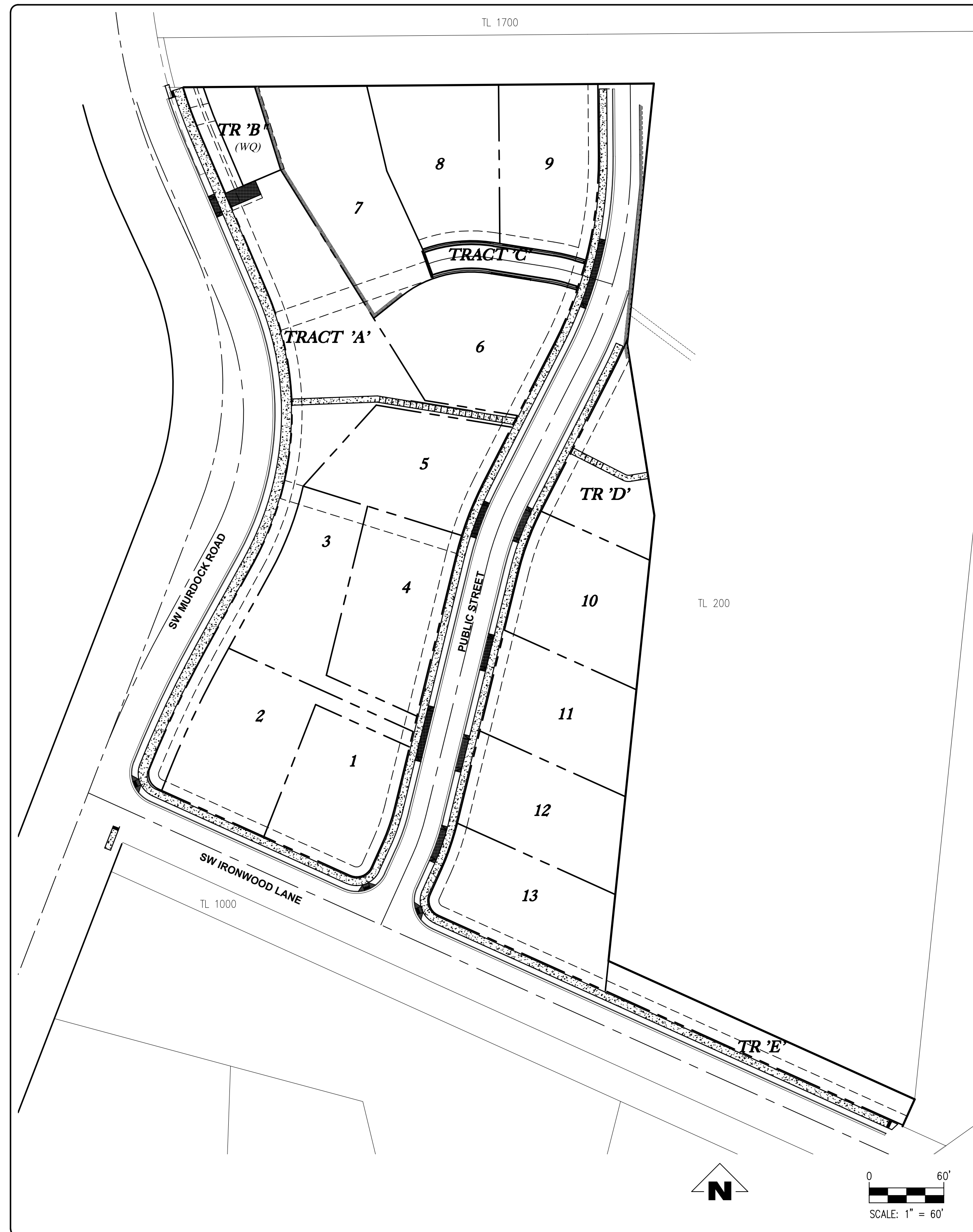


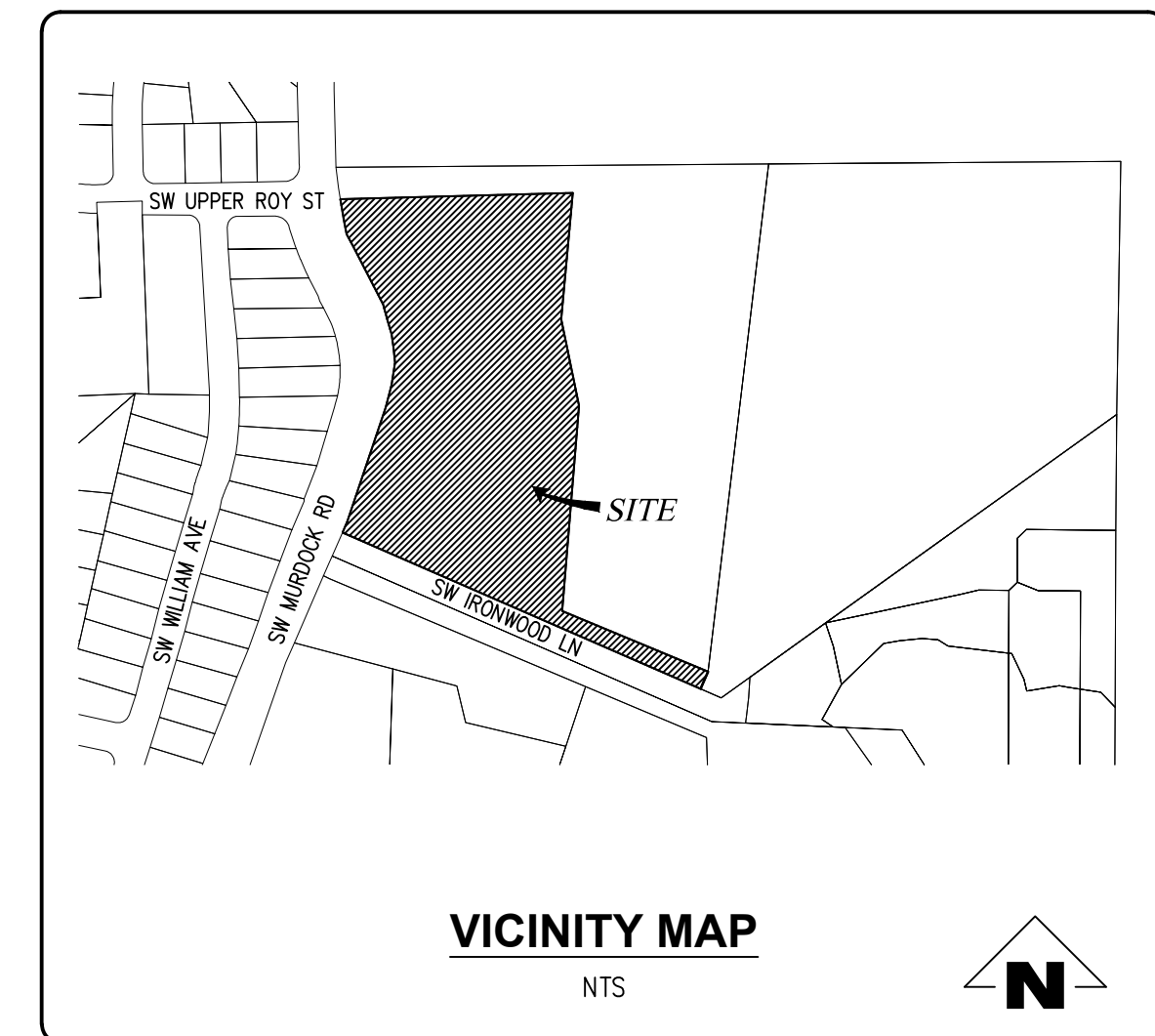
DELALI MEADOWS PUD

FINAL DEVELOPMENT SET
 TAX LOT 300
 TAX MAP 2S133CB
 SHERWOOD, OREGON



LEGEND

---	BOUNDARY LINE	---	SD	EXISTING STORM DRAIN LINE
- - - -	EASEMENT	---	SS	EXISTING SANITARY SEWER LINE
---	EXISTING 1" CONTOUR LINE	---	COM	EXISTING COMMUNICATION LINE
---	EXISTING 5" CONTOUR LINE	---	W	EXISTING WATER LINE
---	EXISTING CROWN (CENTER LINE OF ROAD)	---	OH	EXISTING OVERHEAD POWER LINE
☀	EXISTING TREE	---	E	EXISTING UNDERGROUND POWER LINE
⊙	EXISTING STORM DRAIN MANHOLE	---	G	EXISTING GAS LINE
⊙	EXISTING SANITARY SEWER MANHOLE	---	□	EXISTING FENCE LINE
⊙	EXISTING CATCH BASIN	---	---	PROPOSED STORM LINE
⊙	EXISTING WATER METER	---	---	PROPOSED SANITARY LINE
⊙	EXISTING CONTROL VALVE	---	---	PROPOSED WATERLINE
⊙	EXISTING WATER VALVE	---	---	PROPOSED STORM LATERAL
⊙	EXISTING FIRE HYDRANT	---	---	PROPOSED SANITARY LATERAL
⊙	EXISTING TRANSFORMER	---	---	PROPOSED SINGLE WATER METER
⊙	EXISTING COMMUNICATION PEDESTAL	---	---	PROPOSED DOUBLE WATER METER
⊙	EXISTING ELECTRICAL PEDESTAL	---	---	PROPOSED STORM MANHOLE
⊙	EXISTING ELECTRICAL VAULT	---	---	PROPOSED CATCH BASIN
⊙	EXISTING LIGHT	---	---	PROPOSED SANITARY MANHOLE
⊙	EXISTING UTILITY POLE	---	---	PROPOSED BLOWOFF
⊙	EXISTING GUY WIRE	---	---	PROPOSED WATER VALVE
⊙	EXISTING MAIL BOX	---	---	PROPOSED 1" CONTOUR LINE
⊙	EXISTING SIGN	---	---	PROPOSED 5" CONTOUR LINE
⊙	EXISTING HEDGE LINE	---	---	PROPOSED SEDIMENT FENCE



SITE INFORMATION:

SITE ADDRESS: 23000 SW MURDOCK ROAD
 TAX MAPS: 2S 1W 33CB
 TAX LOTS: 300
 GROSS AREA: 5.27 AC (BEFORE DEDICATION)
 ZONING: VERY LOW DENSITY RESIDENTIAL

DRAWING INDEX:

- 01 COVER SHEET
- 02 EXISTING CONDITIONS AND DEMOLITION PLAN
- 03 PRELIMINARY PLAT
- 04 AERIAL AND NEIGHBORHOOD CIRCULATION MAP
- 05 OFF-STREET PARKING PLAN
- L1.0 LANDSCAPE PLAN
- L2.0 LANDSCAPE PLAN
- L3.0 LANDSCAPE SPEC & DETAILS
- IR1.0 IRRIGATION PLAN
- IR2.0 IRRIGATION PLAN
- IR3.0 IRRIGATION PLAN

SETBACKS

FRONT: 15' (REQUESTED ADJUSTMENT FROM 20')
 GARAGE: 20'
 SIDE: 5'
 STREET SIDE: 15' (REQUESTED ADJUSTMENT FROM 20')
 REAR: 20'

LOTS

MINIMUM LOT AREA: 10,000 SF
 MINIMUM LOT WIDTH: 25'
 MINIMUM LOT DEPTH: NONE
 MINIMUM LOT WITH AT BUILDING LINE: NONE
 MAXIMUM BUILDING HEIGHT: 30' (OR TWO STORIES)

OWNER:

JT ROTH CONSTRUCTION INC
 12600 SW 72ND #200
 PORTLAND, OR 97223
 CONTACT: TIM ROTH
 503-639-2639 | TEL

APPLICANT:

EMERIO DESIGN, LLC
 6445 SW FALLBROOK PL, SUITE 100
 BEAVERTON, OR 97008
 CONTACT: STEVE MILLER
 541-318-7487 | CELL

LAND USE AND CIVIL ENGINEER:

EMERIO DESIGN, LLC
 6445 SW FALLBROOK PL, SUITE 100
 BEAVERTON, OR 97008
 LAND USE CONTACT: STEVE MILLER
 ENGINEER CONTACT: ERIC EVANS
 503-746-8812 | TEL

SURVEYOR:

EMERIO DESIGN, LLC
 6445 SW FALLBROOK PL, SUITE 100
 BEAVERTON, OR 97008
 CONTACT: KING PHELPS
 503-746-8812 | TEL

BENCH MARK INFORMATION

THE DATUM FOR THIS SURVEY IS BASED UPON WASHINGTON COUNTY BENCHMARK NO 111. ELEVATION=213.55 NGVD29 DATUM.

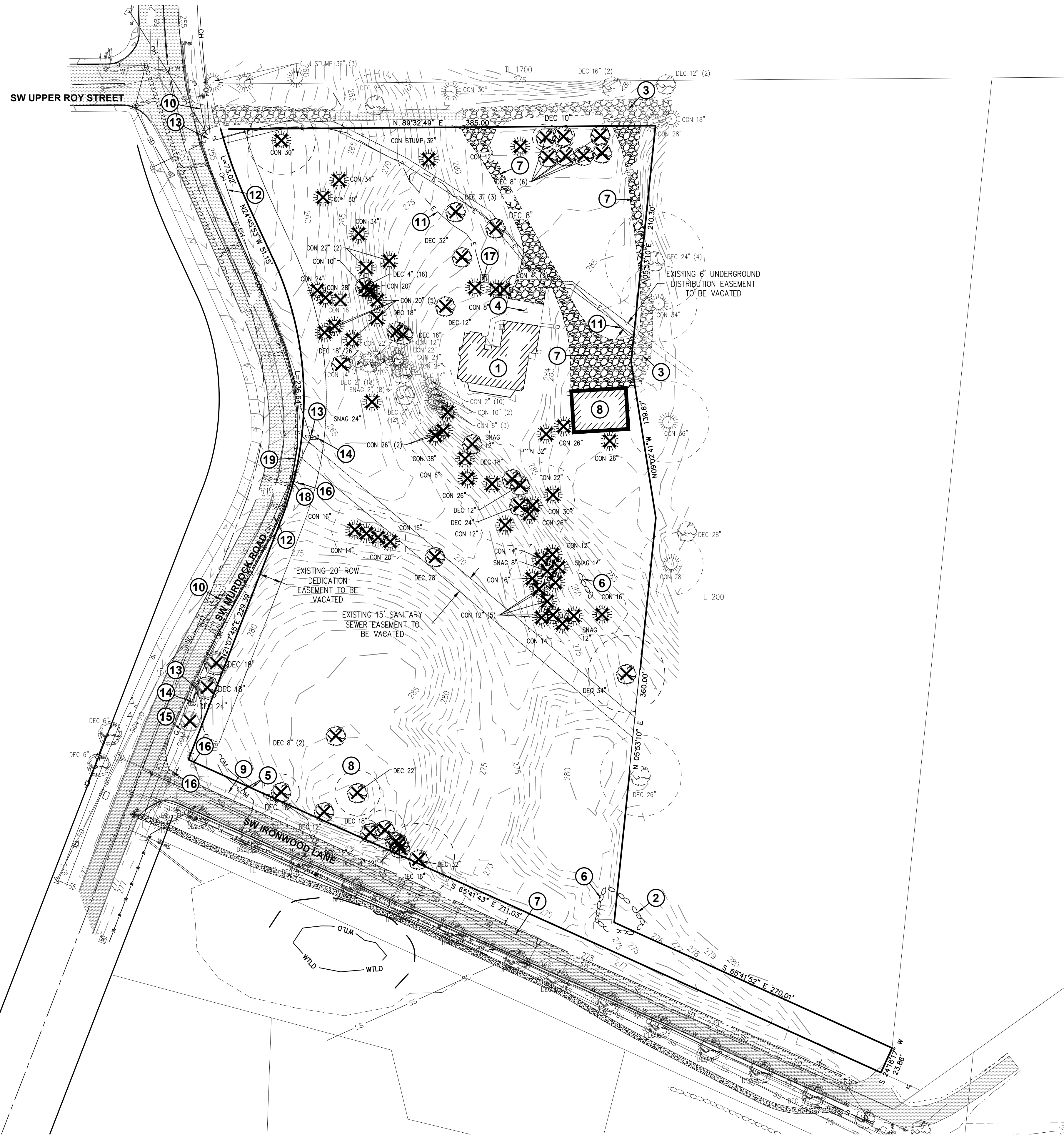
DELALI MEADOWS PUD
 TAX MAP T2S R1W 33CB
 TAX LOT 00300
 SHERWOOD, OREGON

COVER SHEET

NO.	DATE	DESCRIPTION
1	12/16/19	1ST SUBMITTAL

EMERIO
Design
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 BEAVERTON, OREGON 97008
 TEL: (503) 746-8812
 FAX: (503) 639-9592
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01
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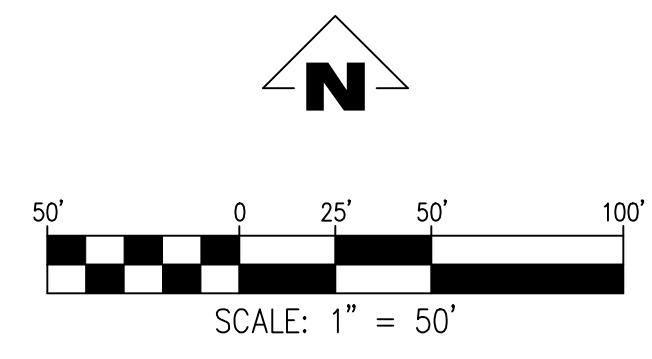


LEGEND

- BOUNDARY LINE
- - - EASEMENT
- - - 104 - - - EXISTING 1' CONTOUR LINE
- - - 105 - - - EXISTING 5' CONTOUR LINE
- EXISTING CROWN (CENTER LINE OF ROAD)
- ☀ EXISTING TREE TO REMAIN
- ☒ EXISTING TREE TO BE REMOVED
- ⊕ EXISTING STORM DRAIN MANHOLE
- ⊕ EXISTING SANITARY SEWER MANHOLE
- ⊕ EXISTING CATCH BASIN
- ⊕ EXISTING WATER METER
- ⊕ EXISTING CONTROL VALVE
- ⊕ EXISTING WATER VALVE
- ⊕ EXISTING FIRE HYDRANT
- ⊕ EXISTING TRANSFORMER
- ⊕ EXISTING COMMUNICATION PEDESTAL
- ⊕ EXISTING ELECTRICAL PEDESTAL
- ⊕ EXISTING ELECTRICAL VAULT
- ⊕ EXISTING LIGHT
- ⊕ EXISTING UTILITY POLE
- ⊕ EXISTING GUY WIRE
- ⊕ EXISTING MAIL BOX
- ⊕ EXISTING SIGN
- EXISTING HEDGE LINE
- EXISTING STORM DRAIN LINE
- EXISTING SANITARY SEWER LINE
- EXISTING COMMUNICATION LINE
- EXISTING WATER LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING UNDERGROUND POWER LINE
- EXISTING GAS LINE
- EXISTING FENCE LINE

DEMOLITION NOTES:

- ① EXISTING BUILDING TO REMAIN
- ② EXISTING HEDGE TO REMAIN
- ③ EXISTING GRAVEL TO REMAIN
- ④ EXISTING CONCRETE DRIVEWAY TO REMAIN
- ⑤ EXISTING COMMUNICATION LINE TO REMAIN
- ⑥ EXISTING HEDGE TO BE REMOVED
- ⑦ EXISTING GRAVEL TO BE REMOVED
- ⑧ EXISTING BUILDING TO BE REMOVED
- ⑨ EXISTING FENCE TO BE REMOVED
- ⑩ EXISTING CULVERT TO BE ABANDONED/REMOVED
- ⑪ EXISTING UNDERGROUND POWER LINE TO BE REMOVED AND REROUTED TO EXISTING DWELLINGS
- ⑫ EXISTING OVERHEAD UTILITY LINE TO BE REMOVED AND REROUTED
- ⑬ EXISTING UTILITY POLE TO BE RELOCATED (NEW LOCATION TO BE DETERMINED BY OTHERS)
- ⑭ EXISTING GUY ANCHOR TO BE RELOCATED (NEW LOCATION TO BE DETERMINED BY OTHERS)
- ⑮ EXISTING MAIN BOXES TO BE RELOCATED
- ⑯ EXISTING SIGN TO BE RELOCATED
- ⑰ EXISTING TRANSFORMER TO BE RELOCATED (NEW LOCATION TO BE DETERMINED BY OTHERS)
- ⑱ EXISTING AC PAVEMENT TO BE REMOVED
- ⑲ SAWCUT LINE



DENALI MEADOWS PUD
TAX MAP T2S R1W 33CB
TAX LOT 00300
SHERWOOD, OREGON

EXISTING CONDITIONS AND DEMOLITION PLAN

REVISIONS	
NO.	DATE
1	12/16/19
	DESCRIPTION
	1ST SUBMITTAL

EMERIO
Design

6445 SW FALLBROOK PLACE, SUITE 100
 BEASLEY, OREGON 97105
 TEL: (503) 746-8812
 FAX: (503) 639-9592
 www.emeriodesign.com

FILE: P:\0200-008 Murrelock Subdivision (dwg final dev plans)\0200-008_02pxcr-1d Layout: 02 EXISTING CONDITIONS AND DEMOLITION PLAN, Plot Date: 12/16/2019 8:55 AM, by: Kyung Han

SW UPPER ROY STREET



LEGEND

- BOUNDARY LINE
- - - EASEMENT

PROPOSED MURDOCK PUD SETBACKS

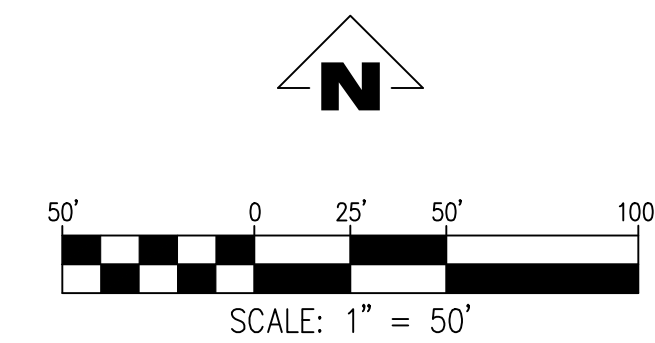
FRONT: 15 FT.
GARAGE: 20 FT.
REAR: 20 FT. (EXCEPT LOTS 1 & 4 15 FT.)
SIDE: 5 FT.
STREET SIDE: 15 FT. (LOTS 4, 5 & 9)

GROSS AND NET SQUARE FOOTAGES

LOT 1	11,355 SQUARE FEET
LOT 2	10,572 SQUARE FEET
LOT 3	12,074 SQUARE FEET
LOT 4	10,014 SQUARE FEET
LOT 5	10,931 SQUARE FEET
LOT 6	10,032 SQUARE FEET
LOT 7	10,031 SQUARE FEET
LOT 8	10,725 SQUARE FEET
LOT 9	10,455 SQUARE FEET
LOT 10	11,233 SQUARE FEET
LOT 11	13,630 SQUARE FEET
LOT 12	12,777 SQUARE FEET
LOT 13	10,260 SQUARE FEET
SW MURDOCK ROAD RIGHT-OF-WAY	7,930 SQUARE FEET
SW IRONWOOD LANE RIGHT-OF-WAY	657 SQUARE FEET
PUBLIC STREET RIGHT-OF-WAY	33,454 SQUARE FEET
TRACT A USABLE OPEN SPACE	22,555 SQUARE FEET
TRACT B WATER QUALITY	2,828 SQUARE FEET
TRACT C PRIVATE STREET	3,138 SQUARE FEET
TRACT D USABLE OPEN SPACE	7,916 SQUARE FEET
TRACT E	6,084 SQUARE FEET
GROSS SQUARE FOOTAGE =	228,651 SQUARE FEET

DEDUCTIONS FROM GROSS SQUARE FOOTAGE:	
RIGHT-OF-WAY (SW MURDOCK RD, SW IRONWOOD LN & PUBLIC ST) =	42,040 SQUARE FEET
PRIVATE STREET (TRACT C) =	3,138 SQUARE FEET
USABLE OPEN SPACE (TRACT A AND D)	30,471 SQUARE FEET
WATER QUALITY TRACT (TRACT B) =	2,828 SQUARE FEET
TOTAL =	78,477 SQUARE FEET IN DEDUCTIONS

GROSS SQUARE FOOTAGE	228,651 SQUARE FEET	
-DEDUCTIONS	78,477 SQUARE FEET	
NET SQUARE FOOTAGE =	150,174 SQUARE FEET	OR 3.45 NET ACRES



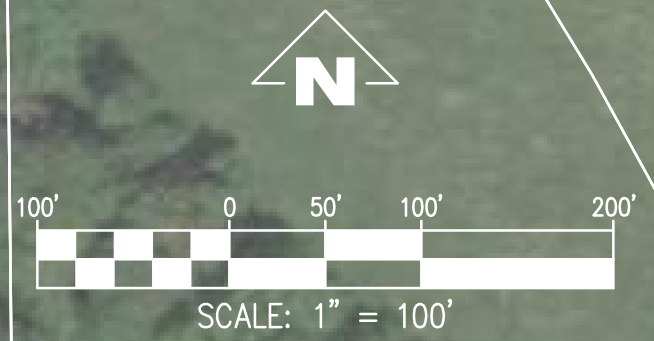
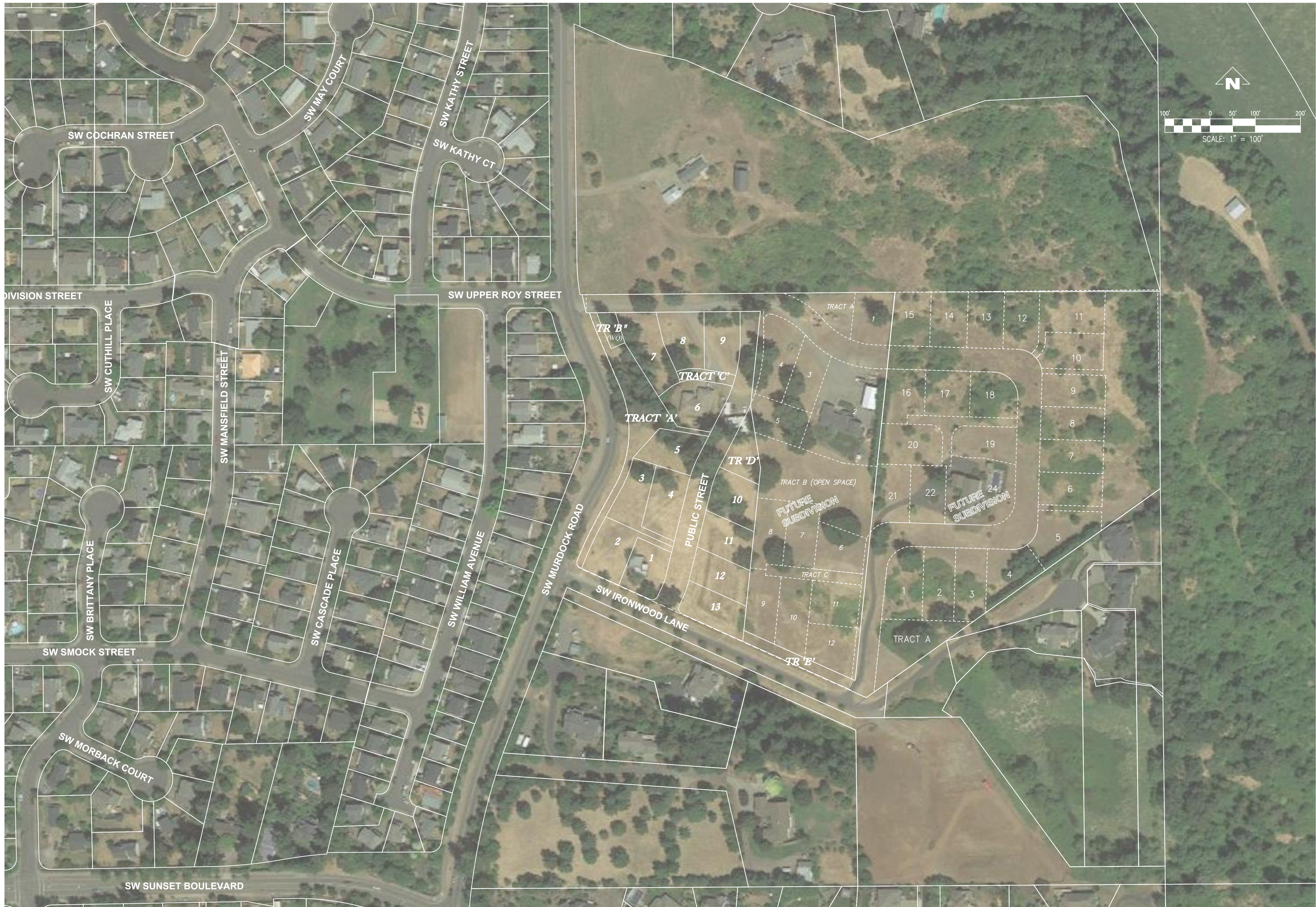
DENALI MEADOWS PUD
 TAX MAP T2S R1W 33CB
 TAX LOT 00300
 SHERWOOD, OREGON

PRELIMINARY PLAT

REVISIONS	
NO.	DATE
1	12/16/19
	DESCRIPTION
	1ST SUBMITTAL

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 BEASLEY, OREGON 97105
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 FAX: (503) 639-9592
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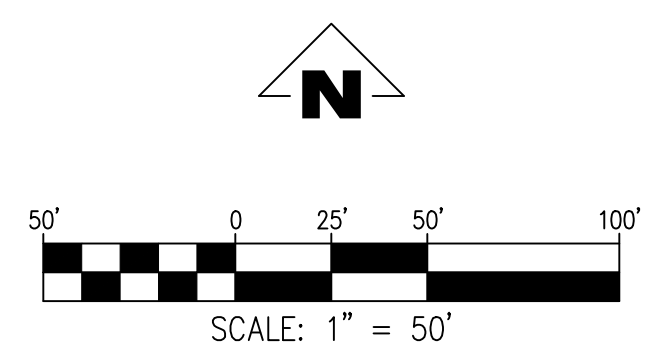
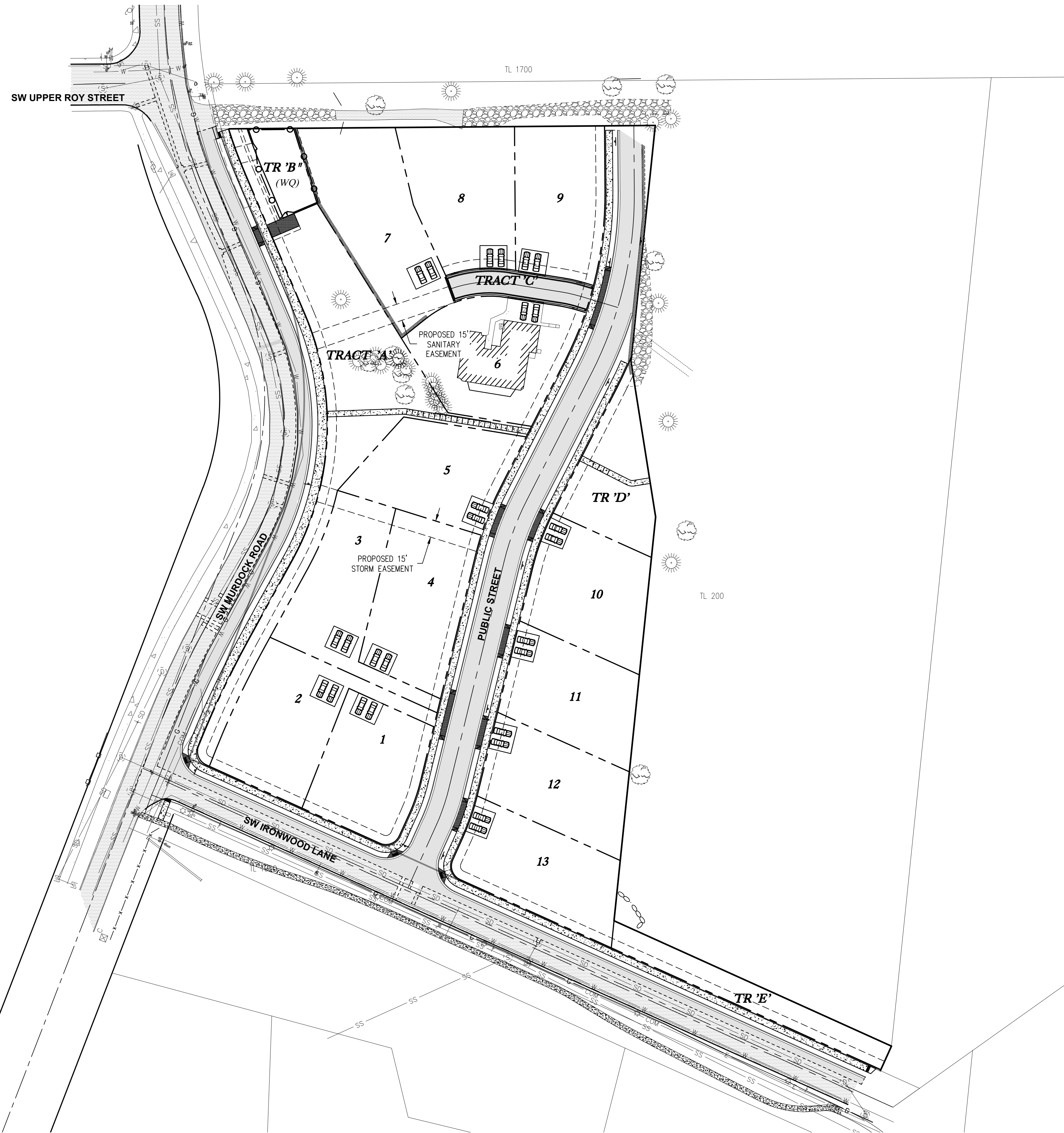
DENALI MEADOWS PUD
 TAX MAP T2S R1W 33CB
 TAX LOT 00300
 SHERWOOD, OREGON

**AERIAL AND
 NEIGHBORHOOD
 CIRCULATION MAP**

REVISIONS	
NO.	DATE
1	12/16/19
	DESCRIPTION
	1ST SUBMITTAL

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Design
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 BEAVERTON, OREGON 97008
 TEL: (503) 746-8812
 FAX: (503) 639-9592
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FILE:P:\0200-008_Murdock_Subdivision\dwg\final dev plans\0200-008_04paper-1d Layout: 04 AERIAL AND NEIGHBORHOOD CIRCULATION MAP, Plot Date: 12/16/2019 8:57 AM, by: Kyung Han



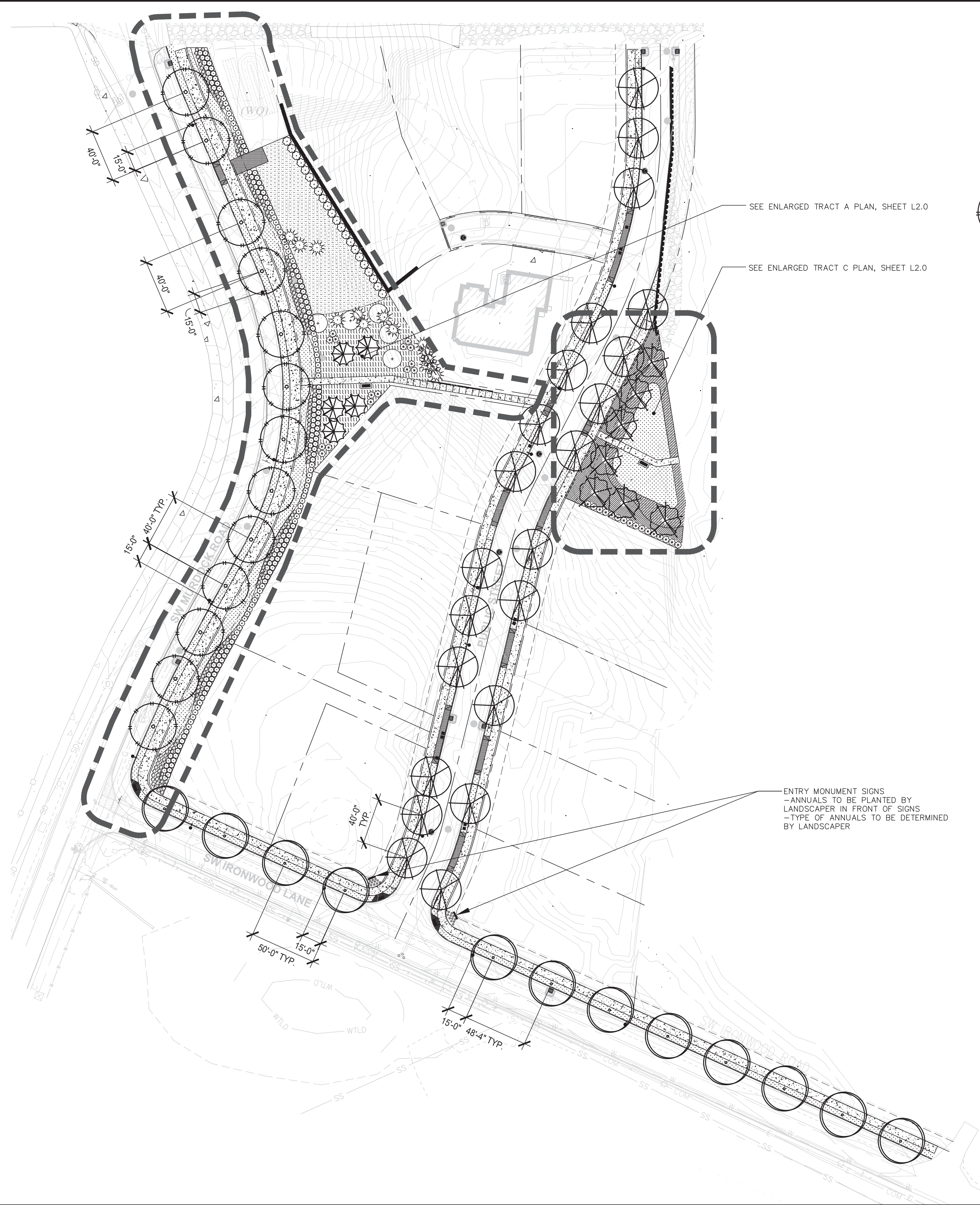
DENALI MEADOWS PUD
 TAX MAP T2S R1W 33CB
 TAX LOT 00300
 SHERWOOD, OREGON

OFF-STREET PARKING
 PLAN

REVISIONS	
NO.	DATE
1	12/16/19
	DESCRIPTION
	1ST SUBMITTAL

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 BEASLEY, OREGON 97105
 TEL: (503) 746-8817
 FAX: (503) 639-9592
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PLANT LIST

SYMBOL	QTY.	SUGGESTED PLANT MATERIAL	SIZE	SPACING
TREES				
(Symbol)	12	ACER RUBRUM 'FRANKSRED' Red Sunset Maple	2" cal.	As Shown
(Symbol)	7	CERCIS CANADENSIS Eastern Redbud	6"-8' ht.	As Shown
(Symbol)	13	CARPINUS BETULUS PYRAMIDALIS European Hornbeam	2" cal.	As Shown
(Symbol)	5	PINUS FLEXILIS 'VANDERWOLF'S PYRAMID' Limber Pine	5' ht.	As Shown
(Symbol)	22	ZELKOVA SERRATA 'VILLAGE GREEN' Village Green Zelkova	2" cal.	As Shown
EXISTING TREES				
(Symbol)	5	DECIDUOUS TREE	VARIES	
(Symbol)	13	EVERGREEN TREE	VARIES	

PLANT LIST

SYMBOL	QTY.	SUGGESTED PLANT MATERIAL	SIZE	SPACING
SHRUBS				
(Symbol)	56	CARYOPTERIS X CLANDONENSIS Blue Mist Bluebeard	2 gal.	4' o.c.
(Symbol)	57	ILEX GLABRA 'SHAMROCK' Shamrock Inkberry	2 gal.	4' o.c.
(Symbol)	21	MYRICA CALIFORNICA Pacific Wax Myrtle	5 gal.	6' o.c.
(Symbol)	32	VACCINIUM OVATUM Evergreen Huckleberry	2 gal.	3' o.c.
(Symbol)	86	VIBURNUM TINUS 'COMPACTUM' Spring Bouquet Laurustinus	2 gal.	4' o.c.
GROUNDCOVER & PERENNIALS				
(Symbol)	260	ARCTOSTAPHYLOS URA-URSI Kinnikinnick	1 gal.	3' o.c.
(Symbol)	339	MAHONIA REPENS Creeping Oregon Grape	2 gal.	3' o.c.
(Symbol)	124	POLYSTICHUM MUNITUM Western Sword Fern	1 gal.	3' o.c.
(Symbol)	124	MAHONIA REPENS Creeping Oregon Grape	1 gal.	3' o.c.
(Symbol)	124	ARCTOSTAPHYLOS URA-URSI Kinnikinnick	1 gal.	3' o.c.
(Symbol)	86	PENNISETUM ALOPECUROIDES 'HAMELN' Hamein Dwarf Fountain Grass	1 gal.	3' o.c.
SEEDED AREAS				
(Symbol)	16359 sf	PT Lawn Seed PT 769 R&R Eco-turf mix	Seed	5-7 lbs/1000 sq.ft.
(Symbol)	4870 sf	PT Lawn Seed PT 705 Xeriscape Lawn Alternative	Seed	2 lbs/1000 sq.ft.

Project: SW MURDOCK ROAD SUBDIVISION/PUD

TREE DENSITY CALCULATIONS

Project Zoning: Residential (single family & two family developments)
Required Site Coverage: 40%

TREE NAME	QUANTITY	MATURE SPREAD (FT.)	CANOPY AREA (SF)	CANOPY COVERAGE (SF)
EXISTING TREES (COUNT AS TWO):				
Unidentified Evergreen	13	30	707	18,378
Unidentified Deciduous	5	40	1257	12,566
PROPOSED NEW TREES:				
ACER RUBRUM 'FRANKSRED'	12	40	1257	15,080
CERCIS CANADENSIS	7	35	962	6,735
CARPINUS BETULUS PYRAMIDALIS	13	35	962	12,507
ZELKOVA SERRATA 'VILLAGE GREEN'	22	36	1018	22,393
PINUS FLEXILIS 'VANDERWOLF'S PYRAMID'	5	30	707	3,534
TOTAL CANOPY COVERAGE			91,194	
TOTAL SITE AREA (SF)			229,432	
PERCENT CANOPY COVERAGE			40%	

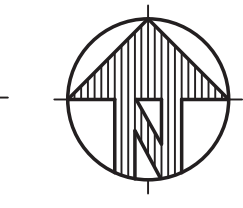
ENTRY MONUMENT SIGNS
- ANNUALS TO BE PLANTED BY LANDSCAPER IN FRONT OF SIGNS
- TYPE OF ANNUALS TO BE DETERMINED BY LANDSCAPER

GENERAL NOTES:

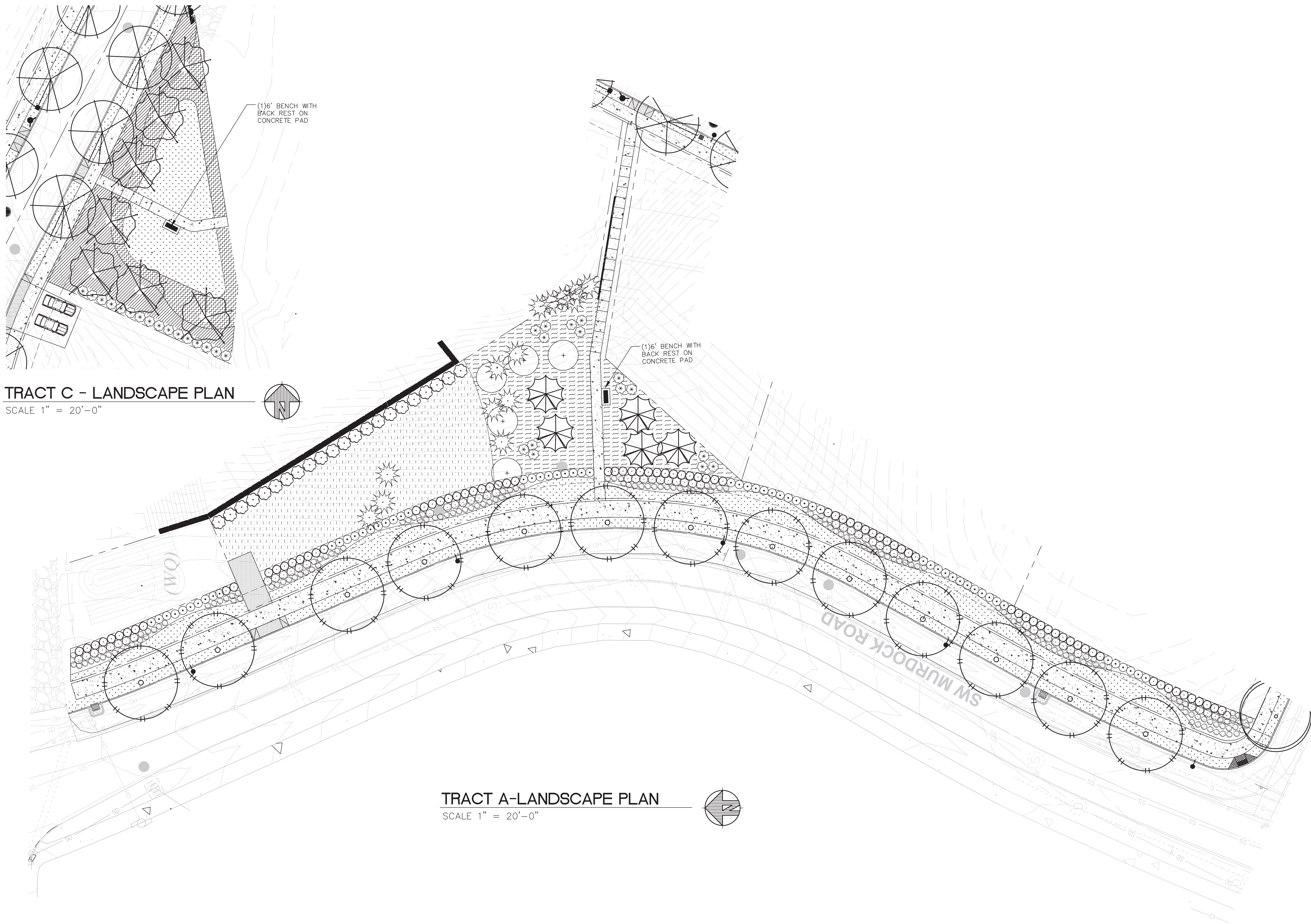
- Contractor is to verify all plant quantities.
- Adjust plantings in the field as necessary.
- Project is to be irrigated by an automatic, underground system, which will provide full coverage for all plant material. System is to be design/ build by Landscape Contractor. Guarantee system for a minimum one year. Show drip systems as alternate bid only.
- All plants are to be fully foliated, well branched and true to form.
- Contractor is to notify Landscape Architect or Owner's Representative of any site changes or unforeseen conditions that may be detrimental to plant health, or cause future problems to any structural elements of the project.
- Contractor shall notify the Landscape Architect if specified materials or methods are not consistent with local climate and/or practices.
- All trees with trunks closer than 4' to asphalt or concrete surface shall have a minimum of an 18" root barrier installed at 10' in length and centered on tree.

LANDSCAPE PLAN

SCALE 1" = 40'-0"

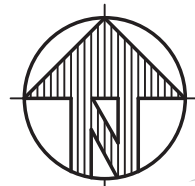


REVISIONS	
NO.	DATE
OTTEN & Associates Landscape Architecture, LLC 3933 SW Kelly Avenue, Suite B • Portland, Oregon 97239 Phone: (503) 972-0311 • www.ottenla.com	
SW MURDOCK ROAD SUBDIVISION/PUD TAX MAP T2S R1W 33CB TAX LOT 00300 WASHINGTON COUNTY, OREGON LANDSCAPE PLAN	
DATE	10-10-2019
SCALE	NOTED
DRAWN	CHECKED
MPL	EH
SHEET NO	L1.0
	1 OF 3



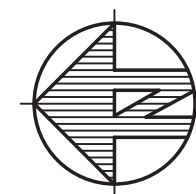
TRACT C - LANDSCAPE PLAN

SCALE 1" = 20'-0"

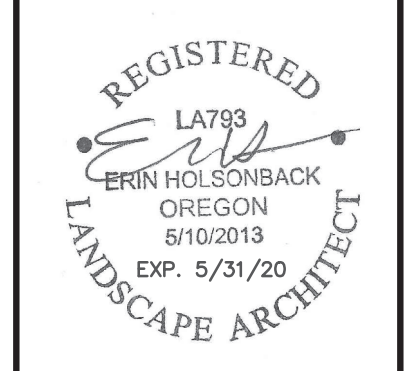


TRACT A-LANDSCAPE PLAN

SCALE 1" = 20'-0"



NO.	DATE	REVISIONS



OTTEN & Associates Landscape Architecture, LLC
 3933 SW Kelly Avenue, Suite B • Portland, Oregon 97239
 Phone: (503) 972-0311 • www.ottentia.com

SW MURDOCK ROAD SUBDIVISION/PUD
 TAX MAP T2S R1W 33CB
 TAX LOT 00300
 WASHINGTON COUNTY, OREGON
 LANDSCAPE PLAN

DATE	10-10-2019
SCALE	NOTED
DRAWN	CHECKED
MPL	EH
SHEET NO	L2.0 2 OF 3

OUTLINE SPECIFICATIONS PLANTING AND SEEDING:

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 foliated, 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.

Landscape Contractor 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 1 1/2" 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 areas 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 - 1/3 to 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.

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 2 1/2" 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.

FINE LAWN AREAS: In fine lawn area apply Commercial Fertilizer Mix "B" at 4.5 lbs. Per 1,000 sq.ft. and rake into soil surface. Establish an even, fine textured seedbed meeting grades, surfaces and texture. Sow seed with a mechanical spreader at the uniform rates as noted below. Rake seed lightly to provide cover.

ROUGH SEED AREA: In rough seeded area, establish an evenly graded seedbed. Sow seed with a mechanical spreader at the uniform rates as noted below. Rake seed lightly to provide cover.

SEED: Bluetag grass seed conforming to applicable State laws. No noxious weed seeds. Submit Guaranteed analysis.

Fine Lawn Seed Mix: Pro-Time 705 Xeriscape Lawn Alternative or as approved. Sow Seed at 2-3 lbs. / 1000 sq. ft.

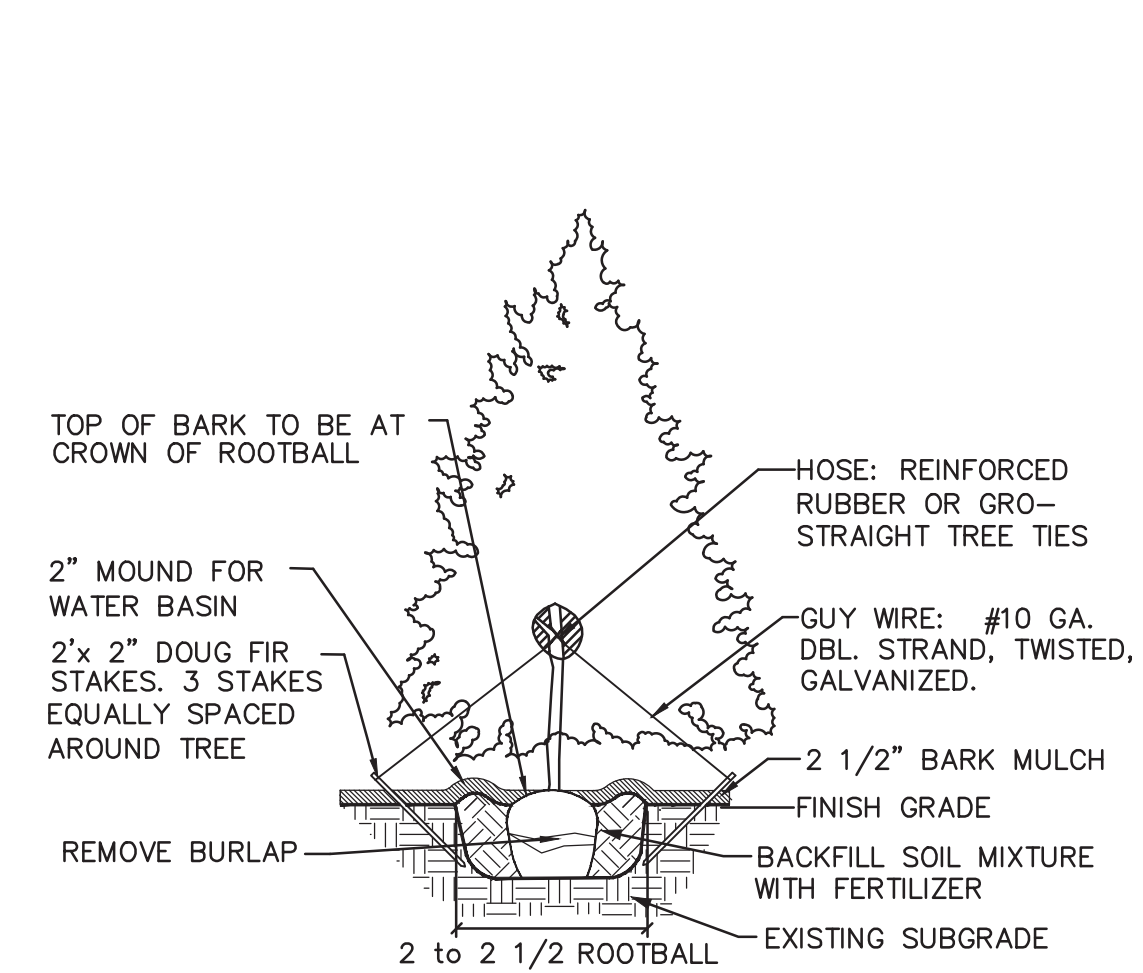
Rough Seed Mix: Sunmark Ecology mix or as approved. Sow at 1 lbs. Per 1,000 sq.ft.

MAINTENANCE OF SEEDED AREAS:

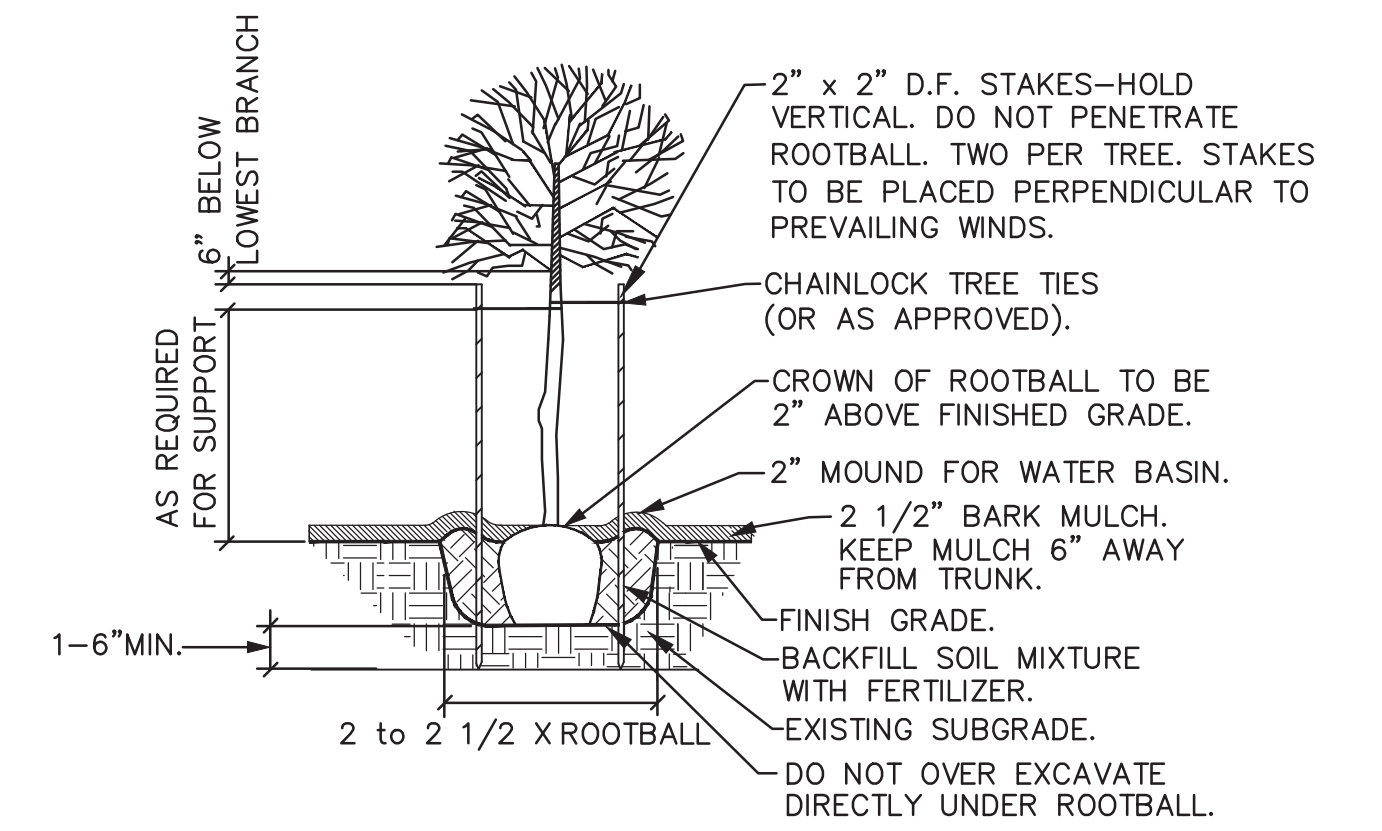
Fine Lawn Areas: The lawn areas shall be maintained by watering, mowing, reseeding, and weeding for a minimum of 60 days after seeding. After 30 days, or after the second mowing, apply Commercial Fertilizer Mix "C" at 5 lbs. per 1,000 sq. ft. Mow and keep at 1 1/2" to 2" in height. Remove clippings and dispose of off site.

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.

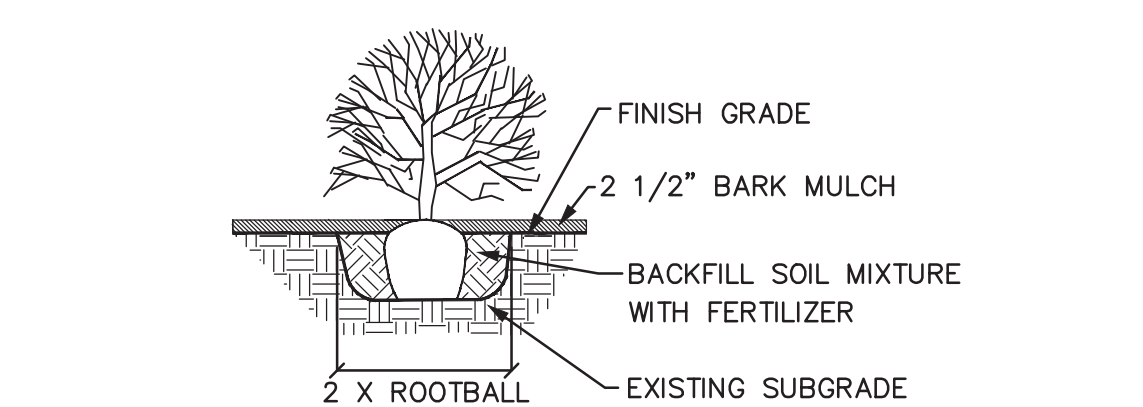


EVERGREEN TREE STAKING DETAIL
NOT TO SCALE

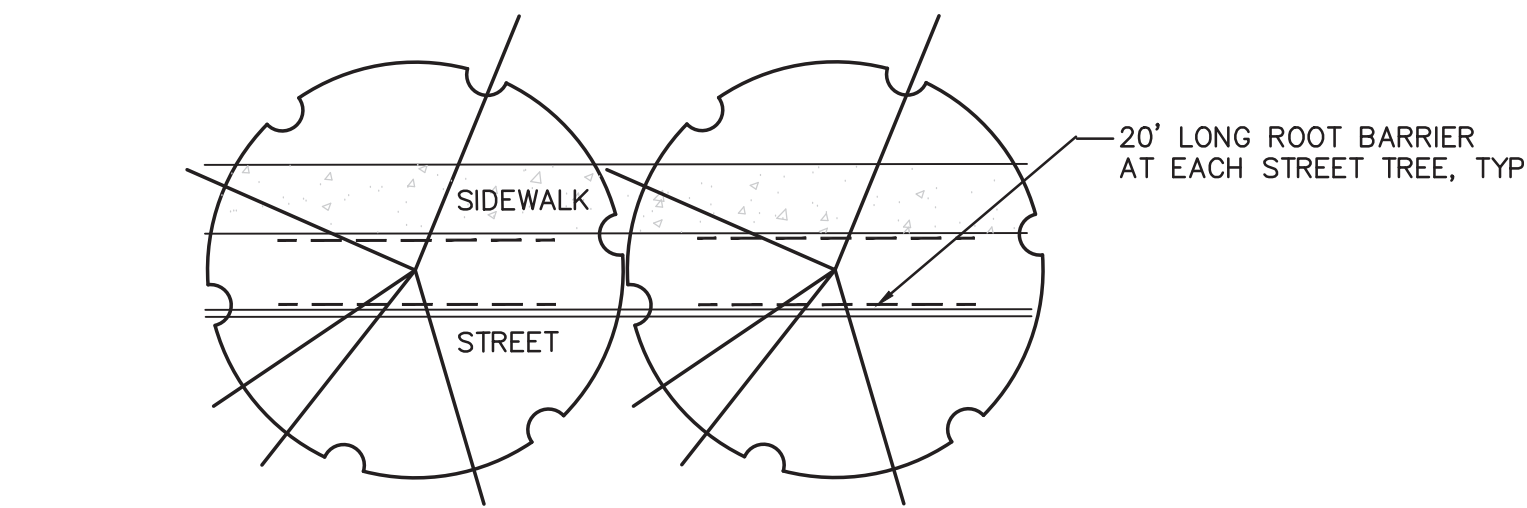


NOTE: ANY PROPOSED CHANGES TO OUR SPECIFICATION OR DETAIL SHOULD BE APPROVED BY THE LANDSCAPE ARCHITECT. LIKEWISE, IN ACCORDANCE WITH BEST PRACTICES OF LOCAL LANDSCAPE INSTALLATION, SHOULD THE LANDSCAPE CONTRACTOR FIND A PREFERRED ALTERNATE METHOD, THE LANDSCAPE ARCHITECT MAY BE SO ADVISED.

GENERAL DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE

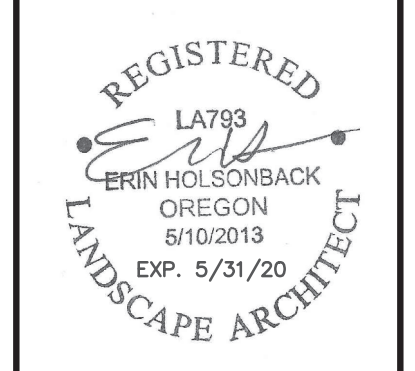


SHRUB PLANTING DETAIL
NOT TO SCALE



ROOT BARRIER DETAIL
NOT TO SCALE

NO.	DATE	REVISIONS



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SW MURDOCK ROAD SUBDIVISION/PUD
TAX MAP T2S R1W 33CB
TAX LOT 00300
WASHINGTON COUNTY, OREGON

LANDSCAPE SPEC & DETAILS

DATE: 10-10-2019
SCALE: NOTED
DRAWN: MPL | CHECKED: EH
SHEET NO: L3.0
3 OF 3

IRRIGATION SYMBOLS LEGEND:

SYMBOL	SPRAY IRRIGATION: MANUFACTURER/MODEL	PSI	GPM	DISTANCE
	HUNTER PRO-SPRAY PRS40 POP-UP BODY: SPRAY HEAD POP-UP HEIGHT: SHRUBS 12", LAWN 6"			
●	HUNTER, MP1000 NOZZLE - 360, 270, 180, 90, 45	40	.75, .57, .37, .19, .19	8-12' RAD.
⊙	HUNTER, MP2000 NOZZLE - 360, 270, 180, 90	40	1.47, 1.1, .74, .40	13-21' RAD.
⊗	HUNTER, MP3000 NOZZLE - 360, 270, 180, 90	40	3.64, 2.73, 1.82, .86	22-30' RAD.
⊕	HUNTER, MP800SR NOZZLE - 360, 210, 180, 90	40	.78, .43, .42, .23	6'-12' RAD.
■	HUNTER, MPLC515/MPRC515, SS530 NOZZLE	40	.44, .22	5'x15', 5'x30'
⊞	5/8" WATER METER			
⊞	DOUBLE CHECK BACKFLOW ASSEMBLY			
⊞	APPROXIMATE POINT OF CONNECTION, SEE DETAIL SHEET IR2.0			
⊞	HUNTER CONTROLLER ICC2 SERIES: VERIFY LOCATION & MOUNTING WITH OWNER			
⊞	HUNTER RAIN-CLIK SENSOR (OPTIONAL): VERIFY LOCATION WITH OWNER			
⊞	HUNTER ICV SERIES AUTOMATIC CONTROL VALVE - SIZE AS NOTED ON PLAN			
⊞	HUNTER PCV-101-40 DRIP CONTROL ZONE KIT			
⊞	QUICK COUPLING VALVE (INSTALL THROUGHOUT SITE, LOCATION AND QUANTITY DETERMINED IN FIELD BY OWNERS REP.)			
---	LATERAL, CLASS 200 PVC - SIZE AS INDICATED			
---	MAINLINE, CLASS 200 PVC - SIZE = 1.5"			
---	SLEEVE, SCHEDULE 40 PVC - SIZE: MAINLINE=3", LATERALS=TWICE THE SIZE OF THE PIPE			
⊞	CONTROLLER /STA. DESIGNATION			
⊞	GPM (APPROXIMATE) (D/B= DESIGN-BUILD)(TEMP= TEMPORARY IRRIGATION)			
⊞	VALVE SIZE			

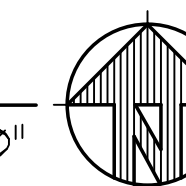
GENERAL NOTES:

- The Contractor shall examine the site and familiarize himself with all conditions pertinent to this work. Contractor will coordinate with other contractors to ensure timely placing of necessary sleeves and piping under walks, curbs, and paving.
- Contractor is to keep his work area clean during installation of his contract, and is to remove at his expense all excess materials, soil, debris, and equipment.
- It will be the Contractor's responsibility to determine the location of all underground utilities and existing irrigation and avoid damage to the same. All damage to be repaired at Contractor's expense.
- Piping shown is diagrammatic. Contractor shall route piping to avoid conflict with existing conditions or improvements.
- All heads on drawing are diagrammatic. Actual field conditions may necessitate adding, deleting, or making minor adjustments in spacing of heads to insure full coverage of all plant material, especially on sloped areas.
- Contractor to notify Landscape Architect of any conditions that may affect the design or installation of this irrigation system.
- Design is for 65 psi (working). Notify Landscape Architect prior to construction if static pressure is over 80 or under 40.
- All mainlines to be a minimum of 18" below grade. Lateral lines are to be a minimum of 12" below grade.
- Group valve boxes for ease of maintenance and locate in groundcover beds where possible.
- Install spray heads minimum 3" from adjacent curbs, pavement and planting bed edges; 6" from curbs in parking lots unless directed otherwise by Owner's Representative.
- Control wires will be 14 gauge single strand with UF jacket.
- Install 3/4" brass manual drain valves at low points or end of mainline. Valve to be installed with a valve marker and cover.
- A tracer wire shall be installed along the top of mainlines. Tape to piping at 10' intervals with standard black 3/4" electrical tape.
- Point of Connection is shown in approximate location.
- Sleeving for mainline, wires, and laterals must be placed prior to paving. Sleeving pipe will be Schedule 40 PVC. All sleeving will be placed in the trench, on top of rock free soil, and backfilled with rock free soil. Sleeves for mainline will be 6". All sleeving for laterals will be twice the size of the lateral. Sleeving as shown on the plan is schematic. Contractor is to verify count & placement. Sleeves are to be 24" depth under drives & roadways, 18" depth under walkways.
- GUARANTEE:** All Material and labor used in construction of the irrigation system shall be fully guaranteed for one year beginning at the time of acceptance by the owner's representative.
- Size lateral pipe according to following:
 1-18 GPM 1"
 19-40 GPM 1.5"
 41-60 GPM 2"
- Install manual drain valves at all low points in mainline. Provide adequate number of drain valves to fully drain system for winterization.
- Adjust spray heads as necessary to minimize overspray. Radius reduction shall not be affect full and even water coverage.



IRRIGATION PLAN 'A'

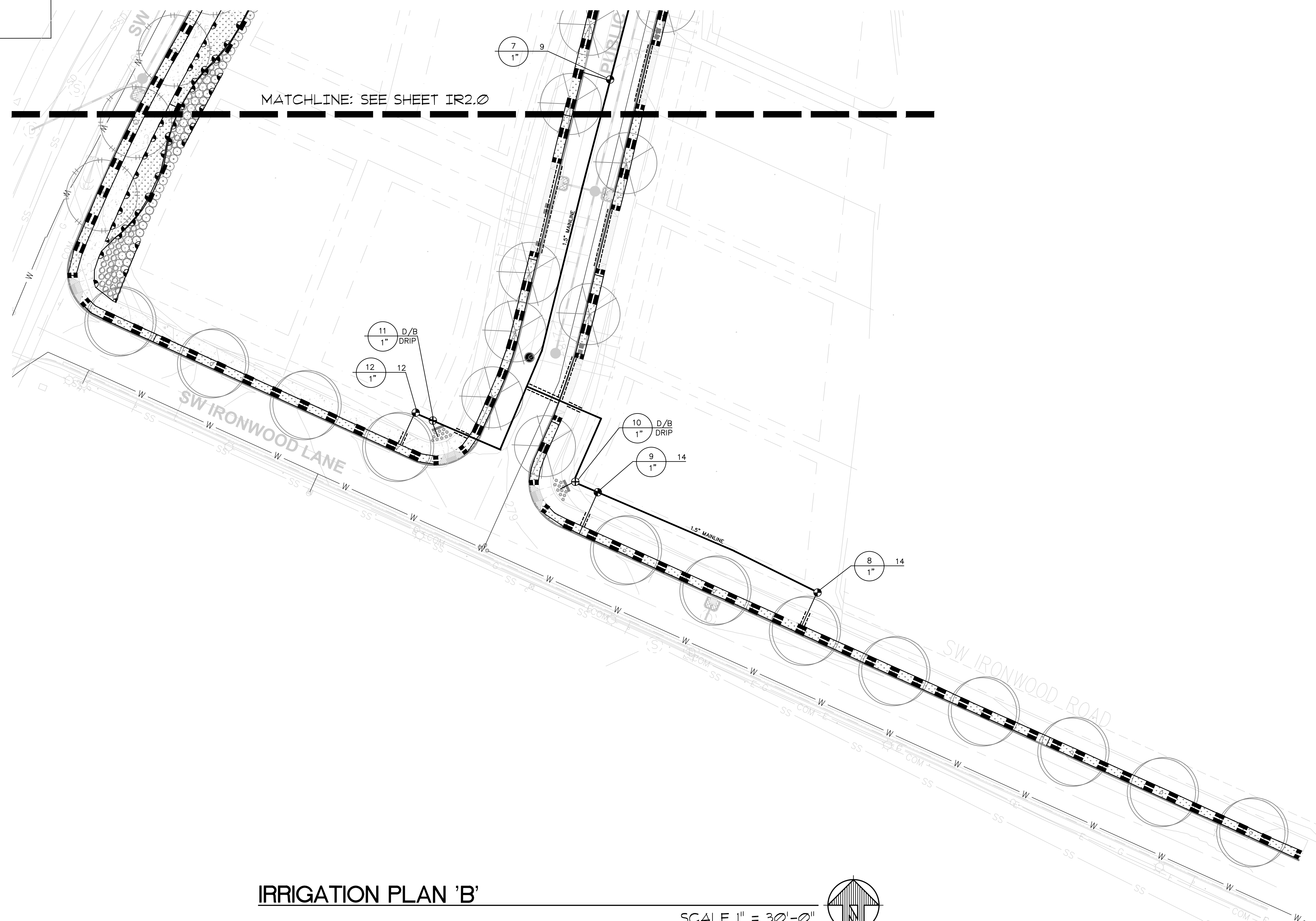
SCALE 1" = 30'-0"



<p>REGISTERED LA793 ERIN HOLSBACK OREGON S102013 EXP. 5/31/20 LANDSCAPE ARCHITECT</p>	<p>OTTEN & Associates Landscape Architecture, LLC 3933 SW Kelly Avenue, Suite B • Portland, Oregon 97239 Phone: (503) 972-0311 • www.ottenla.com</p>
<p>SW MURDOCK ROAD SUBDIVISION/PUD TAX MAP T2S RTW 33CB TAX LOT 00300 WASHINGTON COUNTY, OREGON</p>	<p>IRRIGATION PLAN</p>
<p>DATE 11-14-2019 SCALE AS NOTED DRAWN EH CHECKED EH SHEET NO</p>	
<p>IR1.0 1 OF 2</p>	

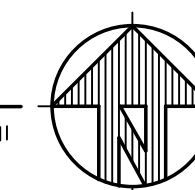
IRRIGATION SYMBOLS LEGEND:

SYMBOL	SPRAY IRRIGATION: MANUFACTURER/MODEL	PSI	GPM	DISTANCE
HUNTER PRO-SPRAY PRS40 POP-UP BODY: SPRAY HEAD POP-UP HEIGHT: SHRUBS 12", LAWN 6"				
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5/8" WATER METER				
DOUBLE CHECK BACKFLOW ASSEMBLY				
APPROXIMATE POINT OF CONNECTION, SEE DETAIL SHEET IR2.0				
HUNTER CONTROLLER ICC2 SERIES: VERIFY LOCATION & MOUNTING WITH OWNER				
HUNTER RAIN-CLIK SENSOR (OPTIONAL): VERIFY LOCATION WITH OWNER				
HUNTER ICV SERIES AUTOMATIC CONTROL VALVE - SIZE AS NOTED ON PLAN				
HUNTER PCV-101-40 DRIP CONTROL ZONE KIT				
QUICK COUPLING VALVE (INSTALL THROUGHOUT SITE, LOCATION AND QUANTITY DETERMINED IN FIELD BY OWNERS REP.)				
LATERAL, CLASS 200 PVC - SIZE AS INDICATED				
MAINLINE, CLASS 200 PVC - SIZE = 1.5"				
SLEEVE, SCHEDULE 40 PVC - SIZE: MAINLINE=3", LATERALS=TWICE THE SIZE OF THE PIPE				
CONTROLLER /STA. DESIGNATION				
GPM (APPROXIMATE) (D/B= DESIGN-BUILD)(TEMP= TEMPORARY IRRIGATION)				
VALVE SIZE				

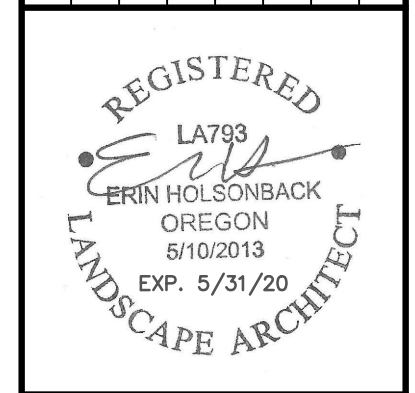


IRRIGATION PLAN 'B'

SCALE 1" = 30'-0"



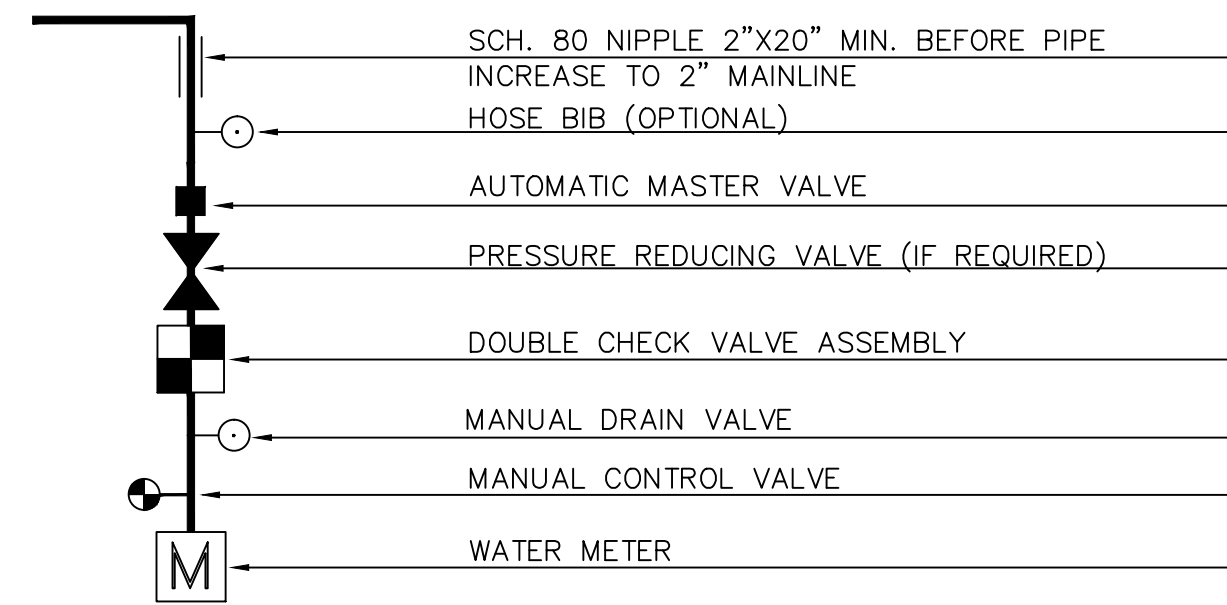
NO.	DATE	REVISIONS



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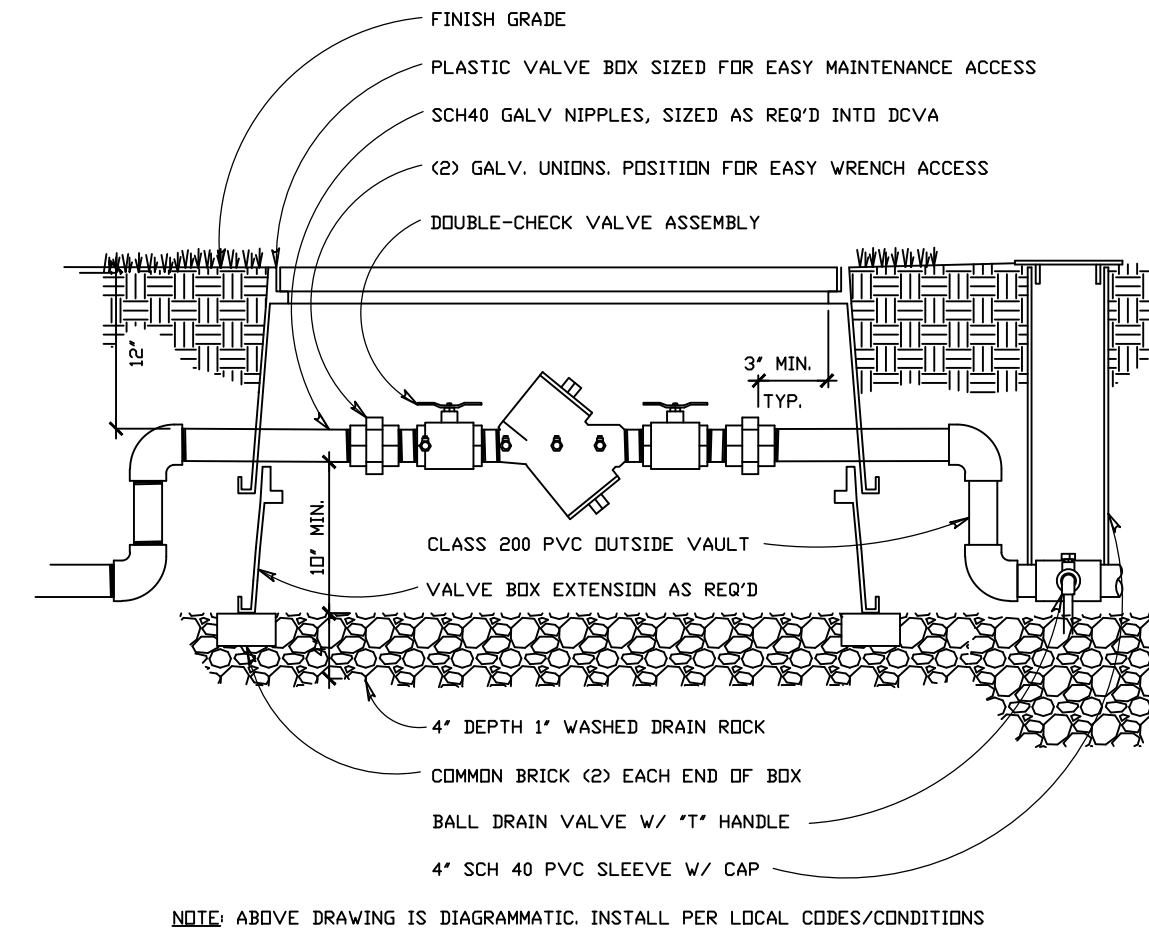
SW MURDOCK ROAD SUBDIVISION/PUD
 TAX MAP T2S R1W 33CB
 TAX LOT 00300
 WASHINGTON COUNTY, OREGON
 IRRIGATION PLAN

DATE	11-14-2019
SCALE	AS NOTED
DRAWN	CHECKED
EH	EH
SHEET NO	IR2.0
	2 OF 3



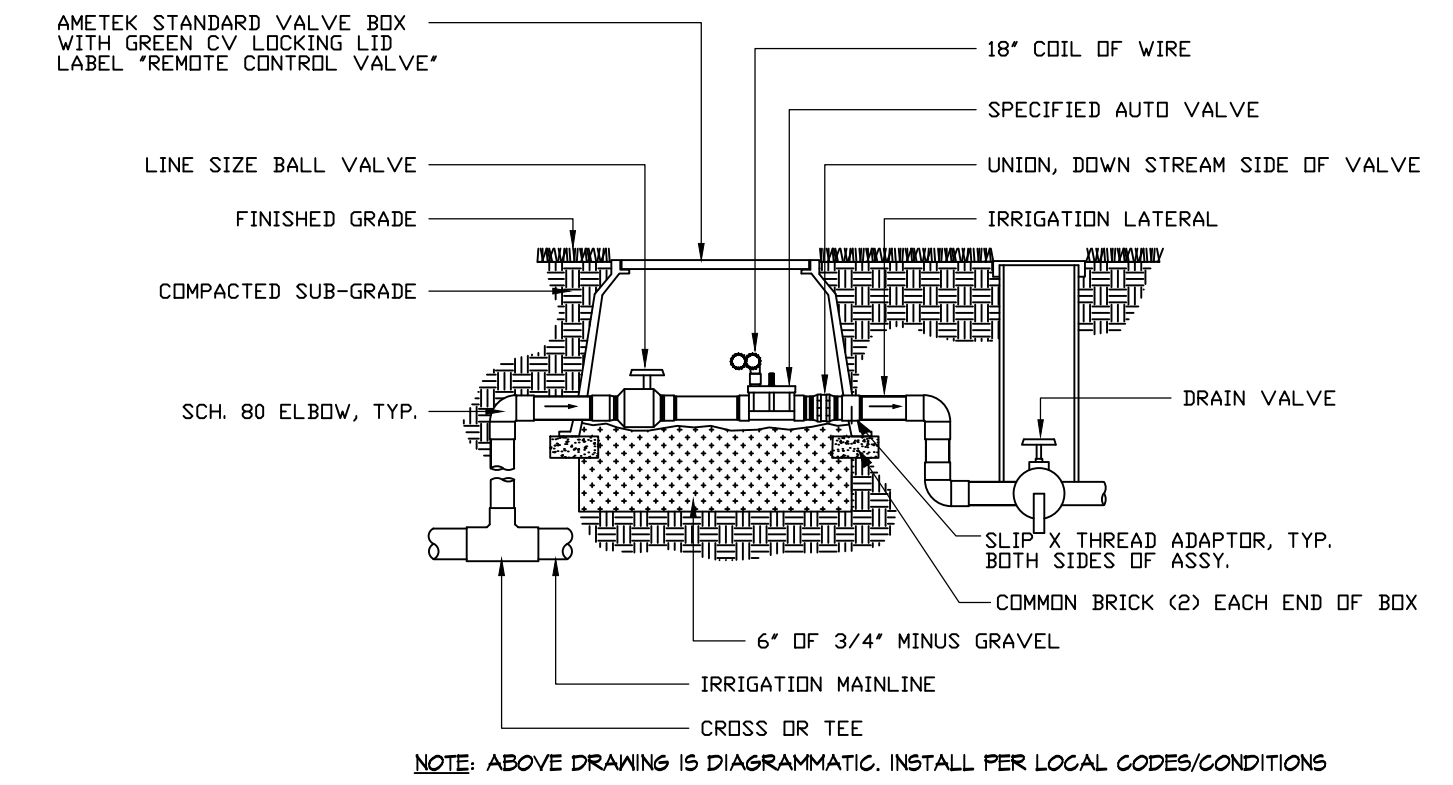
POINT OF CONNECTION DETAIL

NTS



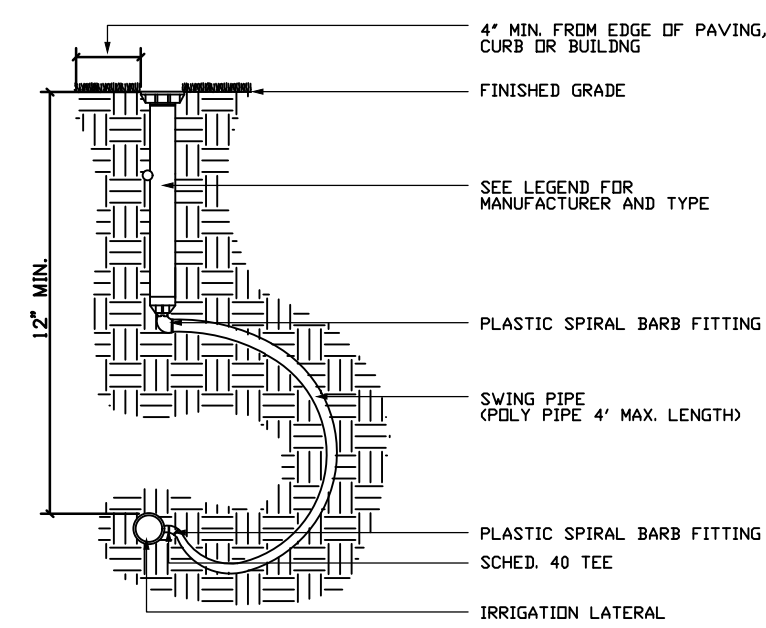
DOUBLE CHECK VALVE

NTS



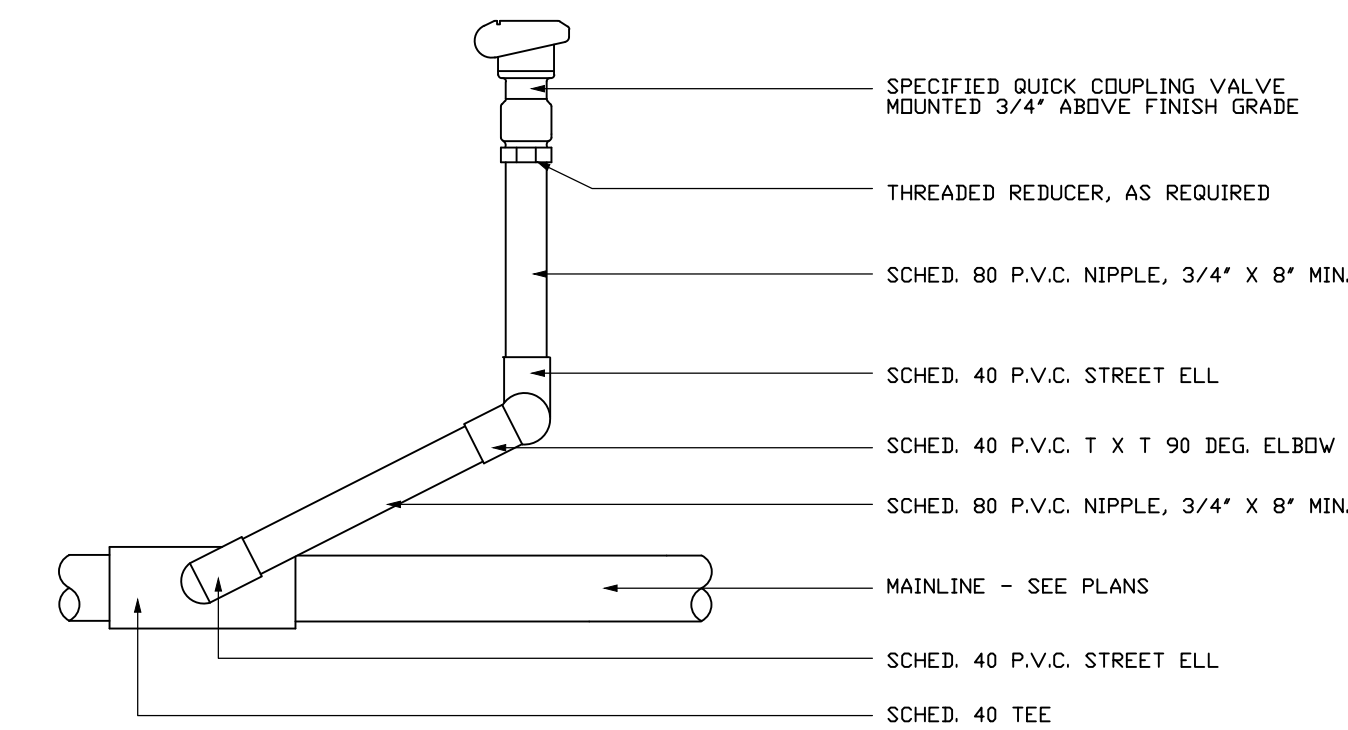
REMOTE CONTROL VALVE

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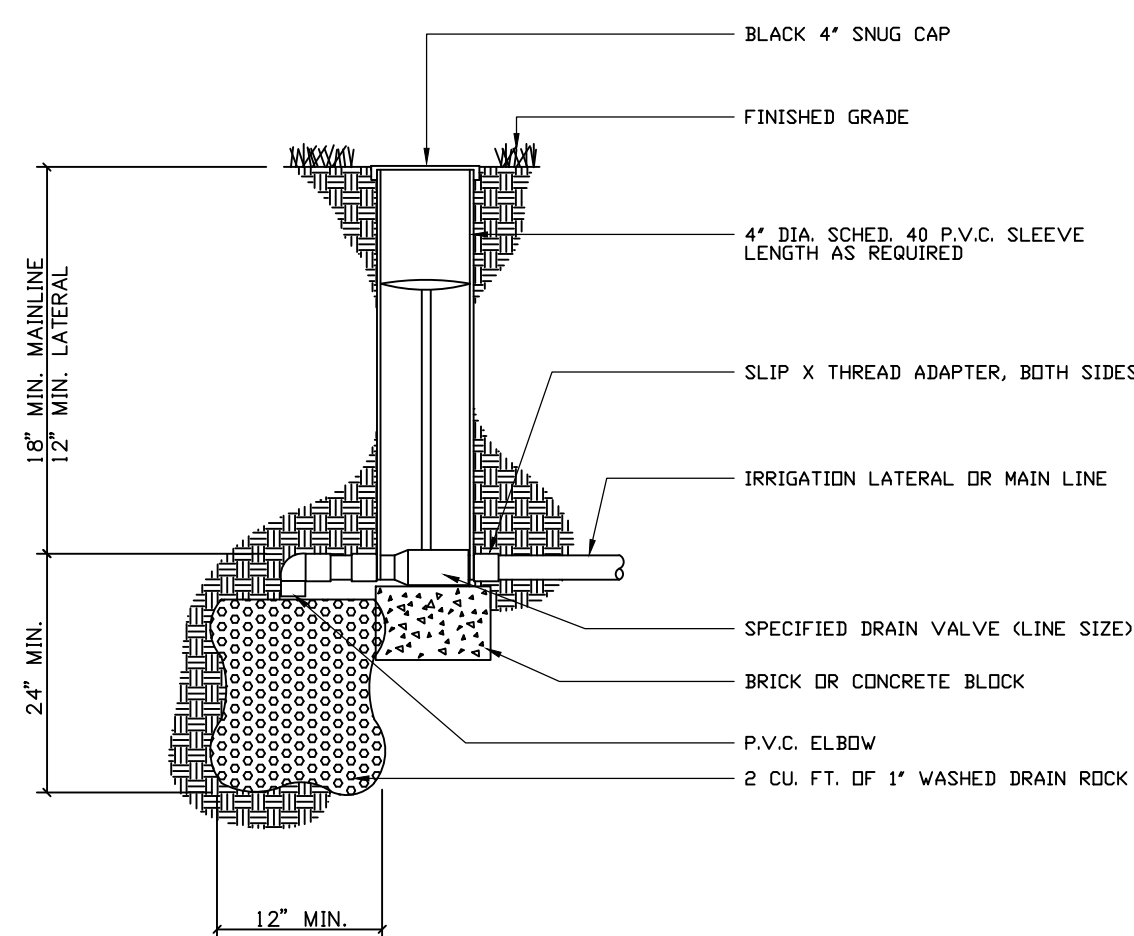
SPRINKLER HEAD W/ SWING PIPE

NTS



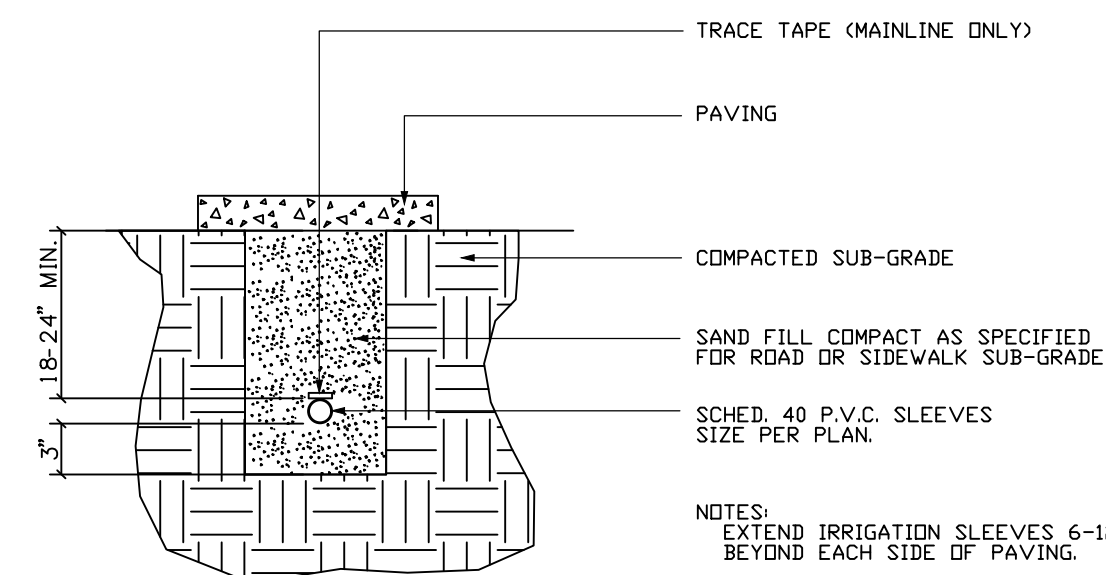
QUICK COUPLER

NTS



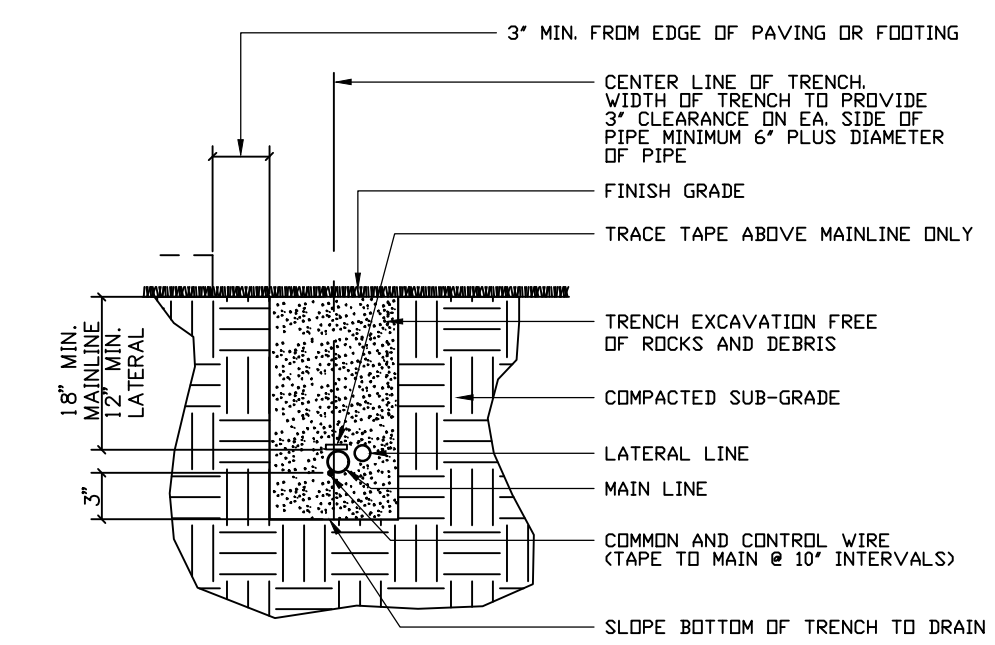
DRAIN VALVE

NTS



SLEEVES BENEATH PAVEMENT

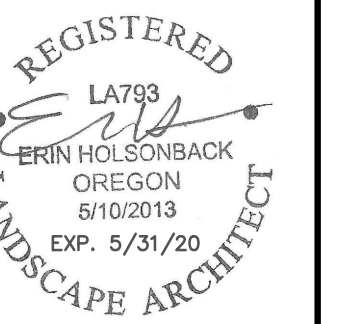
NTS



TRENCHING DETAIL

NTS

NO.	DATE	REVISIONS



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SW MURDOCK ROAD SUBDIVISION/PUD

TAX MAP T2S RTW 33CB
TAX LOT 00300
WASHINGTON COUNTY, OREGON

IRRIGATION PLAN

DATE	11-14-2019
SCALE	AS NOTED
DRAWN	CHECKED
EH	EH
SHEET NO	

IR3.0
3 OF 3