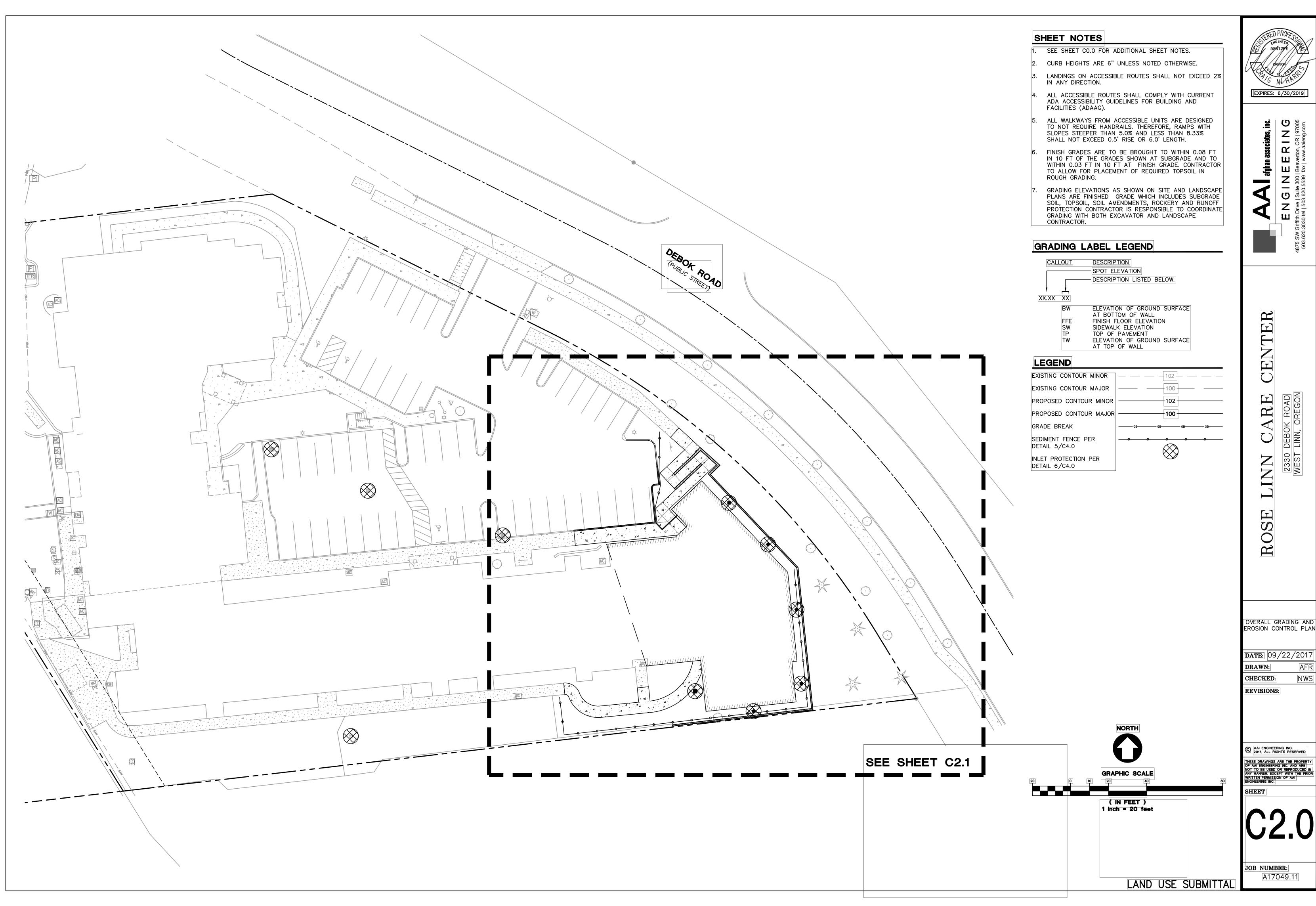
2330 WEST

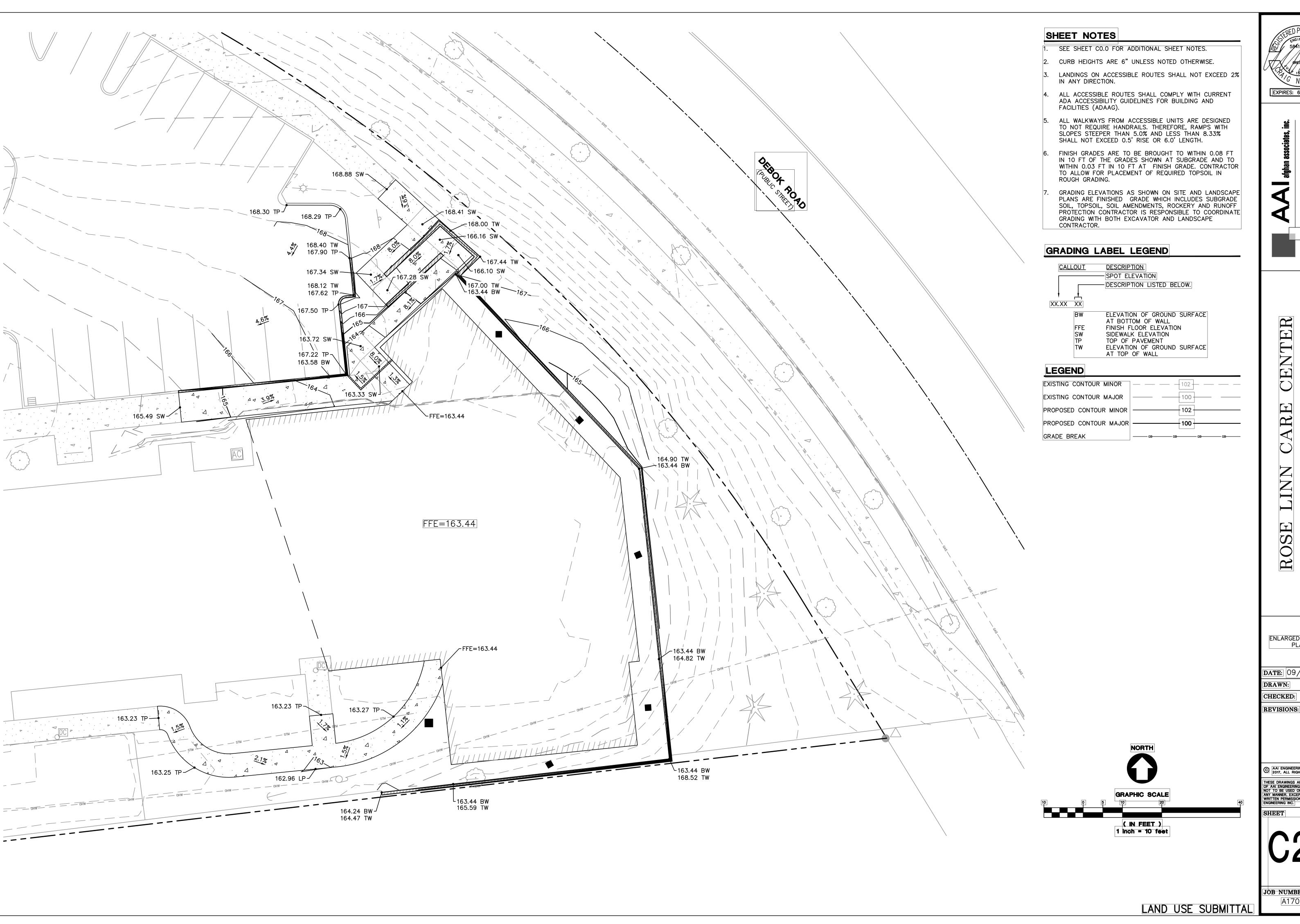
SITE PLAN

**DATE:** 09/22/2017 CHECKED:

**REVISIONS:** 

JOB NUMBER: A17049.11





EXPIRES: 6/30/2019

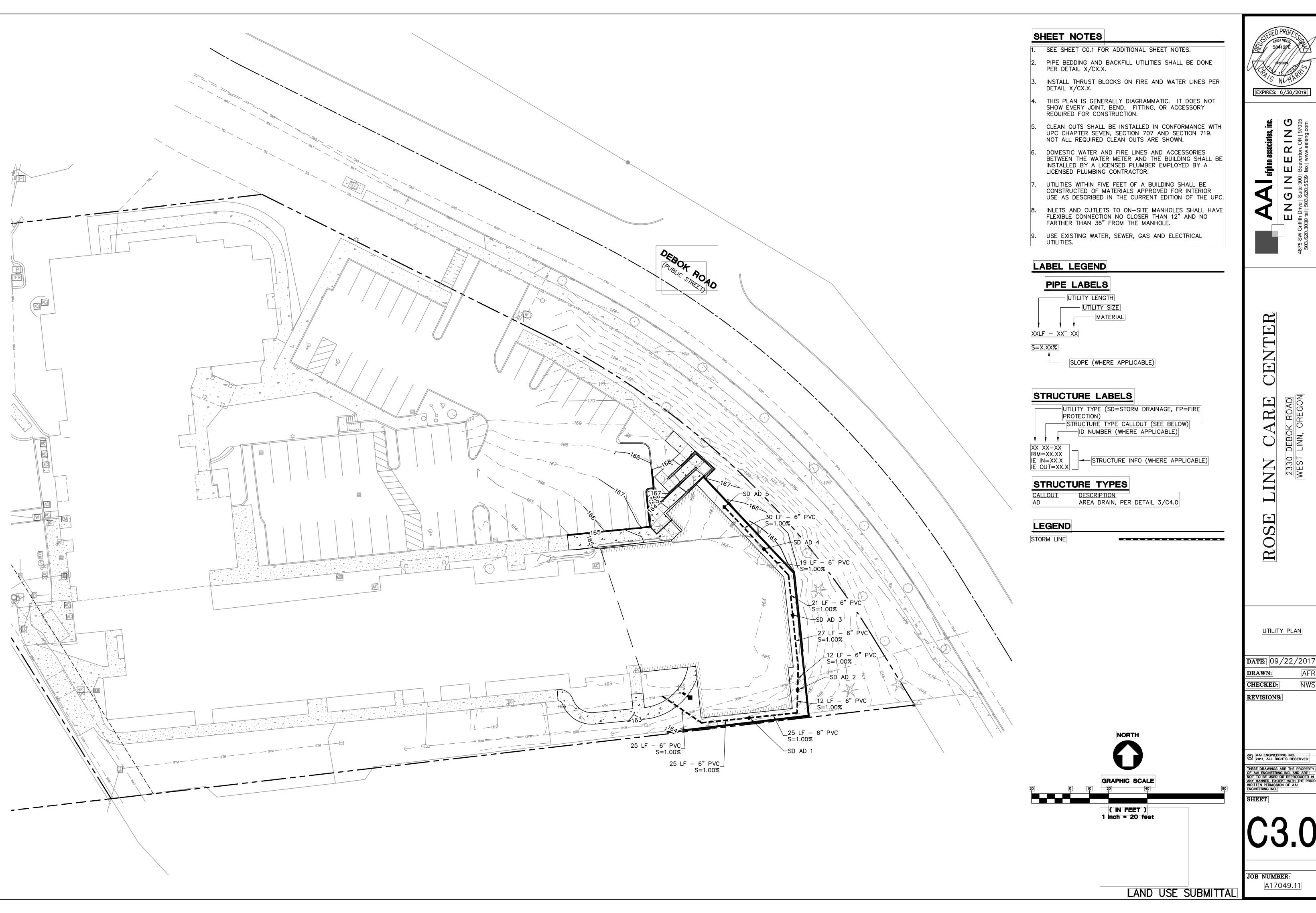
**Z** £ 300 | **Z** 

2330 WEST

ENLARGED GRADING PLAN

**DATE:** 09/22/2017

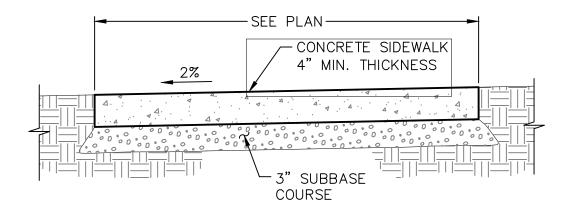
JOB NUMBER: A17049.11



CURB EXPOSURE 'E' = 6", TYP. VARY AS SHOWN ON PLANS OR AS DIRECTED.

- CONSTRUCT CONTRACTION JOINTS AT 15' MAX. SPACING AND AT RAMPS. CONSTRUCT EXPANSION JOINTS AT 200' MAX SPACING AT POINTS OF TANGENCY AND AT ENDS OF EACH DRIVEWAY.
- TOPS OF ALL CURBS SHALL SLOPE TOWARD THE ROADWAY AT 2% UNLESS OTHERWISE SHOWN OR AS DIRECTED.
- DIMENSIONS ARE NOMINAL AND MAY VARY TO CONFORM WITH CURB MACHINE AS APPROVED BY THE ENGINEER.

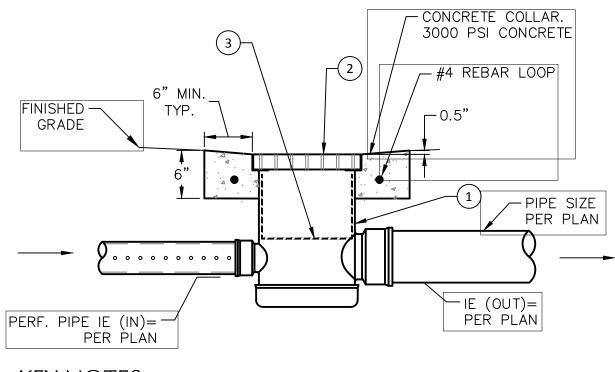
# **CONCRETE CURB - STANDARD**



CONSTRUCT CONTRACTION JOINTS AT 15' MAX. SPACING AND AT RAMPS. CONSTRUCT EXPANSION JOINTS AT 200' MAX SPACING, AT POINTS OF TANGENCY AND AT ENDS OF EACH DRIVEWAY, UNLESS NOTED OTHERWISE.

# CONCRETE SIDEWALK

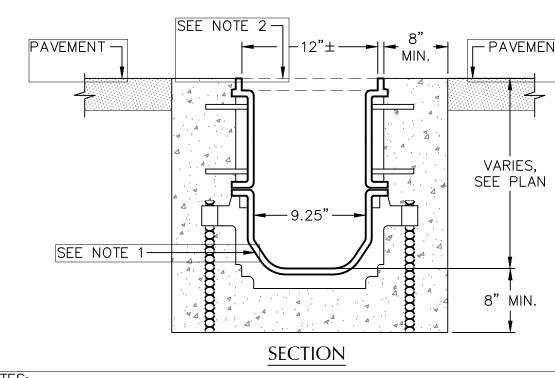
SCALE: NTS



KEY NOTES

- 12" NYLOPLAST DRAIN BASIN, OR APPROVED EQUAL
- 12" PEDESTRIAN HINGED GRATE, H-10 RATED BY ADS, OR APPROVED EQUAL.
- FLEXSTORM SHORT CATCH-IT INLET SEDIMENT BAG, OR APPROVED EQUAL.

AREA DRAIN - TYPE X



TRENCH DRAIN SHALL BE PRE-SLOPED 12" WIDE ZURN OR ACO TRENCH DRAIN OR APPROVED EQUAL. TRENCH DRAINS GRATE SHALL BE LOCKABLE HEAVY DUTY TRENCH GRATE - CLASS E.

TRENCH SYSTEM SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.

TRENCH DRAIN - 12" WIDE

EXPIRES: 6/30/2019

\_\_\_

 $\alpha$ 

2330 WEST

DETAILS

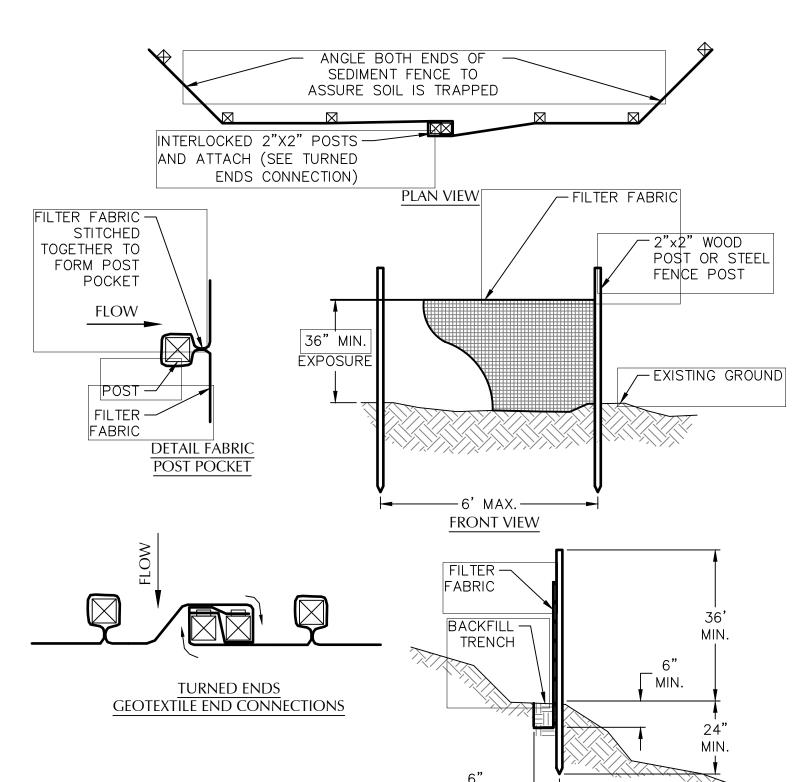
**DATE:** 09/22/2017

CHECKED: **REVISIONS:** 

(C) AAI ENGINEERING INC. 2017, ALL RIGHTS RESERVED THESE DRAWINGS ARE THE PROPERTY OF AAI ENGINEERING INC. AND ARE NOT TO BE USED OR REPRODUCED IN ANY MANNER, EXCEPT WITH THE PRIOR WRITTEN PERMISSION OF AAI ENGINEERING INC.

SHEET

JOB NUMBER: A17049.11



THE FILTER FABRIC SHALL BE (36" MIN. WIDTH) PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST, OR OVERLAP 2"x2" POSTS AND ATTACH AS SHOWN ON

SIDE VIEW

THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS WHERE FEASIBLE. THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6-FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 24-INCHES.

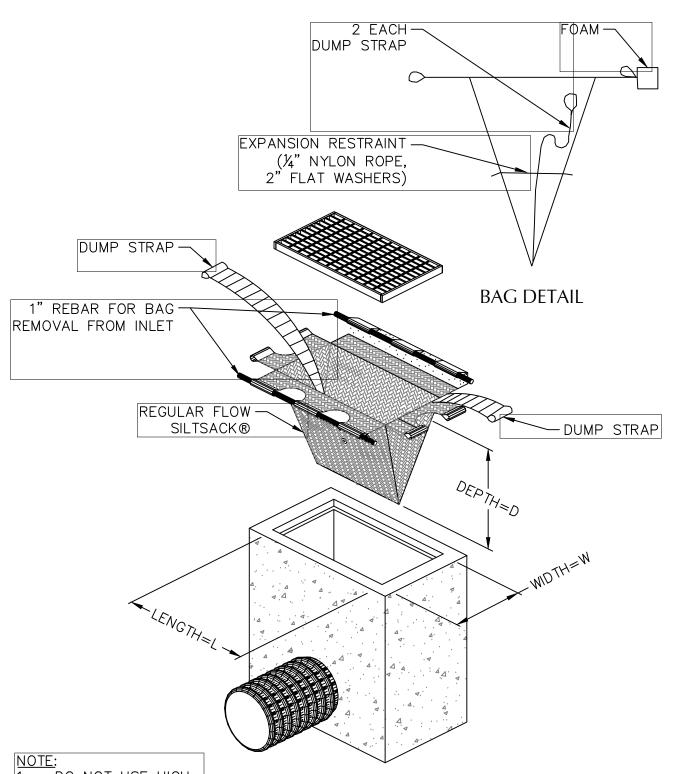
THE FILTER FABRIC SHALL HAVE A MINIMUM VERTICAL BURIAL OF 6-INCHES. ALL EXCAVATED MATERIAL FROM FILTER FABRIC FENCE INSTALLATION, SHALL BE BACKFILLED AND COMPACTED, ALONG THE ENTIRE DISTURBED AREA.

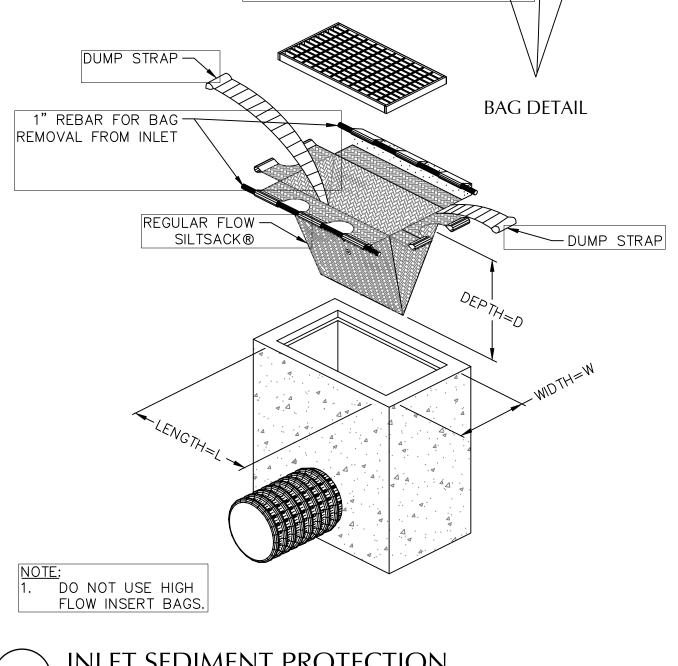
STANDARD OR HEAVY DUTY FILTER FABRIC SHALL HAVE MANUFACTURED STITCHED LOOPS FOR 2"x2" POST INSTALLATION. STITCHED LOOPS WITH STAKES SHALL BE INSTALLED ON THE DOWN-HILL SIDE OF THE SLOPED AREA.

FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UP-SLOPE AREA HAS BEEN PERMANENTLY PROTECTED AND STABILIZED.

FILTER FABRIC FENCES SHALL BE INSPECTED BY CONTRACTOR IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

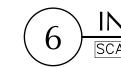
SEDIMENT FENCE

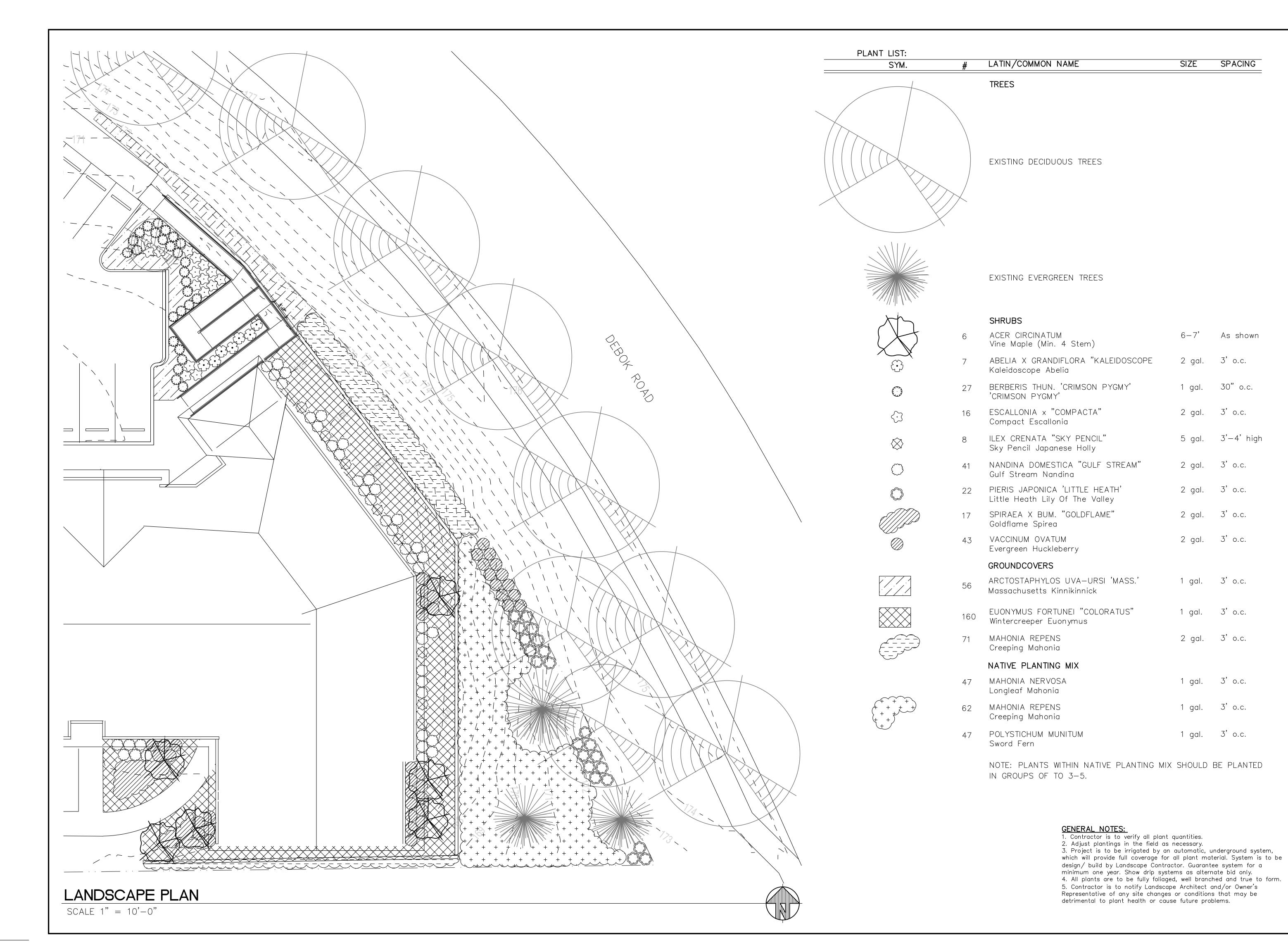




INLET SEDIMENT PROTECTION

LAND USE SUBMITTAL





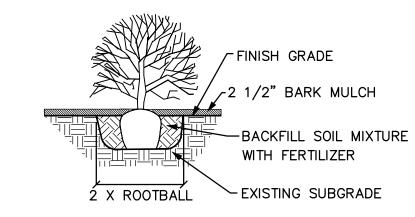
09-28-2017

NOTED

CHECKED

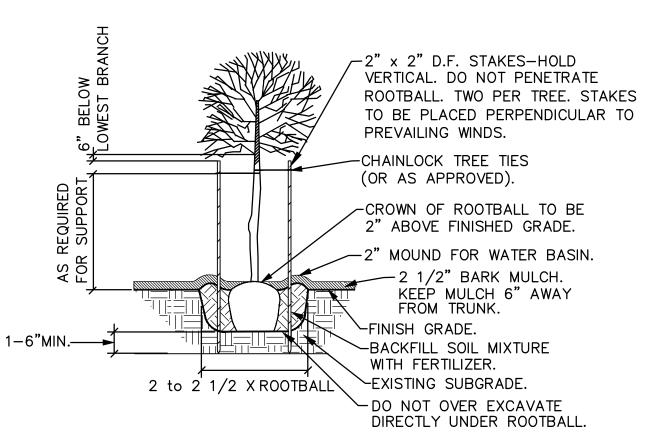
SHEET NO

L1.0



SHRUB PLANTING DETAIL

NOT TO SCALE



NOTE: ANY PROPOSED CHANGES TO OUR SPECIFICATION OR DETAIL SHOULD BE APPROVED BY THE LANDSCAPE ARCHITECT. LIKEWISE, IN ACCORDANCE WITH BEST PRACTICES OF LOCAL LANDSCAPE INSTALLATION, SHOULD THE LANDSCAPE CONTRACTOR FIND A PREFERRED ALTERNATE METHOD, THE LANDSCAPE ARCHITECT MAY BE SO ADVISED.

GENERAL DECIDUOUS TREE PLANTING DETAIL NOT TO SCALE

#### OUTLINE SPECIFICATIONS PLANTING:

GENERAL: All plants shall conform to all applicable standards of the latest edition of the "American Association of Nurserymen Standards", A.N.S.I. Z60.1 — 1973. Meet or exceed the regulations and laws of Federal, State, and County regulations, regarding the inspection of plant materials, certified as free from hazardous insects, disease, and noxious weeds, and certified fit for sale in Oregon.

The apparent silence of the Specifications and Plans as to any detail, or the apparent omission from them of a detailed description concerning any point, shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of first quality are to be used. All interpretations of these Specifications shall be made upon the basis above stated.

Landscape contractor shall perform a site visit prior to bidding to view existing conditions.

PERFORMANCE QUALITY ASSURANCE: Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary horticultural practices and who are completely familiar with the specified requirements and methods needed for the proper performance of the work of this section.

NOTIFICATION: Give Landscape Architect minimum of 2 days advance notice of times for inspections. Inspections at growing site does not preclude Landscape Architect's right of rejection of deficient materials at project site. Each plant failing to meet the above mentioned "Standards" or otherwise failing to meet the specified requirements as set forth shall be rejected and removed immediately from the premises by the Contractor and at his expense, and replaced with satisfactory plants or trees conforming to the specified requirements.

**SUBSTITUTIONS:** Only as approved by the Landscape Architect or the Owner's Representative.

GUARANTEE AND REPLACEMENT: All plant material shall be guaranteed from final acceptance for one full growing season or one year, whichever is longer. During this period the Contractor shall replace any plant material that is not in good condition and producing new growth (except that material damaged by severe weather conditions, due to Owner's negligence, normally unforeseen peculiarities of the planting site, or lost due to vandalism). Guarantee to replace, at no cost to Owner, unacceptable plant materials with plants of same variety, age, size and quality as plant originally specified. Conditions of guarantee on replacement plant shall be same as for original plant.

Landscape Contractor shall keep on site for Owner's Representative's inspection, all receipts for soil amendment and topsoil deliveries.

**PROTECTION**: Protect existing roads, sidewalks, and curbs, landscaping, and other features remaining as final work. Verify location of underground utilities prior to doing work. Repair and make good any damage to service lines, existing features, etc. caused by landscaping installation.

PLANT QUALITY ASSURANCE: Deliver direct from nursery. Maintain and protect roots of plant material from drying or other possible injury. Store plants in shade and protect them from weather immediately upon delivery, if not to be planted within four hours.

Nursery stock shall be healthy, well branched and rooted, formed true to variety and species, full foliaged, free of disease, injury, defects, insects, weeds, and weed roots. Trees shall have straight trunks, symmetrical tips, and have an intact single leader. Any trees with double leaders will be rejected upon inspection. All Plants: True to name, with one of each bundle or lot tagged with the common and botanical name and size of the plants in accordance with standards of practice of the American Association of Nurserymen, and shall conform to the Standardized Plant Names, 1942 Edition.

Container grown stock: Small container—grown plants, furnished in removable containers, shall be well rooted to ensure healthy growth. Grow container plants in containers a minimum of one year prior to delivery, with roots filling container but not root bound. Bare root stock: Roots well—branched and fibrous. Balled and burlapped (B&B): Ball shall be of natural size to ensure healthy growth. Ball shall be firm and the burlap sound. No loose or made ball will be acceptable.

TOPSOIL AND FINAL GRADES: Landscape Contractor is to verify with the General Contractor if the on site topsoil is or is not conducive to proper plant growth. Supply alternate bid for imported topsoil.

Landscape Contractor is to supply and place 12" of topsoil in planting beds and 6" in lawn areas. If topsoil stockpiled on site is not conducive to proper plant growth, the Landscape Contractor shall import the required amount. Landscape Contractor is to submit samples of the imported soil and/or soil amendments to the Landscape Architect. The topsoil shall be a sandy loam, free of all weeds and debris inimical to lawn or plant growth.

Landscaping shall include finished grades and even distribution of topsoil to meet planting requirements. Grades and slopes shall be as indicated. Planting bed grades shall be approximately 3" below adjacent walks, paving, finished grade lines, etc., to allow for bark application. Finish grading shall remove all depressions or low areas to provide positive drainage throughout the area.

### PLANTING SPECIFICATIONS:

HERBICIDES: Prior to soil preparation, all areas showing any undesirable weed or grass growth shall be treated with Round—up in strict accordance with the manufacturer's instructions.

SOIL PREPARATION: Work all areas by rototilling to a minimum depth of 8". Remove all stones (over 1½" size), sticks, mortar, large clumps of vegetation, roots, debris, or extraneous matter turned up in working. Soil shall be of a homogeneous fine texture. Level, smooth and lightly compact area to plus or minus .10 of required grades.

In groundcover greas add 2" of compost (or as approved) and till in to the top 6" of soil.

PLANTING HOLE: Lay out all plant locations and excavate all soils from planting holes to 2 1/2 times the root ball or root system width. Loosen soil inside bottom of plant hole. Dispose of any "subsoil" or debris from excavation. Check drainage of planting hole with water, and adjust any area showing drainage problems.

**SOIL MIX:** Prepare soil mix in each planting hole by mixing:

2 part native topsoil (no subsoil) 1 part compost (as approved)

Thoroughly mix in planting hole and add fertilizers at the following rates:

Small shrubs - 1/8 lb./ plant Shrubs  $- \frac{1}{3}$  to  $\frac{1}{2}$  lb./ plant

Trees - 1/3 to 1 lb./ plant

**FERTILIZER:** For trees and shrubs use Commercial Fertilizer "A" Inorganic (5-4-3) with micro-nutrients and 50% slow releasing nitrogen. For initial application in fine seed lawn areas use Commercial Fertilizer "B" (8-16-8) with micro-nutrients and 50% slow-releasing nitrogen. For lawn maintenance use Commercial Fertilizer "C" (22—16—8) with micro—nutrients and 50% slow—releasing nitrogen. <u>DO NOT</u> apply fertilizer to Water Quality Swale.

PLANTING TREES AND SHRUBS: Plant upright and face to give best appearance or relationship to adjacent plants and structures. Place 6" minimum, lightly compacted layer of prepared planting soil under root system. Loosen and remove twine binding and burlap from top 1/2 of root balls. Cut off cleanly all broken or frayed roots, and spread roots out. Stagger Plants in rows. Backfill planting hole with soil mix while working each layer to eliminate voids.

When approximately 2/3 full, water thoroughly, then allow water to soak away. Place remaining backfill and dish surface around plant to hold water. Final grade should keep root ball slightly above surrounding grade, not to exceed 1". Water again until no more water is absorbed. Initial watering by irrigation system is not allowed.

STAKING OF TREES: Stake or guy all trees. Stakes shall be 2" X 2" (nom.) quality tree stakes with point. They shall be of Douglas Fir, clear and sturdy. Stake to be minimum 2/3 the height of the tree, not to exceed 8'-0". Drive stake firmly 1'-6" below the planting hole. Tree ties for deciduous trees shall be "Chainlock" (or better). For Evergreen trees use "Gro-Strait" Tree Ties (or a reinforced rubber hose and guy wires) with guy wires of a minimum 2 strand twisted 12 ga. wire. Staking and guying shall be loose enough to allow movement of tree while holding tree upright.

MULCHING OF PLANTINGS: Mulch planting areas with dark, aged, medium grind fir or hemlock bark (aged at least 6 months) to a depth of 2" in ground cover areas and 2½" in shrub beds. Apply evenly, not higher than grade of plant as it came from the nursery, and rake to a smooth finish. Water thoroughly, then hose down planting area with fine spray to wash leaves of plants.

GENERAL MAINTENANCE: Protect and maintain work described in these specifications against all defects of materials and workmanship, through final acceptance. Replace plants not in normal healthy condition at the end of this period. Water, weed, cultivate, mulch, reset plants to proper grade or upright position, remove dead wood and do necessary standard maintenance operations. Irrigate when necessary to avoid drying out of plant materials, and to promote healthy growth.

CLEAN-UP: At completion of each division of work all extra material, supplies, equipment, etc., shall be removed from the site. All walks, paving, or other surfaces shall be swept clean, mulch areas shall have debris removed and any soil cleared from surface. All areas of the project shall be kept clean, orderly and complete.

							REVISIONS
							DATE
		/	Ŷ				NO.
C. Car	X 1		を動う	NO.	NO N	11/15/71	

ANET LOTTEN OT	N OBERON W	EXP. 12/31/17	るが、点で
П			

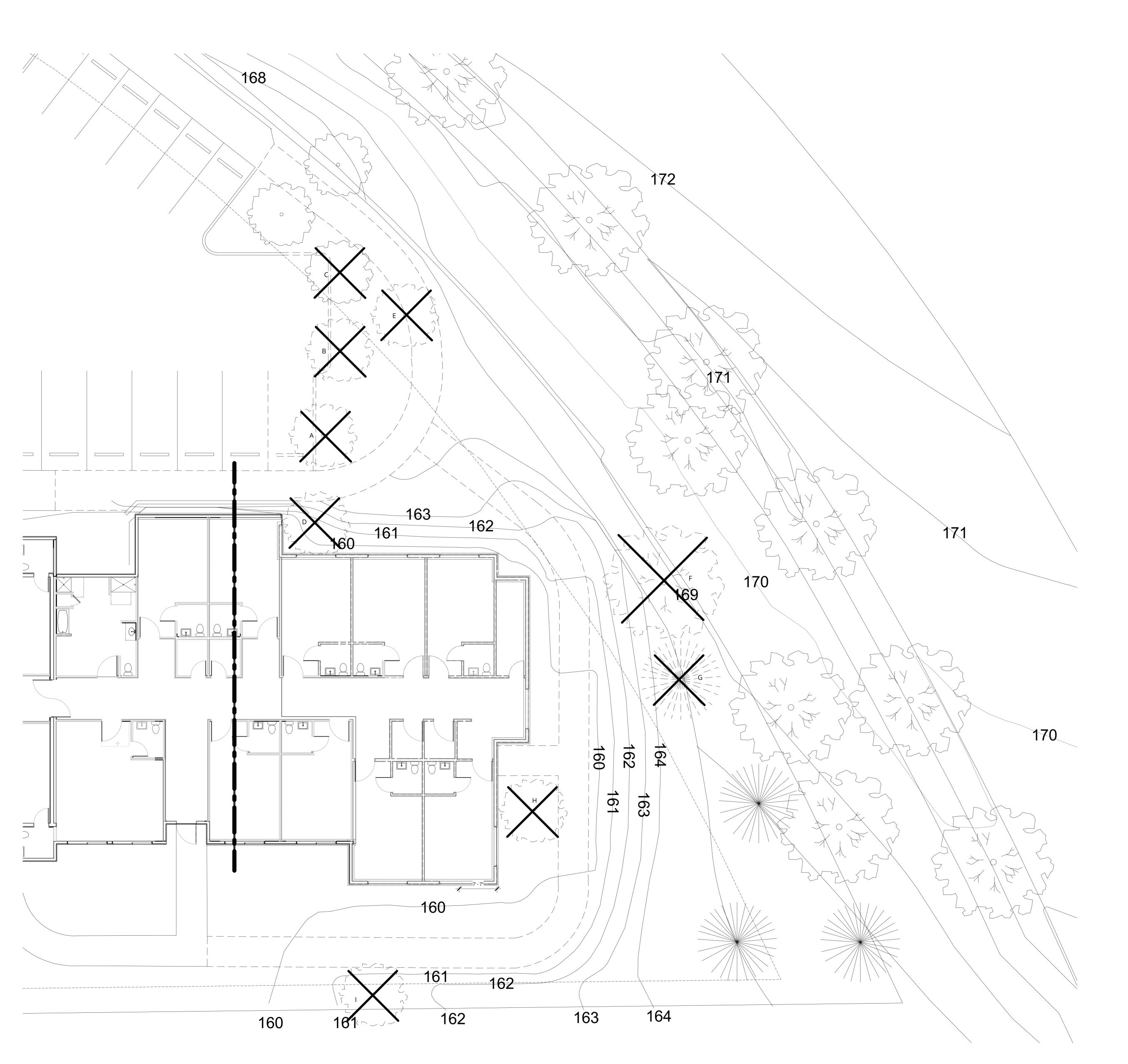
CARE CENTER

DATE 09-28-17 SCALE AS SHOWN DRAWN CHECKED

CW SHEET NO

JLO

2 OF 2





38 NW DAVIS STREET, SUITE 300 PORTLAND, OR 97209 T 503.245.7100

1505 5TH AVE, SUITE 300 SEATTLE, WA 98101

T 206.576.1600

1014 HOWARD STREET SAN FRANCISCO, CA 94103 T 415.252.7063

© ANKROM MOISAN ARCHITECTS, INC.

TREES TO BE REMOVED

**KEYNOTES** 

DEMO PARKING AND LOADING SPACE

REMOVE ASPHALT PAVING REMOVE CONCRETE

4 RELOCATE PLANTERS 5 DEMO CHAINLINK FENCE

	TREES TO BE REMOVED						
	NAME	DBH	QUANTITY				
Α	CHERRY	5"	1				
В	CHERRY	5"	1				
C	CHERRY	6"	1				
D	CHERRY	6"	1				
Е	CHERRY	5"	1				
F	LONDON PLANE	9"	1				
G	CEDAR	6"	1				
Н	COTTONWOOD	7"	1				
I	MAPLE	8"	1				

REASON FOR ISSUE

DEMO PLAN/TREE REMOVAL

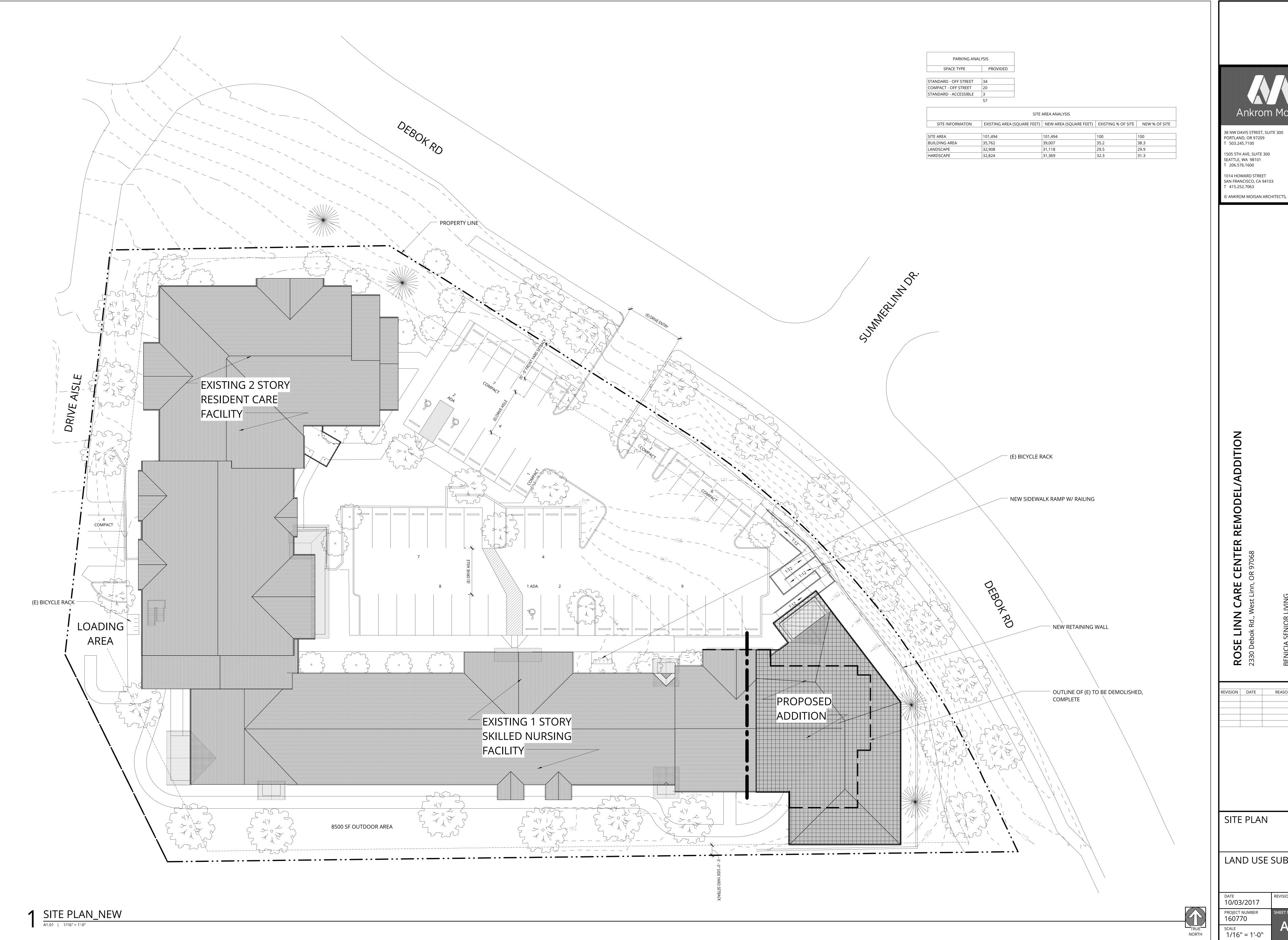
LAND USE SUBMITTAL

DATE 10/03/2017 PROJECT NUMBER 160770 A0.52

SCALE 1/8" = 1'-0"

1 DEMO PLAN - PHASE 1

A0.52 | 1/8" = 1'-0"



Ankrom Moisan

© ANKROM MOISAN ARCHITECTS, INC.

REASON FOR ISSUE

LAND USE SUBMITTAL

REVISION





# KEYNOTES - PLAN

NEW WALL- MATCH EXISTING WALL CONDITIONS

GRID ALIGNED TO EXISTING FACE OF FINISH

# LEGEND

SEMI-PRIVATE (5 ROOMS) PRIVATE (2 ROOMS) ACTIVITY

CIRCULATION

STAFF/SERVICES

# GENERAL NOTES - FLOOR PLANS

- 1. DIMENSIONS ARE TO GRIDLINE, FACE OF (FO) CONCRETE, FO MASONRY, FO FRAMING AT EXTERIOR WALLS, FACE OF STUD AT PARTITIONS,CL OF DOORS AND WINDOW OPENINGS, UNO.
- 2. REFERENCE SLAB PLANS FOR CONCRETE WALL LOCATIONS, UNO. COORDINATE WITH STRUCTURAL DRAWINGS.
- 3. SEE SHEETS A2.00a A2.00b FOR WALL ASSEMBLIES, SHEET A2.00c FOR FLOOR ASSEMBLIES,

**4.** REFER TO STRUCTURAL DRAWINGS FOR COLUMNS, SHEAR WALL AND BEAM SIZES.

EXCEPT 30" X 48" OUTSIDE THE SWING OF THE DOOR.

MAXIMUM INSIDE OF CLOSET IS 24", UNO.

- **5.** REFERENCE SHEETS A5.01 AND A5.02 FOR FIXTURE CLEARANCES. ALL CLEARANCES ARE 30" X 48", 5'-0" DIA TURNING CIRCLE, OR 5'-0" T-TURN UNO. ALL CLEARANCES MAY OVERLAP EACH OTHER AND THE DOOR SWING.
- 6. PROVIDE 40" MIN CLEAR SPACE BETWEEN ALL OPPOSING COUNTERS, CABINETS, WALLS, AND APPLIANCE FACES. CONTRACTOR WILL VERIFY CLEARANCE REQUIREMENTS FOR APPLIANCES, PLUMBING FIXTURES, AND BUILT-INS PRIOR TO FRAMING.
- 7. CLOSET DOORS AND OPENINGS ARE CENTERED ON THE CLOSET WALL, UNO. DEPTH
- 8. ALL CLOSETS INCLUDE ROD AND SHELF, UNO. ALL FULLY ACCESSIBLE UNITS TO MEET ADAAG REACH REQUIREMENTS BY PROVIDING HALF THE CLOSET WITH A DOUBLE ROD SYSTEM MOUNTED BELOW 48" AFF.
- 9. INSIDE FINISH DOOR FRAMES AND JAMBS ARE 4" ADJACENT PERPENDICULAR WALLS AT HINGE SIDE, UNO. SEE SHEET A4.02 DOOR AND FRAME SCHEDULE. SEE DOOR JAMB DETAILS FOR SETTING REQUIREMENTS.

- 10. ALL WOOD IN CONTACT WITH CONCRETE SHOULD BE PRESSURE TREATED OR TREATED WITH BORATE. REFER TO PROJECT MANUAL.
- 11. PROVIDE BACKING / BLOCKING FOR GRAB BARS AND SHOWER SEATS PER A5.01 AND A5.02, 'PROVIDE BLOCKING FOR GRAB BARS' APPLIES TO EVERY UNIT, ALL TOILETS, TUBS, AND SHOWERS IN THE PROJECT SCOPE. IN ADDITION, PROVIDE BLOCKING AT EVERY SHOWER FOR SHOWER SEAT. GRAB BARS AND SHOWER SEATS ARE INSTALLED IN COMMON USE RESTROOMS,
- **12.** SEE A5.02 FOR MOUNTING HEIGHTS. HEIGHT FOR PROTRUDING OBJECTS, SUCH AS FIRE EXTINGUISHER CABINETS, CANNOT BE MOUNTED AT HEIGHTS TO AVOID A PROTRUDING
- **13.** SEE FIRE / LIFE SAFETY DRAWINGS ON SHEETS A0.11-A0.14 FOR LOCATIONS AND QUANTITIES OF FIRE EXTINGUISHERS AND EXIT SIGNAGE. COORDINATE EXACT LOCATIONS AND QUANTITIES WITH FIRE MARSHALL.
- **14.** FIRE PROTECTION ENGINEER TO LOCATE PULL BOXES PER IBC 907.2.
- **15.** PROVIDE TACTILE EXIT SIGNS STATING 'EXIT' AND COMPLYING WITH ICC A117.1 AT EACH DOOR TO AN EGRESS STAIRWAY AND EXIT DISCHARGE.
- 16. IN ALL COMMON SPACES AND UNITS, ALL LIGHTING CONTROLS, ELECTRICAL PANEL BOARDS, ELECTRICAL SWITCHES, RECEPTACLE OUTLETS, ENVIRONMENTAL CONTROLS, APPLIANCE CONTROLS, OPERATING HARDWARE FOR OPERABLE WINDOWS, PLUMBING FIXTURE CONTROLS, AND USER CONTROLS FOR SECURITY OR INTERCOM SYSTEMS SHALL BE MOUNTED BETWEEN 15-INCHES AND 48-INCHES ABOVE FINISH FLOOR TO THE HIGHEST OPERABLE PART WITH CLEAR FLOOR SPACE IN FRONT OF THEM, UNLESS OTHER CLEAR FLOOR SPACE IS INDICATED.
- 17. FOR UNOBSTRUCTED FORWARD REACH IN ALL FULLY ACCESSIBLE UNITS, THE REACH RANGE IS BETWEEN 15-INCHES AND 48-INCHES FOR LIGHTING CONTROLS, ELECTRICAL SWITCHES, RECEPTACLE OUTLETS, ENVIRONMENTAL CONTROLS, AND USER CONTROLS FOR SECURITY OR INTERCOM SYSTEMS. 44" TO THE TOP OF THE BOX IS ACCEPTABLE IN COMMON USE, AND KITCHENS WHEN ELECTRICAL IS INSTALLED OVER COUNTERTOPS. IN UNIT BATHROOMS WHERE THE REACH RANGE DOES NOT EXCEED 24", THE MOUNTING HEIGHT CAN BE 46" AFF MAX. SEE SHEETS A5.01 - A5.02 FOR DIAGRAMS.
- **18.** AT EXTERIOR ENTRIES, FLOOR SURFACE WITHIN MANEUVERING CLEARANCES FOR DOORS HAVE A SLOPE LESS THAN 1:48. THE SURFACE IS FIRM, STABLE AND SLIP RESISTANT. ACCESSIBLE RAMPS NOT TO EXCEED A MAXIMUM RUNNING SLOPE OF 8:330% AND CROSS SLOPE OF 2%.
- **19.** NOTES TO 'ALIGN' ARE TO FACE OF FINISH, UNO.
- 20. HANDRAIL/CHAIR RAIL COMBINATION SHOWN IN DRAWINGS. ON OPPOSITE SIDE OF CORRIDOR PROVIDE CHAIR RAIL. CHAIR RAIL TERMINATES AT BACK WALL OF EACH UNIT

Ankrom Moisan

38 NW DAVIS STREET, SUITE 300 PORTLAND, OR 97209 T 503.245.7100 1505 5TH AVE, SUITE 300

T 206.576.1600 1014 HOWARD STREET SAN FRANCISCO, CA 94103

SEATTLE, WA 98101

T 415.252.7063

© ANKROM MOISAN ARCHITECTS, INC.

REASON FOR ISSUE

FIRST FLOOR PLAN - ADDITION

LAND USE SUBMITTAL

DATE 10/03/2017	REVISION
PROJECT NUMBER 160770	SHEET NUMBE

AZ.UI As indicated

LAND USE SUBMITTAL

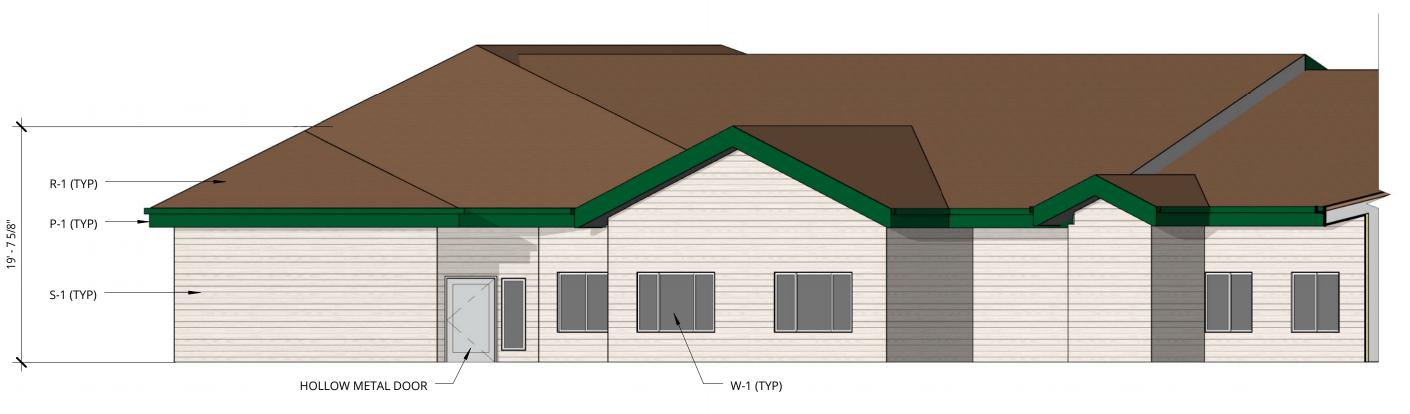
DATE 10/03/2017

PROJECT NUMBER 160770

SCALE 1/8" = 1'-0"

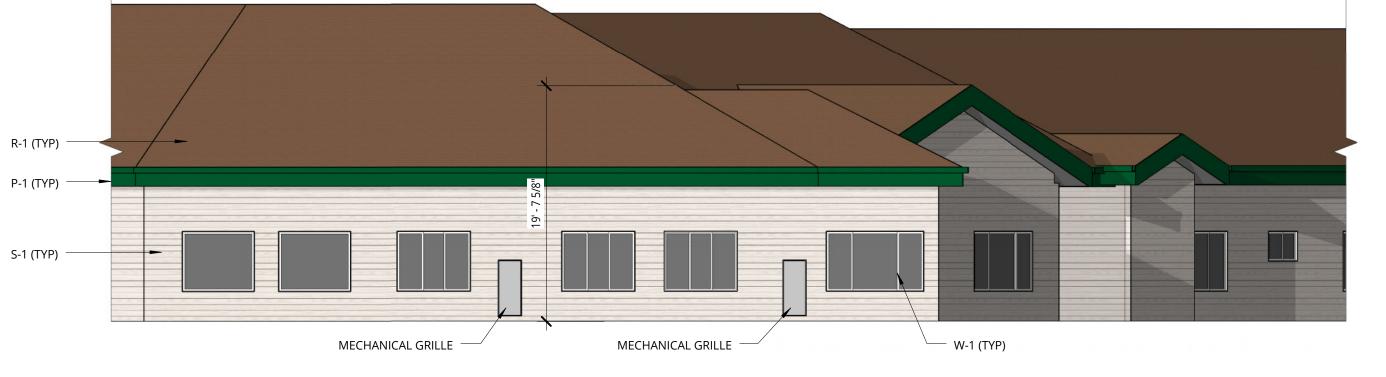
REVISION

SHEET NUMBER A3.0



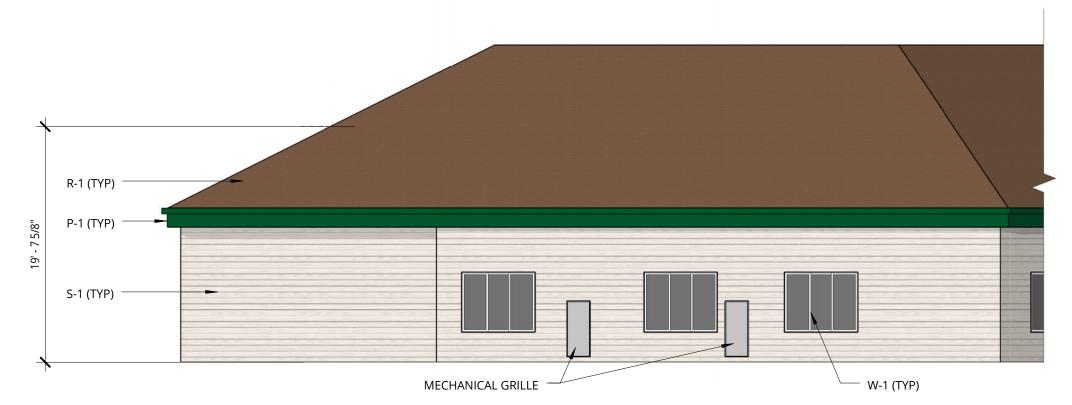
1 NORTH WEST ELEVATION @ ADDITION - COLOR

A3.02 | 1/8" = 1'-0"



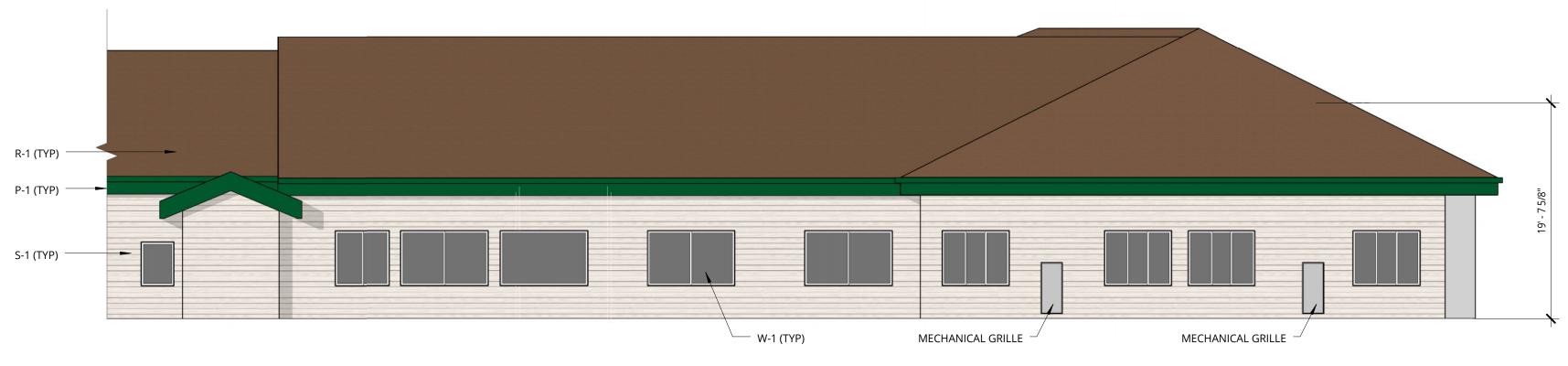
NORTH EAST ELEVATION @ ADDITION - COLOR

A3.02 | 1/8" = 1'-0"



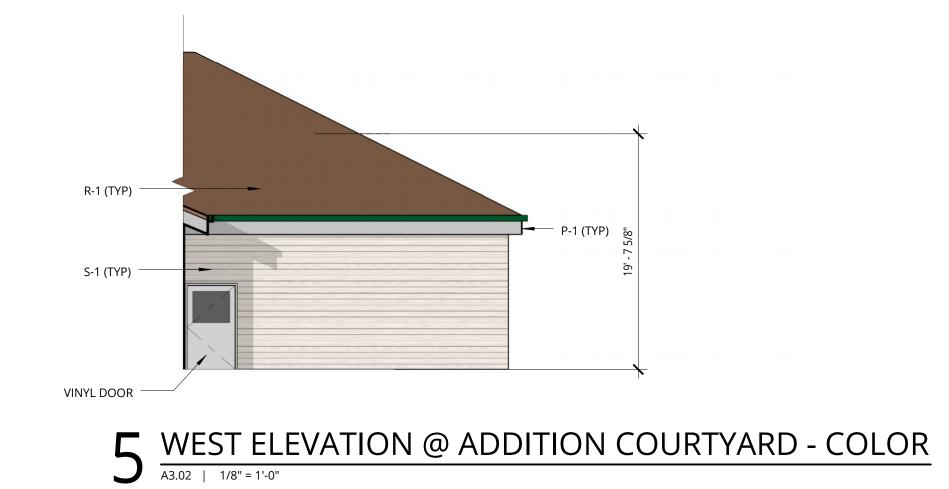
3 EAST ELEVATION @ ADDITION - COLOR

A3.02 | 1/8" = 1'-0"



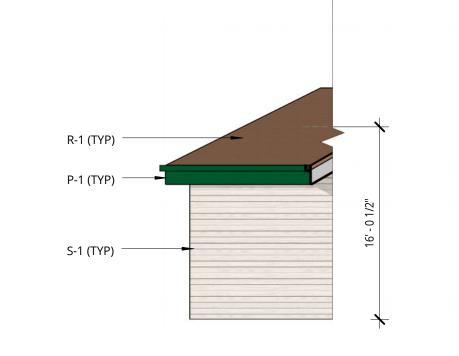
4 SOUTH ELEVATION @ ADDITION - COLOR

A3.02 | 1/8" = 1'-0"



R-1 (TYP)
P-1 (TYP)
S-1 (TYP)
W-1 (TYP)

6 NORTH ELEVATION (A) @ ADDITION ENTRY - COLOR



7 NORTH ELEVATION (B) @ ADDITION ENTRY - COLOR
A3.02 | 1/8" = 1'-0"

# COLOR/MATERIAL SCHEDULE



P-1 HUNT CLUB

SW 6468, painted aluminum fascia (to match existing)

Sherwin Williams



R-1 ASPHALT SHINGLE ROOF

Landmark IR Shake or Landmark Solaris Gold Shake (to match existing)
Certainteed