

RIVER'S EDGE AT THE LANDING SUBDIVISION

PRELIMINARY LAND USE PLANS

NW QTR, SECTION 14
TOWNSHIP T9N, RANGE R2W W.M.



VICINITY MAP
N.T.S.

PROJECT PARCEL #308640100
PER BLA #CR-BLA-24-01 (AFN
#3762029 AND AFN #3763318)

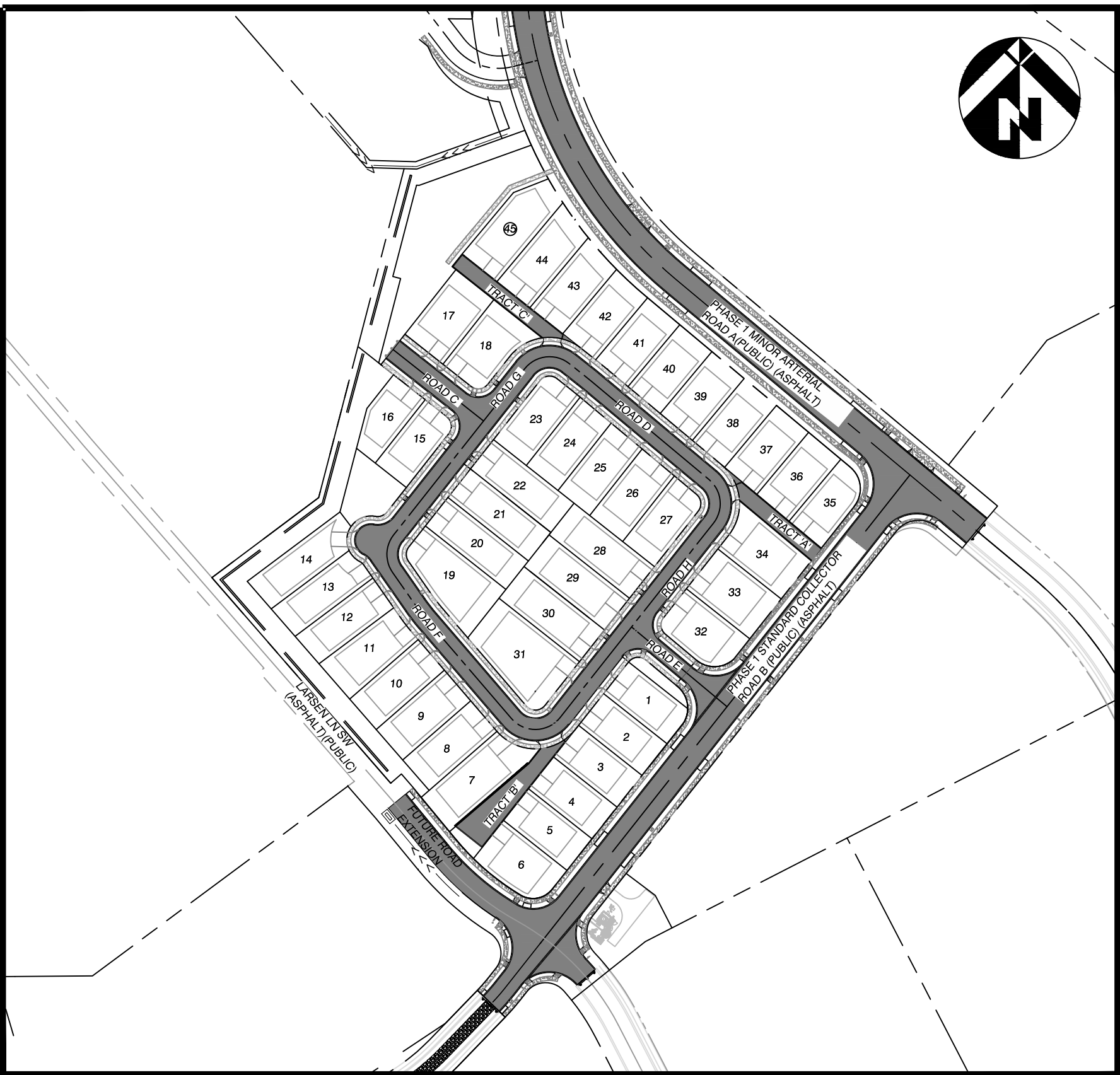
OWNER
CT6, LLC
SHANE TAPANI
PO BOX 1419
BATTLE GROUND, WA 98604
PHONE: 360-687-1148

CONTRACTOR
TAPANI, INC.
1705 SE 9TH AVE
BATTLE GROUND, WA 98604
JEROME SARKINEN
PHONE: 360-907-7615

ENGINEER
MacKay Sposito
18405 SE MILL PLAIN BLVD, SUITE 100
VANCOUVER, WA 98683
C (714)732-8563
O (360)823-1244
www.mackaysposito.com
ENGINEER: TAYLOR WILSON, PE
TWILSON@MACKAYSPOSITO.COM

VERTICAL DATUM
THE ELEVATIONS SHOWN ON THIS MAP ARE BASED ON AN
OPUS SOLUTION AT CP 1 WITH A DERIVED NAVD88
ORTHOMETRIC ELEVATION OF 46.26 FEET.

HORIZONTAL DATUM
WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH
ZONE (4602), NAD83(2011)(EPOCH: 2010.0000), US SURVEY
FOOT. DISTANCES SHOWN HEREON ARE GROUND
DISTANCES. TO CONVERT TO GRID MULTIPLY BY THE
COMBINED SCALE FACTOR OF 0.9999321353 ABOUT CP1



SITE MAP
1" = 150'

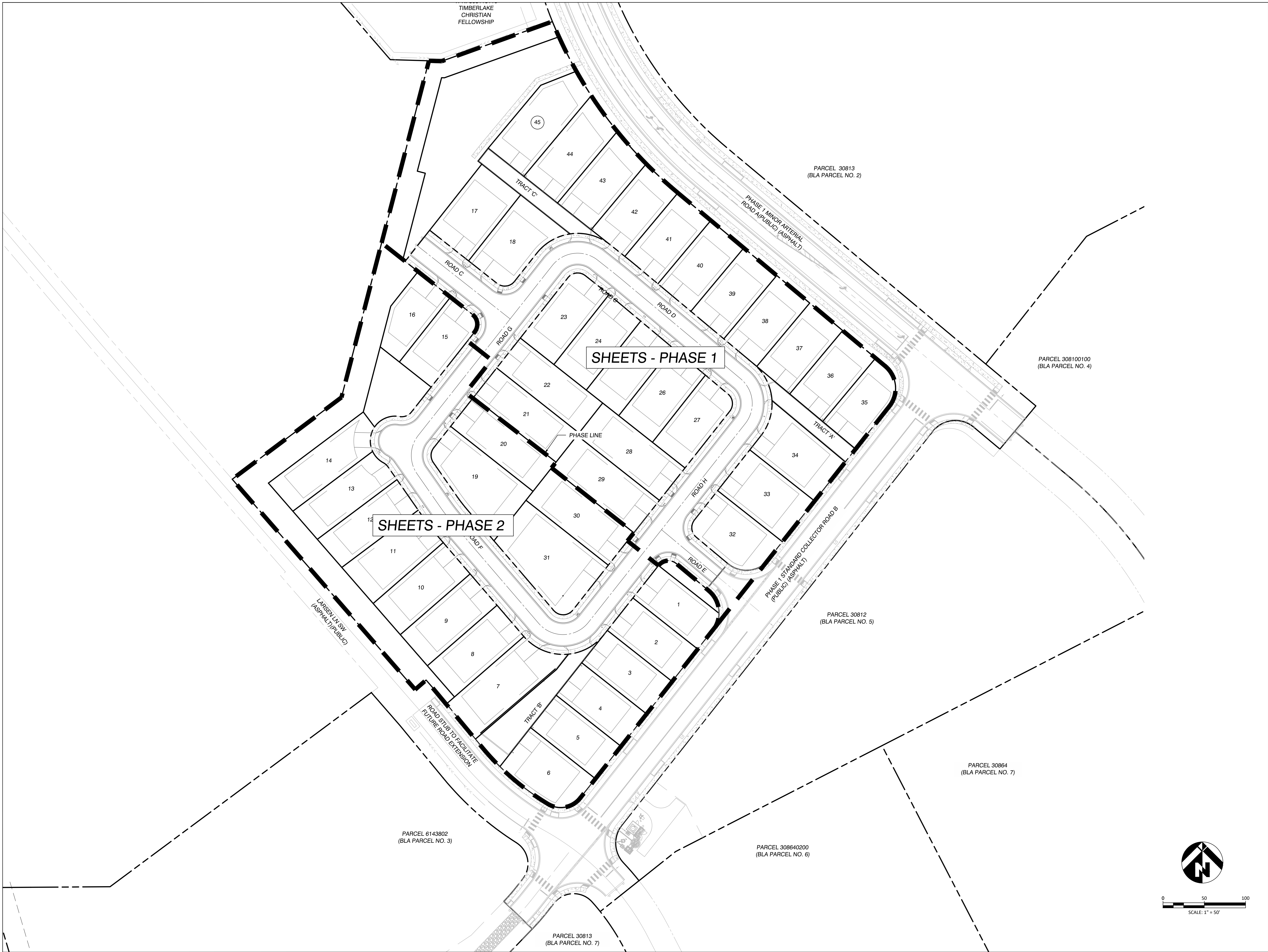
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LEGEND	
---	PERIMETER OF SITE
---	RIGHT-OF-WAY LINE
---	CENTERLINE OF ROAD
---	FACE OF CURB
---	LOT LINE
---	EASEMENT LINE
STM	STORM SEWER LINE
STM	EXIST STORM SEWER
SAN	SANITARY SEWER LINE
SAN	EXIST SANITARY SEWER
W	WATER SERVICE LINE
W	EXIST WATER LINE
123	GRADED CONTOUR LINE
123	EXIST CONTOUR LINE
MANHOLE	WATER SERVICE METER
WATER VALVE AND BOX	TELEPHONE RISER
FIRE HYDRANT ASSEMBLY	GAS RISER
CLEAN OUT	ELECTRIC RISER
CATCH BASIN	UTILITY POLE
THRUST BLOCK	UTILITY POLE W/ LIGHT
	SIGN POST

FILE: W\18591 LOTC Phase 1\500 Design\502 Drawings\Sheets\18591.01 - Phase 1 Subdivision\CO.3 SHEET INDEX PLAN.dwg PLOTSTYLE: Cover.stb



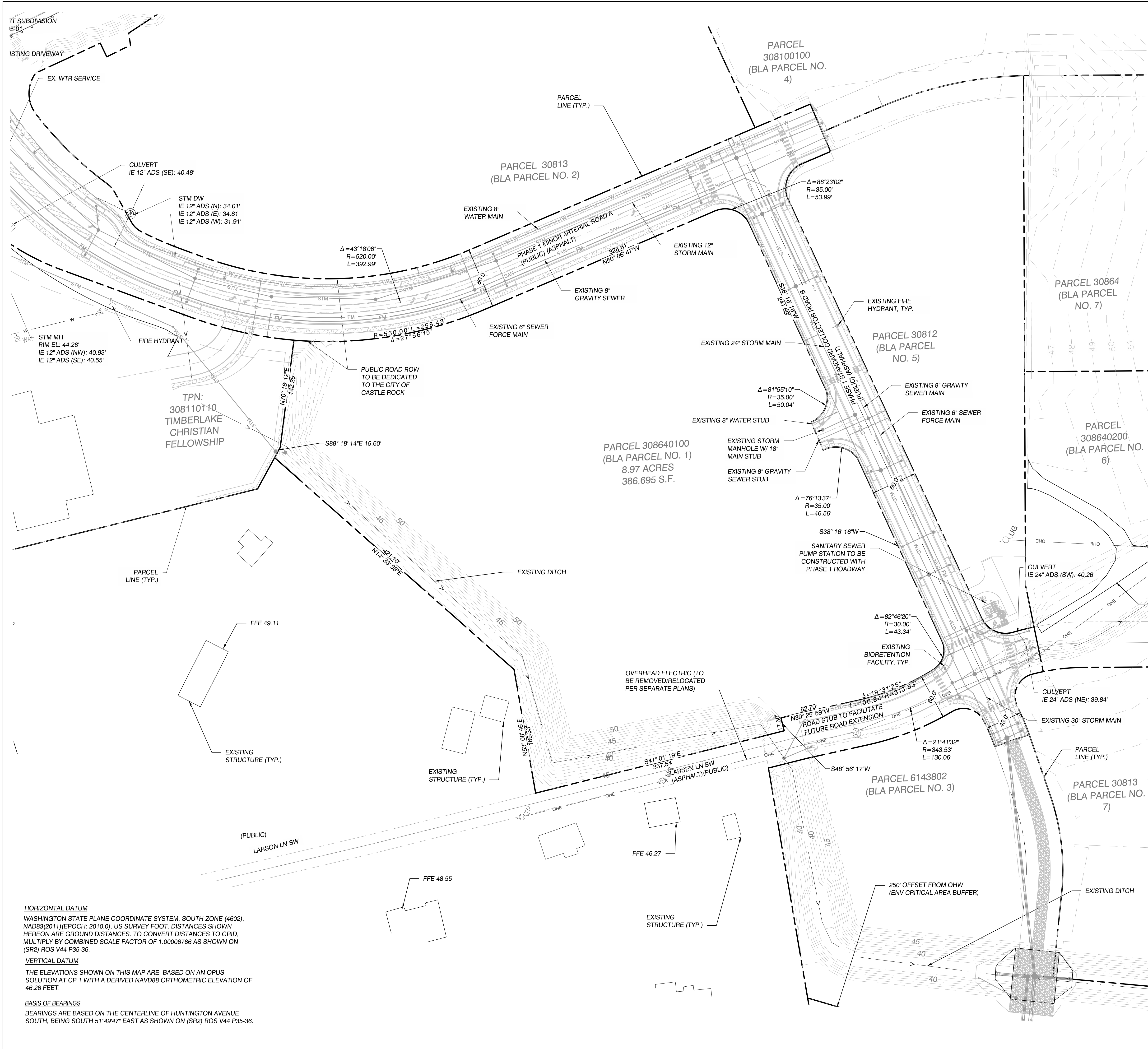
REVISIONS:

JOB NO.: 18591
DATE: 3/27/2025
SCALE: H: 1"= 50' V: N/A
DESIGNED BY: PJM
DRAWN BY: PJM
CHECKED BY: TAW

PRELIMINARY

C0.1

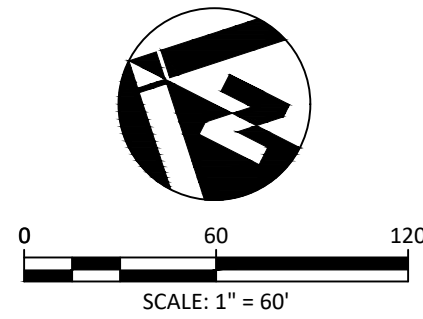
FILE: W:\18591 LOTC Phase 1\500 Design\502 Drawings\Sheets\18591.01 - Phase 1 Subdivision\CO-4 EXISTING CONDITIONS.dwg PLOTSTYLE: Cover.stb



HORIZONTAL DATUM
WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (4602), NAD83(2011)(EPOCH: 2010.0), US SURVEY FOOT. DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO CONVERT DISTANCES TO GRID, MULTIPLY BY COMBINED SCALE FACTOR OF 1.00006786 AS SHOWN ON (SR2) ROS V44 P35-36.

VERTICAL DATUM
THE ELEVATIONS SHOWN ON THIS MAP ARE BASED ON AN OPUS SOLUTION AT CP 1 WITH A DERIVED NAVD88 ORTHOMETRIC ELEVATION OF 46.26 FEET.

BASIS OF BEARINGS
BEARINGS ARE BASED ON THE CENTERLINE OF HUNTINGTON AVENUE SOUTH, BEING SOUTH 51°49'47" EAST AS SHOWN ON (SR2) ROS V44 P35-36.



SITE STATISTICS	
ZONING:	INDUSTRIAL
LANDING ON THE COWLITZ (LOT): MASTER PLAN DESIGNATION	RESIDENTIAL
APPLICABLE ZONING : DISTRICT STANDARDS	HIGH DENSITY RESIDENTIAL (R-2) (LANDING ON THE COWLITZ CONDITIONS OF MATER PLAN APPROVAL, ITEM 2.C.)
RECENT LAND USE DECISIONS : AFFECTING THE PROPERTY	LANDING ON THE COWLITZ MASTER PLAN
EXISTING USE OF PROPERTY:	VACANT AND UNDEVELOPED
SURROUNDING USES:	RESIDENTIAL (NORTH); CHURCH (NORTHEAST); DEPARTMENT OF NATURAL RESOURCES (SOUTHEAST)
CRITICAL AREA:	THE EXISTING SITE AT THE TIME OF PRELIMINARY SUBDIVISION APPLICATION IS LOCATED WITHIN THE FEMA 100-YEAR FLOODPLAIN. HOWEVER, THE SUBDIVISION HAS BEEN DESIGNED TO BE ABOVE THE BASE FLOOD ELEVATION (BFE) AT 50.8.

NOTES

- EXISTING CONDITIONS SHOWN IN THIS PLAN SHALL BE THE EXISTING CONDITIONS FOLLOWING THE CONSTRUCTION OF THE PHASE 1 ACCESS AND UTILITIES, AS WELL AS THE LOTC OUTFALL. THIS CONSTRUCTION WILL BE COMPLETED PRIOR TO THE CONSTRUCTION OF THE RIVER'S EDGE SUBDIVISION.
- REFER TO AFN 3762029 AND AFN 3763318 FOR FULL LEGAL DESCRIPTIONS OF THE EXISTING PARCELS REFERENCED IN THIS EXISTING CONDITIONS PLAN.
- PORTIONS OF THE SITE CURRENTLY LIE WITHIN THE FEMA 100-YEAR FLOOD PLAIN BUT BUILDING PADS WILL BE PROPOSED A MINIMUM OF 1' ABOVE THE BASE FLOOD ELEVATION OF 48 FEET.

SURVEY NOTE

THE BOUNDARY AND THE SUSEQUENT MATHEMATICAL SOLUTIONS USED IN THE ADJUSTED LEGAL DESCRIPTIONS HEREON ARE BASED ON BOUNDARY LINE ADJUSTMENT SURVEY RECORDED UNDER AUDITOR'S FILE NUMBER 3597924 IN CONJUNCTION WITH RECORD OF SURVEY BY MACKAY SPOSITO, RECORDED UNDER AUDITOR'S FILE NUMBER 3732400, 34620229, AND 3763318.

3/27/2025

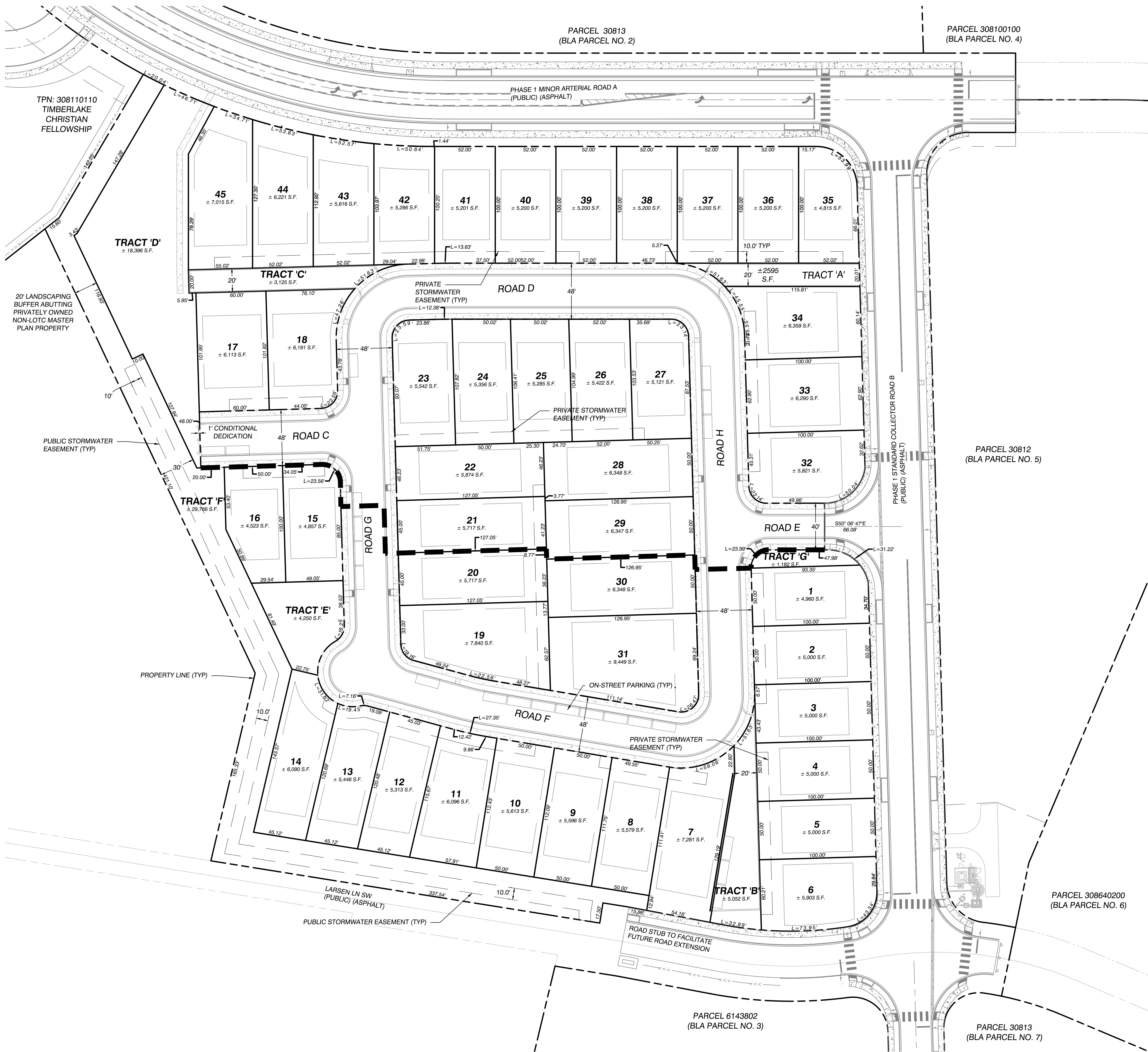
RIVER'S EDGE AT THE LANDING SUBDIVISION
CASTLE ROCK, WASHINGTON
EXISTING CONDITIONS

REVISIONS:

JOB NO.: 18591
DATE: 3/27/2025
SCALE: H: 1"= 60' V: N/A
DESIGNED BY: PJM
DRAWN BY: PJM
CHECKED BY: TAW

PRELIMINARY

C0.2



SITE STATISTICS	
APPLICABLE ZONING DISTRICT STANDARDS:	R-2
GROSS AREA:	±388,630 SF (±8.93 AC)
PARK/OPEN SPACE:	±48,162 SF (±1.11 AC)
NET AREA:	±340,468 SF (±7.82 AC)
TOTAL ROW DEDICATION:	±70,855 SF (±1.63 AC)
TOTAL PROPOSED LOTS:	45 LOTS
MINIMUM LOT AREA:	4,500 SF

DEVELOPMENT STANDARDS	
MINIMUM LOT SIZE:	3,500 SF
MINIMUM LOT WIDTH/DEPTH:	NONE PURSUANT TO LOTC CONDITION OF APPROVAL 5.A.

MINIMUM REQUIRED SETBACKS	
FRONT YARD/GARAGE:	20 FEET
SIDE YARD:	5 FEET
REAR YARD:	20 FEET

PARKING:	90 OFF-STREET PARKING SPACES (2 OFF-SITE PARKING SPACES PER DWELLING UNIT)
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PARK AREA:	7,830 SF (174 SF PER LOT)
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LANDSCAPING:	20-FOOT LANDSCAPE BUFFER ABUTTING PRIVATELY-OWNED PROPERTIES NOT INCLUDED IN THE LOTC MASTER PLAN
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PROPOSED IMPROVEMENTS	
LOT AREA:	4,500 SF MINIMUM
LOT WIDTH:	45 FEET MINIMUM
LOT DEPTH:	100 FEET MINIMUM

LOT SETBACKS	
FRONT YARD/GARAGE:	20 FEET
SIDE YARD:	5 FEET
REAR YARD:	20 FEET

LANDSCAPE BUFFER FOR LOTS ABUTTING PRIVATELY OWNED NON-LOTC MASTER PLAN PROPERTY:	20 FEET
---	---------

STORM EASEMENT FOR LOTS ABUTTING PRIVATELY OWNED NON-LOTC MASTER PLAN PROPERTY :	10 FEET
--	---------

PARKING :	EACH LOT HAS BEEN SIZED TO ACCOMMODATE 4 CARS (2 IN GARAGE AND 2 IN DRIVEWAY, EACH SIZED UP TO 9 FEET WIDE BY 19 FEET LONG)
	21 ON-STREET PARKING SPACES (SIZED UP TO 8 FEET WIDE BY 20 FEET LONG WITH A FOOT GAP BETWEEN EACH)

TRACT	PURPOSE	AREA
TRACT A	ACCESS ROAD	±2,595 SF
TRACT B	ACCESS ROAD	±5,052 SF
TRACT C	ACCESS ROAD	±3,125 SF
TRACT D	PARK/OPEN SPACE	±18,396 SF
TRACT E	OPEN SPACE	±4,250 SF
TRACT F	OPEN SPACE	±29,766 SF
TRACT G	MONUMENT SIGNAGE AREA	±1,182 SF

- NOTES:
- ALL PROPOSED STORMWATER EASEMENTS ARE TO BE DEDICATED TO THE CITY OF CASTLE ROCK
 - FOR PROPOSED ROAD SECTIONS, SEE SHEET C3.2.
 - ALL PUBLIC ROADS SHOWN ON THIS PLAN TO BE DEDICATED TO THE CITY OF CASTLE ROCK.
 - MAINTENANCE FOR ALL PRIVATE DRIVEWAY TRACTS ON THIS PLAN TO BE MAINTAINED BY AN HOA.

RIVER'S EDGE AT THE LANDING SUBDIVISION
CASTLE ROCK, WASHINGTON

PRELIMINARY PLAT

REVISIONS:

JOB NO.:	18591
DATE:	3/27/2025
SCALE: H: 1" = 40' V: N/A	
DESIGNED BY:	PJM
DRAWN BY:	PJM
CHECKED BY:	TAW

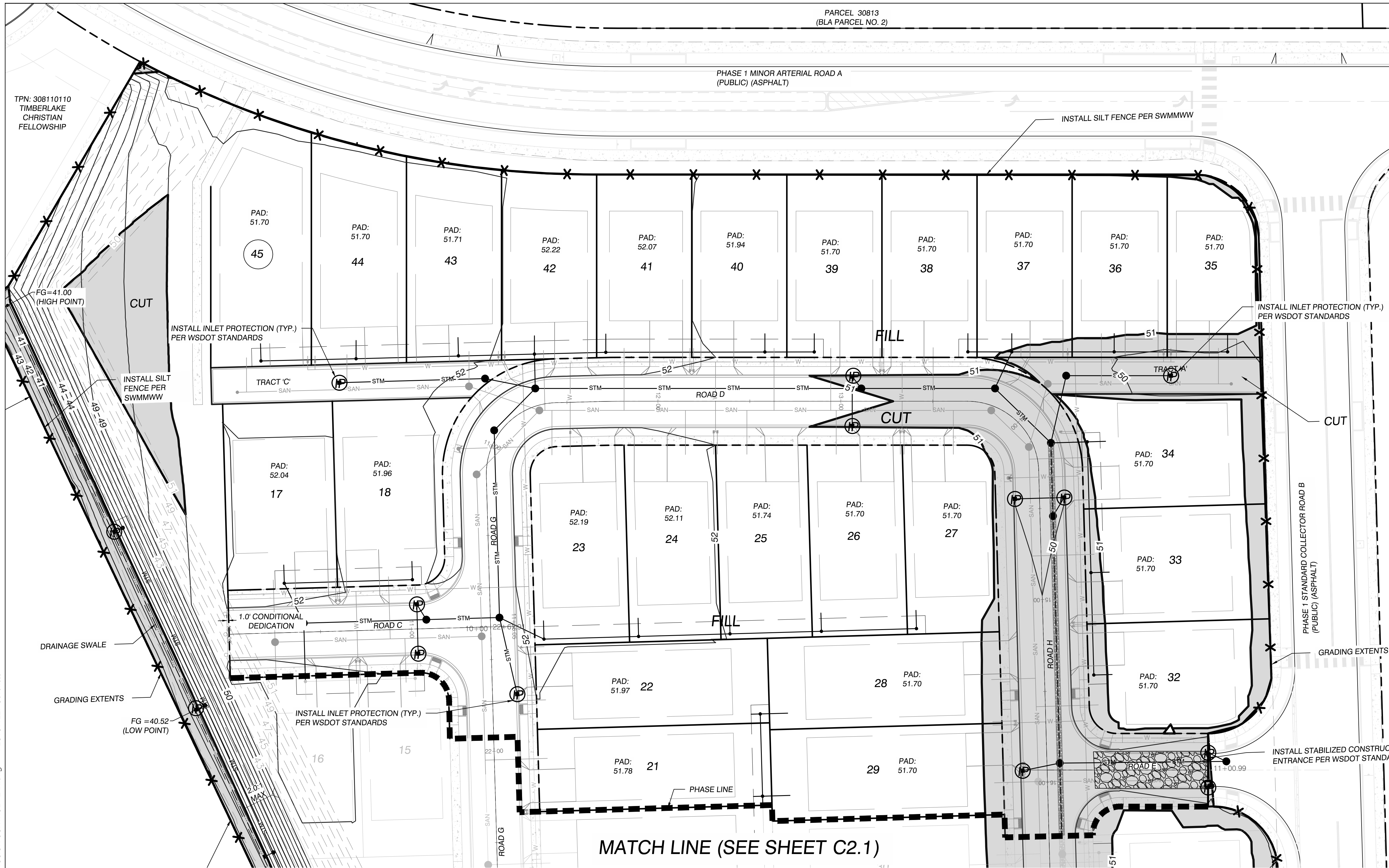
PRELIMINARY

C1.0



3/27/2025

FILE: W118591 LOTC Phase 1500 Design\502 Drawings\502 C2.0 GRADING AND EROSION CONTROL PLAN.dwg PLOT STYLE: Cover.stb



LEGEND

- 298 FINISHED GRADE CONTOUR
- 298 EXISTING CONTOUR
- DRAINAGE SWALE
- AREA OF CUT
- AREA OF FILL
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- HIGH VISIBILITY FENCE

NOTE: DUE TO THE LIMITED EROSION CONTROL STANDARDS AVAILABLE BY THE CITY OF CASTLE ROCK, ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL CONFORM WITH WSDOT STANDARDS. HOWEVER, CONTRACTOR MAY USE ALTERNATE DESIGNS IF THEY ARE APPROVED BY THE SITE INSPECTOR PRIOR TO INSTALLATION.

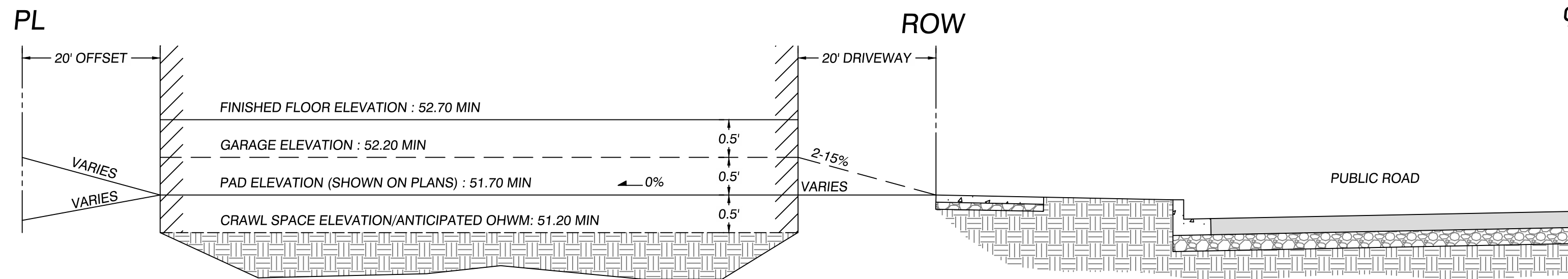
APPROXIMATE GRADING VOLUMES

CUT 2,000 CY

FILL 15,000 CY

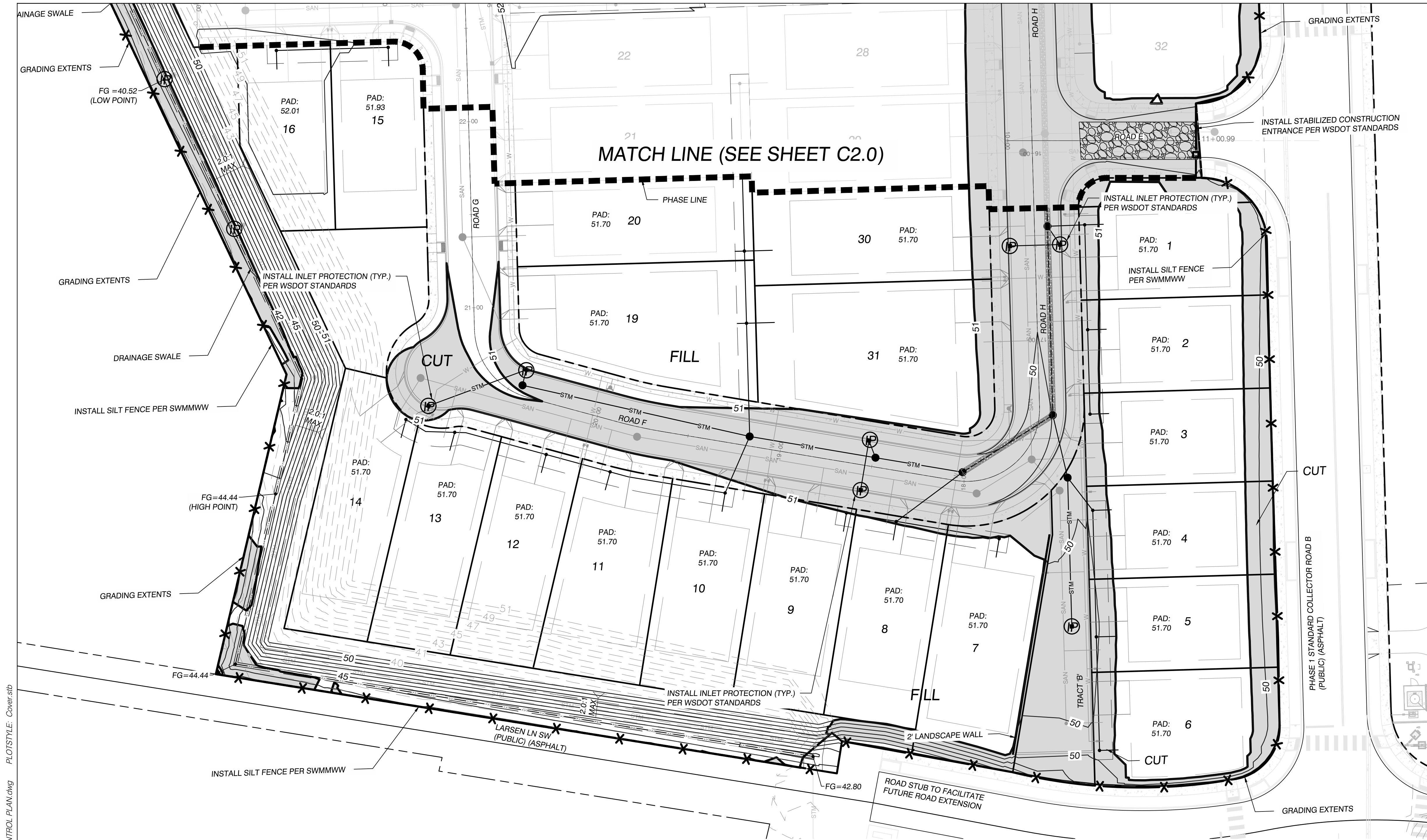
NOTE: CUT AND FILL AREAS AND VOLUMES ARE CALCULATED FROM EXISTING GROUND TO FINISHED GRADE AND ARE NOT ADJUSTED FOR STRIPPINGS, TRENCH EXCAVATION, STRUCTURAL EXCAVATION OR SHRINK/SWELL. CONTRACTORS ARE SOLELY RESPONSIBLE FOR QUANTITY ESTIMATES FOR BIDDING PURPOSES.

- ### CONSTRUCTION NOTES
- ALL EROSION CONTROL DEVICES PROPOSED SHALL CONFORM WITH WSDOT STANDARDS.
 - CONTRACTOR TO CONSTRUCT EQUIPMENT AND PARKING AREA AT A SUITABLE LOCATION PRIOR TO BEGINNING GRADING ACTIVITIES. LOCATION TO BE DETERMINED PRIOR TO THE PRE-CONSTRUCTION CONFERENCE.
 - IF TRACKING OF SEDIMENT FROM THE SITE BECOMES A PROBLEM, A WHEEL WASH SHALL BE INSTALLED AT THE SITE ENTRANCE.
 - STOCKPILE AREAS PLACED ONSITE SHALL BE COORDINATED BY THE CONTRACTOR AND SURROUNDED WITH SILT FENCE AND COVERED WITH PLASTIC AS NECESSARY DURING CONSTRUCTION. MATERIAL NOT STOCKPILED ONSITE SHALL BE REMOVED TO AN APPROPRIATE IMPORT SITE.
 - ANY SLOPE LESS THAN 3:1 TO BE STABILIZED WITH SEEDING AND MULCH/STRAW.
 - CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING BMP T5.13.
 - EROSION CONTROL INSPECTION REQUIRED BEFORE YOU BEGIN ANY SITEWORK
 - THE BASE FLOOD ELEVATION IS 48.0 AND MINIMUM PAD ELEVATION (AS SHOWN ON PLAN) IS 51.70.



TYPICAL LOT SECTION

FILE: W116591 LOTC Phase 1500 Design\502 Drawings\502 Drawings\502 0 GRADING AND EROSION CONTROL PLAN.dwg PLOT STYLE: Cover.stb



0 30 60
SCALE: 1" = 30'

LEGEND

- 298 — FINISHED GRADE CONTOUR
- - - 298 - - - EXISTING CONTOUR
- >>> - >>> DRAINAGE SWALE
- AREA OF CUT
- AREA OF FILL
- IP INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- X SILT FENCE
- High Visibility Fence

NOTE: DUE TO THE LIMITED EROSION CONTROL STANDARDS AVAILABLE BY THE CITY OF CASTLE ROCK, ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL CONFORM WITH WSDOT STANDARDS. HOWEVER, CONTRACTOR MAY USE ALTERNATE DESIGNS IF THEY ARE APPROVED BY THE SITE INSPECTOR PRIOR TO INSTALLATION.

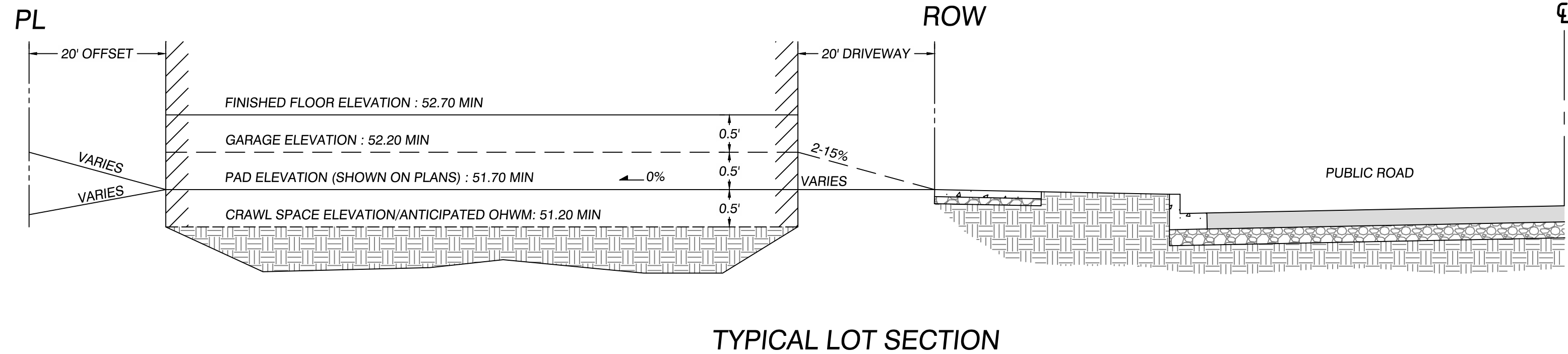
APPROXIMATE GRADING VOLUMES

CUT 2,000 CY

FILL 15,000 CY

NOTE: CUT AND FILL AREAS AND VOLUMES ARE CALCULATED FROM EXISTING GROUND TO FINISHED GRADE AND ARE NOT ADJUSTED FOR STRIPPINGS, TRENCH EXCAVATION, STRUCTURAL EXCAVATION OR SHRINK/SWELL. CONTRACTORS ARE SOLELY RESPONSIBLE FOR QUANTITY ESTIMATES FOR BIDDING PURPOSES.

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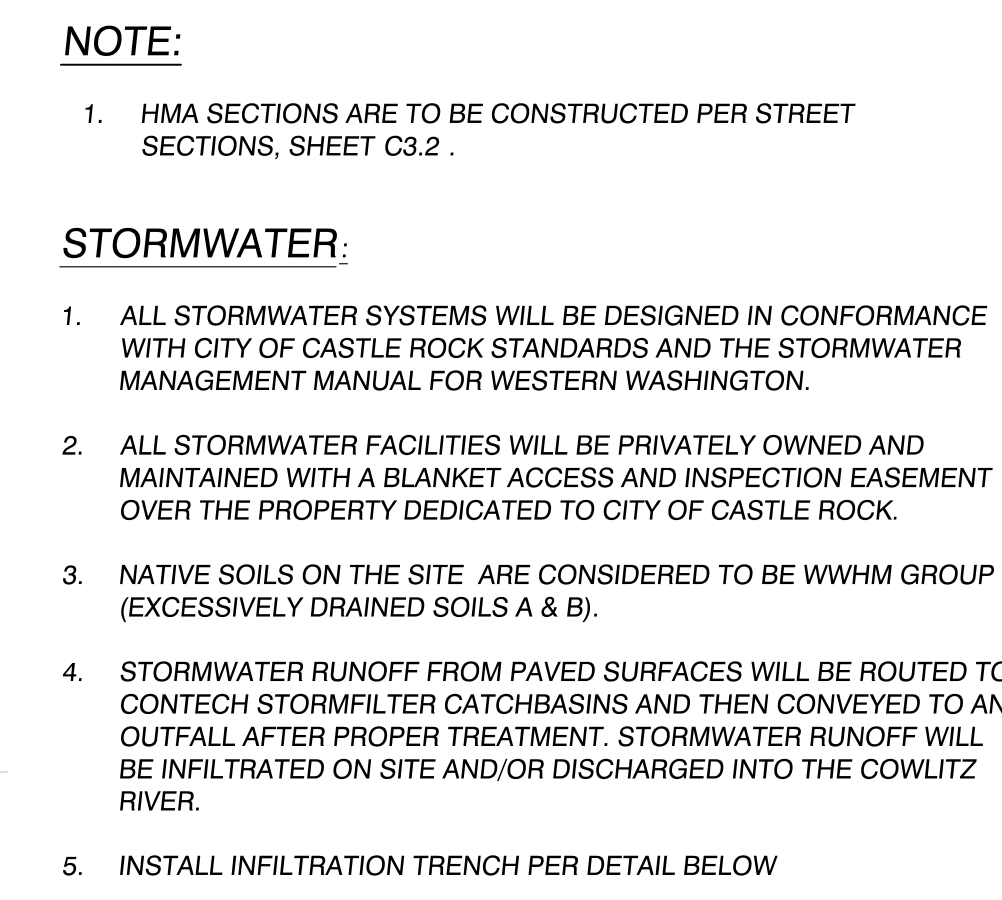


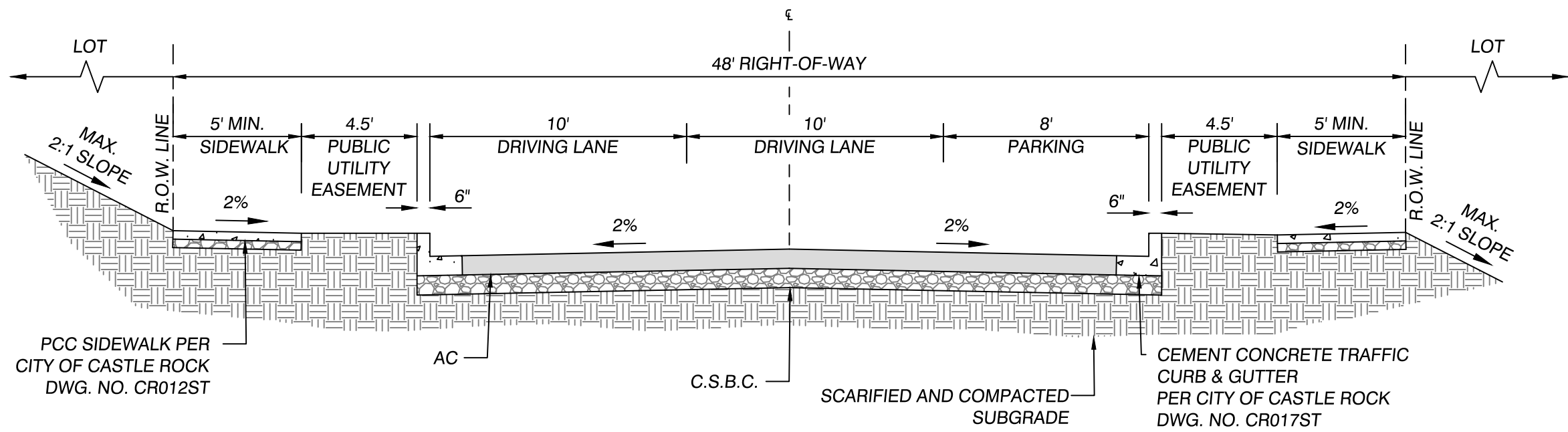
Diagram illustrating the construction of a 48-inch square manhole opening. The opening is defined by a 48" square area. The construction layers are:

- RESTORE SURFACE TO EXISTING CONDITION OR BETTER**: The top layer of the opening.
- NATIVE BACKFILL COMPACTED AT 95% MAX. DRY DENSITY PER ASTM D1557**: The layer below the surface restoration.
- FINISH GRADE**: The top surface of the backfill.

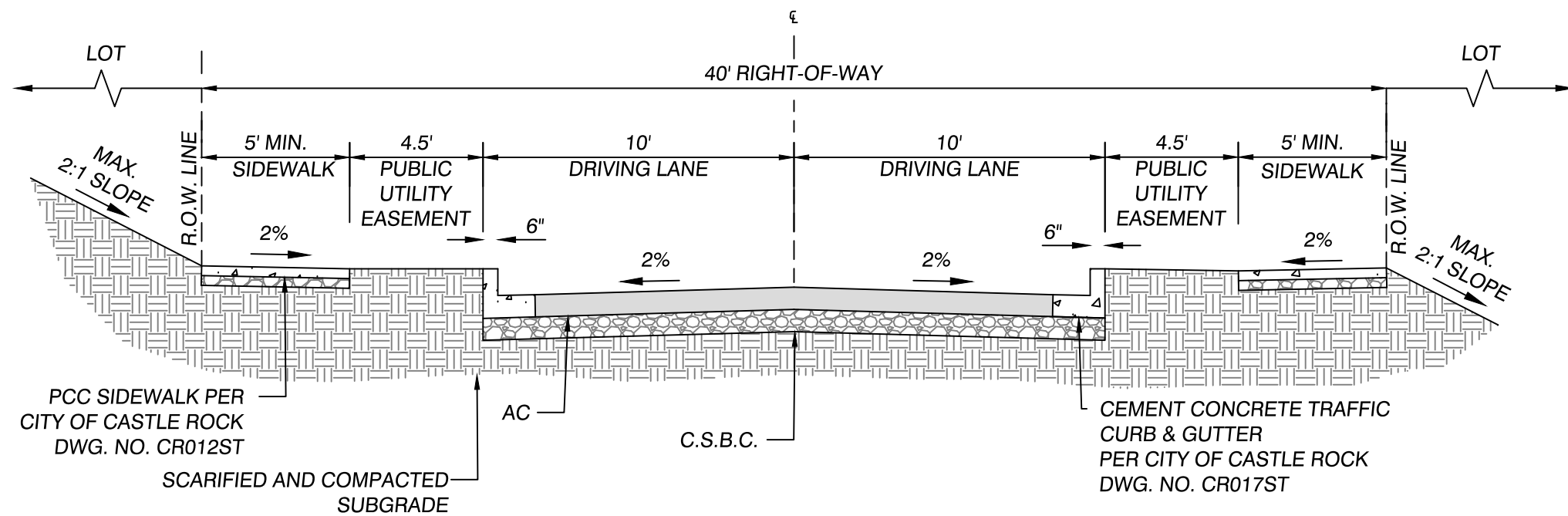
The depth of the backfill is indicated as **DEPTH PER PLAN**. The minimum depth of the opening is **6" MIN.** and the minimum depth of the backfill is **12" MIN.**. The opening is shown with a circular manhole cover and a 12" MIN. diameter. The opening is also shown with a 12" MIN. diameter.

INFILTRATION TRENCH SECTION
NO SCALE

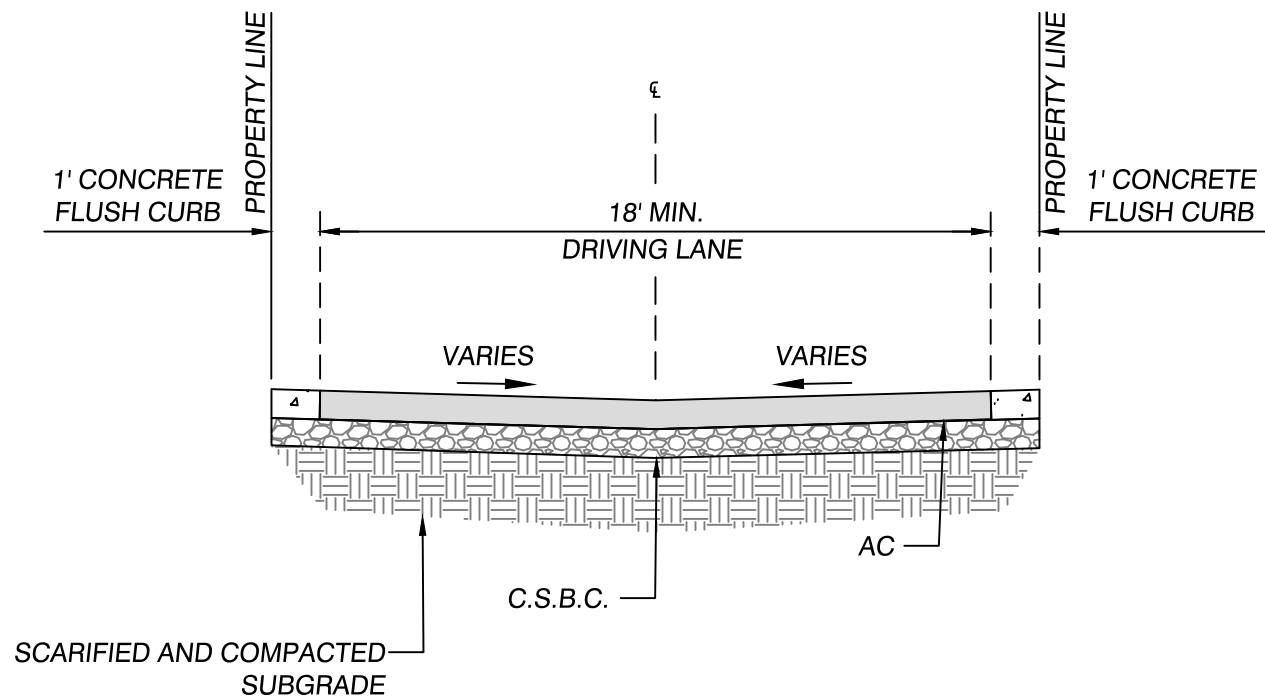
FILE: W\18591 LOTC Phase 1\500 Design\502 Drawings\Sheets\18591.01 - Phase 1 Subdivision\C3.2 STREET SECTIONS.dwg PLOTSTYLE: Cover.sbt



SECTION A-A - RESIDENTIAL LOCAL ACCESS ROADWAY SECTION



SECTION B-B - SUBDIVISION ENTRANCE ROADWAY SECTION



SECTION C-C - PRIVATE TRACT SECTION

AC PAVEMENT SECTIONS

	RESIDENTIAL LOCAL ACCESS	PRIVATE TRACTS
AC THICKNESS	3"	3"
# OF AC LIFTS	1	1
CRUSHED SURFACING BASE COURSE DEPTH	9"	6"
SUBGRADE DEPTH	12"	12"

NOTE:

PAVEMENT SECTIONS SHOWN ARE PRELIMINARY RECOMMENDATIONS AS PROVIDED BY COLUMBIA WEST ENGINEERING DURING MASTER PLANNING PROCESS AND ARE BASED ON THE PROJECT GEOTECHNICAL REPORT, DATED MARCH 30, 2023. FINAL PAVEMENT SECTIONS FOR PUBLIC AND PRIVATE ROADWAYS WITHIN LOTC SHALL BE DESIGNED AND APPROVED BY A LICENSED PROFESSIONAL GEOTECHNICAL ENGINEER PRIOR TO FINAL PERMIT APPROVAL.

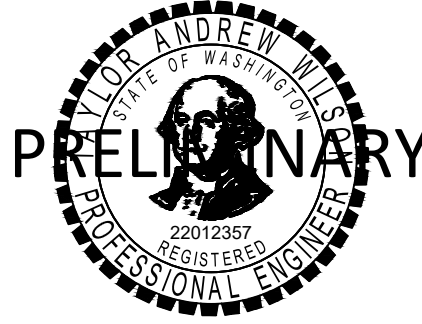
RIVER'S EDGE AT THE LANDING SUBDIVISION
CASTLE ROCK, WASHINGTON
STREET SECTIONS

REVISIONS:

JOB NO.: 18591
DATE: 3/27/2025
SCALE: H: 1" = 5' V: N/A
DESIGNED BY: PJM
DRAWN BY: PJM
CHECKED BY: TAW

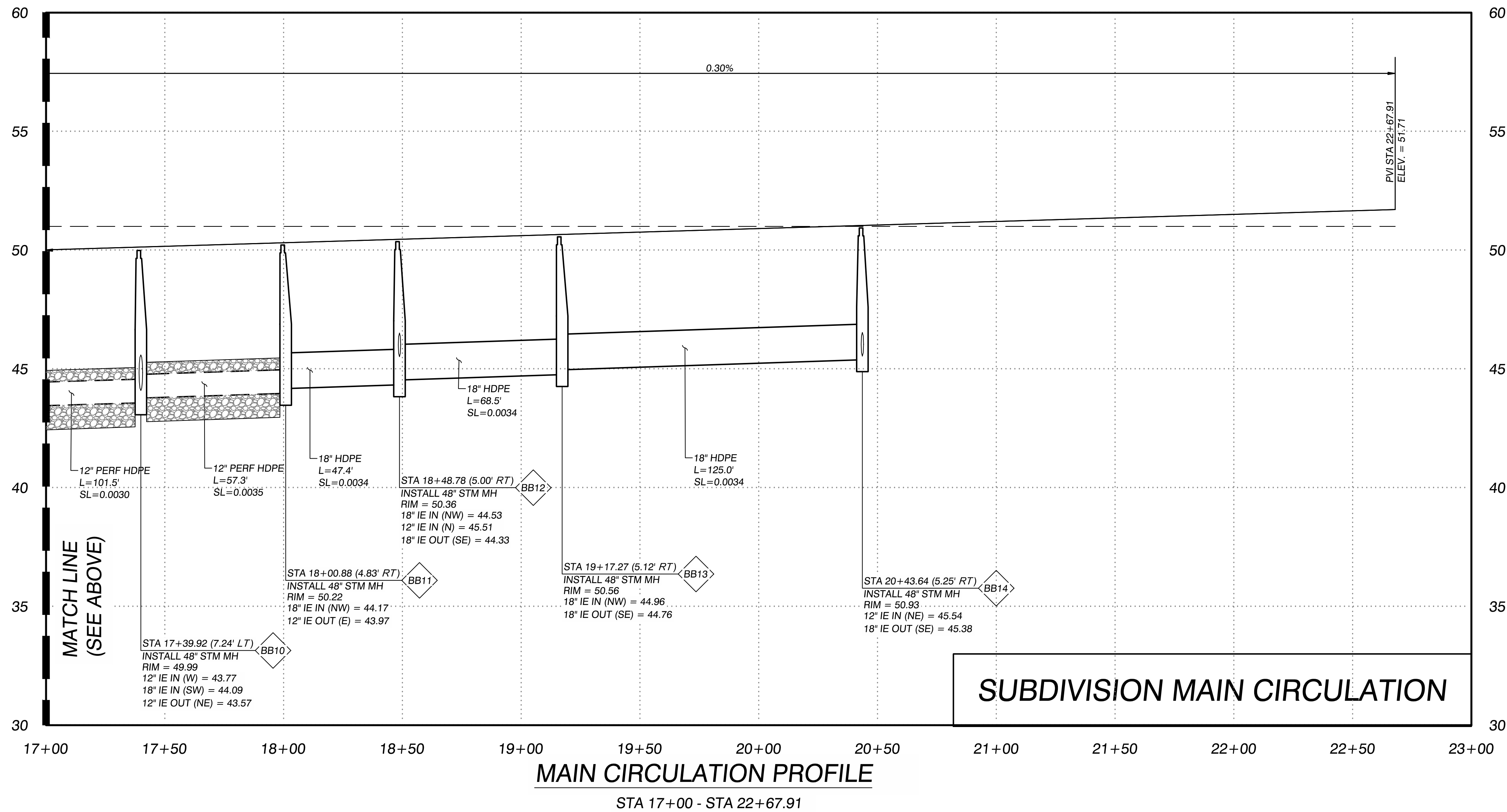
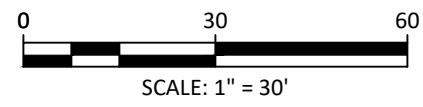
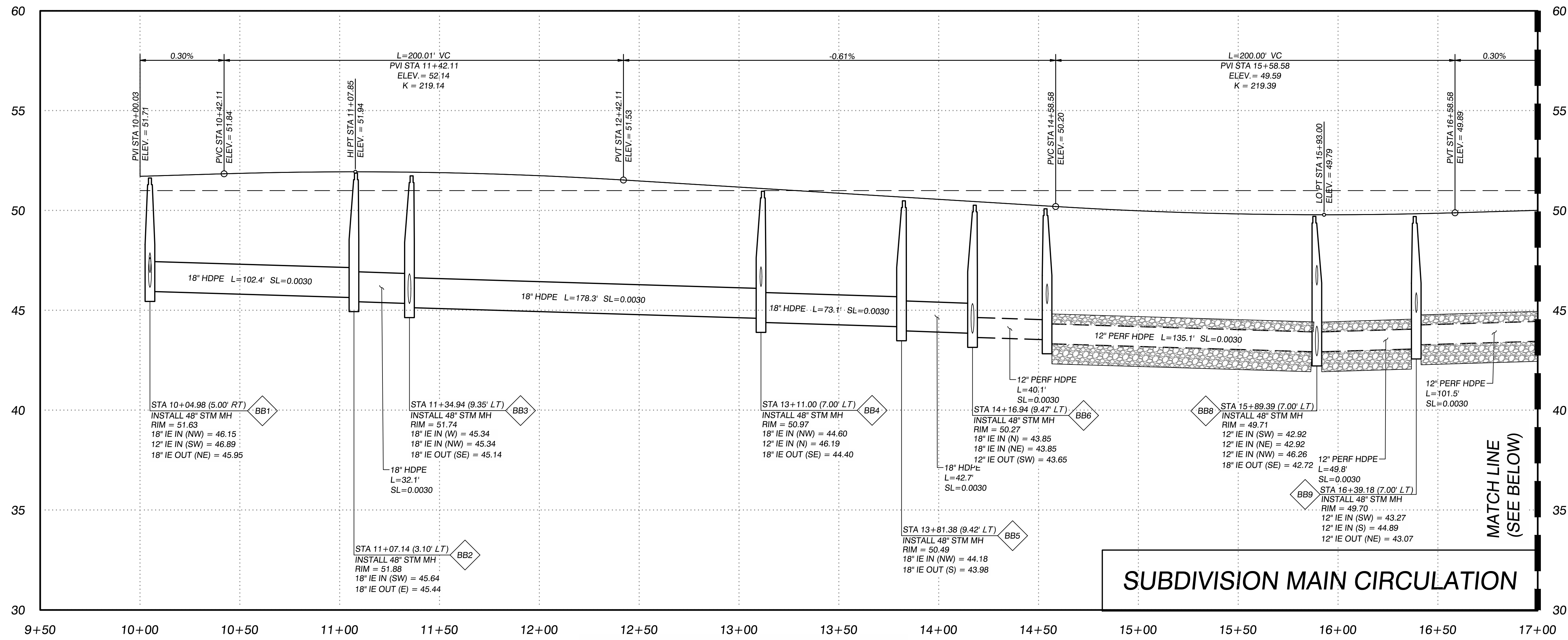
PRELIMINARY

C3.2



3/27/2025

FILE: W\18591 LOTC Phase 1\500 Design\502 Drawings\Sheets\18591.01 - Phase 1 Subdivision\C3.3 ROAD PROFILES.dwg PLOTSTYLE: Cover.stb



RIVER'S EDGE AT THE LANDING SUBDIVISION
CASTLE ROCK, WASHINGTON

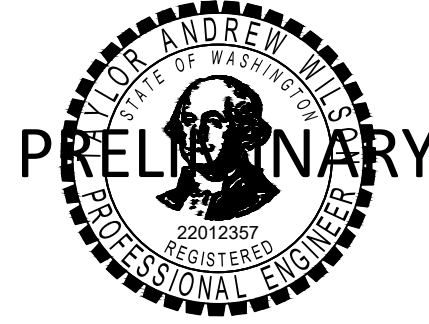
MAIN CIRCULATION STREET AND STORM PROFILE

REVISIONS:

JOB NO.: 18591
DATE: 3/27/2025
SCALE: H: 1" = 30' V: 5:1
DESIGNED BY: PJM
DRAWN BY: PJM
CHECKED BY: TAW

PRELIMINARY

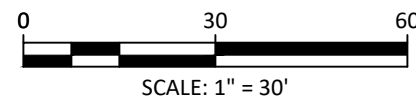
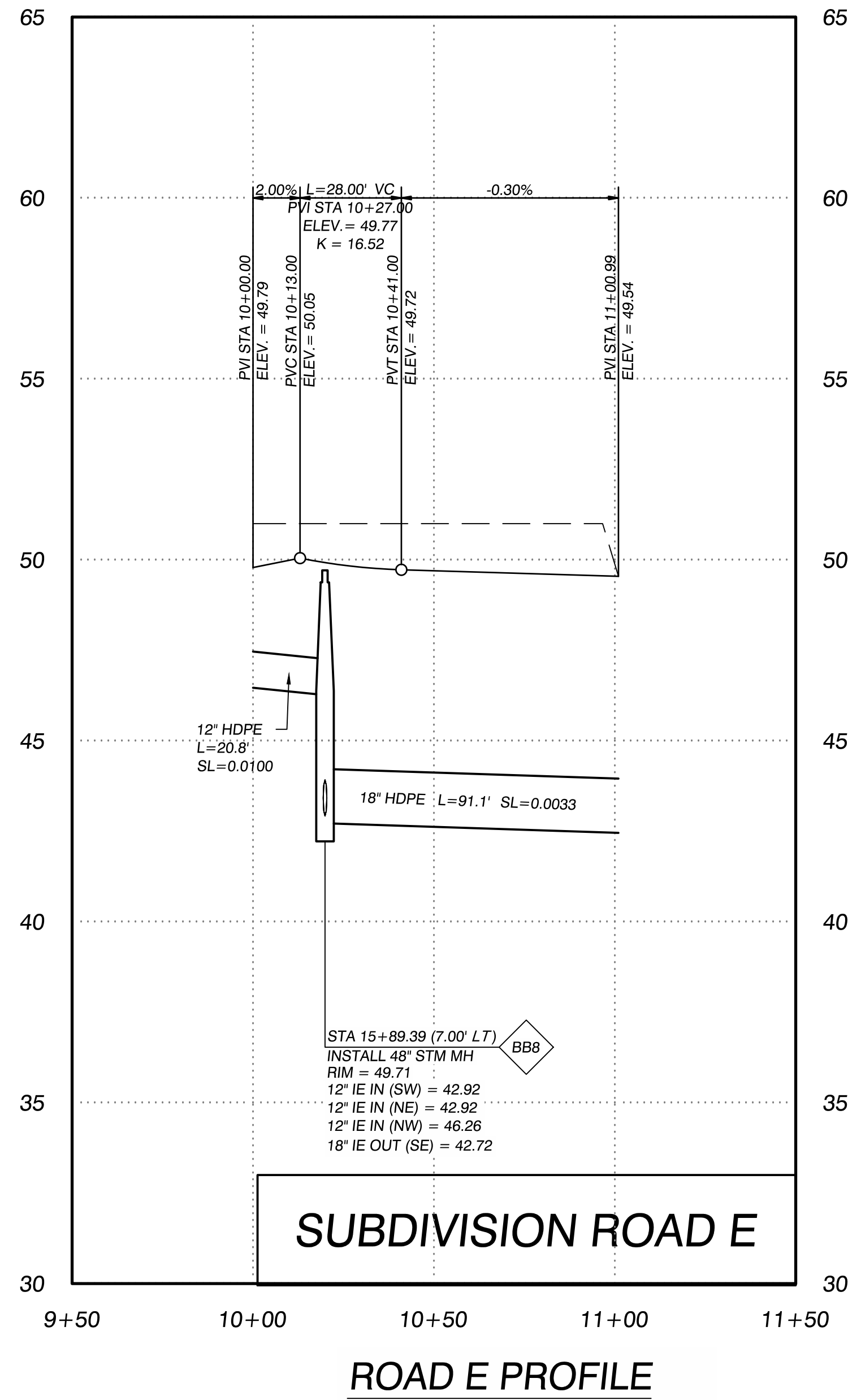
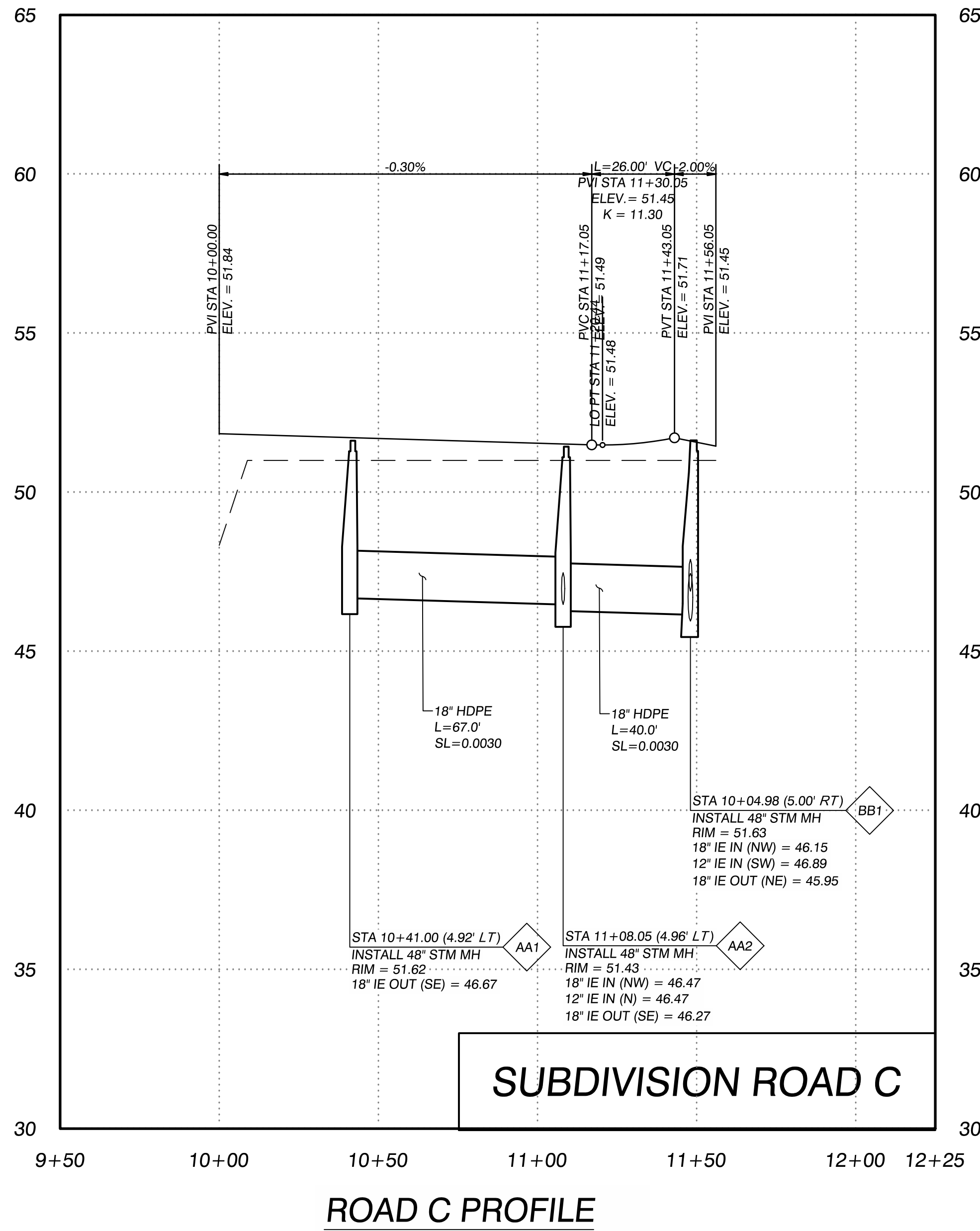
C3.3



3/27/2025

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RIVER'S EDGE AT THE LANDING SUBDIVISION
CASTLE ROCK, WASHINGTON

ROAD C AND ROAD E STREET AND STORM PROFILES

REVISIONS:

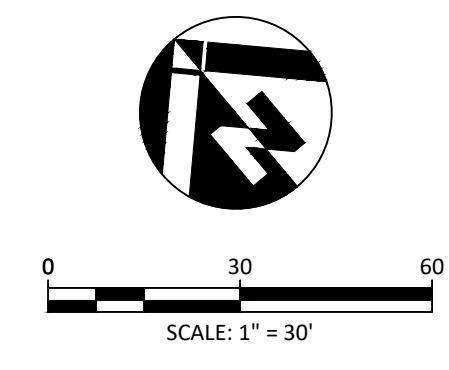
JOB NO.: 18591
DATE: 3/27/2025
SCALE: H: 1" = 30' V: 5:1
DESIGNED BY: PJM
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CHECKED BY: TAW

PRELIMINARY

C3.4



3/27/2025



CR004W	FIRE HYDRANT
CR012W	CONNECTION TO EXISTING MAIN
CR019W	TRENCH - PAVEMENT RESTORATION

CR001SS	TYPE 1 MANHOLE
CR003SS	MANHOLE COLLAR
CR006SS	CLEANOUT
CR008SS	SEWER AIR RELEASE ASSEMBLY

1. PROPOSED SANITARY FORCE MAIN SHALL BE GREEN COLORED AS REQUIRED BY CITY OF CASTLE ROCK.
2. ALL UTILITIES WILL CONFORM WITH CITY OF CASTLE ROCK AND WSDOT STANDARDS.
3. SEE SHEET C6.4 FOR SANITARY SEWER EXHIBIT OF THE FULL LOTC DEVELOPMENT. PROPOSED SANITARY SEWER DEPTH IS CONTROLLED BY THE ULTIMATE LAYOUT.

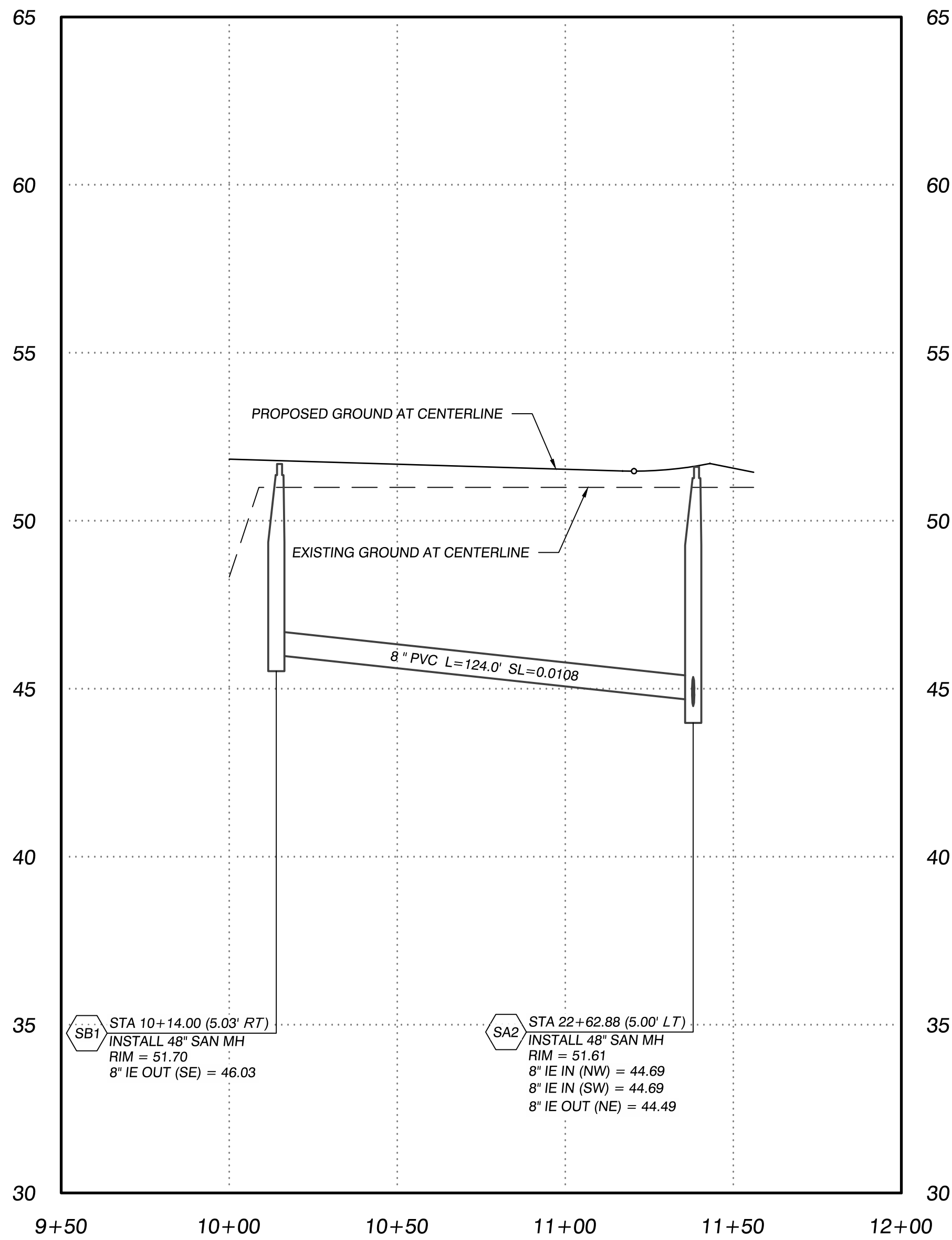
FILE: W:\18591 LOTC Phase 1\500 Design\502 Drawings\Sheets\18591.01 - Phase 1 Subdivision\C4.0 SEWER AND WATER PLAN.dwg PLOTSTYLE: Cover.stb

RIVER'S EDGE AT THE LANDING SUBDIVISION CASTLE ROCK, WASHINGTON SEWER AND WATER PLAN (PHASE 2)

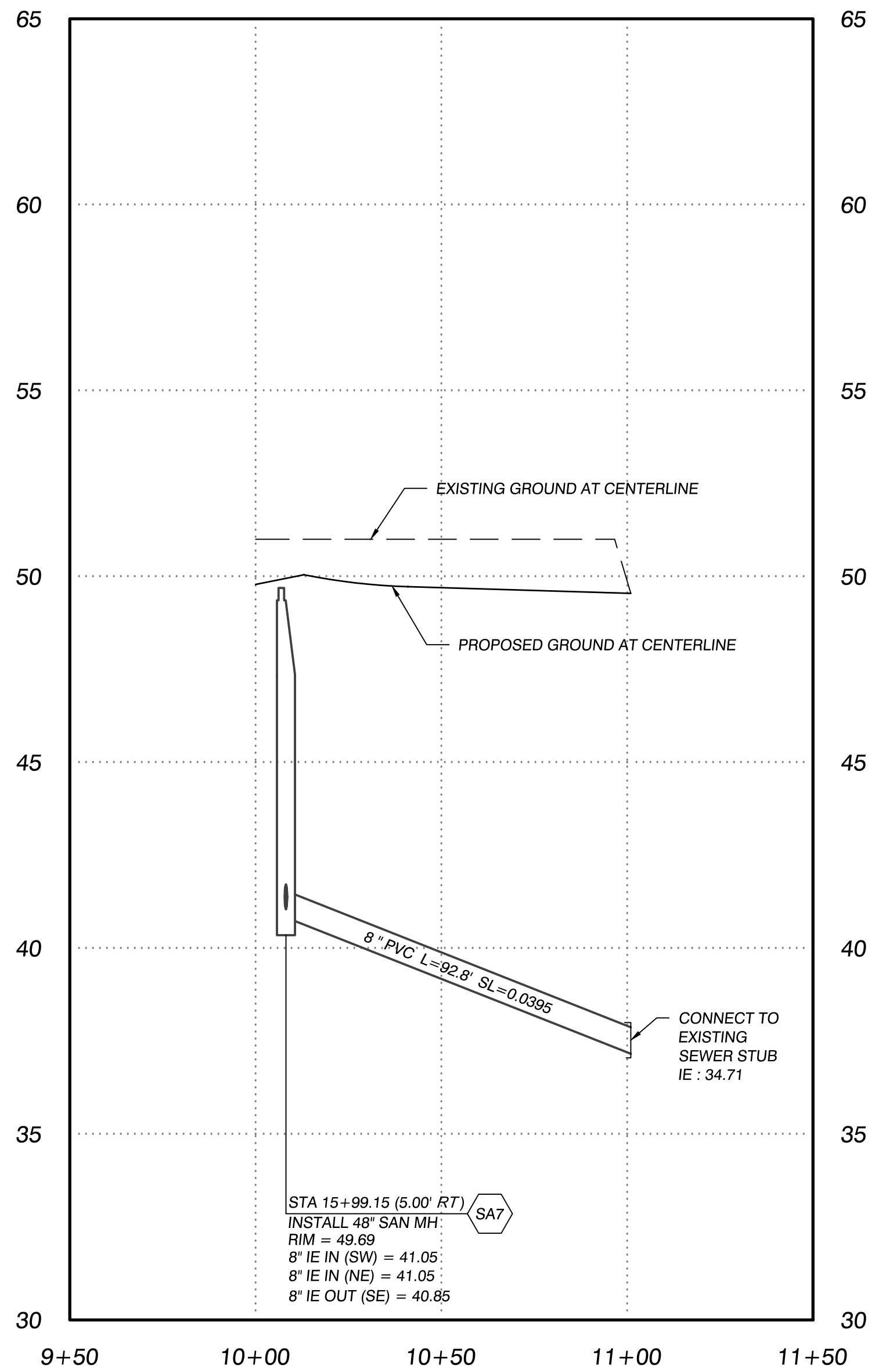
OB NO.:	18591
DATE:	3/27/2025
SCALE: H: 1" = 30'	V: N/A
DESIGNED BY:	PJM
DRAWN BY:	PJM
CHECKED BY:	TAW

C4.1

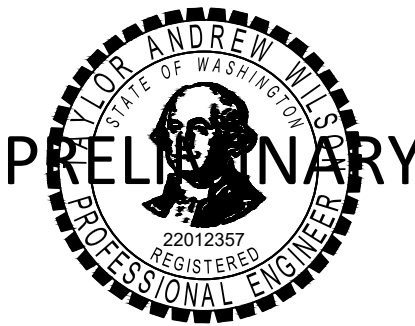
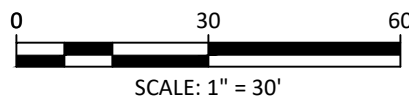
FILE: W\18591 LOTC Phase 1\500 Design\502 Drawings\Sheets\18591.01 - Phase 1 Subdivision\C4.2 SEWER AND WATER PROFILES.dwg PLOTSTYLE: Cover.sbt



ROAD C PROFILE



ROAD E PROFILE



3/27/2025

RIVER'S EDGE AT THE LANDING SUBDIVISION
CASTLE ROCK, WASHINGTON

ROAD C AND ROAD E SEWER PROFILES

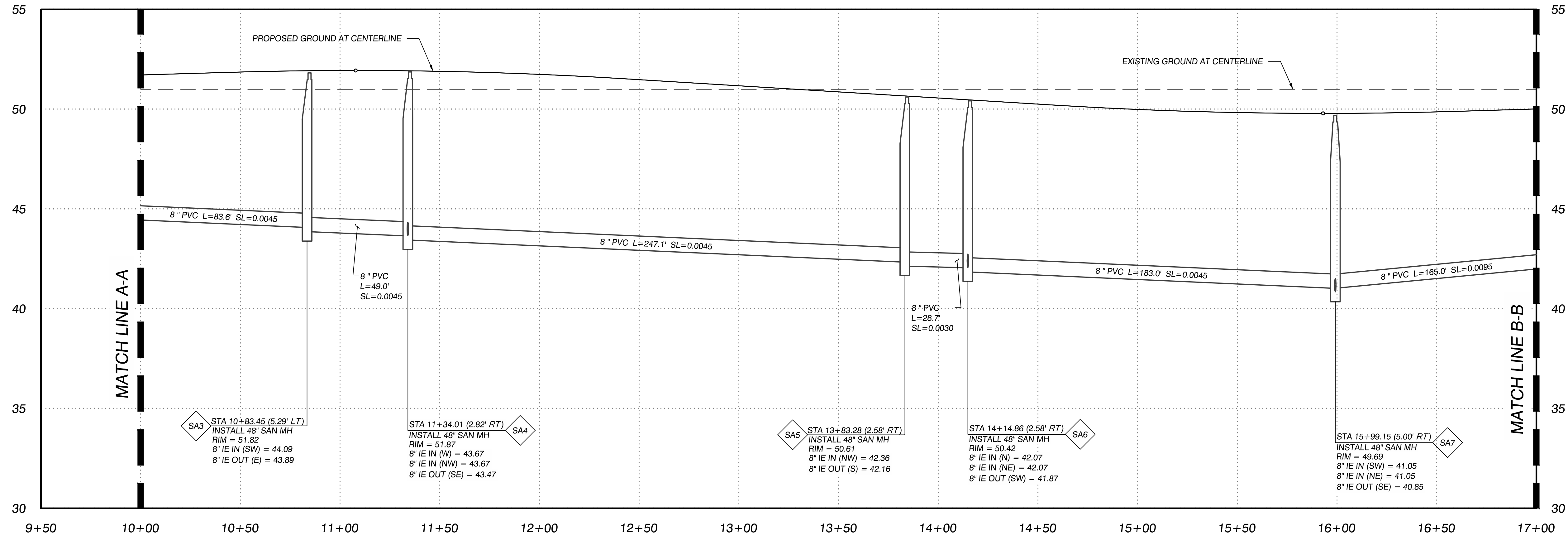
REVISIONS:

JOB NO.: 18591
DATE: 3/27/2025
SCALE: H: 1" = 30' V: 5:1
DESIGNED BY: PJM
DRAWN BY: PJM
CHECKED BY: TAW

PRELIMINARY

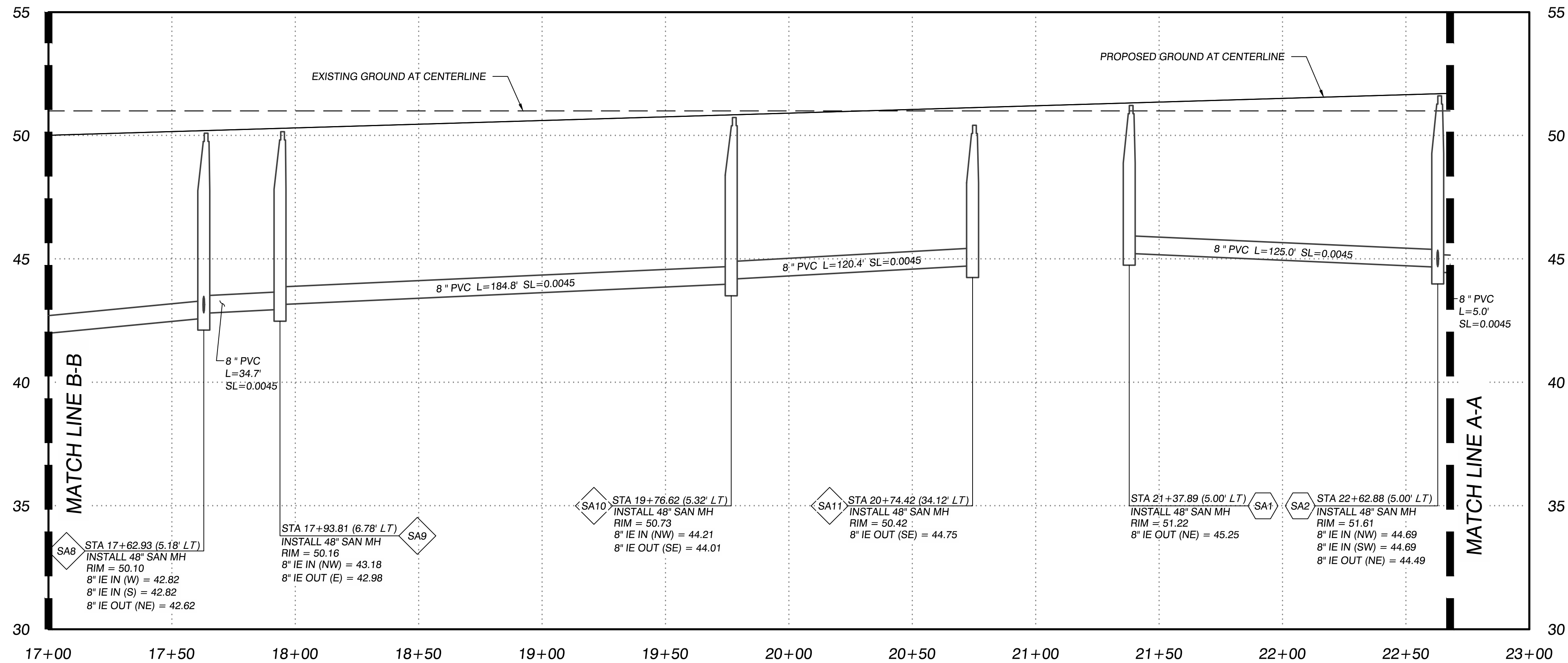
C4.3

FILE: W118591 LOTC Phase 1500 Design\502 Drawings\502 Drawings\18591.01 - Phase 1 Subdivision\C4.2 SEWER AND WATER PROFILES.dwg PLOTSTYLE: Cover.sbt



MAIN CIRCULATION PROFILE

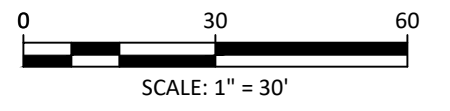
STA 10+00 - STA 17+00



MAIN CIRCULATION PROFILE

STA 17+00 - STA 22+67.91

NOTE: THIS ROAD IS A LOOP AND THE PROFILES
CONNECT ON EITHER SIDE. STATION 10+00
STARTS NEAR THE INTERSECTION OF ROAD C
ALIGNMENT.



3/27/2025

REVISIONS:

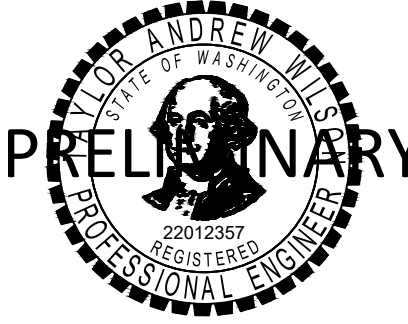
JOB NO.: 18591
DATE: 3/27/2025
SCALE: H: 1" = 30' V: 5:1
DESIGNED BY: PJM
DRAWN BY: PJM
CHECKED BY: TAW

PRELIMINARY

C4.2



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ENERGY PUBLIC WORKS LAND DEVELOPMENT
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RIVER'S EDGE AT THE LANDING SUBDIVISION
CASTLE ROCK, WASHINGTON

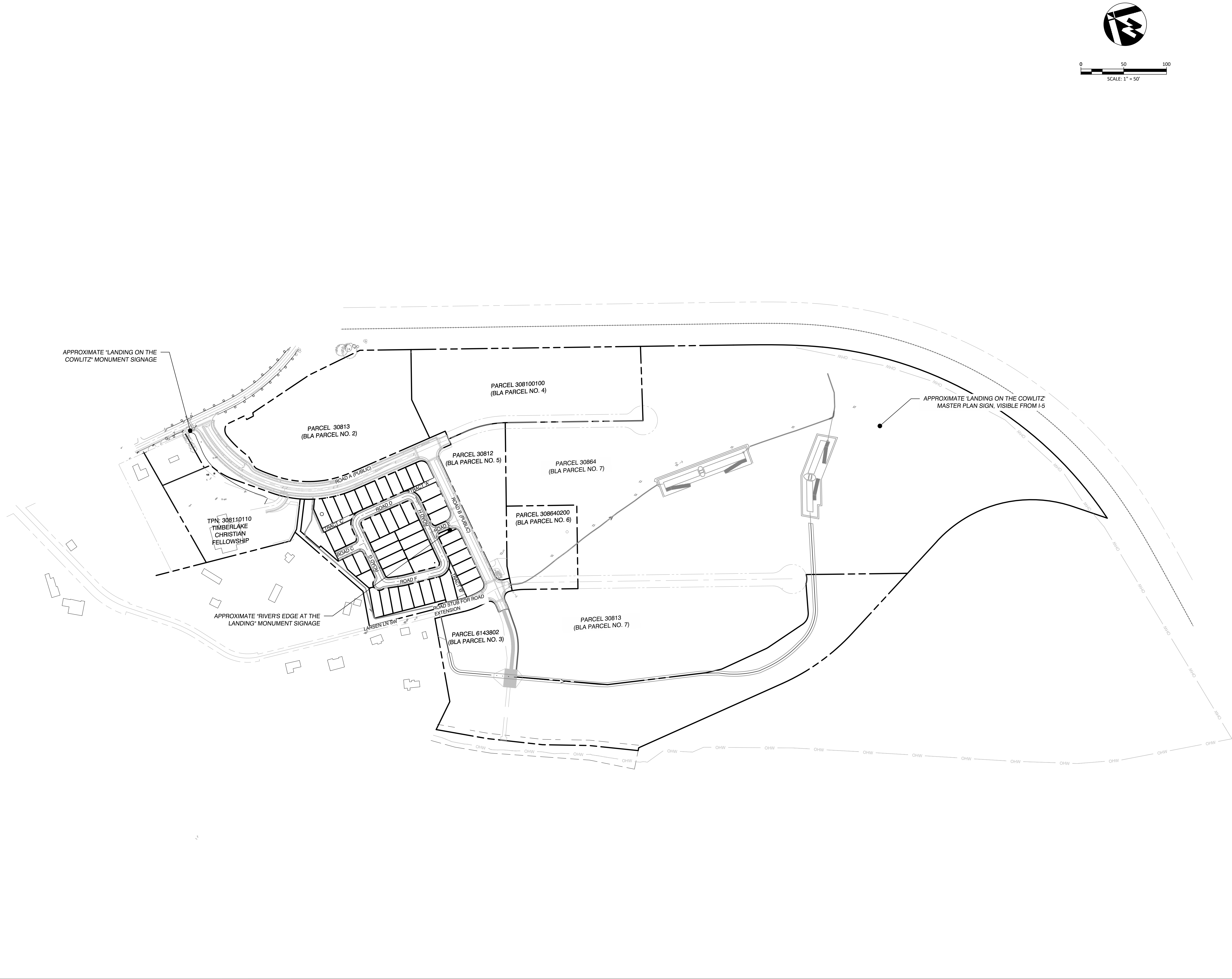
PRELIMINARY MASTER PHASING PLAN

JOB NO.:	18591
DATE:	3/27/2025
SCALE: H: 1" = 200'	V: N/A
DESIGNED BY:	PJM
DRAWN BY:	PJM
CHECKED BY:	TAW

PRELIMINARY

MP1.0

FILE: W\18591 LOTC Phase 1\500 Design\502 Drawings\Sheets\8591.01 - Phase 1 Subdivision\SS1.0 MONUMENT SIGNAGE PLAN.dwg PLOTSTYLE: Cover.sib



RIVER'S EDGE AT THE LANDING SUBDIVISION
CASTLE ROCK, WASHINGTON
PRELIMINARY MASTER SIGNAGE PLAN

REVISIONS:

JOB NO.: 18591
DATE: 3/27/2025
SCALE: H: 1" = 200' V: N/A
DESIGNED BY: PJM
DRAWN BY: PJM
CHECKED BY: TAW

PRELIMINARY

MP1.1



3/27/2025

FILE: W:\18591 LOTC Phase 1\500 Design\502 Drawings\Sheets\18591-01 - Phase 1 Subdivision\1.0 LANDSCAPE PLANTING PLAN.dwg PLOTSTYLE: Planning.sbt

PARK ELEMENTS as listed below, or approved alternate:

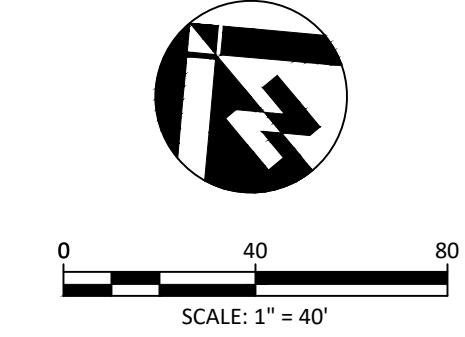
- Steel Pavilion, 12'x12', American Parks Co.
- Timberform Parkway Table with Three Chairs, Model 2052, Columbia Cascade Co.

Preschool Play

- Curved Crawl Tunnel, Model 67711, American Parks Co.
- Pony Spring Rider, 3889-01-P, Columbia Cascade Co.
- Apex Climber, 1672-01-W1, Columbia Cascade Co.

Primary Play

- Double Belt Swing, Model 1561-2, Columbia Cascade Co.
- Play Stack 4500-408-W1-Model, Columbia Cascade Co.
- Vertical Loop Climber, 6', Model 67636, American Parks Co.



PLANT SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME	SPACING	QTY	SIZE
	ZELKOVA SERRATA 'CITY SPRITE' / CITY SPRITE ZELKOVA	30' O.C.	46	2" CAL.
	ACER RUBRUM 'FRANKSRED' / RED SUNSET MAPLE	30' O.C.	5	2" CAL.
	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' / AUTUMN BRILLIANCE SERVICEBERRY	20' O.C.	7	1.5" CAL.

SYMBOL	BOTANICAL / COMMON NAME	SPACING	QTY	SIZE
	CORNUS SERICEA 'ARCTIC FIRE RED' / ARCTIC FIRE RED REDTWIG DOGWOOD	3' O.C.	20	2 GAL.
	VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	3' O.C.	42	2 GAL.
	SPIREA JAPONICA / JAPANESE SPIREA	5' O.C.	2	3 GAL.
	AMELANCHIER UTAHENSIS / WESTERN SERVICEBERRY	15' O.C.	18	3 GAL.
	ARCTOSTAPHYLOS GLAUCA / BIG BERRY MANZANITA	15' O.C.	13	3 GAL.
	PYRACANTHA AUGUSTIFOLIA 'YUKON BELLE' / NARROWLEAF FIRETHORN	8' O.C.	20	3 GAL.
	JUNIPERUS CHINENSIS 'FAIRVIEW' / CHINESE JUNIPER	5' O.C.	34	5 GAL.
	CEANOTHUS INTEGERRIMUS / DEERBRUSH	6' O.C.	16	3 GAL.

SYMBOL	BOTANICAL / COMMON NAME	SPACING	QTY	SIZE
	RUBUS CALYCINOIDES 'EMERALD CARPET' / EMERAL CARPET RUBUS	24" O.C.	5,200 SF	1 GAL.
	ARCTOSTAPHYLOS UVA-URSI 'MASSACHUSETTS' / BEARBERRY	24" O.C.	3,100 SF	1 GAL.
	WALDSTEINIA FRAGARIOIDES / BARREN STRAWBERRY	18" O.C.	600 SF	1 GAL.
	LAWN - SEEDED/SOD/HYDROSEED		30,400 SF	
	OREGON RYEGRASS BLEND			

LANDSCAPE GENERAL NOTES

- Installation shall fully comply with all landscape code requirements and any City of Castle Rock conditions of approval.
- Irrigation shall be provided by a fully automatic underground system design/build by the landscape contractor.
- All landscaping shall be installed in a sound workman-like manner, and according to accepted good planting procedures with quality plant materials.
- The proposed stormwater facilities are bioretention features integrated with the right-of-way, and will be planted by others according to Dept. of Ecology standards.
- All existing vegetation shall be removed from areas to receive construction activities.
- Planting beds are to be sufficiently cleaned of all construction materials, including imported rock, to the satisfaction of the Owner's Representative before beginning any landscape work.
- All vegetation to be well rooted and well branched.
- All plant material shall be nursery grown and meet ANSI standards.
- Quantities indicated are for the convenience of the contractor only. Install number of plants as drawn. Contractor responsible for installing plants in quantities and locations shown.
- Contractor shall verify species and quantities of all plant material prior to bid.
- Plants shall be spaced as indicated in the Landscape Legend unless otherwise shown on the plan. If a discrepancy exists, the plan shall prevail.
- Use triangular spacing for all groundcover unless noted otherwise. See Detail Sheet L1.1.
- The owner, or his agent, shall be responsible for the maintenance of all landscaping which shall be maintained in good condition so as to present a healthy, neat, and orderly appearance, and shall be kept free from refuse and debris.
- See Sheet L1.1 for Planting Details.
- See Sheet L1.1 for Planting Specifications.
- See Sheet L1.2 for Irrigation Specifications.

LANDING ON THE COWLITZ
CASTLE ROCK, WASHINGTON

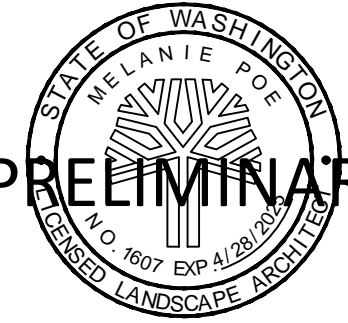
PRELIMINARY LANDSCAPE PLAN
RIVER'S EDGE AT THE LANDING SUBDIVISION

REVISIONS:

JOB NO.:	18591.01
DATE:	3/20/2025
SCALE: H: 1" = 40' V: N/A	
DESIGNED BY:	MCP
DRAWN BY:	MCP
CHECKED BY:	TAW

PRELIMINARY

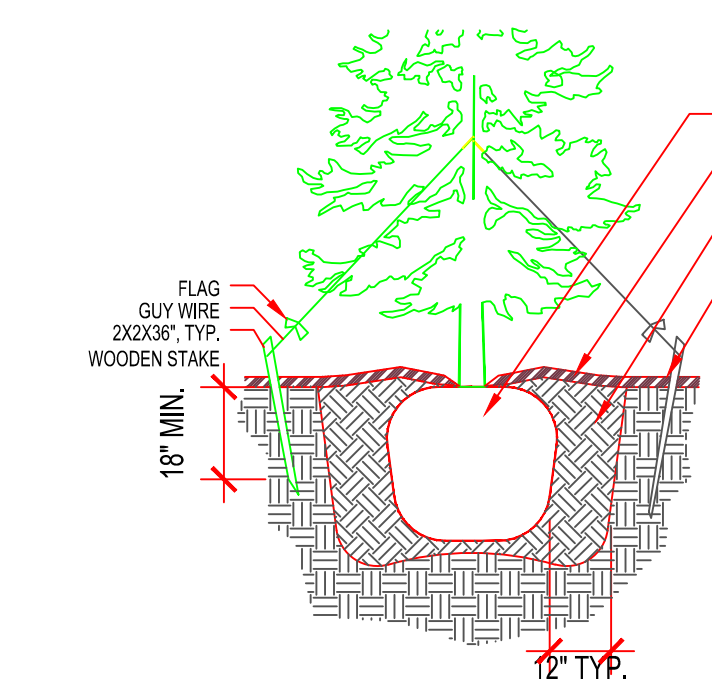
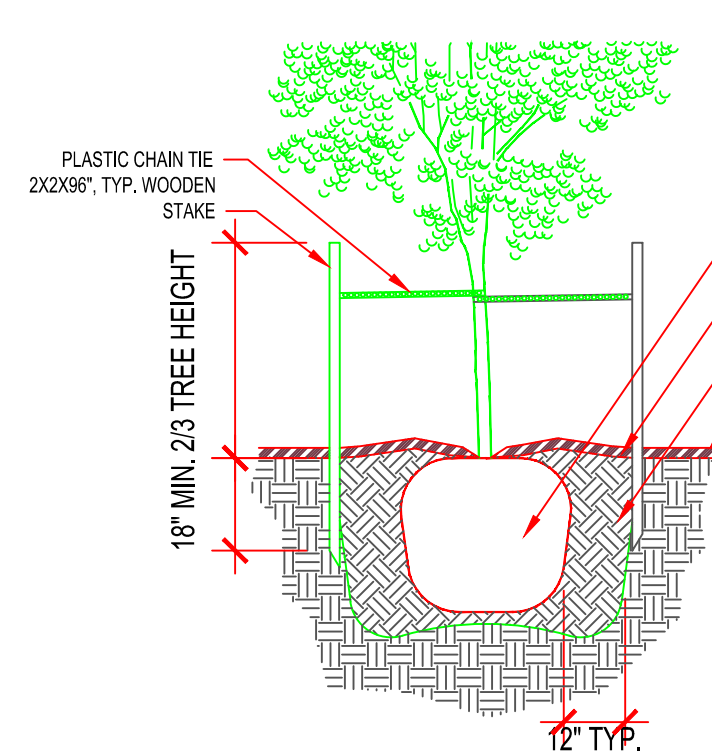
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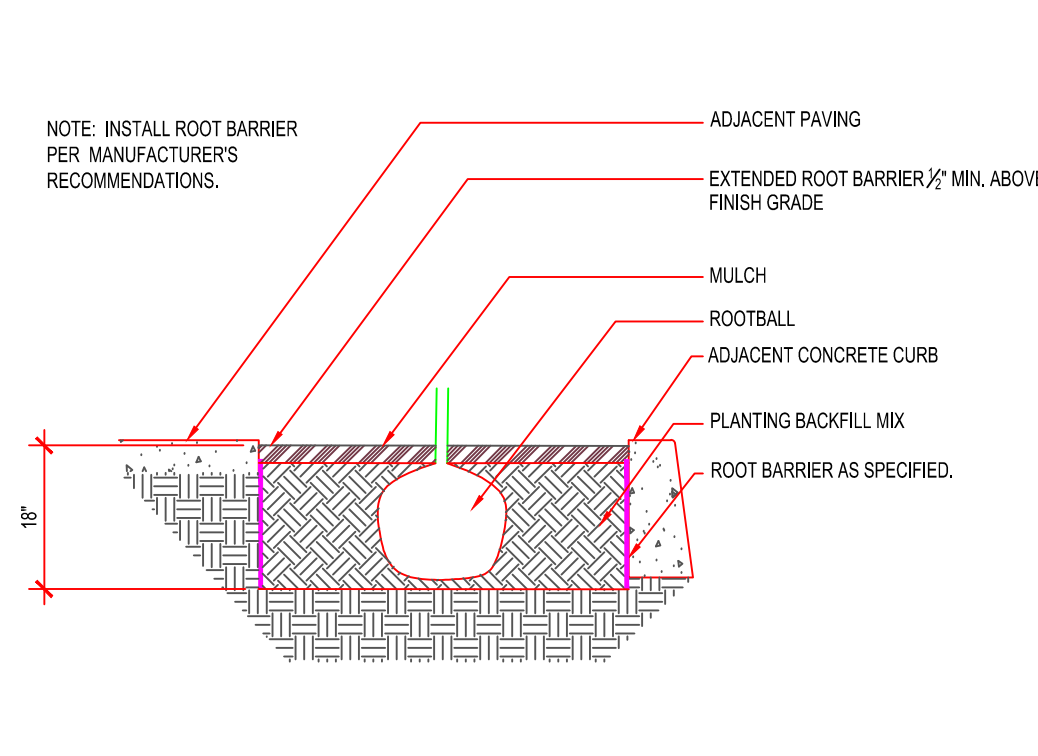
3/20/2025

PLANTING SPECIFICATIONS
PART 1 – GENERAL
1.1 SUMMARY
A. Section Includes:
1. Plants
2. Planting soils
3. Tree stabilization
4. Root Barrier
5. Tree Wrap
1.2 ESTABLISHMENT AND WARRANTY PERIOD REQUIREMENTS
A. All plant materials shall be maintained in a healthy condition until the end of the Establishment, Maintenance and Warranty Period. Establishment and Maintenance period is for one year and is initiated by substantial completion compliance. Replace dead and unhealthy plants immediately.
B. All plant materials and equipment replaced under warranty shall be replaced in accordance with all provisions of the Contract Documents. Plant material shall be of the same variety, size, and quantity as originally installed.
1. Owner reserves the right to inspect plant materials replaced under warranty and reject those which do not conform to specified standards.
1.3 SUBMITTALS
A. Product Data: For each type of product indicated, including soils.
1. Plant Materials: Include quantities, sizes, quality, and sources for plant materials.
2. Pesticides and Herbicides: Include product label and manufacturer's application instructions specific to the Project
3. Tree Stabilization Materials
4. Tree Wrap
5. Imported Planting Soil
6. Bark Mulch
B. Samples for Verification: For each of the following:
1. Bark Mulch: 1-quart volume of each mulch required; in sealed plastic bags labeled with composition of materials by percentage of weight and source of mulch. Each Sample shall be typical of the lot of material to be furnished; provide an accurate representation of color, texture, and organic makeup.
2. Root Barrier
1.4 PROJECT CONDITIONS
A. Field Measurements: Verify actual grade elevations, service and utility locations, irrigation system components, and dimensions of plantings and construction contiguous with new plantings by field measurements before proceeding with planting work.
1.5 WARRANTY
A. Warranty: Installer agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty period.
1. Failures include, but are not limited to, the following:
a. Death and unsatisfactory growth, except for defects resulting from abuse, lack of adequate maintenance, or neglect by Owner, or incidents that are beyond Contractor's control.
b. Structural failures including plantings falling or blowing over.
c. Faulty performance of tree stabilization
2. Warranty Periods from Date of Substantial Completion:
a. Trees, Shrubs, and Ornamental Grasses: 12 months.
b. Ground Covers and Other Plants: 12 months.
3. Include the following remedial actions as a minimum:
a. Immediately remove dead plants and replace unless required to plant in the succeeding planting season.
b. Replace plants that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
c. A limit of one replacement of each plant will be required except for losses or replacements due to failure to comply with requirements.
d. Provide extended warranty for period equal to original warranty period, for replaced plant material.
1.6 MAINTENANCE SERVICE
A. Initial Maintenance: Provide maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established but for not less than maintenance period below.
1. Maintenance Period: 12 months from date of Substantial Completion.
PART 2 – PRODUCTS
2.1 PLANT MATERIAL
A. General: Furnish nursery-grown plants true to genus, species, variety, cultivar, stem form, shearing, and other features indicated in Plant Schedule or Plant Legend shown on Drawings and complying with ANSI Z60.1; and with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock, densely foliated when in leaf and free of disease, pests, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.
2.2 ORGANIC SOIL AMENDMENTS
A. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 3/4-inch (19-mm sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
1. Organic Matter Content: 50 to 60 percent of dry weight.
2.3 FERTILIZERS
A. Planting Tablets: Tightly compressed chip type, long-lasting, slow-release, commercial-grade planting fertilizer in tablet form. Tablets shall break down with soil bacteria, converting nutrients into a form that can be absorbed by plant roots.
1. 20-10-5 slow release plant tablets, 10 gram size. Agriform or equal.
2.4 PLANTING SOIL
A. Imported Planting Soil ASTM D 5268 topsoil, with pH range of 5.5 to 7, a minimum of 30 percent organic material content; free of stones 1 inch (25 mm) or larger in any dimension and other extraneous materials harmful to plant growth. Mix ASTM D 5268 topsoil with the following soil amendments in the following quantities to produce planting soil:
1. Mix Compost to Topsoil by Volume: 1:4. Shall be pre mixed prior to delivery.
2.5 MULCHES
A. Bark Mulch: Provide standard, commercially produced, medium-course, dark brown, bark mulch. Bark shall be ground Fir or Hemlock bark of uniform color, free from weeds, seed, sawdust, splinters and shall not contain resin, tannin or other compounds detrimental to plant life. All materials shall pass a 1-inch mesh screen.
2.6 PESTICIDES
A. General: Pesticide registered and approved by EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
B. Pre-Emergent Herbicide (Selective and Non-Selective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
C. Post-Emergent Herbicide (Selective and Non-Selective): Effective for controlling weed growth that has already germinated.
2.7 TREE STABILIZATION MATERIALS
A. Stakes and Guys: See drawings for materials and instruction.
2.8 TREE WRAP
A. Corrugated or crepe paper, designed specifically to resist insect infestation and sun scald.
PART 3 – EXECUTION
3.1 EXAMINATION
A. Examine areas to receive plants for compliance with requirements and conditions affecting installation and performance.
1. Verify that no foreign or deleterious material or liquid such as gravel, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
2. Do not mix or place soils in frozen, wet, or muddy conditions.
3. Suspend soil spreading, grading, and tilling operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
4. Uniformly moisten excessively dry soil that is not workable and which is too dusty.
B. Proceed with installation only after unsatisfactory conditions have been corrected.
C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.
3.2 PROTECTION
A. Protect structures, utilities, sidewalks, pavements, and other facilities and turf areas and existing plants from damage caused by planting operations.
3.3 PLANTING AREA ESTABLISHMENT
A. Locate all planting beds in field. Flag planting beds with white field-marking chalk or approved equal. All planting beds to be adjusted and approved by Owner's Representative prior to plant location.
B. Over excavate all shrub and tree planting beds to a depth of 12". Protect in place existing gravel base integrity for walks and curbs. Remove excavations from site and dispose at contractor's expense. Install root control barriers prior to backfilling.
C. Loosen subgrade of planting areas to a minimum depth of 6 inches depth. Remove stones larger than 1 inch (25 mm in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
1. Spread planting soil in 4 -6 inches lifts but not less than required to meet finish grades after natural settlement.
2. Mix thoroughly into top 4 inches of subgrade. Spread remainder of planting soil.
D. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.
E. Before planting, obtain owners representative's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.
3.4 EXCAVATION FOR TREES AND SHRUBS
A. Planting Pits and Trenches: Excavate circular planting pits with sides sloping inward at a 45-degree angle. Excavations with vertical sides are not acceptable. Trim perimeter of bottom leaving center area of bottom raised slightly to support root ball and assist in drainage away from center. Do not further disturb base. Ensure that root ball will sit on undisturbed base soil to prevent settling. Scarify sides of planting pit smeared or smoothed during excavation.
B. Drainage: Notify Architect if subsoil conditions evidence unexpected water seepage or retention in tree or shrub planting pits.
3.5 TREE AND SHRUB PLANTING
A. The Owner's Representative will approve individual plant material and location of plant material prior to installation.
B. Before planting, verify that root flare is visible at top of root ball according to ANSI Z60.1. If root flare is not visible, remove soil in a level manner from the root ball to where the top-most root emerges from the trunk. After soil removal to expose the root flare, verify that root ball still meets size requirements.
C. Provide slow release-fertilizer tablets during backfill at the following rates. Locate plant tablets 1 inch from roots and at mid-depth. Space evenly
1 Gallon Shrub = 1 Tablet

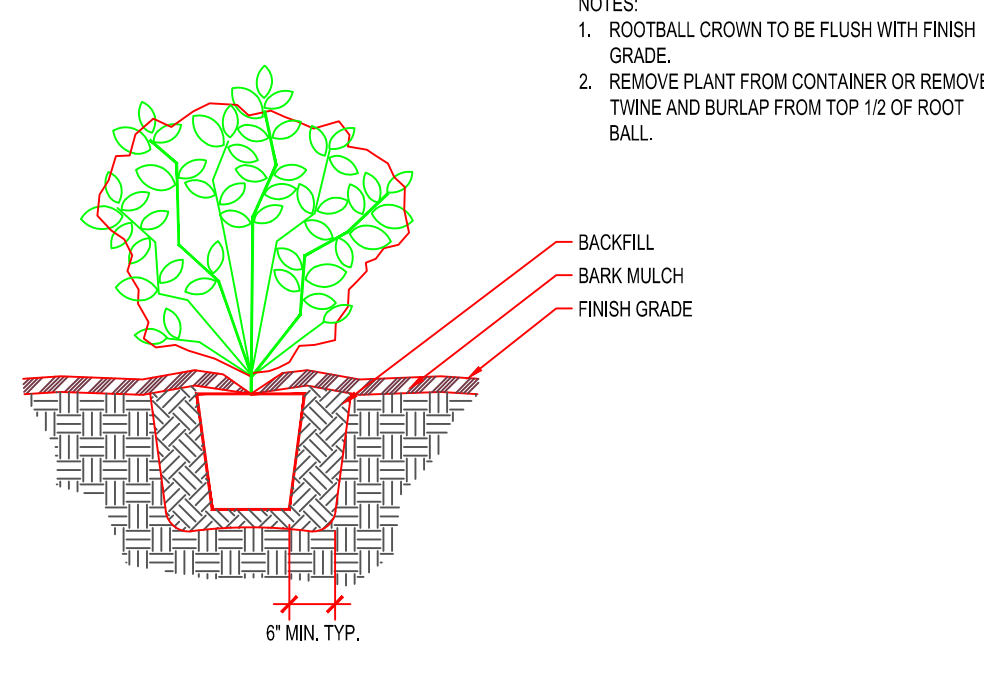
2 Gallon Shrub = 2 tablet
3 Gallon Shrub = 2 Tablet
5 Gallon Shrub = 3 Tablet
3.7 PLANTING AREA MULCHING
A. Mulch finish grade surfaces of planting areas and other areas indicated.
1. Bark mulch in Planting Areas: Apply 3-inch average thickness of bark mulch, and finish level with adjacent finish grades.
2. Bark mulch shall be a minimum of 6-inches from tree trunks and 3-inches from shrub crowns.
3.8 WRAPPING
A. Deciduous trees over 1-1/2 inch caliper when within five feet of pavement shall be wrapped promptly after planting to prevent sunscald, wrapping as approved by American Association of Nurserymen. Wrap spirally from ground line to the height of the first branch. Wrap in neat and snug manner and secure with tape similarly colored to tree wrap at bottom, top and in the middle. Wrap before staking or guying.
3.9 PLANT MAINTENANCE
A. Maintain plants after written notice of Substantial Completion of the Project. If plants are not installed before the dormant period, November 15th to March 1st, maintain for a period of 90 days after the dormant period or until Final Acceptance, whichever is later.
1. Inspect plants at least once a week and perform maintenance promptly.
2. Maintain trees, shrubs and ground covers by watering, pruning, spraying, cultivating, and weeding as required for healthy growth.
3. Water when soil moisture is below optimum level for best plant growth.
4. Remove and replace impaired or dead plants promptly during specified planting season.
5. Tighten and repair stake and guy supports and reset trees and shrubs to proper grades or vertical position as required.
6. Eradicate all weeds, grass, and other undesired vegetation growth from planting areas. Remove dead weeds and dispose legally off-site. Remove all perennial weeds completely, including all underground parts.
7. Restore all soil settlement to original grade
B. Replace mulch materials damaged or lost in areas of subsidence
C. Fertilizing: Perform as necessary to maintain cover crop in a healthy growing condition.
1. Fertilize trees, shrubs and ground cover once at the end of the Maintenance Period.
2. In March, within the first growing season, fertilize all planting areas with 1 application of each of the maintenance fertilizers, at the rate of 7 pounds per 1,000 square feet of soil surface.
3.10 PESTICIDE APPLICATION
A. Apply pesticides and other chemical products and biological control agents in accordance with authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.
B. Pre-Emergent Herbicides (Selective and Non-Selective): Apply to tree, shrub, and ground-cover areas in accordance with manufacturer's written recommendations.
C. Post-Emergent Herbicides (Selective and Non-Selective): Apply only as necessary to treat already-germinated weeds and in accordance with manufacturer's written recommendations.
3.11 CLEANUP AND PROTECTION
A. During planting, keep adjacent paving and construction clean and work area in an orderly condition.
B. Protect plants from damage due to landscape operations and operations of other contractors and trades. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings.
C. After installation and before Substantial Completion, remove nursery tags, nursery stakes, tie tape, labels, wire, burlap, and other debris from plant material, planting areas, and Project site.
3.12 ACCEPTANCE
A. Substantial Completion:
1. Notify the Owner's Representative in writing of the completion of planting.
2. Within 10 days after notification of completion of Work, the Owner's Representative will inspect the Work in the presence of the Contractor and the Owner, and prepare a Notice of Substantial Completion, along with a list of items that require completion and correction (i.e., Punch List).
3. Notice of Substantial Completion constitutes the commencement of the Maintenance Period.
B. Final Acceptance:
1. The final inspection of all plantings will be made by the Owner, Owner's Representative in the presence of the Contractor, following completion and correction of all items on the Punch List, and prior to the expiration of the Maintenance Period.
2. Before Final Acceptance will be granted, the site must be in the condition stipulated all correction items on the Punch List completed to the satisfaction of the Owner and Owner's Representative.
3. If Final Acceptance is not granted at the end of the Maintenance Period, continue maintaining plantings until Final Acceptance is granted, at no additional cost to the Owner.



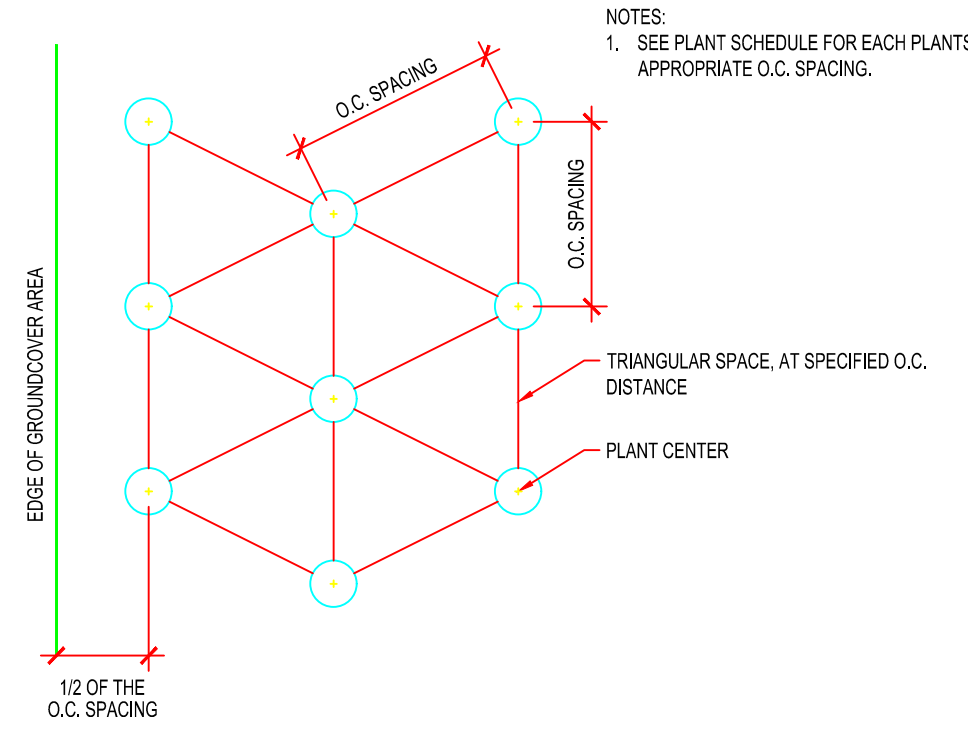
2 EVERGREEN TREE PLANTING
Not to scale



3 ROOT BARRIER
Not to scale



4 SHRUB/GROUNDCOVER PLANTING
Not to scale



5 GROUNDCOVER SPACING
Not to scale

LANDING ON THE COWLITZ
CASTLE ROCK, WASHINGTON

PLANTING SPECIFICATIONS AND DETAILS
PHASE 1 SUBDIVISION PRELIMINARY ENGINEERING

REVISIONS:

JOB NO.: 18591.01
DATE: 3/20/2025
SCALE: H: 1"= 50' V: N/A
DESIGNED BY: MCP
DRAWN BY: MCP
CHECKED BY: TAW

PRELIMINARY

L1.1



01/24/2025

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FILE: W:\16591 LOTC Phase 1\500 Design\502 Drawings\Sheets\16591.01 - Phase 1 Subdivision\1.2 IRRIGATION SPECIFICATIONS.dwg PLOTSTYLE: Sanitary and Water.stb

IRRIGATION NOTES:

1. PART 1 – GENERAL

- 1.1. SCOPE: Furnish design services and plans, labor, material, equipment and services for installation of a new irrigation system all in accordance with requirements of this and other specifications, local and state codes and equipment manufacturer's recommendations and specifications.
- 1.2. RELATED WORK BY OTHERS:
- 1.2.1. Provisions for electrical services to controller location.
- 1.2.2. Conduit from controller location to exterior of building, preferably to an adjacent landscape area.
- 1.2.3. Conduit from controller location to rain sensor if wired model utilized.
- 1.2.4. Water meter at point of connection.
- 1.2.5. Ball valve at point of connection.
- 1.3. QUALITY ASSURANCE:
- 1.3.1. Acceptable manufacturer: Hunter, Rainbird
- 1.3.2. Contractor shall be licensed and bonded in State of Washington.
- 1.3.3. Contractor shall have at least 5 years prior experience in projects of equal or larger size.
- 1.3.4. Contractor shall employ on-site at all times at least one person who is thoroughly experienced and competent in all phases of the work of this section and who shall be present at all times during execution of this portion of the work and who shall be thoroughly familiar with the type of materials being installed and the manufacturer's recommended methods of installation, and who shall direct all work performed under this section.
- 1.3.5. Conform to the "Uniform Plumbing Code" as adopted and modified by the State of Washington and all legally constituted authorities having jurisdiction.
- 1.3.6. Materials and Equipment: New materials and equipment of type and brands as specified herein or accepted substitute.
- 1.4. DESIGN AND PLAN:
- 1.4.1. Design requirements:
- 1.4.1.1. Contractor shall provide design and layout of a new irrigation system meeting requirements of this and other specifications.
- 1.4.1.2. Meet requirements of local and state codes.
- 1.4.1.3. Meet recommendations and specifications of equipment manufacturer.
- 1.4.1.4. Contractor shall obtain services of an irrigation system designer with a minimum 5 years experience.
- 1.4.1.5. Provide minimum water coverage of 100% in all lawn, shrub and groundcover areas.
- 1.4.1.6. Lay out system to obtain optimum coverage utilizing manufacturer's standard heads. Spray across walks, onto walls, buildings, windows or paved areas is not acceptable.
- 1.4.1.7. Obtain static water pressure from local jurisdiction and install pressure regulating equipment as necessary including, but not limited to, pressure relief valves, pressure regulating valves, etc.
- 1.4.1.8. Install approved backflow protection to the public water source. If acceptable, use a double check backflow prevention device.
- 1.4.1.9. Install manual drain valves and gravel backfilled sumps of one cubic foot minimum size on each zone. Slope lines to drain valves.
- 1.4.1.10. Provide ball valves on supply lines for isolation of various sections of the irrigation system.
- 1.4.1.11. Provide quick coupling valves at various locations on site. Locations to be acceptable to Project Representative.
- 1.4.2. Plan Requirements:
- 1.4.2.1. Provide at same scale as landscape plan.
- 1.4.2.2. Prepare on good quality tracing paper.
- 1.4.2.3. Irrigation plan shall indicate system irrigation head and nozzle layout, location and size of all zones, piping size and layout, fittings, equipment necessary for full installation of entire system, locations and sizes of sleeving.
- 1.5. VERIFICATION OF EXISTING CONDITIONS:
- 1.5.1. Before proceeding with the installation of any section of the irrigation system, verify all existing irrigation conditions.
- 1.6. VERIFICATION OF DIMENSIONS:
- 1.6.1. Before proceeding with the installation of any section of the irrigation system, check and verify correlation between ground measurements and Drawings.
- 1.6.2. Advise Project Representative of discrepancies before proceeding.
- 1.7. VERIFICATION OF WATER PRESSURE:
- 1.7.1. Verify water pressure at point of connection.
- 1.7.2. Submit pressure test results to Project Representative prior to any work.
- 1.8. PROTECTION OF UNFINISHED WORK:
- 1.8.1. Protect work at all times.
- 1.8.2. Keep rock, dirt, gravel, debris and foreign materials from entering pipe, valves and other irrigation equipment.
- 1.8.3. Flag/barricade open trenches, valve locations/boxes, etc. when not actively working in area.
- 1.9. VERIFICATION OF CONTROLLER LOCATION:
- 1.9.1. Verify exact location of controller with Project Representative.
- 1.9.2. Coordinate electrical service, conduit to building exterior and conduit to rain sensor (if wired model is utilized) with other trades.
- 1.10. ENVIRONMENTAL CONDITIONS:
- 1.10.1. No solvent welding of PVC pipe in freezing weather.
- 1.10.2. Protect active utilities. If encountered, notify persons owning same.
- 1.11. UTILITIES:
- 1.11.1. Be responsible for location of underground utilities.
- 1.11.2. Protect active utilities. If encountered, notify persons owning same.
- 1.12. STORAGE:
- 1.12.1. Store on job site only as approved.
- 1.12.2. Be responsible for security and protection.
- 1.12.3. Store no PVC pipe or fittings in direct sunlight.
- 1.13. EQUIPMENT FOR OPERATION:
- 1.13.1. Provide Owner with the following operation equipment.
- 1.13.2. Turn over to Owner at time of Final Inspection:
- 1.13.2.1. (2) lock cap key, Weathermatic RLK-1 or accepted substitute.
- 1.13.2.2. (2) snap-lock unlocking tools for valve box covers.
- 1.13.2.3. (2) quick coupling valve keys.
- 1.13.2.4. (2) hose swivel.
- 1.13.2.5. (2) lock cap key, Rain Bird 2049 or accepted substitute.
- 1.13.2.6. (2) valve operating key, 30-inch handle length.
- 1.13.2.7. (2) irrigation controller keys.
- 1.14. RECORD DRAWINGS:
- 1.14.1. Maintain current with work progress, one red pencil marked print showing all deviations from drawings occurring during installation.
- 1.14.2. Show locations of stubouts, manual drains, valves, pipe lines, splices and other subsurface features as installed.
- 1.14.3. Show dimension references from subsurface features to permanent structural or surface elements sufficient to identify in the field.
- 1.14.4. Submit clean red-lined mylar at end of project.
- 1.14.5. Place one (1) reduced size laminated print inside controller door.
- 1.15. SUBMITTALS:
- 1.15.1. Within 14 days after award of contract, submit:
- 1.15.1.1. Irrigation design plan for new irrigation system.
- 1.15.1.2. Manufacturer's printed product information and catalog cut sheets for all system components.
- 1.15.1.3. Sleeving plan showing sizes and locations of all sleeving.
- 1.15.1.4. Static water pressure test results.
- 1.15.2. Submit to Project Representative at time of inspection for final approval.
- 1.15.2.1. As-built irrigation mylar.
- 1.15.2.2. Copy of guarantees, warranties or affidavits applicable to equipment or materials beyond Contractor's 1-year guarantee period.
- 1.15.2.3. Manufacturer's catalog cuts describing all equipment and material used.
- 1.15.2.4. Names, addresses and phone numbers of manufacturers and local suppliers of equipment.
- 1.15.2.5. Written operating and maintenance instructions for all electrical or mechanical equipment used.
- 1.15.3. Submit to Project Representative three (3) complete copies of the above submittals in hard cover binder.
- 1.16. GUARANTEE:
- 1.16.1. Guarantee the irrigation system or any part thereof, against defective material or workmanship for one (1) year from the date of final acceptance.
- 1.16.2. Repair any settling of backfilled trenches occurring during a one (1) year period after final acceptance.
- 1.16.3. Include restoration of planting, paving or other improvements of any kink associated with corrections.
- 1.16.4. Make corrections without expense to Owner.

2. PART 2 – PRODUCTS

- 2.1. GENERAL:
- 2.1.1. A. New materials and equipment.
- 2.1.2. Manufacturer's catalog numbers indicated below.
- 2.1.3. Substitutions or equals only by written approval of the Landscape Architect.
- 2.2. IRRIGATION HEADS:
- 2.2.1. Construction as specified by model number reference.
- 2.2.2. Manufacturer's catalog numbers indicated below.
- 2.2.3. Lawn heads – 6" pop up.

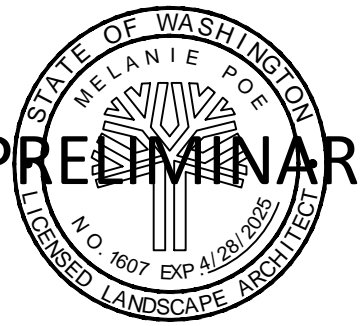
- 2.2.3.1. Spray heads: Rainbird RD1800 series, plastic body and nozzle or accepted substitute.
- 2.2.3.2. Rotor heads: Rainbird 5000 MPR series, plastic body and nozzle or accepted substitute.
- 2.2.4. Shrub heads – 6" pop up.
- 2.2.3.1. Spray heads: Rainbird RD1800 series, plastic body and nozzle or accepted substitute.
- 2.2.3.2. Rotor heads: Rainbird 5000 MPR series, plastic body and nozzle or accepted substitute.
- 2.2.4. Groundcover heads – 12" pop up.
- 2.2.3.1. Spray heads: Rainbird RD1800 series, plastic body and nozzle or accepted substitute.
- 2.3. PIPE AND FITTINGS:
- 2.3.1. PVC Pipe for Supply Lines: PVC pipe, Polyvinyl Chloride Plastic; PVC 1120, Schedule 40, Type I, normal impact, I.P.S., NSF approved plain and/or bell end; color white; meeting requirements ASTM D2241 and D1784.
- 2.3.2. PVC Pipe for Lateral Lines: PVC pipe, Polyvinyl Chloride Plastic; PVC 1120, Class 200, Type I, normal impact, I.P.S., NSF approved plain and/or bell end; color white; meeting requirements ASTM D2241 and D1784.
- 2.3.3. PVC Pipe Fittings: PVC 1120, Schedule 40, Type I, normal impact, I.P.S., NSF approved; meeting requirements ASTM D2466-74.
- 2.3.4. Galvanized Pipe and Fittings: Standard weight pipe, hot dipped galvanized and threaded. Threaded cast iron or galvanized malleable fittings.
- 2.3.5. PVC Riser: PVC 1120, Type I, normal impact I.P.S., NSF approved Schedule 80 PVC, conform to PS 21-70. Cut to required lengths; threaded both ends, color dark grey.
- 2.4. SLEEVES:
- 2.4.1. Under parking, driveway paving and through walls – Schedule 40 PVC pipe.
- 2.4.2. All other – Class 200 PVC pipe.
- 2.4.3. Sleeve diameter shall be two sizes larger than diameter of pipe installed in sleeve.
- 2.4.4. Install separate sleeve dedicated for irrigation control wire.
- 2.5. PVC SOLVENT CEMENT:
- 2.5.1. NSF approved solvent for PVC to 4" pipe size.
- 2.5.2. Meeting requirements of ASTM D 2584-73a, #705.
- 2.5.3. Weld-On 705 or accepted substitute.
- 2.6. PVC PRIMER AND CLEANER:
- 2.6.1. Weld-On P-70 or accepted substitute.
- 2.7. BALL VALVE:
- 2.7.1. Full port, brass or bronze with stainless steel ball and Teflon seat.
- 2.8. MANUAL DRAIN VALVE:
- 2.8.1. Brass globe valve, 1/2" size with cross-type wheel.
- 2.9. QUICK-COUPLING VALVE:
- 2.9.1. One piece, double slot, 3/4" inlet with vinyl cover and lock top.
- 2.9.2. Rain Bird Model or accepted substitute.
- 2.10. QUICK-COUPLING VALVE KEY:
- 2.10.1. Rain Bird or accepted substitute.
- 2.11. LOCK CAP KEY:
- 2.11.1. Rain Bird or accepted substitute.
- 2.12. HOSE SWIVEL:
- 2.12.1. Rain Bird or accepted substitute.
- 2.13. LOCKING KEY AND LID:
- 2.13.1. Rain Bird or accepted substitute.
- 2.14. LOCKING LID FOR MANUAL DRAIN VALVE:
- 2.14.1. Weathermatic 906L or accepted substitute.
- 2.15. VALVE BOX:
- 2.15.1. Ametek Economy, Standard and Jumbo sized boxes, extensions and locking covers where applicable or accepted substitute.
- 2.16. DRAINAGE ROCK:
- 2.16.1. 1-1/2"-inch clean, washed round drain rock.
- 2.17. BACKFLOW PREVENTION DEVICE:
- 2.17.1. As approved by local jurisdiction. If acceptable, use a double check backflow prevention device.
- 2.17.2. Size as required.
- 2.18. RAIN SENSOR:
- 2.18.1. Rain Bird Model RSD-BEX, WR2 or accepted substitute.
- 2.19. REMOTE CONTROL VALVE:
- 2.19.1. Rain Bird PEB Series, 24 volt electric valve or accepted substitute.
- 2.19.2. Sizes as required.
- 2.20. CONTROL WIRE:
- 2.20.1. Type UF bearing U/L label for direct underground burial, NEC Class II circuits. AWG sizes, #14 minimum.
- 2.21. ELECTRIC CONNECTIONS:
- 2.21.1. 3M DBY connectors or accepted substitute.
- 2.22. IRRIGATION CONTROLLER:
- 2.22.1. Rain Bird Model ESP-LX Modular Series wall mounted controller with lock and two (2) keys or accepted substitute.
- 2.22.2. Number of circuits as determined by planting types and planter layout.

3. PART 3 – EXECUTION

- 3.1. GENERAL:
- 3.1.1. Install materials and equipment in strict accordance with manufacturer's written specifications and commendations.
- 3.1.2. Comply with local and state codes.
- 3.1.3. Maintain job premises clean and free from accumulations of debris or disorder at all times. Remove equipment and surplus materials from each area of work as completed.
- 3.1.4. Leave no work-in condition that would jeopardize other persons or property.
- 3.1.5. Test all lines for one hour minimum at pressure of water source. Receive approval of test prior to back filling work. Test acceptable if no more than 5psi loss after 1 hour. Coordinate with Project Representative.
- 3.2. TRENCH EXCAVATION:
- 3.2.1. Straight or "snaked" slightly.
- 3.2.2. Slope bottoms uniformly, 1/2% minimum grade to drain.
- 3.2.3. Trench depth 18" minimum (lateral lines), 24" minimum (supply lines) and 30" maximum, bottoms free from sharp rocks or objects that may damage pipe.
- 3.2.4. Trench width sufficient to allow proper tamping of backfill around pipe.
- 3.2.5. Keep topsoil separate from subsoils. Replace in order of removal.
- 3.2.6. Do not machine trench through root zones of existing trees to remain. Hand dig only.
- 3.3. TRENCH BACKFILL:
- 3.3.1. Do no backfilling until approval of pressure test.
- 3.3.2. Use excavated soil or sand bedding materials.
- 3.3.3. Material shall be free from rock and/or debris that may damage pipe or prevent proper compaction.
- 3.3.4. Place 6-inch maximum lifts and compact thoroughly.
- 3.3.5. Place mainline backfill only when pipe is filled with water; 25 psi pressure minimum.
- 3.4. INSTALLATION OF PIPE:
- 3.4.1. Sizes, type as specified.
- 3.4.1.1. Lay with support beneath entire lengths.
- 3.4.1.2. Slope all pipe to gravity drain.
- 3.4.1.3. Snake PVC piping to allow for expansion and contraction.
- 3.4.1.4. Combine runs in common trench where feasible with 3-inch minimum vertical and horizontal separation.
- 3.4.1.5. Flush lines prior to installation of valves, irrigating heads and nozzles.
- 3.4.1.6. Install stubouts for future connection(s) as approved. Enclose stubouts in valve box.
- 3.4.2. Cutting and joining:
- 3.4.2.1. Cut pipe square, debur and remove all surface contaminants or moisture.
- 3.4.2.2. Chamber all out ends.
- 3.4.2.3. Apply primer and solvent cement in accordance with manufacturer's recommendations.
- 3.4.2.4. Make threaded joints leak resistant, with freedom of movement.
- 3.4.2.5. Use Teflon thread sealant for threaded joints.
- 3.4.2.6. Clean out threads and use tape or compound joint sealants for all galvanized pipe connections. Leave no more than two (2) threads showing all joints.
- 3.5. INSTALLATION OF SLEEVING:
- 3.5.1. Install sleeving under all asphalt, concrete or other hard surface pavement areas and through walls as required.
- 3.5.2. Size as required for pipe and control valve wiring.
- 3.5.3. Coordinate for placement prior to asphalt/concrete/wall work.
- 3.5.4. Position sleeves so pipe can be easily moved.
- 3.5.5. Jack/boare under existing pavement as required.
- 3.5.6. Install separate sleeve dedicated for irrigation control wiring.
- 3.5.7. Extend sleeves 12 inches minimum beyond walk or pavement edge.
- 3.6. INSTALLATION OF VALVES:
- 3.6.1. Types as specified:
- 3.6.1.1. Install in accordance with manufacturer's specifications and recommendations.
- 3.6.1.2. Install manual drain valves at locations to completely drain all pipe lines. Minimum one manual drain valve per zone.
- 3.7. SYSTEM PURGING:
- 3.7.1. Prior to backfilling installed system, installing irrigation heads and testing the system, purge all system zones with clean water at sufficient pressure and duration to verify that lines are free and clear of any

- rocks, dirt, gravel, debris, foreign materials and/or contaminants.
- 3.7.2. If blockages are discovered, remove sections of system piping and remove blockages as required, reconnect sections and repurge system.
- 3.7.3. Install irrigation heads and test all system zones with clean water of sufficient pressure and duration to ensure the system is capable of handling the loads required and verify that controller and valves are functioning as intended.
- 3.8. INSTALLATION OF IRRIGATION HEADS:
- 3.8.1. Types as specified. Install in accordance with manufacturer's recommendations and specifications.
- 3.8.2. Adjust and balance:
- 3.8.2.1. Adjust and balance each system zone.
- 3.8.2.2. Achieve uniform area coverage by all head types.
- 3.8.2.3. Spray across walks, onto walks, buildings, windows or paved areas is not acceptable.
- 3.9. INSTALLATION OF IRRIGATION CONTROLLER:
- 3.9.1. Type as specified.
- 3.9.1.1. Install wall or pedestal mounted unit or battery-powered unit per manufacturer's recommendations and specifications.
- 3.9.1.2. Enclose all control wiring in conduit.
- 3.9.1.3. Verify exact placement of controller with Project Representative.
- 3.9.1.4. Adjust irrigation controller timing for each zone based on plant type, sun exposure, microclimatic conditions, current industry standards, etc.
- 3.9.2. Work by other trades including the following (Landscape Contractor to coordinate):
- 3.9.2.1. Provision for electrical service to controller location.
- 3.9.2.2. Control wire conduit to exterior of building.
- 3.10. INSTALLATION OF RAIN SENSOR:
- 3.10.1. Install per manufacturer's recommendations and specifications.
- 3.10.2. Location as acceptable to Project Representative.
- 3.10.3. Coordinate conduit from irrigation controller to rain sensor location with appropriate trades.
- 3.11. INSTALLATION OF CONTROL WIRE:
- 3.11.1. For wire sizes, refer to wire sizing chart published by manufacturer of control valves.
- 3.11.2. Use specified electrical connectors at all splices. Place all splices in valve boxes, and note locations on as-built record drawings.
- 3.11.3. Bundle wire together with electrical tape at 10-foot intervals. Provide 12-inch expansion coils every 100 feet where runs exceed this length and at each valve.
- 3.11.4. Place wire at bottom of pipe runs to provide protection.
- 3.11.5. Provide one extra wire to each control valve similar to common wire for use if wire fails. Color to be different. Label as "Extra Wire" at controller. If multiple controllers are utilized, provide an extra wire per controller.
- 3.11.6. Install additional sets of irrigation control wires at stubouts as approved.
- 3.12. FINAL TESTING:
- 3.12.1. Test entire system for one (1) hour at normal operating pressure.
- 3.12.2. Test is acceptable if, after one (1) hour of pressure testing, at normal operating pressure, operating pressure has decreased one (1) percent of loss.
- 3.12.3. If test fails, immediately trace leaks and correct.
- 3.12.4. Replace soils liquefied by system failures with stable materials.
- 3.12.5. Repeat system test as indicated above until testing meets requirements.

END OF IRRIGATION NOTES



01/24/2025

LANDING ON THE COWLITZ
CASTLE ROCK, WASHINGTON

IRRIGATION SPECIFICATIONS
PHASE 1 SUBDIVISION PRELIMINARY ENGINEERING

REVISIONS:

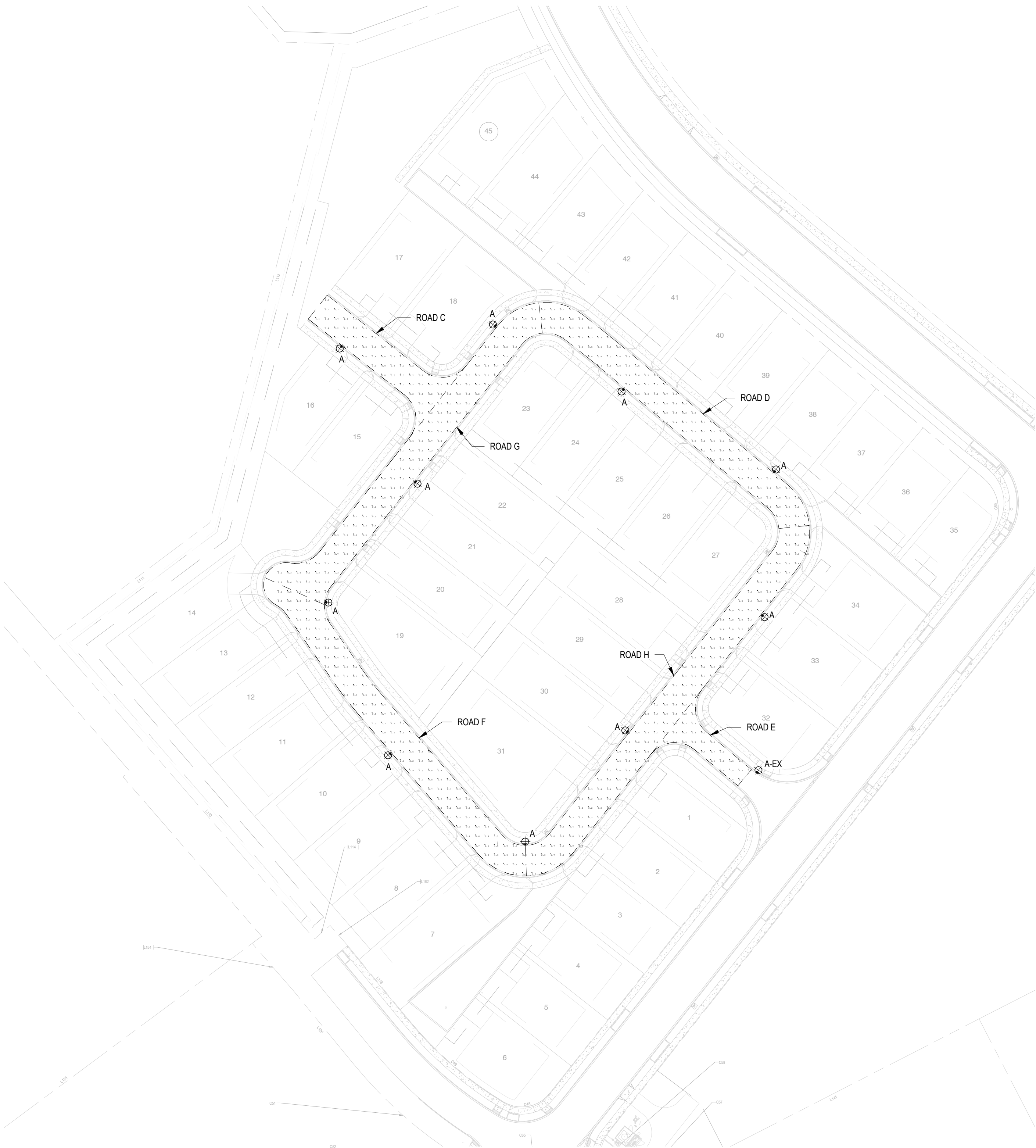
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DATE: 3/20/2025
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DESIGNED BY: MCP
DRAWN BY: MCP
CHECKED BY: TAW

FINAL

L1.2

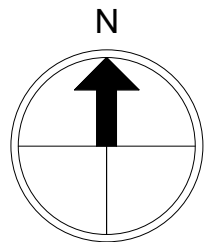
LUMINAIRE SCHEDULE

FIXTURE CALLOUT	FIXTURE DESCRIPTION	FIXTURE MODEL #	POLE PART #	MTG. HEIGHT	WATTS	VOLTAGE	QTY
A	LED POLE MTD. ACORN	PT-A850SRLED-5P-6ARC35T3-MDL03-A/CM	3916T5(MOD)/GF1/IUC/1-DBA/1-DHPA-Strap/CM	16' - 0"	92 VA	120 V	10
A-EX	EXISTING ACORN	PT-A850SRLED-5P-6ARC35T3-MDL03-A/CM	3916T5(MOD)/GF1/IUC/1-DBA/1-DHPA-Strap/CM	16' - 0"	92 VA	120 V	1



1 SITE

1" = 60'-0"

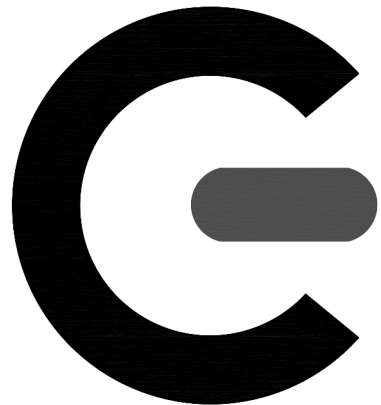


CITY OF CASTLE ROCK STREET LIGHTING CRITERIA

TARGET ILLUMINATION LEVELS

ROADWAY CLASSIFICATION TYPE	AVERAGE* (FC)	UNIFORMITY RATIO** (AVG/MIN)
COLLECTOR	0.4	6:1

ROADWAY SECTION:	AVERAGE:	MINIMUM:	AVG/MIN:
ROAD C	0.92FC	0.2FC	4.6
ROAD E	0.85FC	0.2FC	4.25
ROAD F	0.97FC	0.2FC	4.85
ROAD G	0.96FC	0.2FC	4.8
ROAD H	0.95FC	0.2FC	4.75
OVERALL LIGHTING	0.95FC	0.2FC	4.75



CASCADE
ELECTRICAL

1100 SE 23RD AVE
BATTLE GROUND, WA 98604
PHONE (360)687-1668

RIVER'S EDGE AT THE
LANDING SUBDIVISION

CASTLE ROCK, WA

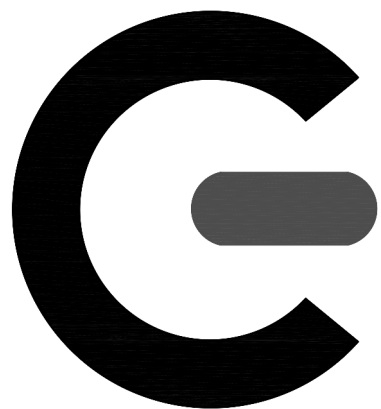
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REVISIONS		
PROJECT NUMBER: 25-P04		
ISSUE DATE:		3/26/2025
DESIGNED BY:		DEREK S.
REVIEWED BY:		RAND J.

PERMIT SET

SHEET

CL1.0

STREET
PHOTOMETRICS
SCALE
As indicated



CASCADE
ELECTRICAL

1100 SE 23RD AVE
BATTLE GROUND, WA 98604
PHONE (360)687-1668

RIVER'S EDGE AT THE LANDING SUBDIVISION

CASTLE ROCK, WA

MARK	DATE	DESCRIPTION
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REVISIONS

PROJECT NUMBER: 25-P04

ISSUE DATE: 3/26/2025

DESIGNED BY: DEREK S.

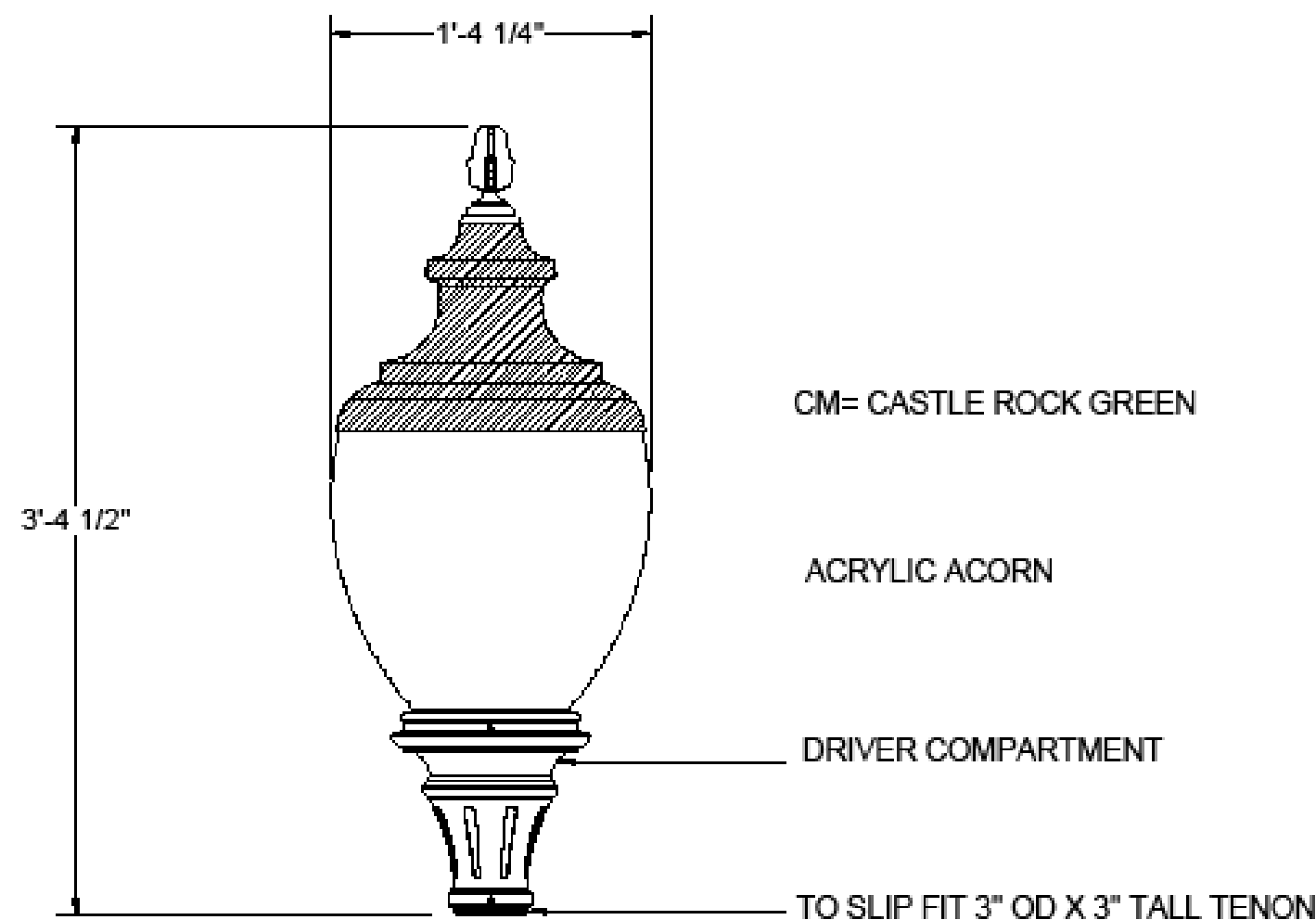
REVIEWED BY: RAND J.

PERMIT SET

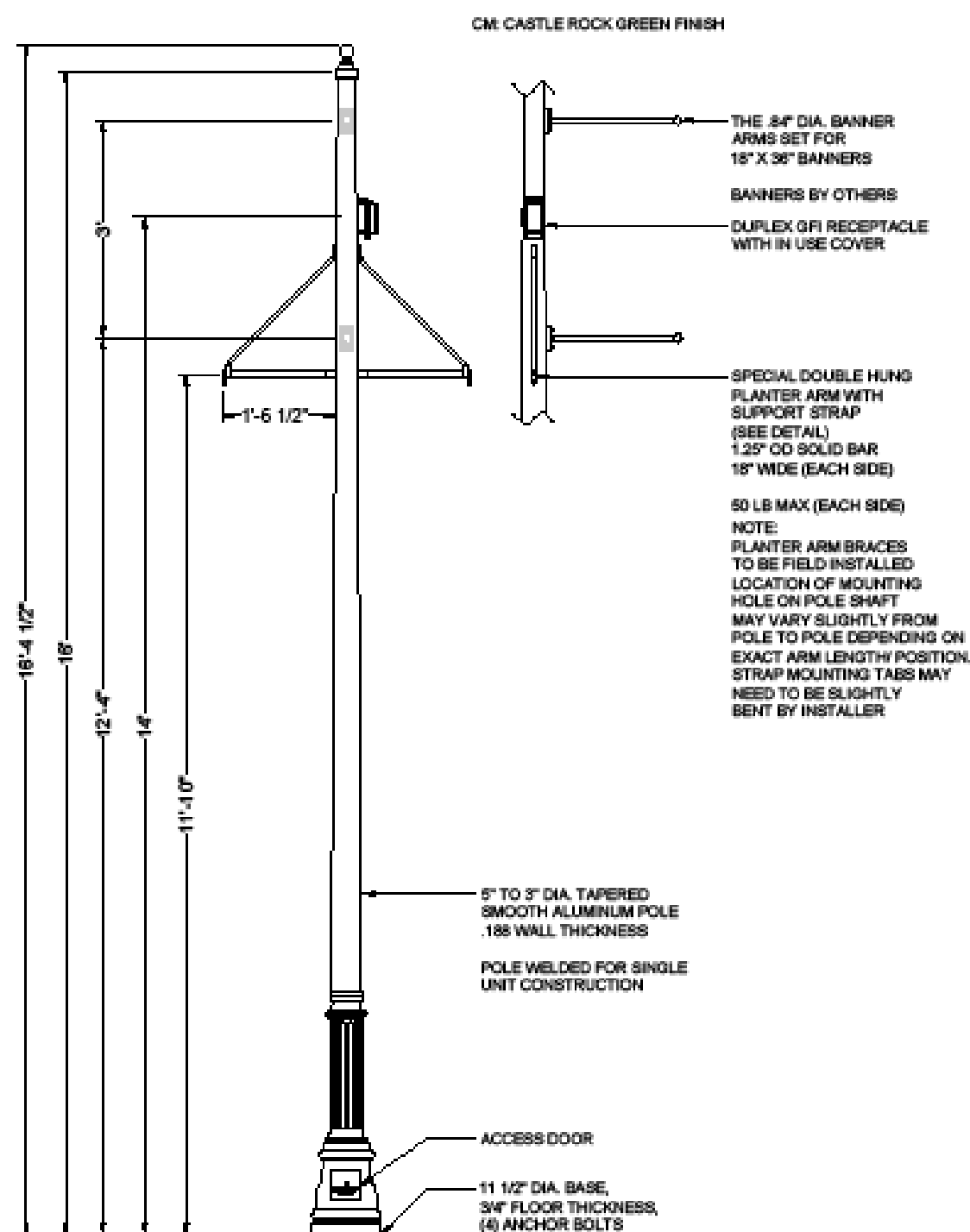
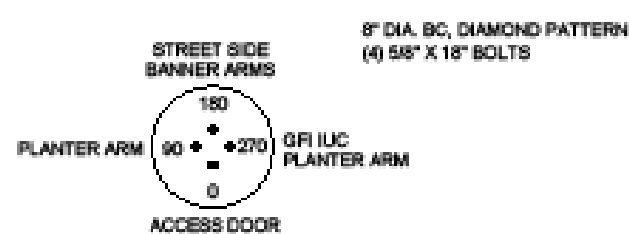
SHEET

CL1.1

FIXTURE
SPECIFICATIONS
SCALE

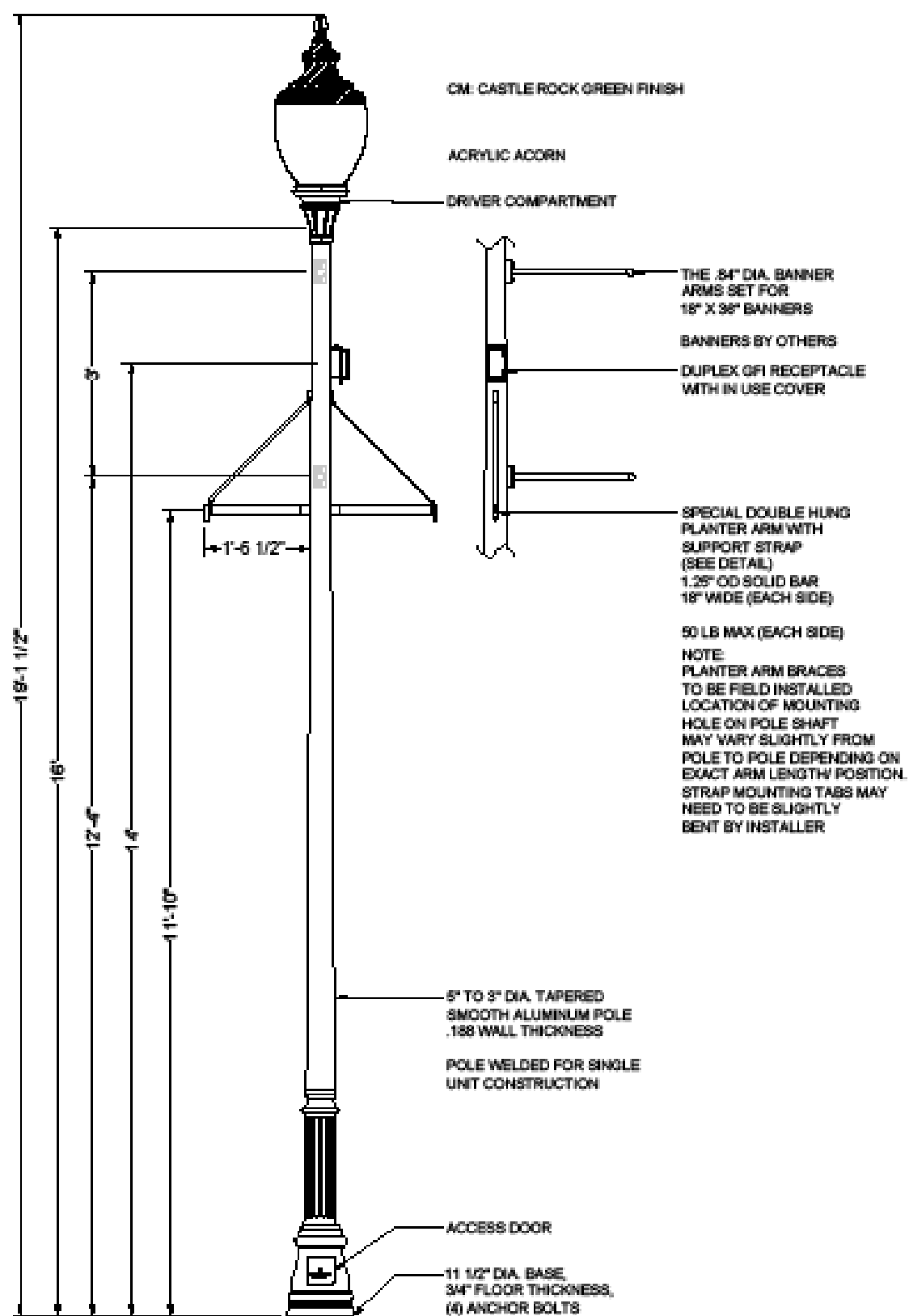
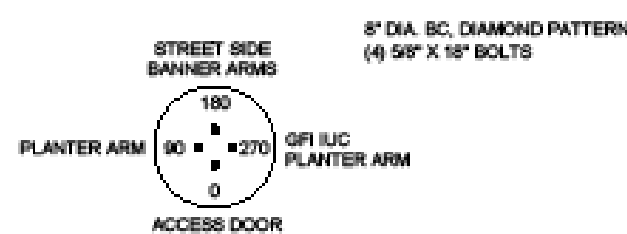


DATE: 2/13/25	DRAWN: EH	CHECKED:	CATALOG NO:
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REV A	ORIGINAL	DATE: 2/13/25	
REV	REVISIONS	DATE	RVSD
TOLERANCES: POLE: +/- 2" BANNER ARM SPACING: +/- 0.02" MOUNTING HT FOR POLE ACCESSORIES: +/- 0.01"			
JOB NAME: CASTLE ROCK, WA		LOCATION: CASTLE ROCK, WA	



SSP10288
Y0146+ 3000 BASE, MODIFIED FOR 5/8" BOLTS
Y0588+ CHPA MODIFIED WITH DECORATIVE STRAP

DATE: 2/13/25	DRAWN: EH	CHECKED:	CATALOG NO:
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REV	REVISIONS	DATE	RVSD
TOLERANCES: POLE: +/- 2" BANNER ARM SPACING: +/- 0.02" MOUNTING HT FOR POLE ACCESSORIES: +/- 0.01"			
JOB NAME: CASTLE ROCK, WA		LOCATION: CASTLE ROCK, WA	



SSP10288
Y0146+ 3000 BASE, MODIFIED FOR 5/8" BOLTS
Y0588+ CHPA MODIFIED WITH DECORATIVE STRAP

DATE: 2/13/25	DRAWN: EH	CHECKED:	CATALOG NO:
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REV	REVISIONS	DATE	RVSD
TOLERANCES: POLE: +/- 2" BANNER ARM SPACING: +/- 0.02" MOUNTING HT FOR POLE ACCESSORIES: +/- 0.01"			
JOB NAME: CASTLE ROCK, WA		LOCATION: CASTLE ROCK, WA	