

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington

**PROJECT DESCRIPTION**  
 SITE DEVELOPMENT IMPROVEMENTS, INCLUDING CLEARING, GRADING, RETAINING WALLS, PARKING LOT, STORM DRAINAGE, SANITARY SEWER MAIN, WATER MAIN FOR 238 UNIT MULTI-FAMILY DEVELOPMENT.

**SITE ADDRESS:** 202 27TH AVE SE  
**PARCEL NUMBER:** 041903-0-006

**ZONING:** RM-CORE

**ENGINEER/SURVEYOR:**  
 AZURE GREEN CONSULTANTS  
 409 EAST PIONEER  
 PUYALLUP, WA 98372  
 PHONE: 253.770.3144

**OWNER:**  
 BRADLEY HEIGHTS SS, LLC  
 614 BOYLSTON AVE E  
 SEATTLE, WA 98102

**EROSION & SEDIMENT INSPECTION**  
 PRIOR TO STARTING SITE WORK, REQUEST AN INSPECTION FOR EROSION AND SEDIMENT. INSPECTION CODE THROUGH THE PERMIT PORTAL OR BY CONTACTING THE INSPECTOR DIRECTLY.

**BROKEN CURB, GUTTER, OR SIDEWALK**  
 ANY PUBLIC CURB, GUTTER, OR SIDEWALK BROKEN NOW OR DURING THE COURSE OF CONSTRUCTION SHALL BE REMOVED AND REPLACED PER CITY STANDARDS.

**GENERAL NOTES**

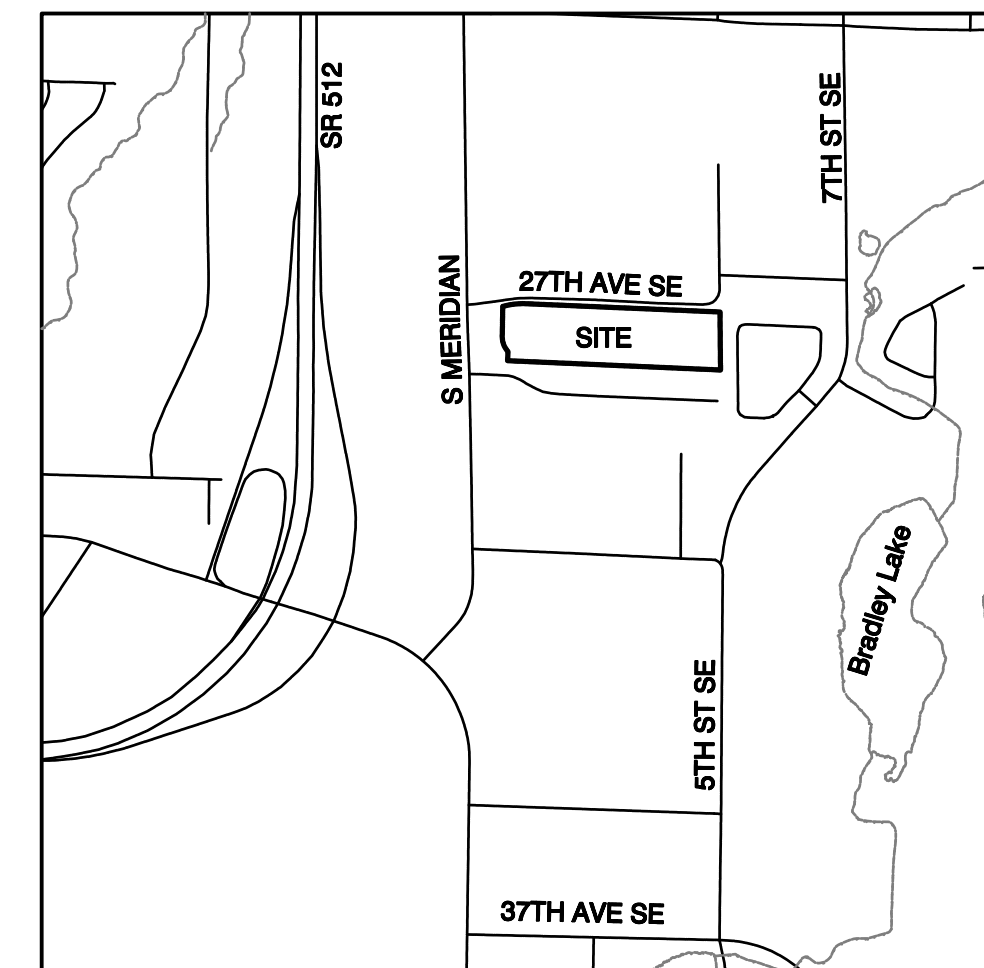
- All work in City right-of-way requires a permit from the City of Puyallup. Prior to any work commencing, the general contractor shall arrange for a preconstruction meeting at the Development Services Center to be attended by all contractors that will perform work shown on the approved engineering plans, representatives from all applicable utility companies, the project owner and appropriate city staff. Contact Engineering Services at (253-841-5568) to schedule the meeting. The contractor is responsible to have their own set of approved plans at the meeting.
- After completion of all items shown on these plans and before acceptance of the project the contractor shall obtain a "punch list" prepared by the City's inspector detailing remaining items of work to be completed. All items of work shown on these plans shall be completed to the satisfaction of the City prior to acceptance of the water system and provision of sanitary sewer service.
- All materials and workmanship shall conform to the Standard Specifications for Road, Bridge, and Municipal Construction (hereinafter referred to as the "Standard Specifications"), Washington State Department of Transportation and American Public Works Association, Washington State Chapter, latest edition, unless superseded or amended by the City of Puyallup City Standards for Public Works Engineering and Construction (hereinafter referred to as the "City Standards").
- A copy of these approved plans and applicable city developer specifications and details shall be on site during construction.
- Any revisions made to these plans must be reviewed and approved by the developer's engineer and the City prior to any implementation in the field. The City shall not be responsible for any errors and/or omissions on these plans.
- The contractor shall have all utilities verified on the ground prior to any construction. Call (811) at least two working days in advance. The owner and his/her engineer shall be contacted immediately if a conflict exists.
- Any structure and/or obstruction that requires removal or relocation relating to this project shall be done so at the developer's expense.
- Locations of existing utilities are approximate. It shall be the contractor's responsibility to determine the true elevations and locations of hidden utilities. All visible items shall be the engineer's responsibility.
- The contractor shall install, replace, or relocate all signs, as shown on the plans or as affected by construction, per City Standards.
- Power, street light, cable, and telephone lines shall be in a trench located within a 10-foot utility easement adjacent to public right-of-way. Right-of-way crossings shall have a minimum horizontal separation from other utilities (sewer, water, and storm) of 5 feet.
- All construction surveying for extensions of public facilities shall be done under the direction of a Washington State licensed land surveyor or a Washington State licensed professional civil engineer.
- During construction, all public streets adjacent to this project shall be kept clean of all material deposits resulting from on-site construction, and existing structures shall be protected as directed by the City.
- Certified record drawings are required prior to project acceptance.
- A NPDES Stormwater General Permit may be required by the Department of Ecology for this project. For information contact the Department of Ecology, Southwest Region Office at (360)407-6300.
- Any disturbance or damage to Critical Areas and associated buffers, or significant trees designated for preservation and protection shall be mitigated in accordance with a Mitigation Plan reviewed and approved by the City's Planning Division. Preparation and implementation of the Mitigation Plan shall be at the developer's expense.

**SURVEY MONUMENTS**

Contractor is responsible for protecting all survey monuments within the area of work. If it is necessary to disturb a survey monument, a permit must be requested in advance from the Department of Natural Resources. The developer must pay the cost of repairing or replacing the survey monument and is responsible for all contractors working for them. Reference WAC 332-120.

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**VICINITY MAP**  
 SCALE: 1"=1000'

**LEGEND**

350	EX. CONTOUR	⊕	EX. HYDRANT
350	DESIGN CONTOUR	⊙	EX. STORM MANHOLE
—	LEGAL ROAD CENTERLINE	+	WATER VALVE
—	RIGHT-OF-WAY LINE	—E	EX. POWER LINE
—	EX. PLAIN EDGE OF ASPHALT	—T	EX. COMM. LINE
—E/P	PROPOSED PLAIN EDGE OF ASPHALT	⊕	PROPOSED FIRE HYDRANT OR FDC
—	EX. DITCH	⊕	WATER METER
—	PROJECT BOUNDARY	⊕	BACKFLOW PREVENTER
—	LOT LINE	⊕	AIR/VAC ASSEMBLY
—	EX. CATCH BASIN	⊕	PIV
—SD	EX. STORM	⊕	NEW ASPHALT PAVING
—	PROPOSED CB-TYPE 1	⊕	NEW CONCRETE
—	PROPOSED CB-TYPE 2		
—SD	PROPOSED STORM		
—W	WATER MAIN		
—S	SANITARY SEWER		
⊕	SANITARY SEWER MANHOLE		
⊕	STANDARD MONUMENT		
+	POWER POLE		

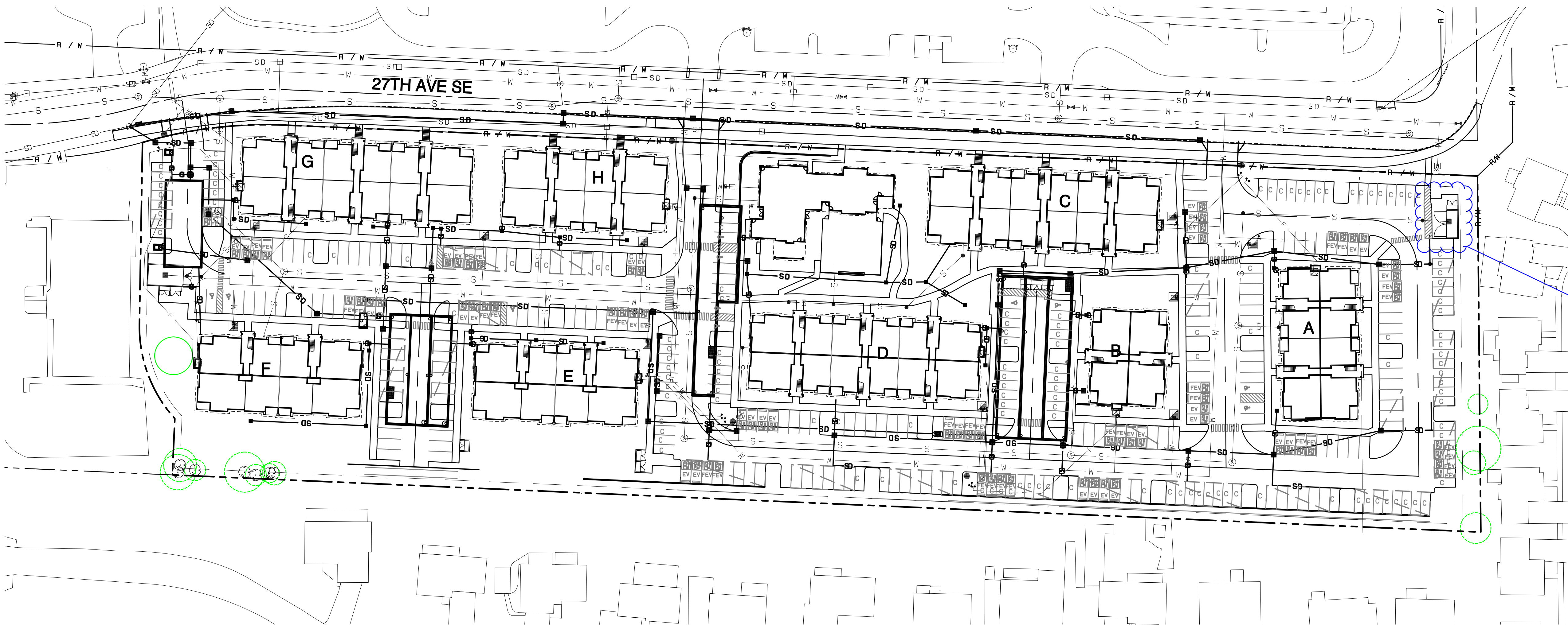
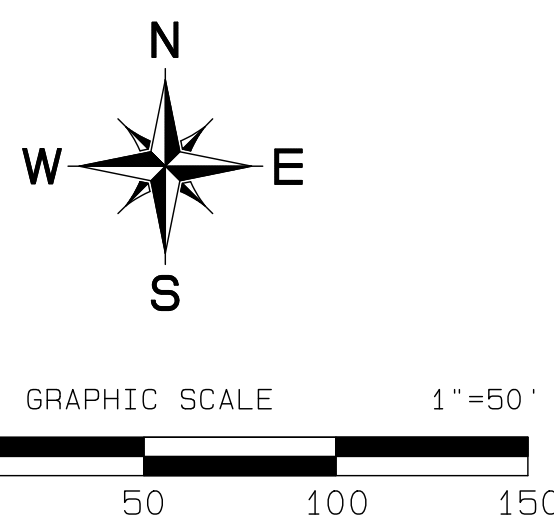
**APPLICANT**  
 Timberlane Partners  
 Contact: Jordan Møllergaard  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.899.0326  
 jordan@timberlanepartners.com

**DATUM**  
 NAVD88

**BENCHMARK**  
 WSDOT BM 27512-17  
 MON ID 244  
 PUBLISHED ELEVATION 409.95' NAVD88

**TOPOGRAPHIC INFORMATION**  
 FRONTAGE TOPOGRAPHICAL DATA IS PER PER FIELD SURVEY PERFORMED BY AZURE GREEN CONSULTANTS IN MARCH 2022. ONSITE TOPOGRAPHICAL DATA IS PER 2010 LIDAR AS OBTAINED BY PIERCE COUNTY.

**100-YEAR FLOOD**  
 THE SITE DOES NOT CONTAIN A 100-YEAR FLOODPLAIN.



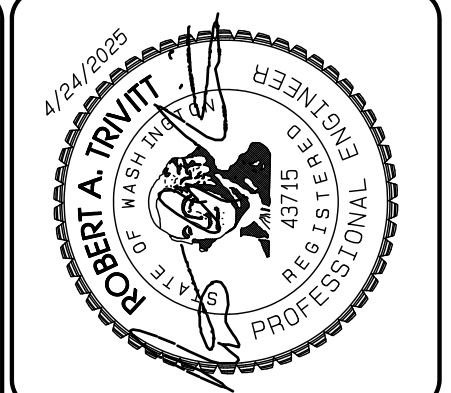
- Watertight trash/recycle containers required.
- Trash enclosure side sewer shall comply with city of puyallup standard detail 04.03.04.
- Roof downspouts for enclosures shall be connected to stormwater collection system.
- Interior floor of the trash enclosure shall slope towards a Type 1 catch basin, or equivalent, and be plumbed to sanitary sewer. See site plan.
- Surfaces must slope away from the enclosure to prevent stormwater tributary runoff from entering the enclosure area.
- Recycling enclosure location.

PRCNC20260042

**City of Puyallup Planning Division APPROVED**  
 See permit conditions.  
 JHulse/Lew  
 02/17/2026  
 9:14:23 AM

APPROVED  
 BY: CITY OF PUYALLUP DEVELOPMENT SERVICES  
 DATE: \_\_\_\_\_

**NOTE:**  
 THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.  
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REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/26/24
2 Revised per City review.	4/7/25
3 Revised per City & Ashi review.	4/21/25
4 Revised per City & Ashi review.	
5	
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JOB NO. 3327  
 DATE: May 14, 2024  
 DESIGNED BY: Rob. Trivitt  
 DRAWN BY: Rob. Trivitt  
 CHECKED BY: Azure Green  
 APPROVED BY: Rob. Trivitt

**AZURE GREEN CONSULTANTS**  
 \*feasibility \*planning \*engineering \*surveying  
 409 East Pioneer, Suite A - Puyallup, WA 98372  
 Phone: 253.770.3144, Fax: 253.770.3142

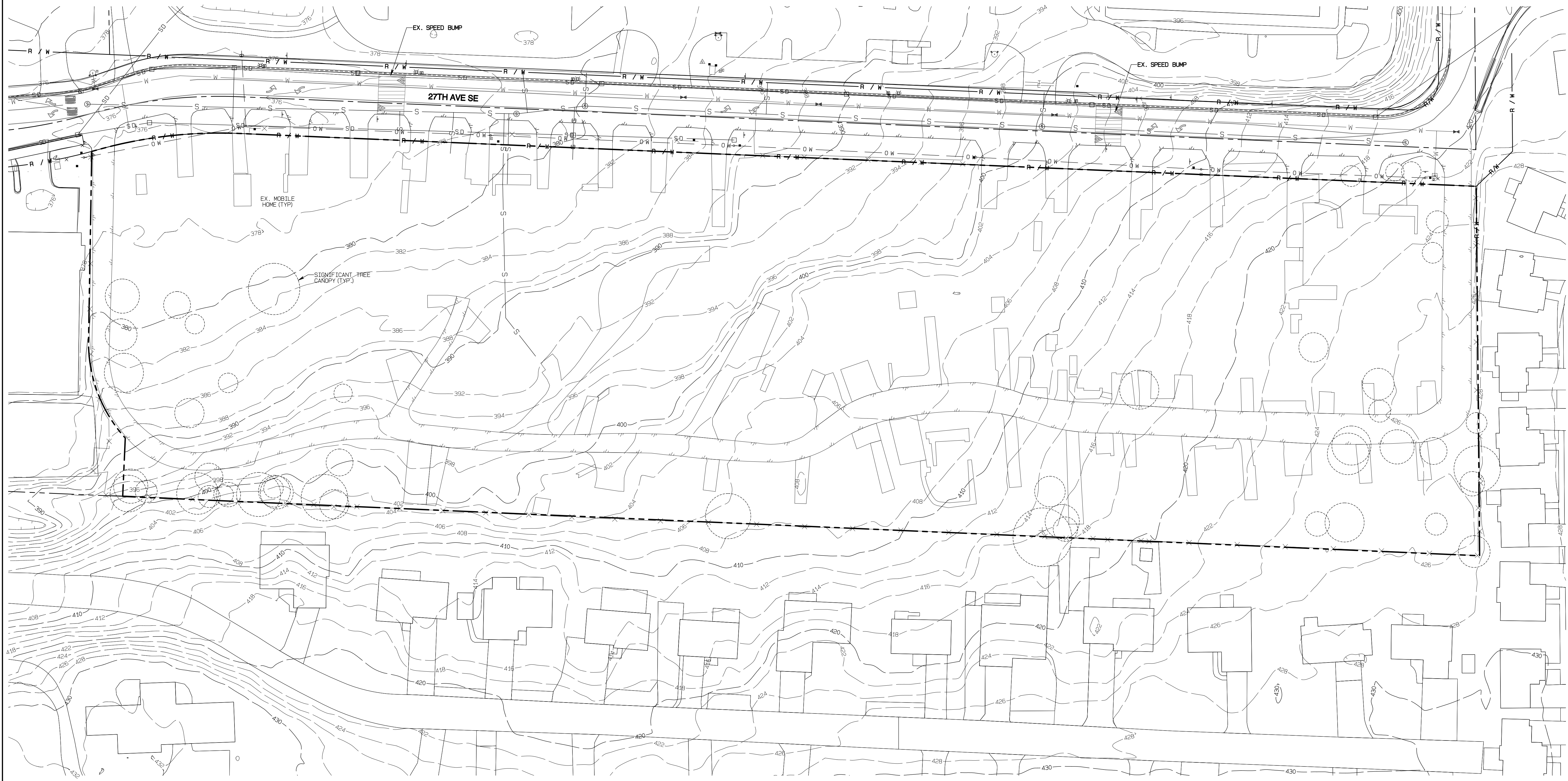
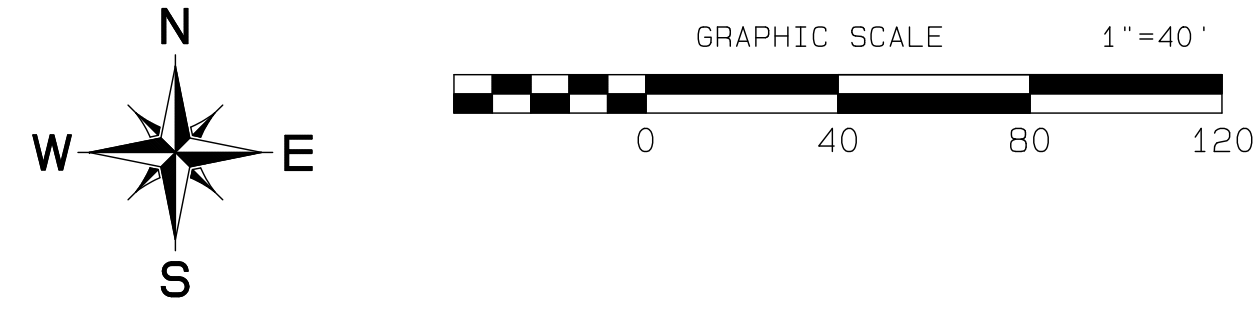
**Cover Sheet**  
 Bradley Heights  
 Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.899.0326  
 Fax jordan@timberlanepartners.com

**DRAWING**  
**G-1**  
 SHEET 1  
 OF 60

Project Desc: Bradley Heights - Bradley Heights, Timeline: 20250424\_E106.dwg - Plot Date: 7/11/2024

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



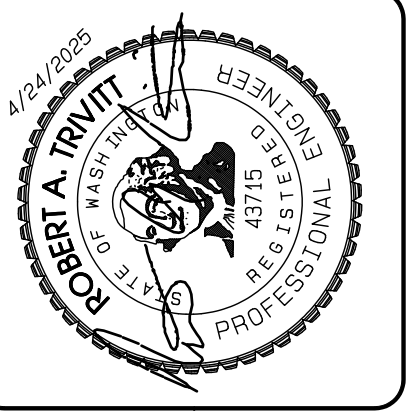
- DEMO KEY NOTES**
- ① CUT AND CAP EX. SS SERVICE AT MAIN  
NOTE: 5 LOCATIONS IDENTIFIED ON PLANS  
CITY DATA INDICATES THERE ARE 2 ADDITIONAL SERVICES  
CONTRACTOR SHALL OBTAIN A CCTV INSPECTION REPORT  
TO VERIFY NUMBER AND LOCATIONS OF SERVICES.

**APPROVED**

BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

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JOB NO. 3327  
DATE: May 14, 2024  
DESIGNED BY: Rob Trivitt  
DRAWN BY: Rob Trivitt  
CHECKED BY: Rob Green  
APPROVED BY: Rob Green

**AZURE GREEN**  
CONSULTANTS  
+ feasibility + planning + engineering + surveying  
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phone: 253.770.3144 fax: 253.770.3142

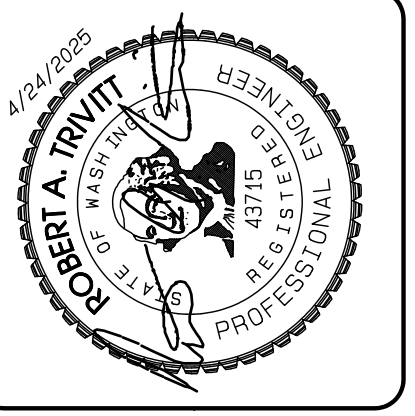
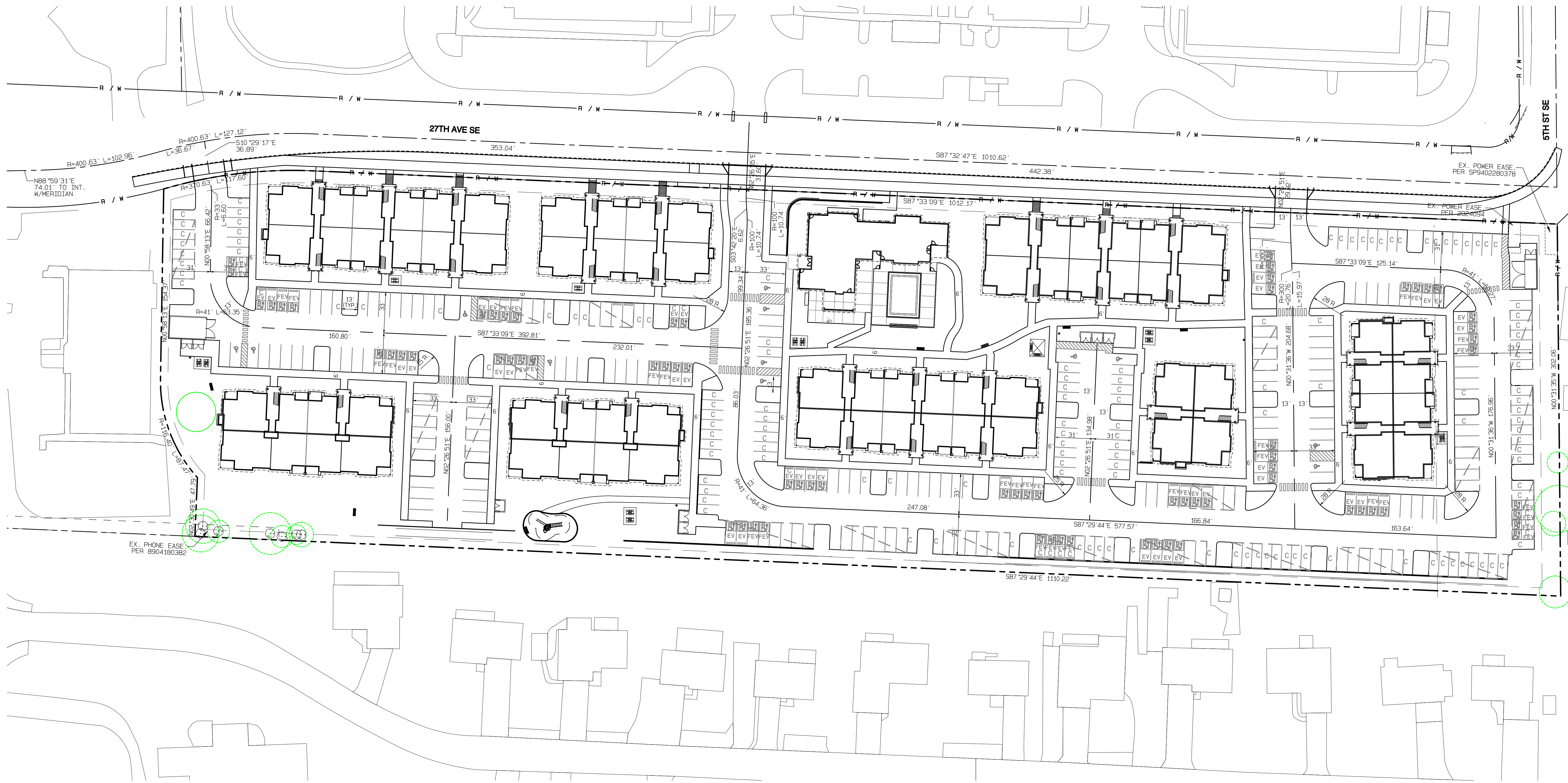
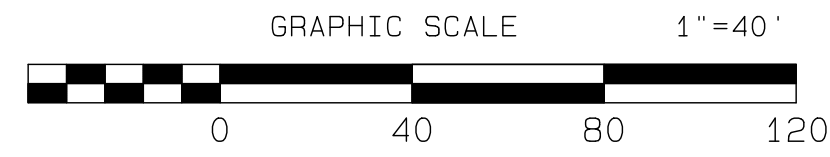
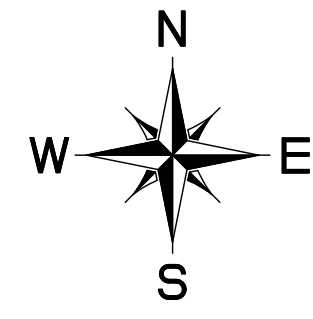
**Existing Conditions**  
Bradley Heights  
Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.899.0326  
Fax jordan@timberlanepartners.com

**DRAWING**  
**G-2**  
SHEET OF 2 60

Project Desc.: Bradley Heights; Plan#: E:\sub\3327 - Bradley Heights\Timberlane\1816\1816.dwg; P&S: 4/24/2025/7:12:40PM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



REVISION	DATE
1	11/29/24
2	4/7/25
3	4/27/25
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JOB NO. 3327  
 DATE: May 14, 2024  
 DESIGNED BY: Rnd. Trivitt  
 DRAWN BY: Rnd. Trivitt  
 CHECKED BY: Rnd. Trivitt  
 APPROVED BY: Rnd. Trivitt

**AZURE GREEN**  
CONSULTANTS

\*feasibility \*planning \*engineering \*surveying  
 419 East Pioneer, Suite A - Puyallup, WA 98372  
 phone: 253.770.3144 fax: 253.770.3142

APPROVED

BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

**NOTE:**

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**Horizontal Control**

**Bradley Heights**

Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.896.0326  
 Fax jordan@timberlanepartners.com

DRAWING

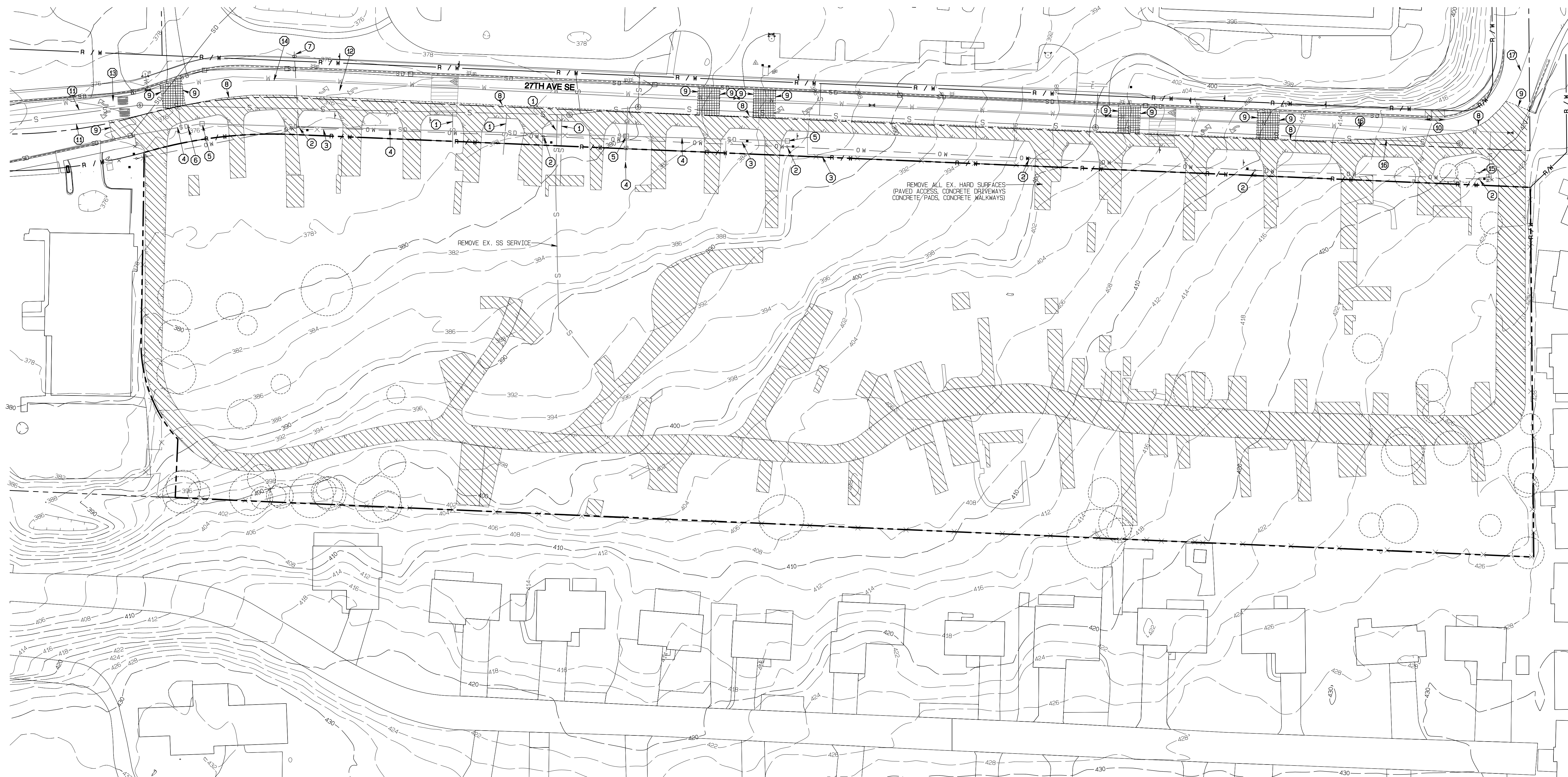
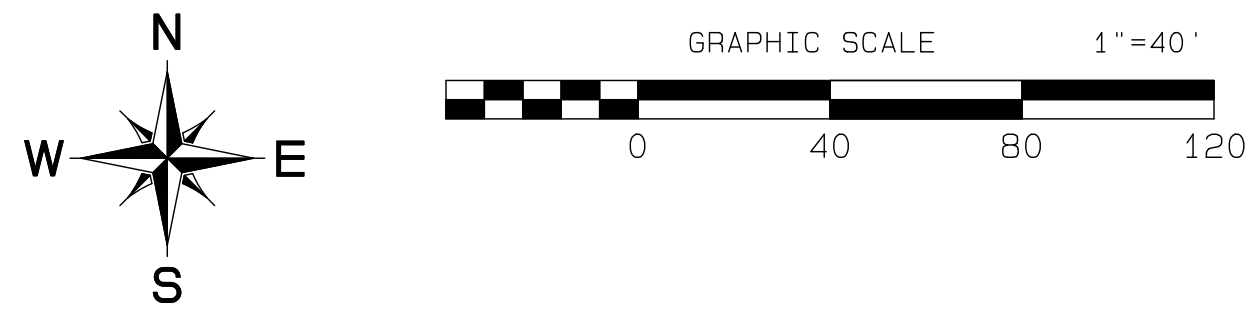
**G-3**

SHEET OF 3 60

Project Desc.: Bradley Heights  
 Plan: E. Lubbs 3327 - Bradley Heights  
 P01. Data/Title: 4/24/2025/7:13:00PM  
 20250424\_E10.dwg

# Bradley Heights

## Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



REMOVE ALL EX. HARD SURFACES  
(PAVED ACCESS, CONCRETE DRIVEWAYS,  
CONCRETE PADS, CONCRETE WALKWAYS)

REMOVE EX. SS SERVICE

### DEMO KEY NOTES

- 1 CUT AND CAP EX. SS SERVICE AT MAIN  
4 LOCATIONS IDENTIFIED ON PLANS  
PER CITY DATA THERE ARE THREE ADDITIONAL SERVICES  
CONTRACTOR TO PROVIDE CCTV INSPECTION  
FOR VERIFICATION OF NUMBER AND LOCATION OF SERVICES.
- 2 REMOVE POWER POLE  
COORDINATE WITH UTILITY COMPANIES
- 3 REMOVE EX. FENCE
- 4 REMOVE EX. STORM PIPE
- 5 REMOVE EX. CATCH BASIN
- 6 RELOCATE EX. SIGN TO CLEAR NEW SIDEWALK
- 7 REMOVE ANCHOR POLE AND GUY ANCHOR  
COORDINATE WITH UTILITY COMPANIES
- 8 SAWCUT ALONG EXISTING STRIPE  
OBLITERATE ANY REMAINING STRIPE
- 9 TRANSVERSE SAWCUT
- 10 REMOVE CURB RAMP, CURB & GUTTER
- 11 OBLITERATE TURN POCKET STRIPE BACK TO STOP BAR  
USE HYDRO-BLASTING FOR STRIPING REMOVAL
- 12 OBLITERATE TURN ARROWS  
USE HYDRO-BLASTING FOR STRIPING REMOVAL
- 13 EX. ARROWS & "ONLY" TO REMAIN
- 14 OBLITERATE TWLT STRIPE TO MATCH  
POINT PER CHANNELIZATION PLAN  
USE HYDRO-BLASTING FOR STRIPING REMOVAL
- 15 REMOVE EXISTING MOBILE HOME PARK SIGN
- 16 OBLITERATE TURN POCKET TAPER STRIPE  
USE HYDRO-BLASTING FOR STRIPING REMOVAL
- 17 OBLITERATE DOUBLE YELLOW CENTER STRIPE  
USE HYDRO-BLASTING FOR STRIPING REMOVAL

### DEMO LEGEND

- REMOVE PAVING/CONCRETE
- 2" PAVEMENT GRIND

APPROVED

BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES

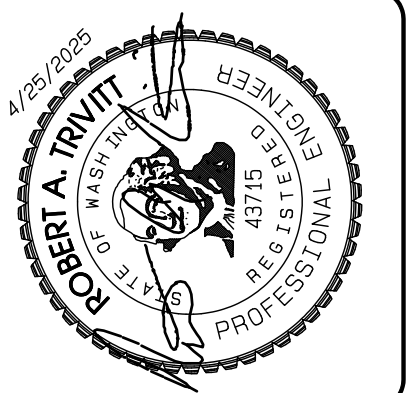
DATE: \_\_\_\_\_

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JOB NO. 3327
DATE: May 14, 2024
DESIGNED BY: Rob Trivitt
DRAWN BY: Rob Trivitt
CHECKED BY: Rob Green
APPROVED BY: Paul Green

**AZURE GREEN**  
CONSULTANTS

feasibility • planning • engineering • surveying

419 East Pioneer, Suite A - Puyallup, WA 98372 phone: 253.770.3144 fax: 253.770.3142

**Demolition Plan**

**Bradley Heights**

Timberlane Partners  
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Seattle, WA 98122  
Phone 509.886.0326  
Fax jordan@timberlanepartners.com

DRAWING

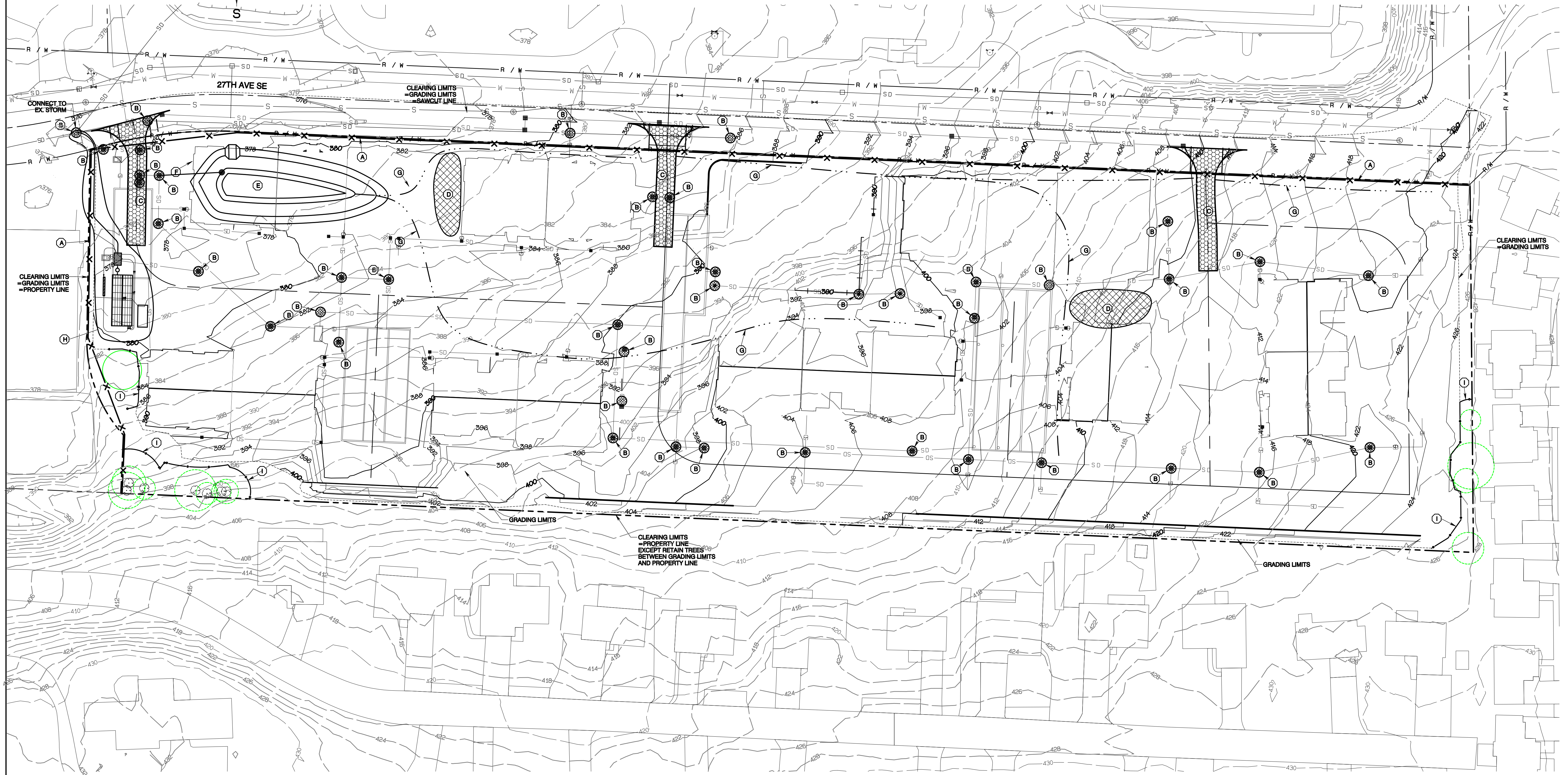
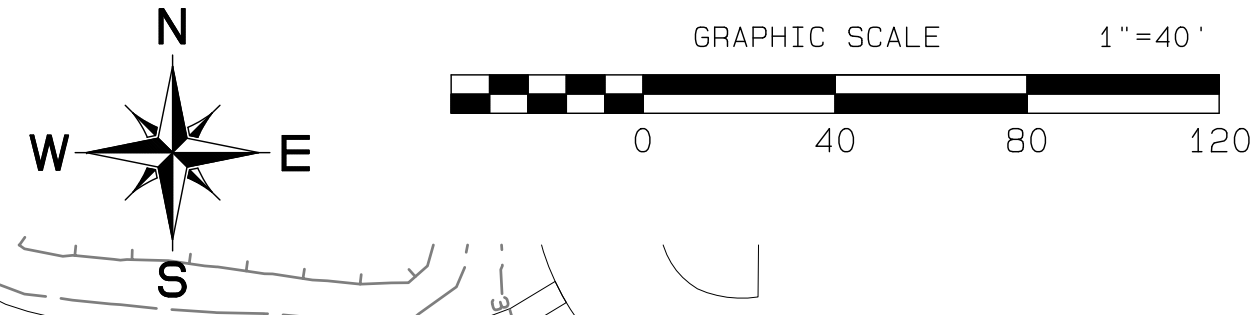
**G-4**

SHEET 4  
OF 60

Project Desc: Bradley Heights Date: E:\urban\3327 - Bradley Heights\Timberlane\Bradley Heights 20250425 E16.dwg P01.dwg/11/29/24 4/25/2025 7:52:03AM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



**ESC KEY NOTES**

- (A) INSTALL SILT FENCE PER STD 02.03.02, SHEET G-7
- (B) INSTALL BAG FILTER, SEE DETAIL SHEET G-7
- (C) INSTALL CONSTRUCTION ENTRANCE, SEE STD 05.01.01, SHEET G-7
- (D) STOCKPILE AREA
- (E) SEDIMENT POND  
SEE NOTES TO RIGHT  
SEE DETAILS SHEET G-7  
ORIFICE:  
I.E. = 372.86  
RISER = 3"  
DIA. = 8"  
TOP = 376.36  
DIA. = 18"  
AREA @ TOP OF RISER = 5,117 SF MIN.
- (F) 52LF 12" DIP @ 0.5% MIN.  
TEMP CONNECTION TO NEW CB1-3
- (G) TEMPORARY INTERCEPTOR SWALES  
TO COLLECT AND CONVEY CONSTRUCTION  
RUNOFF TO SEDIMENT POND  
EXACT LOCATIONS WILL VARY THROUGHOUT  
CONSTRUCTION. INSTALL 12" CULVERT AS  
NEEDED AT ACCESS CROSSINGS
- (H) CONCEPTUAL BAKER TANK SYSTEM WITH  
SAND FILTER AND RECIRC. TO BE INSTALLED  
IF IT IS DETERMINED THAT OTHER BMPs  
ARE NOT ADEQUATE
- (I) TREE PROTECTION FENCING  
SEE DETAIL SHEET G-7

**SEDIMENT POND NOTES**

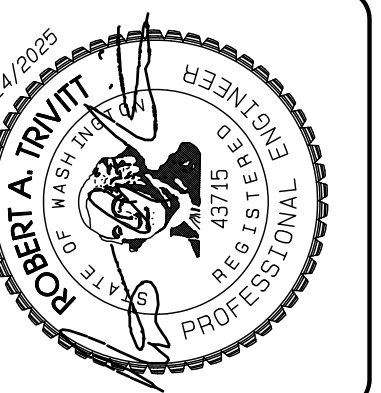
SEDIMENT POND SHALL BE FUNCTIONAL BEFORE ANY  
GROUND DISTURBING ACTIVITY TAKES PLACE.  
INCLUDE RISER STICK IN POND WITH CLEAR MARKING  
AT 1 FOOT ABOVE POND BOTTOM.  
SEDIMENT TO BE REMOVED WHENEVER DEPTH REACHES  
1 FOOT.  
OVERFLOW SPILLWAY TO HAVE A BOTTOM LENGTH OF 6 FEET.  
VAULT #2 MAY BE USED AS TEMPORARY SEDIMENT POND AND  
IF THIS IS DONE, SURFACE POND MAY BE REMOVED.

APPROVED

BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES  
DATE: \_\_\_\_\_

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APPROVED BY: Rob Trivitt

**AZURE GREEN**  
CONSULTANTS

+ feasibility + planning + engineering + surveying

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Phone: 253.770.3144, Fax: 253.770.3142

**TESC Plan**

**Bradley Heights**

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Fax: jordan@timberlanepartners.com

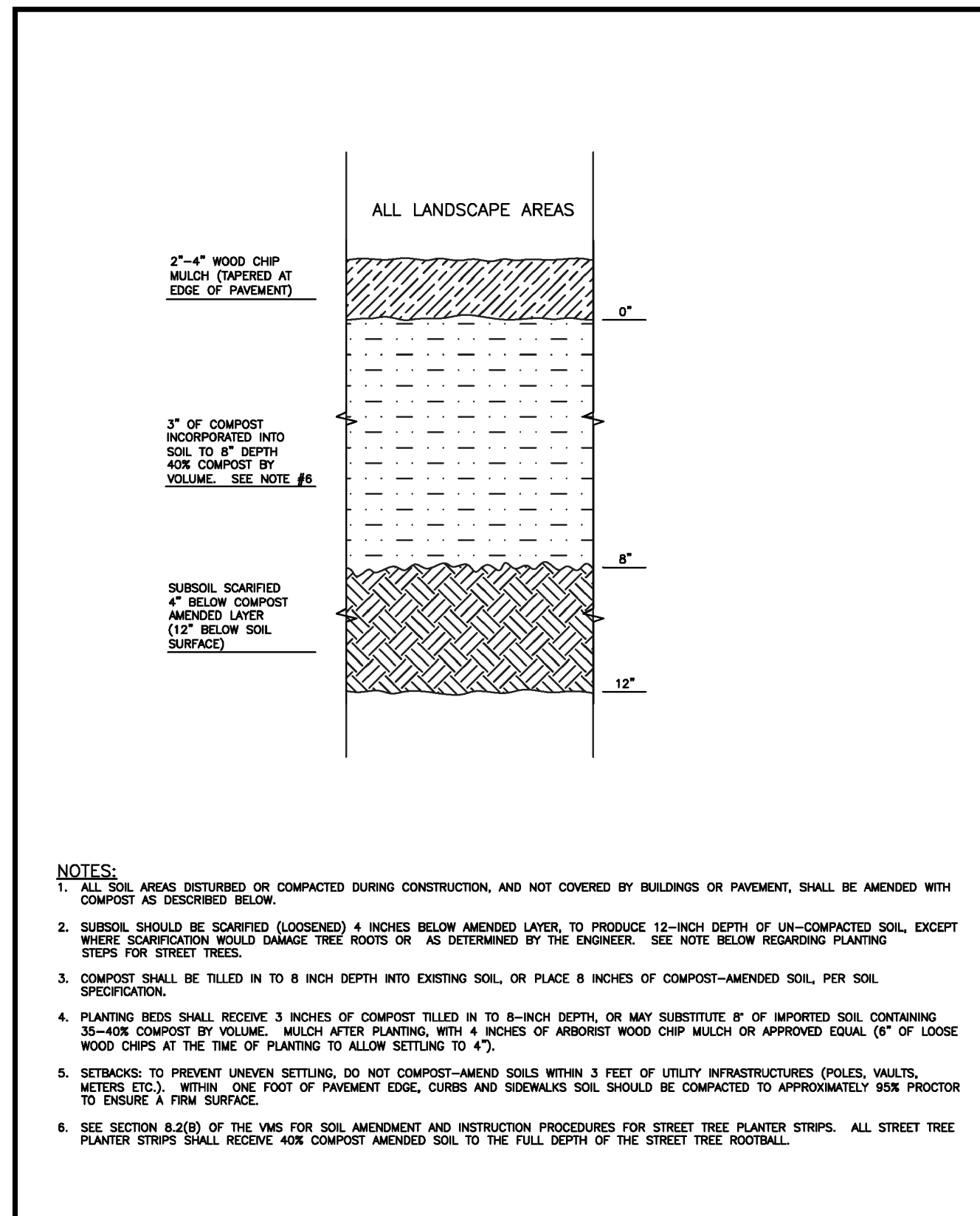
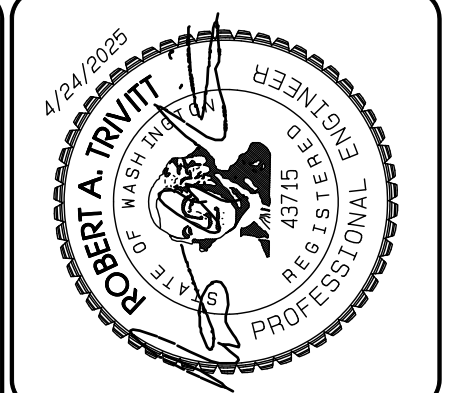
DRAWING  
**G-5**  
SHEET 5  
OF 60

Project: Bradley Heights, Date: E:\sub\3227 - Bradley Heights\Timberlane\Bradley Heights 20250424 E106.dwg, P01, Date/Time: 4/24/2025 7:14:41 PM

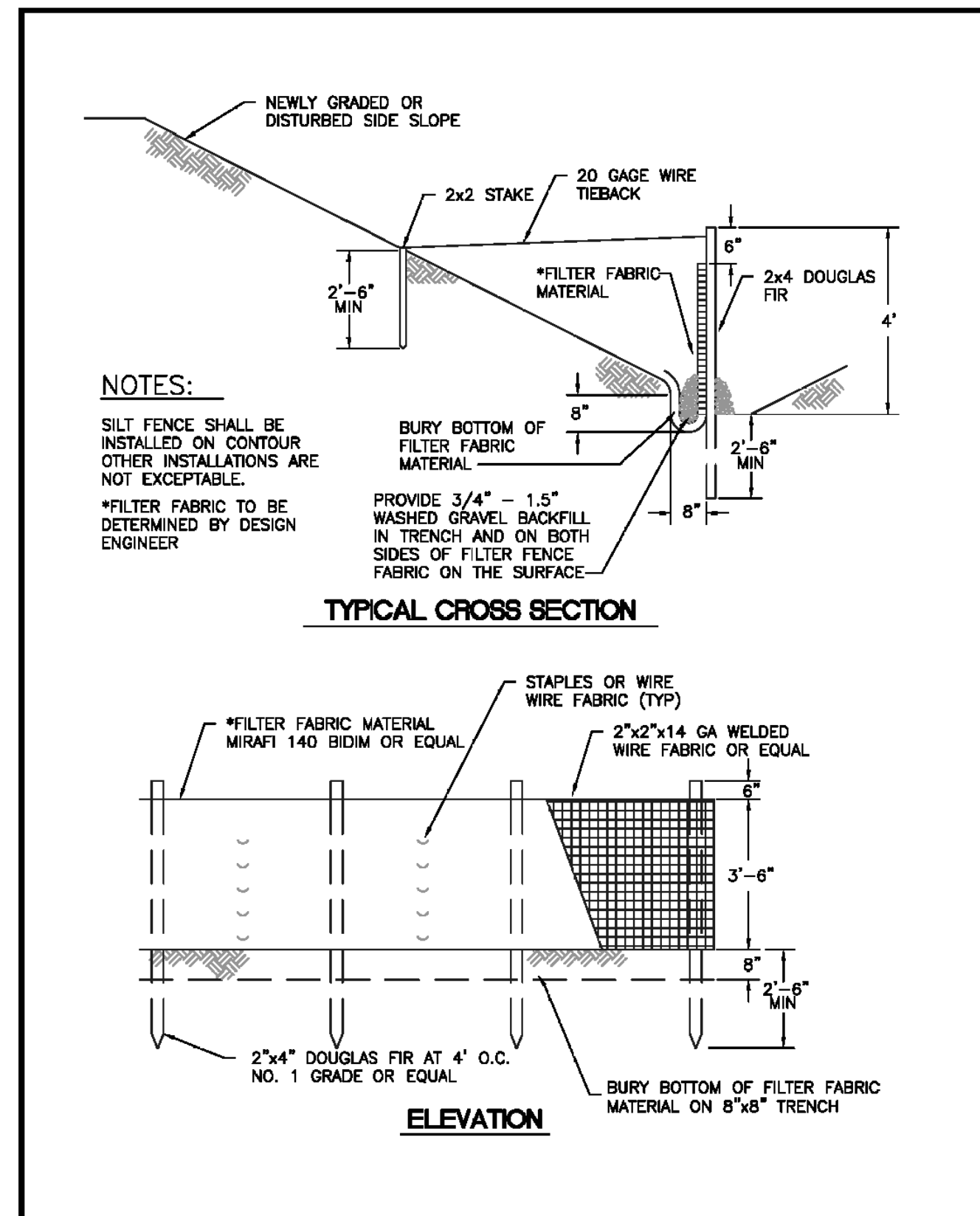


# Bradley Heights

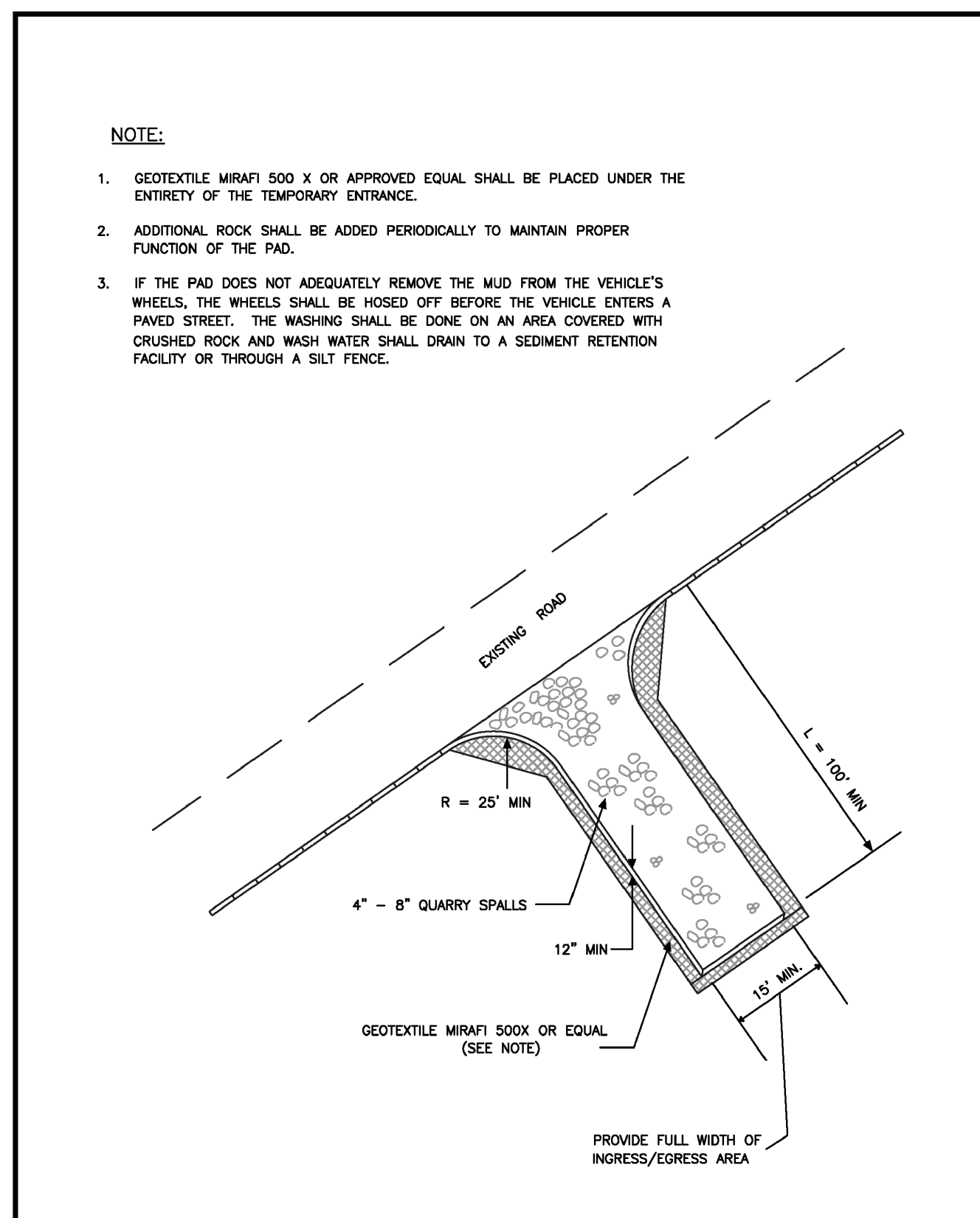
## Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



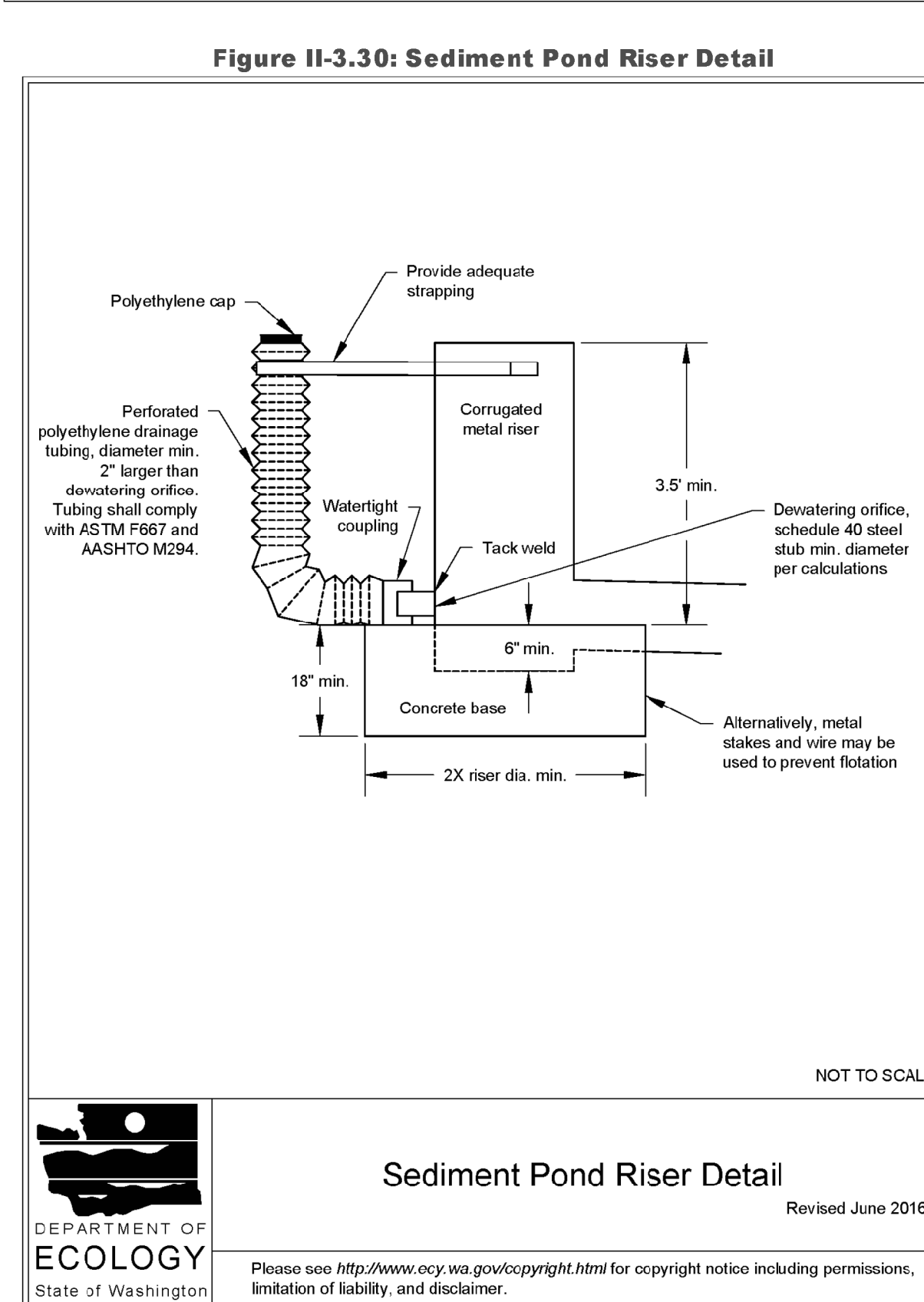
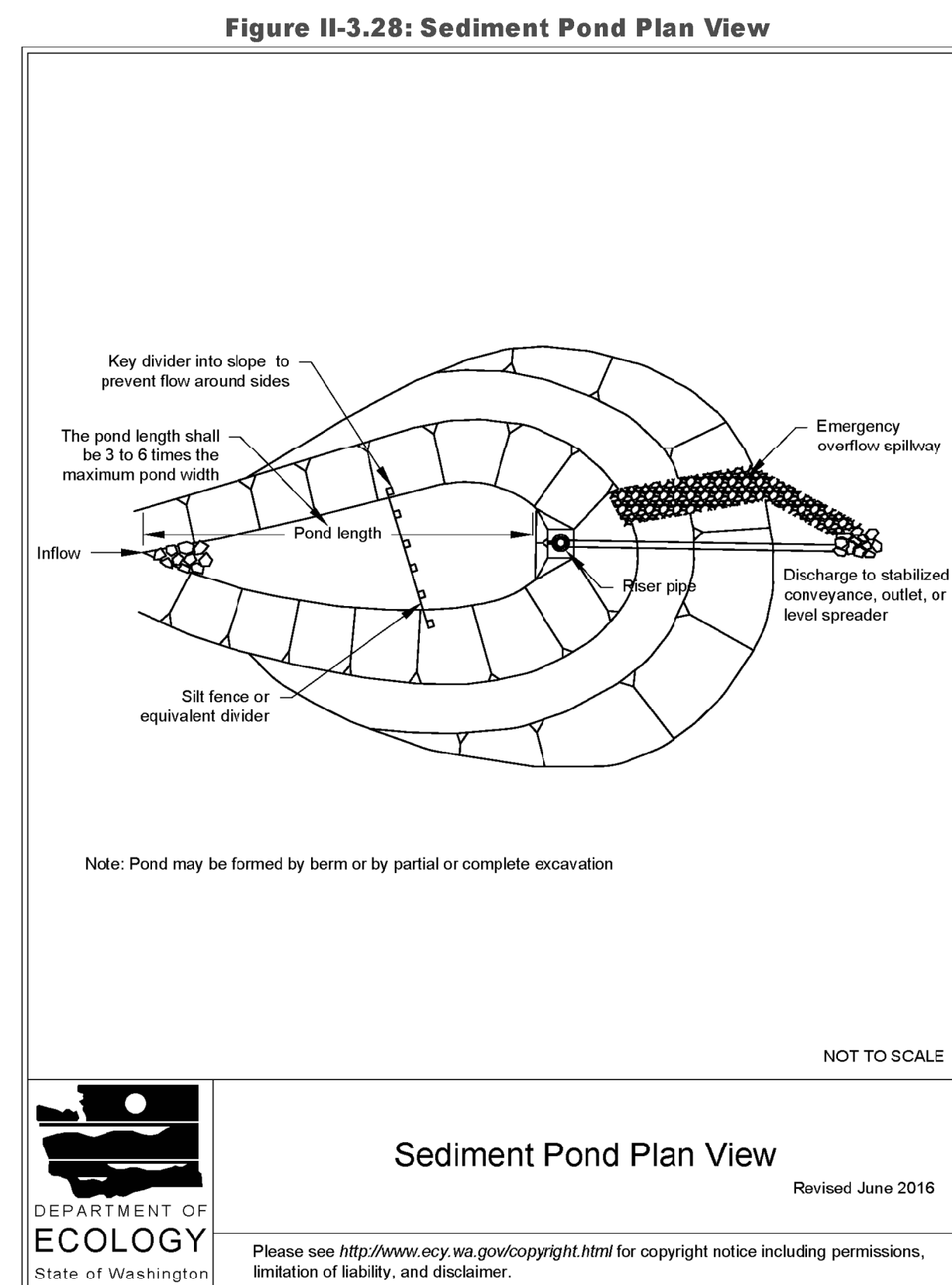
	<b>CITY OF PUYALLUP</b>		<b>SOIL AMENDMENT AND DEPTH</b>		CITY STANDARD 01.02.08a
	DESIGNED BY LINDA LEAN	CHECKED BY LINDA LEAN	APPROVED BY COLLEEN HARRIS	DESIGNED BY BOB	
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS		FILE NAME P:\PROJECTS\CONSTRUCTION\BRADLEYHEIGHTS\08260106101.dwg		DATE APPROVED 08/20/08	SCALE AS SHOWN



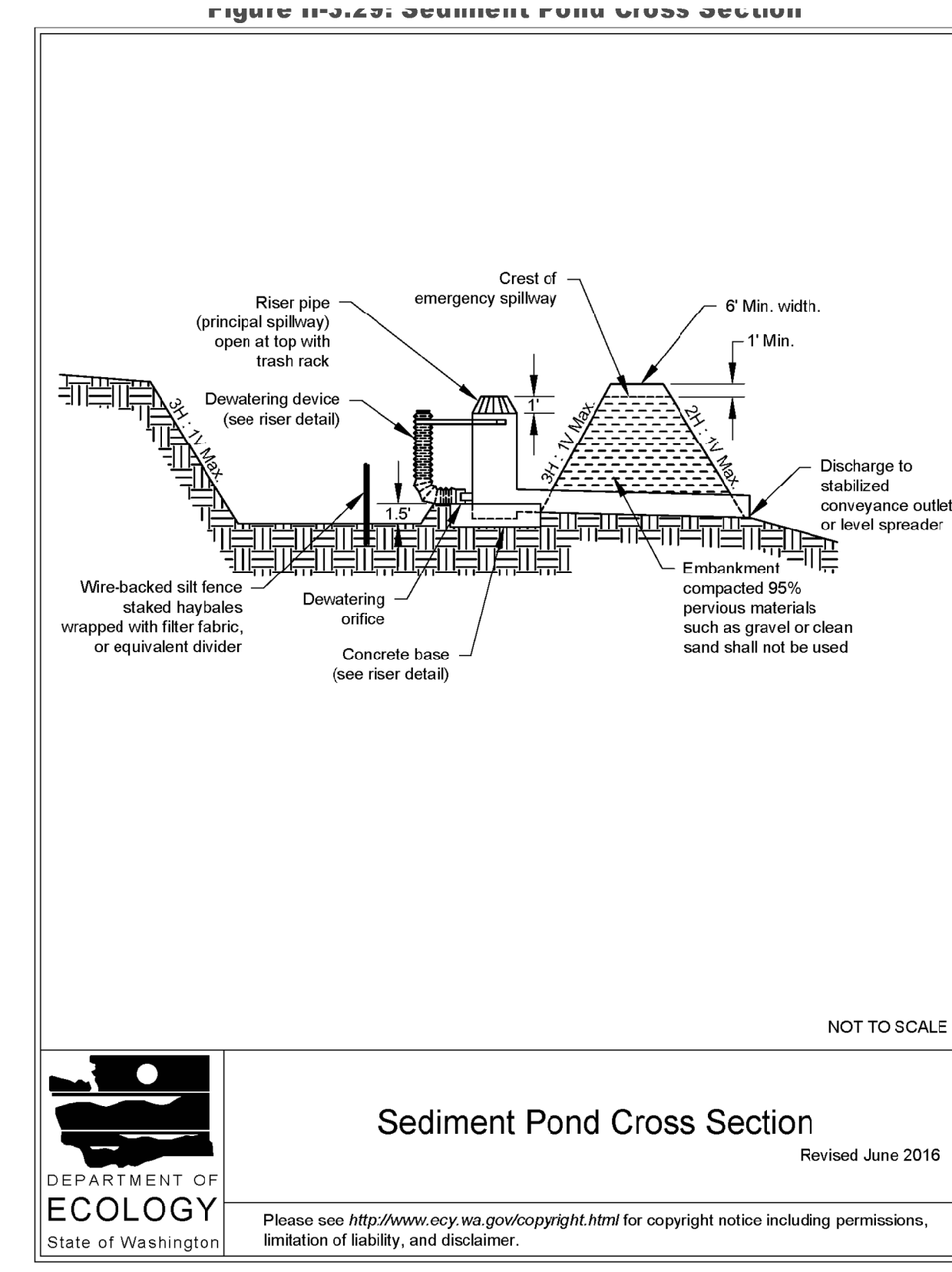
	<b>CITY OF PUYALLUP</b>		<b>SILTATION FENCE</b>		CITY STANDARD 02.03.02
	DESIGNED BY LINDA LEAN	CHECKED BY LINDA LEAN	APPROVED BY COLLEEN HARRIS	DESIGNED BY BOB	
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS		FILE NAME P:\PROJECTS\CONSTRUCTION\BRADLEYHEIGHTS\08260106101.dwg		DATE APPROVED 08/20/08	SCALE AS SHOWN



	<b>CITY OF PUYALLUP</b>		<b>TEMPORARY CONSTRUCTION ENTRANCE</b>		CITY STANDARD 05.01.01
	DESIGNED BY TIM HERRIN BYRONDA	CHECKED BY LINDA LEAN	APPROVED BY COLLEEN HARRIS	DESIGNED BY BOB	
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS		FILE NAME P:\PROJECTS\CONSTRUCTION\BRADLEYHEIGHTS\08260106101.dwg		DATE APPROVED 08/20/08	SCALE AS SHOWN



	<b>DEPARTMENT OF ECOLOGY</b>		<b>Sediment Pond Riser Detail</b>		Revised June 2016
	Please see <a href="http://www.ecy.wa.gov/copyright.html">http://www.ecy.wa.gov/copyright.html</a> for copyright notice including permissions, limitation of liability, and disclaimer.				



	<b>DEPARTMENT OF ECOLOGY</b>		<b>Sediment Pond Cross Section</b>		Revised June 2016
	Please see <a href="http://www.ecy.wa.gov/copyright.html">http://www.ecy.wa.gov/copyright.html</a> for copyright notice including permissions, limitation of liability, and disclaimer.				

APPROVED

BY: \_\_\_\_\_ CITY OF PUYALLUP DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

**NOTE:**

THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.

THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

REVISION	DATE
1 Revised per City review and Matt A. adjustment.	11/26/24
2 Revised per City review.	4/7/25
3 Revised per City & Matt review.	4/21/25
4	
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JOB NO.	23027
DATE	May 14, 2024
DESIGNED BY	Rob Trivitt
DRAWN BY	Rob Trivitt
CHECKED BY	Colleen Harris
APPROVED BY	Rob Trivitt

**TESS Details**

**Bradley Heights**

**AZURE GREEN CONSULTANTS**

+ feasibility + planning + engineering + surveying

409 East Pioneer, Suite A - Puyallup, WA 98372 phone: 253.770.3144 fax: 253.770.3142

**Timberlane Partners**

1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.889.0326  
Fax jordan@timberlanepartners.com

**DRAWING**

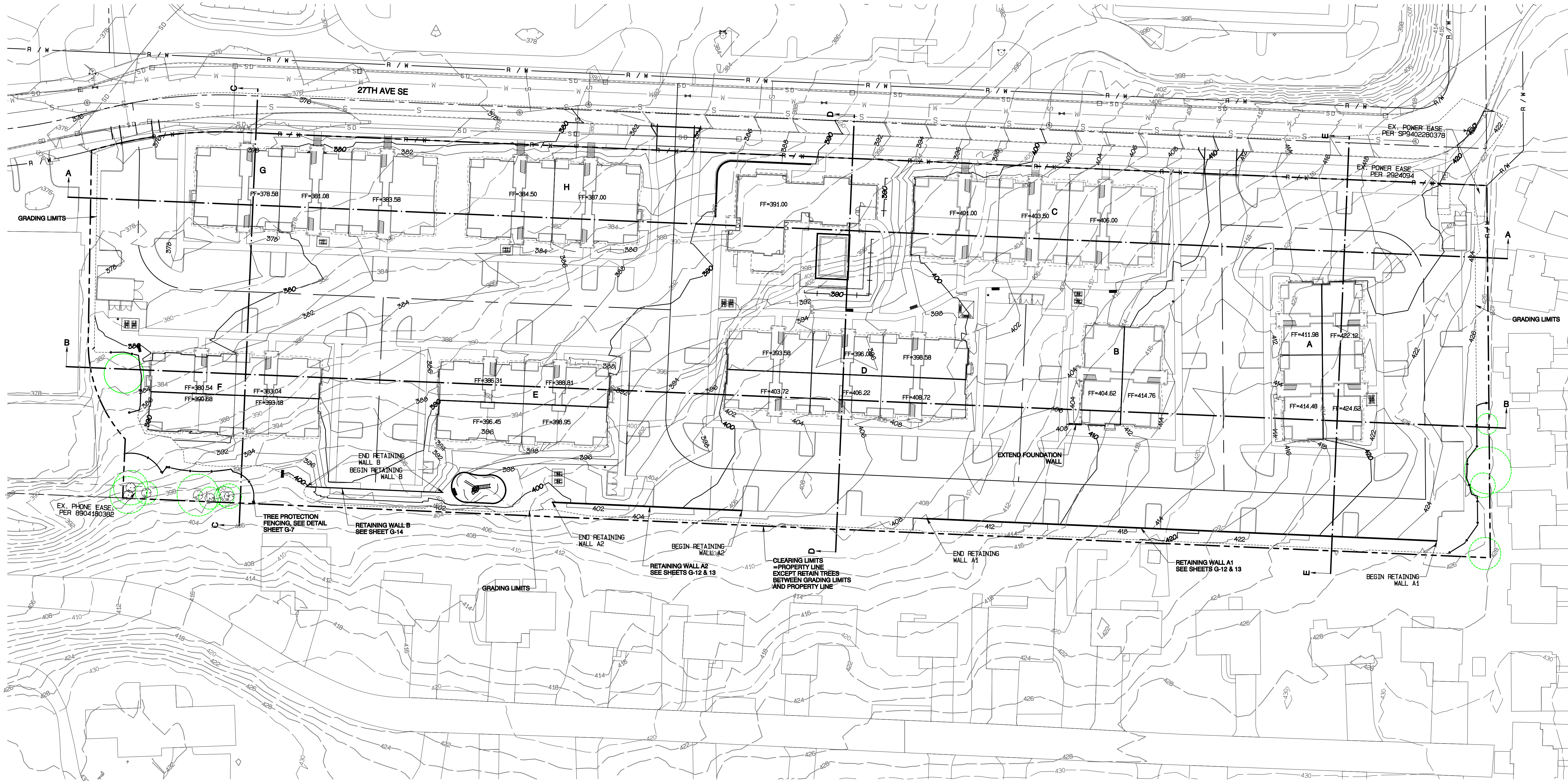
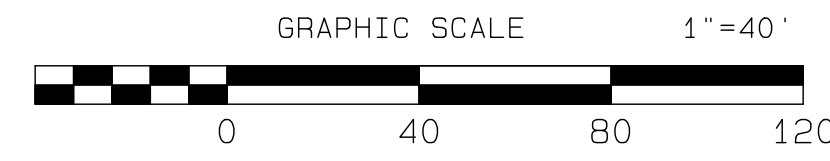
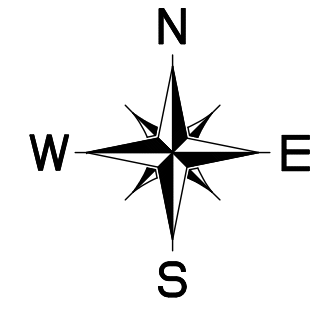
**G-7**

SHEET 7 OF 60

Project Desc: Bradley Heights Date: E:\urban\3227 - Bradley Heights\Timberlane\Bradley Heights\20250424\_EHG.dwg P:\1. Data\Files - 4/24/2025/7: 10: 30PM

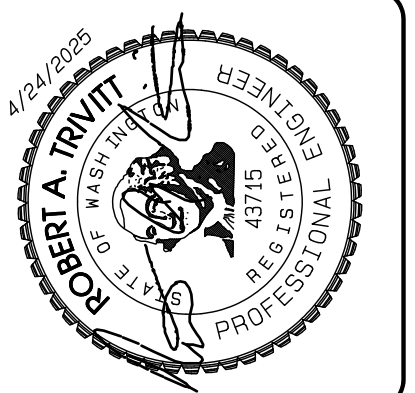
# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



RETAINING WALLS A1, A2 AND B TO BE CONSTRUCTED UNDER PERMITS PRMWF20240214, PRMWF20240216, AND PRMWF20240217, RESPECTIVELY. ALL ACCESS AND WORK FOR THE CONSTRUCTION OF THE PROPOSED WALLS SHALL BE CONDUCTED ON TAX PARCEL 0419036006 AND THAT THE CITY OF PUYALLUP DOES NOT AUTHORIZE ACCESS TO OR WORK ON ANY NEIGHBORING PROPERTIES UNDER THIS CIVIL PERMIT NOR THE ABOVE LISTED BUILDING PERMITS.

APPROVED  
 BY: CITY OF PUYALLUP  
 DEVELOPMENT SERVICES  
 DATE: \_\_\_\_\_  
 NOTE:  
 THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.  
 THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.  
 FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.



REVISION	DATE
1	11/26/24
2	4/7/25
3	4/21/25
4	
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JOB NO. 3327  
 DATE: May 14, 2024  
 DESIGNED BY: Rob Trivitt  
 DRAWN BY: Rob Trivitt  
 CHECKED BY: Rob Trivitt  
 APPROVED BY: Rob Trivitt

**AZURE GREEN**  
 CONSULTANTS  
 + feasibility + planning + engineering + surveying  
 419 East Pioneer, Suite A - Puyallup, WA 98372  
 phone: 253.770.3144 fax: 253.770.3142

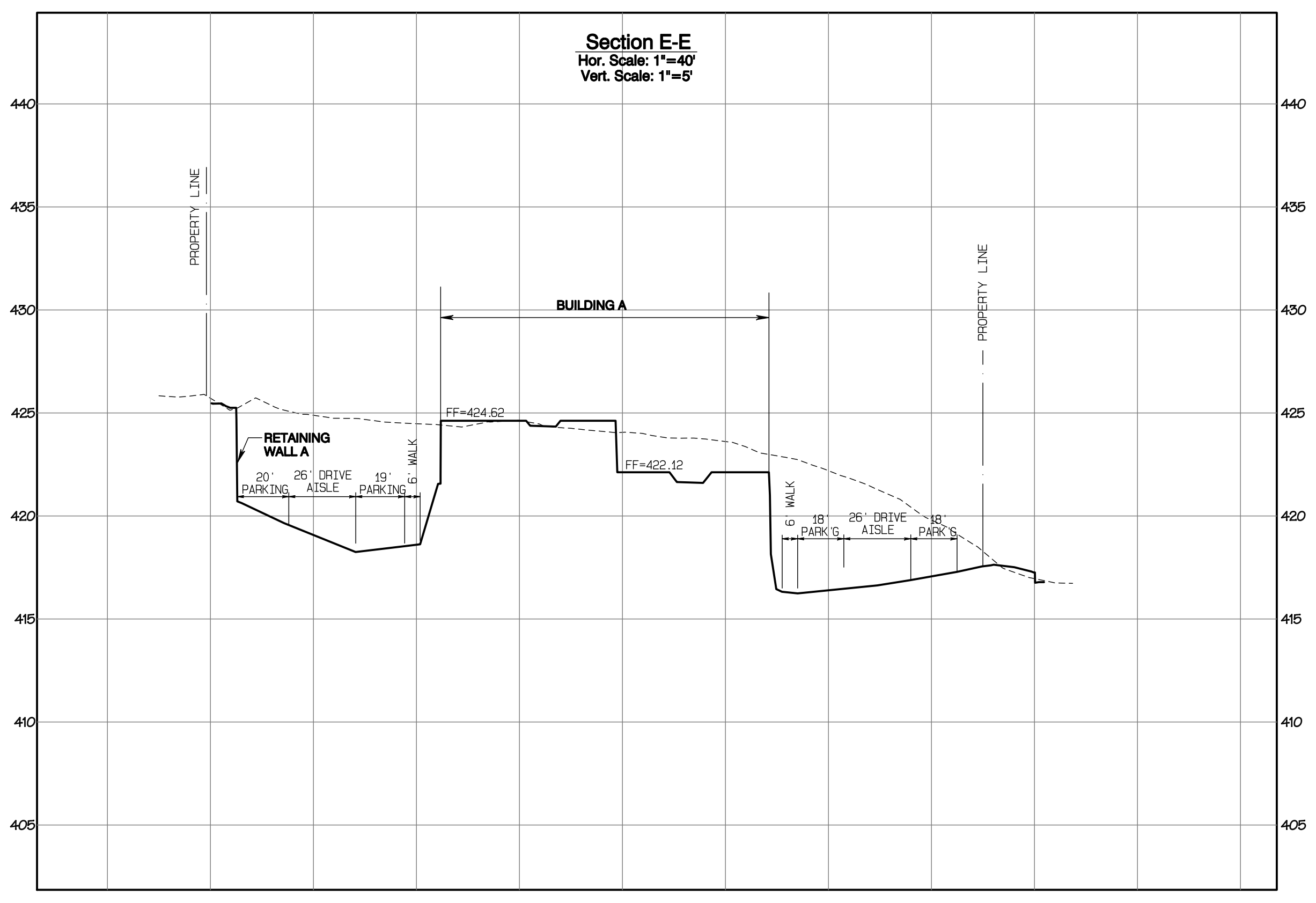
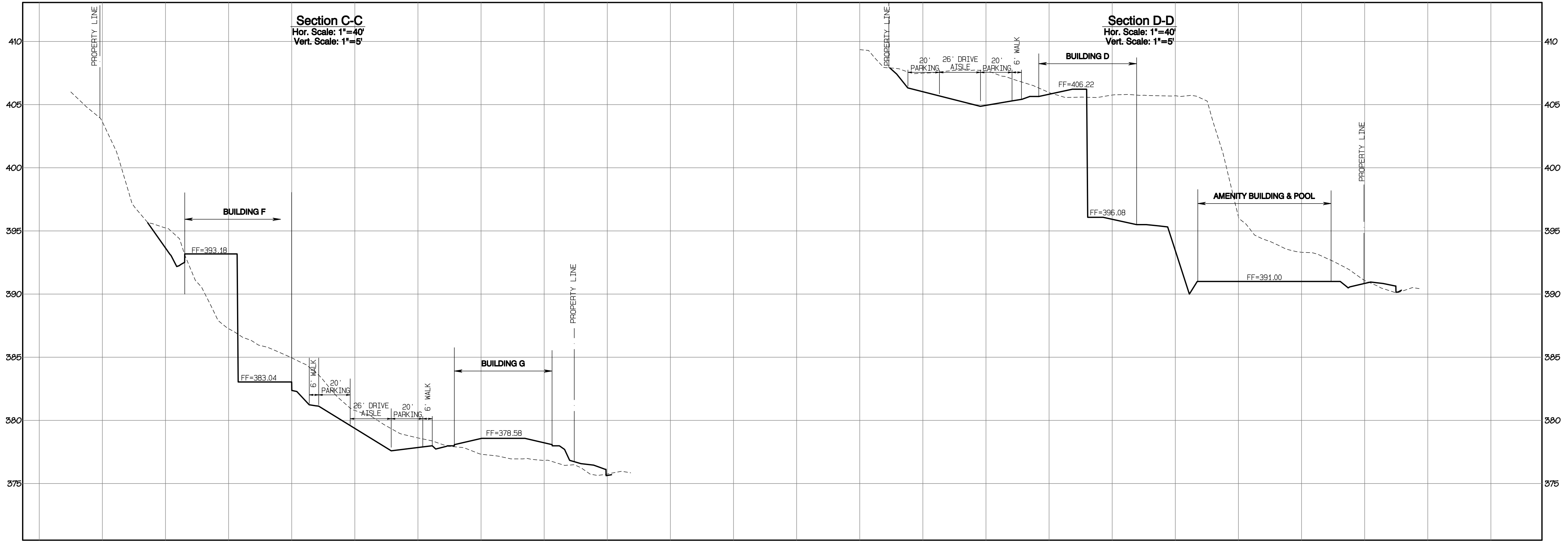
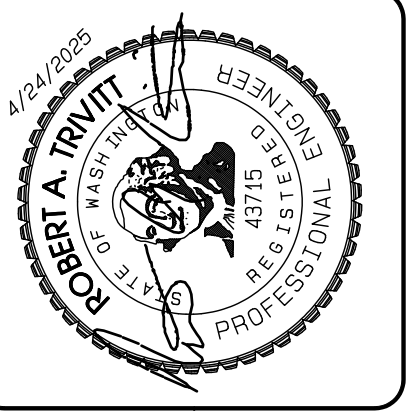
**Grading Plan**  
 Bradley Heights  
 Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 206.886.0326  
 Fax jordan@timberlanepartners.com

**DRAWING**  
**G-8**  
 SHEET 8  
 OF 60

Project Desc.: Bradley Heights Date: E:\sub\3327 - Bradley Heights\Timberlane\Bradley Heights 20250424 E10.dwg P1.dwg Date/Time: 4/24/2025 7:17:51 PM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



Project Desc.: Bradley Heights; Plan#: F:\sub\3327 - Bradley Heights\Timberlane\Bradley Heights 20250424 E10.dwg; PLOT Date/Time: 4/24/2025 7:18:18PM

REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/26/24
2 Revised per City review.	4/7/25
3 Revised per City & P&H review.	4/27/25
4 Revised per City & P&H review.	
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JOB NO: 3327  
DATE: May 14, 2024  
DESIGNED BY: Rob Trivitt  
DRAWN BY: Rob Trivitt  
CHECKED BY: Rob Trivitt  
APPROVED BY: Rob Trivitt

**AZURE GREEN**  
CONSULTANTS

\*feasibility \*planning \*engineering \*surveying

409 East Pioneer, Suite A - Puyallup, WA 98372    phone: 253.770.3144    fax: 253.770.3142

**Grading Cross-Sections**

**Bradley Heights**

Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.896.0326  
Fax jordan@timberlanepartners.com

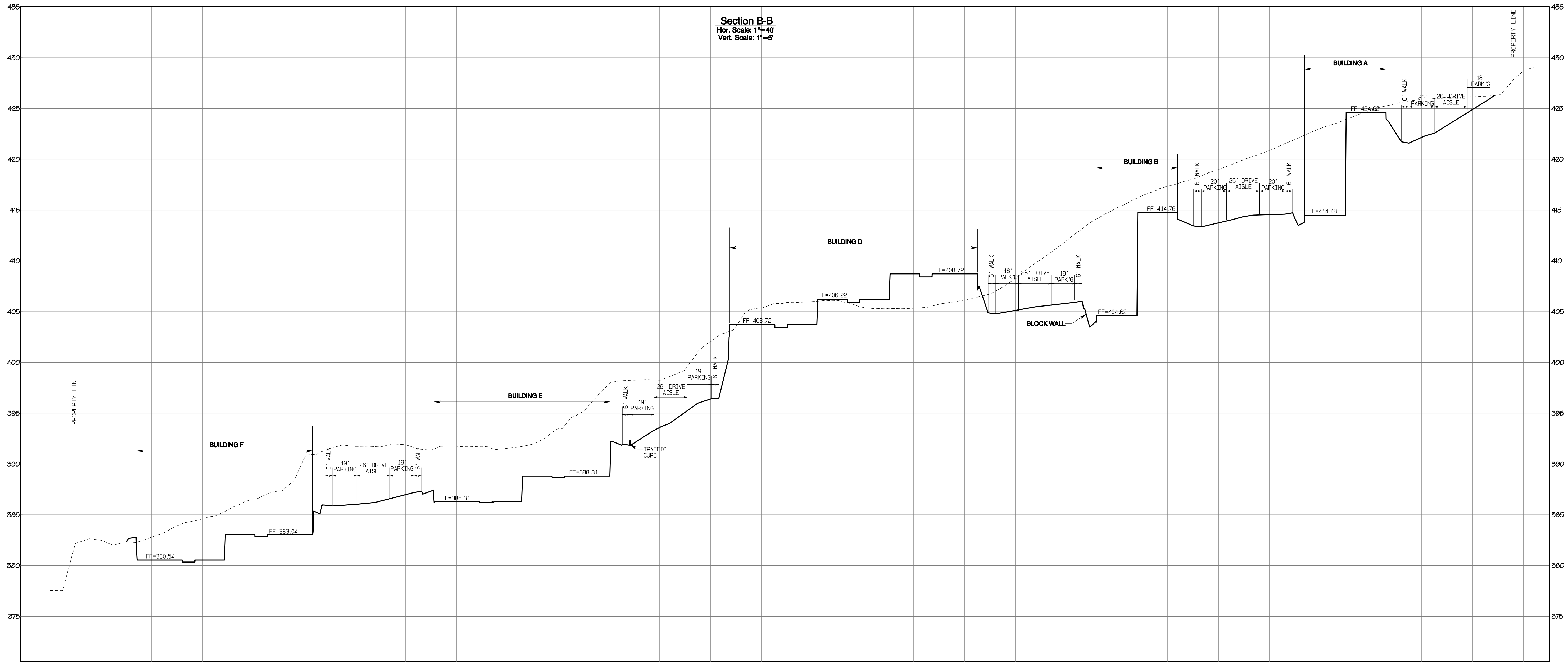
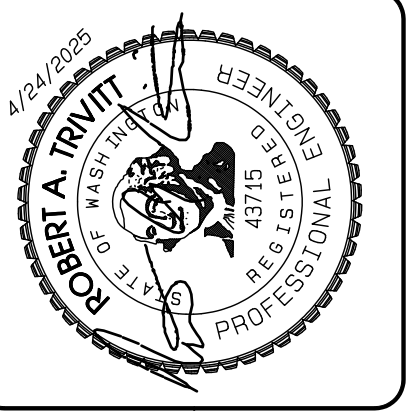
DRAWING

**G-9**

SHEET 9  
OF 60

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



**Section B-B**  
 Hor. Scale: 1"=40'  
 Vert. Scale: 1"=5'

REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/29/24
2 Revised per City review.	4/7/25
3 Revised per City review.	4/27/25
4 Revised per City & Pugh review.	
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JOB NO. 3227  
 DATE: May 14, 2024  
 DESIGNED BY: Rob Trivitt  
 DRAWN BY: Rob Trivitt  
 CHECKED BY: Rob Trivitt  
 APPROVED BY: Rob Trivitt

**AZURE GREEN**  
 CONSULTANTS

\*feasibility \*planning \*engineering \*surveying

409 East Pioneer, Suite A - Puyallup, WA 98372 phone: 253.770.3144 fax: 253.770.3142

APPROVED

BY: \_\_\_\_\_ CITY OF PUYALLUP  
 DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

**NOTE:**  
 THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.  
 THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.  
 FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

**Grading Cross-Sections**

**Bradley Heights**

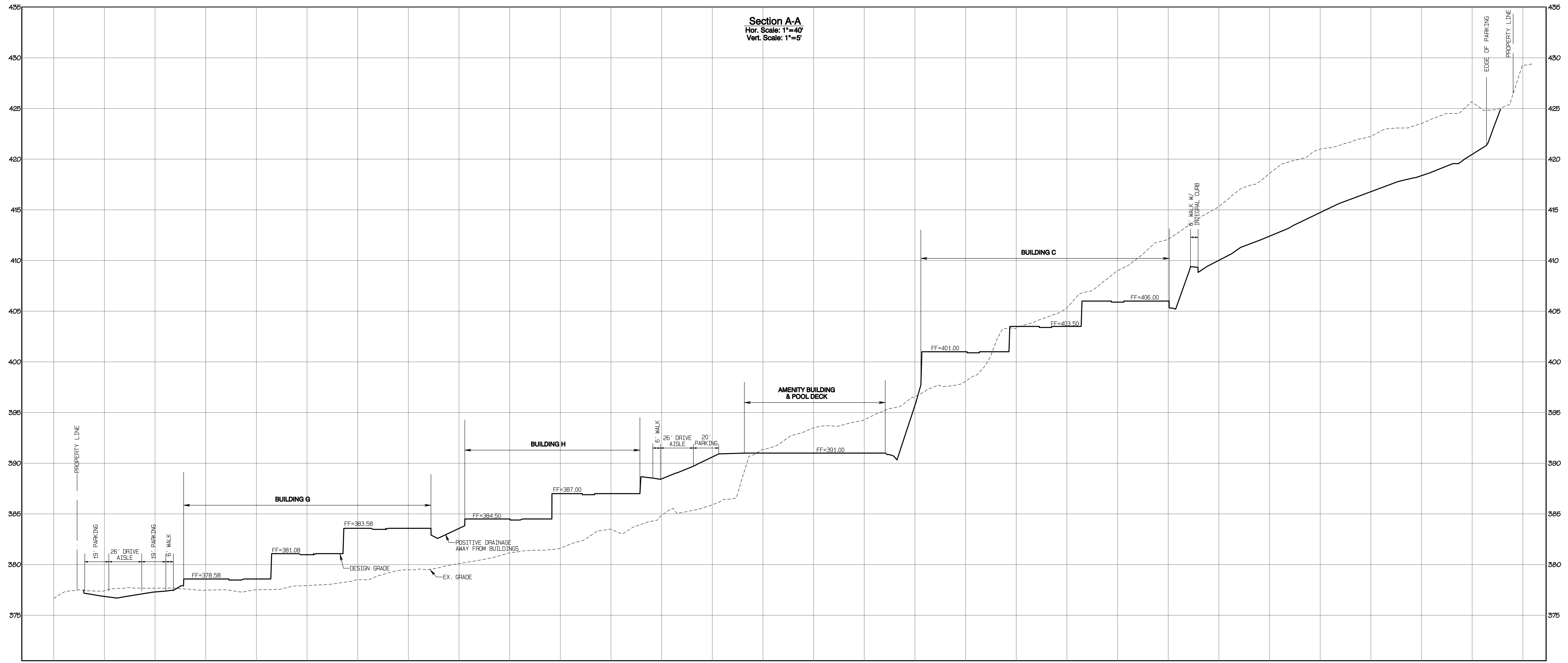
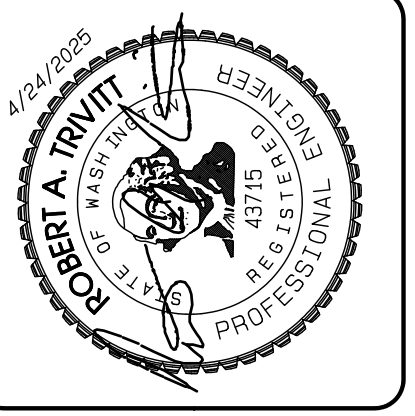
Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.896.0326  
 Fax jordan@timberlanepartners.com

**DRAWING**  
**G-10**  
 SHEET 10  
 OF 60

Project Desc.: Bradley Heights Path: F:\Jobs\3227 - Bradley Heights\Timberlane\Drawings\20250424\_Eng.dwg PLOT DATE/TIME: 4/24/2025 7:18:58PM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



**Section A-A**  
 Hor. Scale: 1"=40'  
 Vert. Scale: 1"=5'

REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/29/24
2 Revised per City review.	4/7/25
3 Revised per City & PDR review.	4/27/25
4 Revised per City & PDR review.	
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JOB NO. 3227  
 DATE: May 14, 2024  
 DESIGNED BY: Rob Trivitt  
 DRAWN BY: Rob Trivitt  
 CHECKED BY: Rob Trivitt  
 APPROVED BY: Rob Trivitt

**AZURE GREEN**  
 CONSULTANTS

\*feasibility \*planning \*engineering \*surveying

409 East Pioneer, Suite A - Puyallup, WA 98372    phone: 253.770.3144    fax: 253.770.3142

**APPROVED**

BY: CITY OF PUYALLUP  
 DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

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**Grading Cross-Sections**

**Bradley Heights**

Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.899.0326  
 Fax jordan@timberlanepartners.com

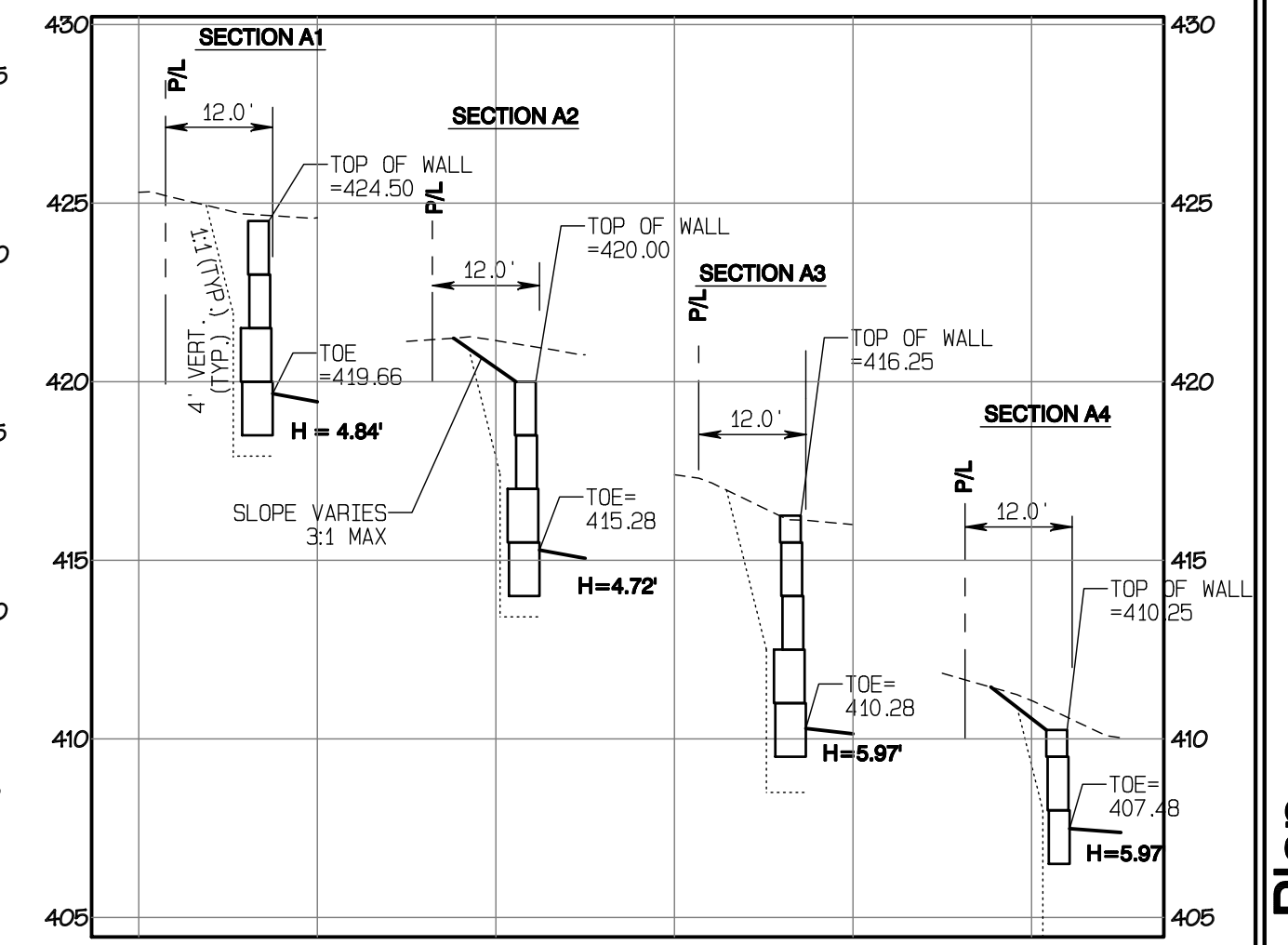
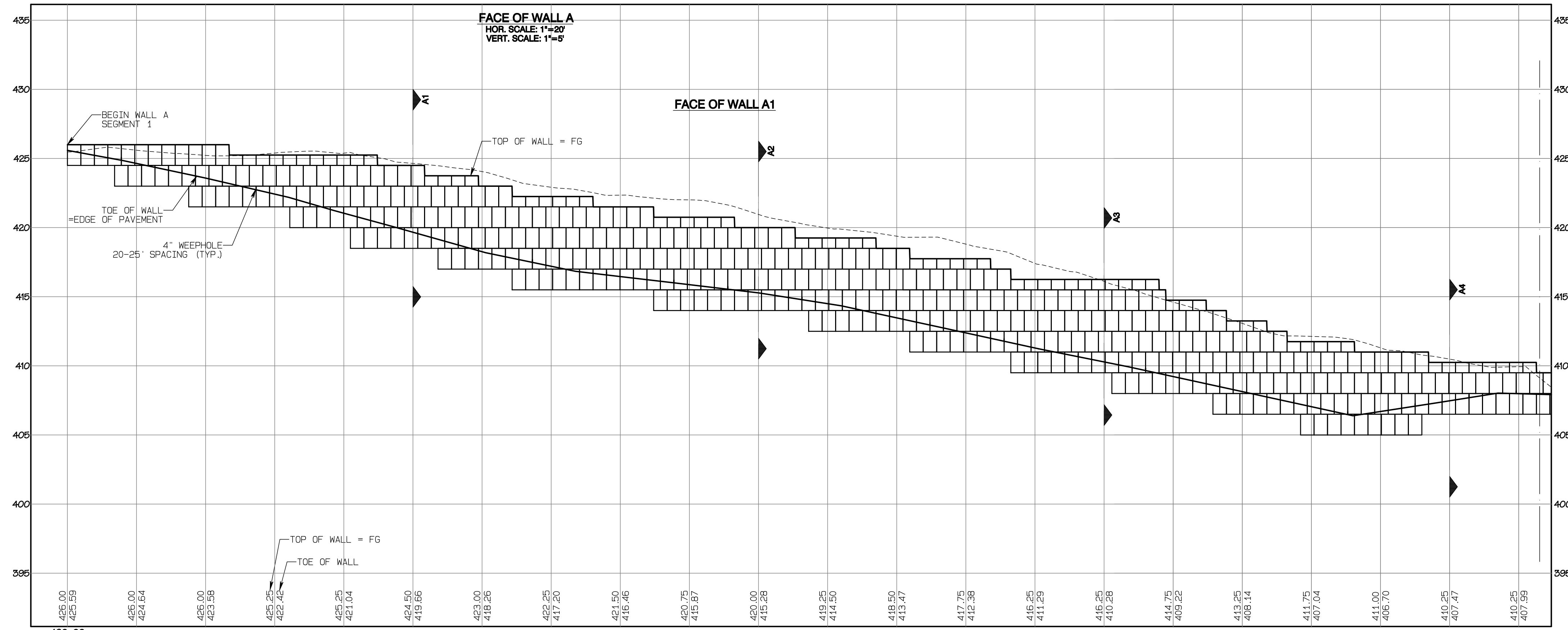
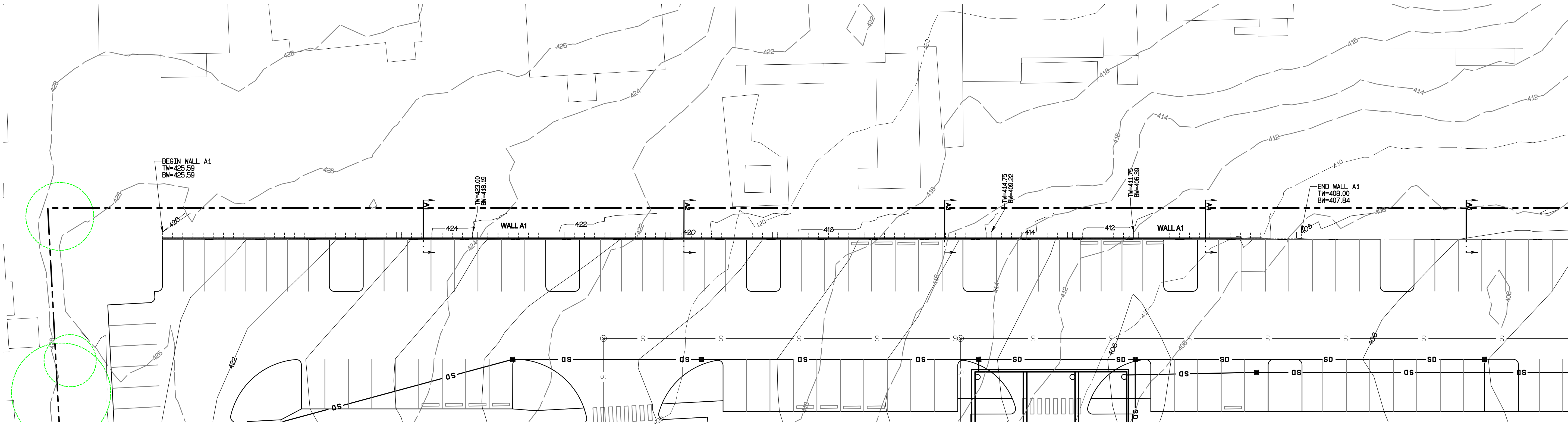
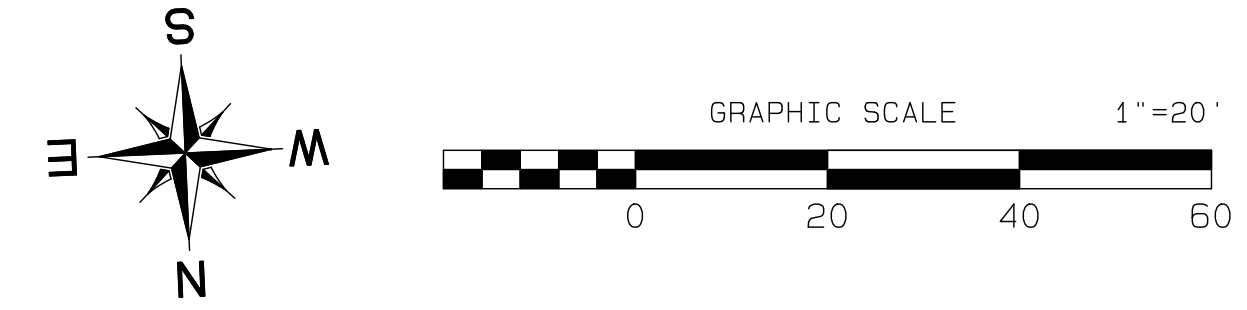
**DRAWING**  
**G-11**  
 SHEET 11  
 OF 60

Project Desc.: Bradley Heights    Path: F:\sub\3227 - Bradley Heights\Timberlane\Bradley Heights 20250424 EMB.dwg    Plot Date/Time: 4/24/2025 7:19:18PM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington

**RETAINING WALL NOTE:**  
 RETAINING WALL IS DESIGNED AS A REDIROCK GRAVITY WALL. THIS PLAN IS FOR LAYOUT AND GRADING PLAN PURPOSES. A SEPARATE BUILDING PERMIT WITH ENGINEERED DESIGN WILL BE REQUIRED.

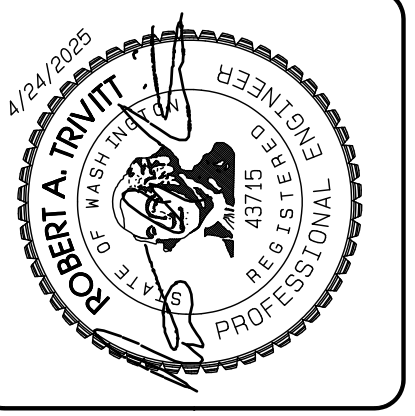


**APPROVED**

BY: CITY OF PUYALLUP  
 DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

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3 Revised per City review.	4/27/25
4 Revised per City & Paul review.	
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JOB NO. 3227  
 DATE: May 14, 2024  
 DESIGNED BY: Rob Trivitt  
 DRAWN BY: Rob Trivitt  
 CHECKED BY: Paul Green  
 APPROVED BY: Paul Green

**AZURE GREEN**  
 CONSULTANTS

\*feasibility \*planning \*engineering \*surveying

419 East Pioneer, Suite A - Puyallup, WA 98372  
 phone: 253.770.3144 fax: 253.770.3142

**Retaining Wall A Plan**

**Bradley Heights**

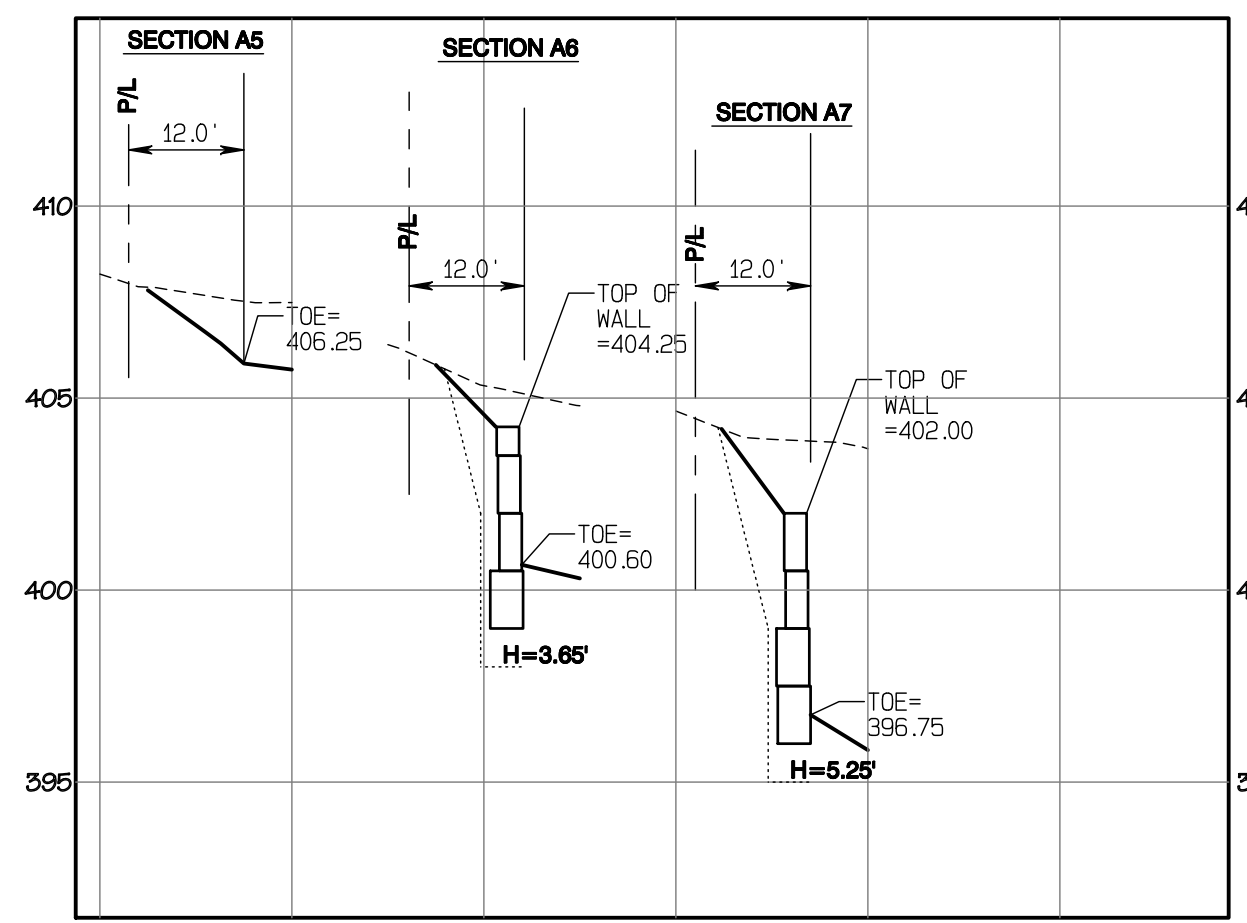
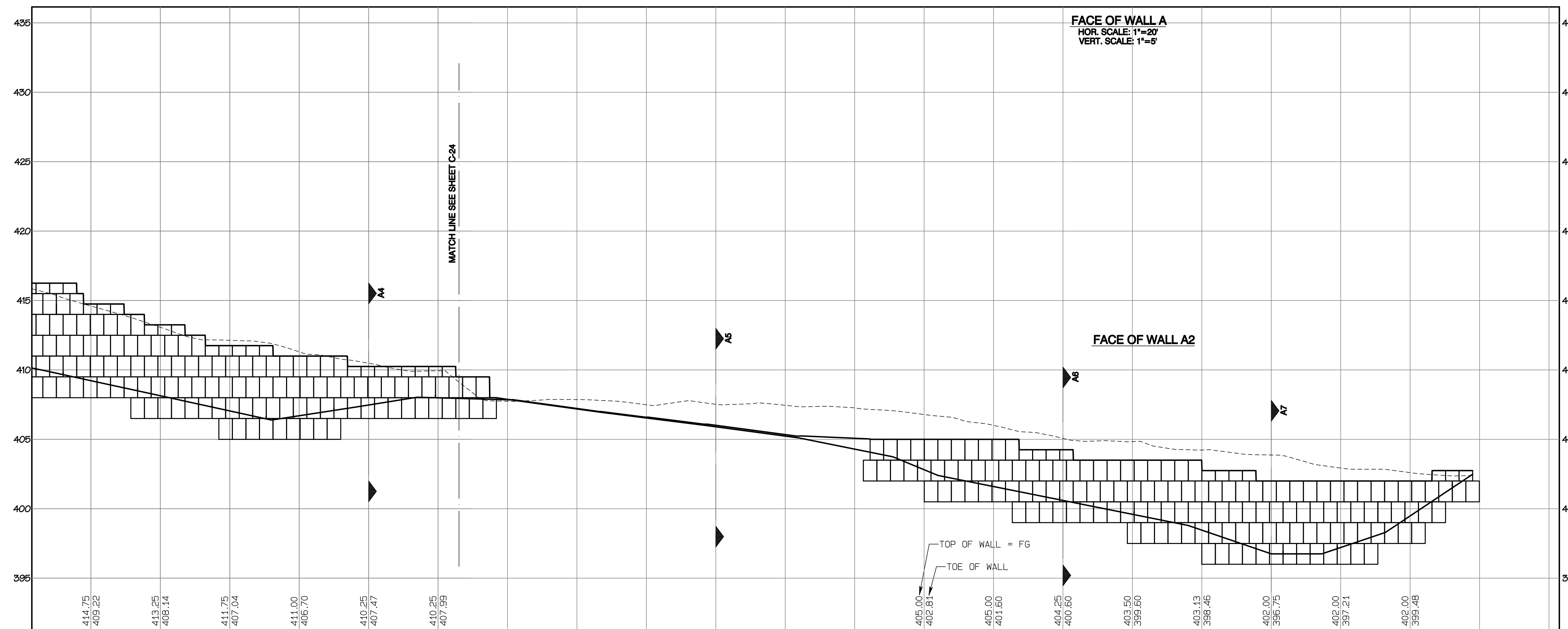
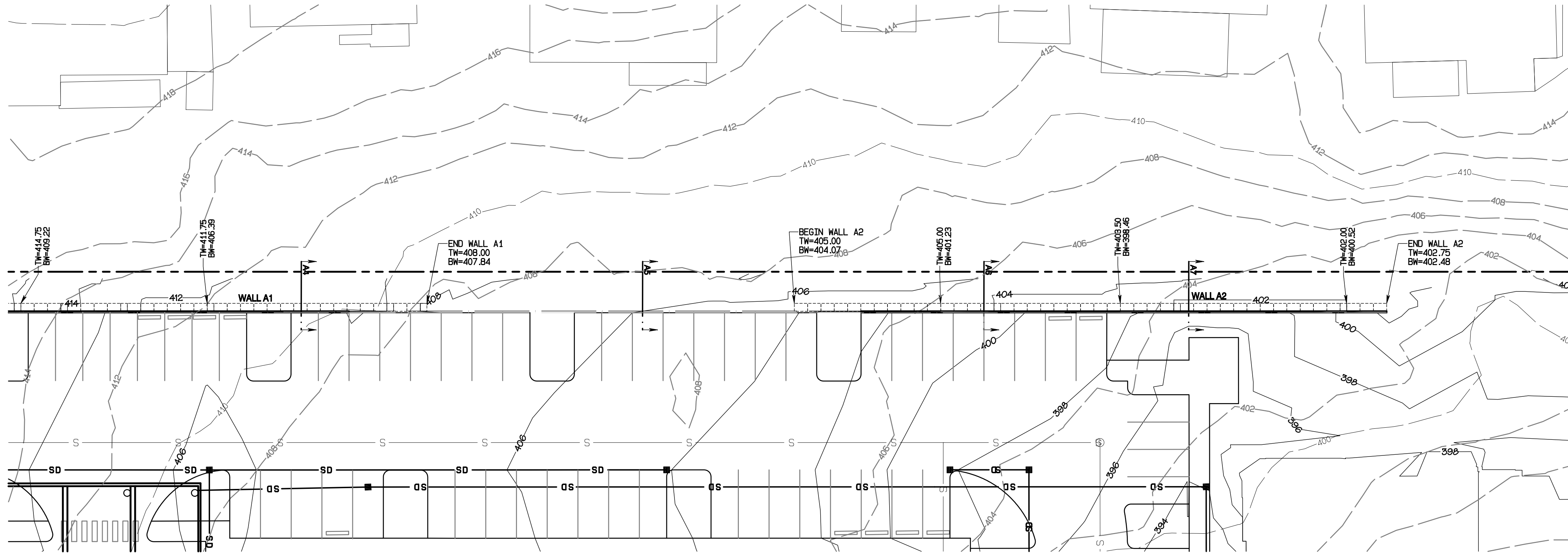
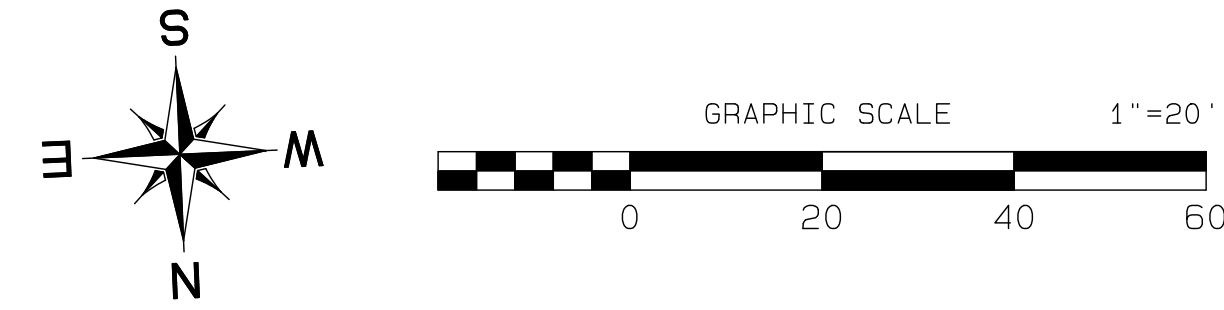
Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.886.0326  
 Fax jordan@timberlanepartners.com

Project Desc.: Bradley Heights Date: E:\sub\3227 - Bradley Heights\Timberlane\Drawings\20250424\_EWG.dwg Plot Date/Time: 4/24/2025 7:31:41PM

# Bradley Heights

## Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington

**RETAINING WALL NOTE:**  
 RETAINING WALL IS DESIGNED AS A REDIROCK GRAVITY WALL. THIS PLAN IS FOR LAYOUT AND GRADING PLAN PURPOSES. A SEPARATE BUILDING PERMIT WITH ENGINEERED DESIGN WILL BE REQUIRED.



**APPROVED**

BY: \_\_\_\_\_  
 CITY OF PUYALLUP  
 DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

**NOTE:**  
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 FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

**Retaining Wall A Plan**

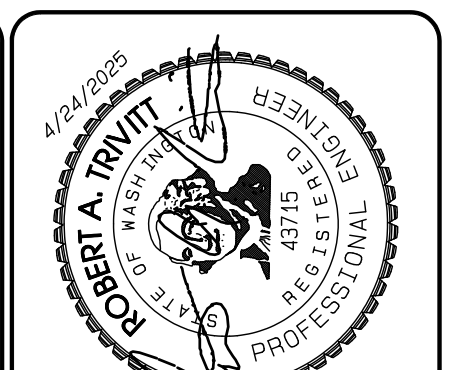
**Bradley Heights**

Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.896.0326  
 Fax jordan@timberlanepartners.com

**DRAWING**  
**G-13**  
 SHEET 13  
 OF 60

**AZURE GREEN CONSULTANTS**  
 \*feasibility \*planning \*engineering \*surveying  
 419 East Pioneer, Suite A - Puyallup, WA 98372  
 phone: 253.770.3144 fax: 253.770.3142

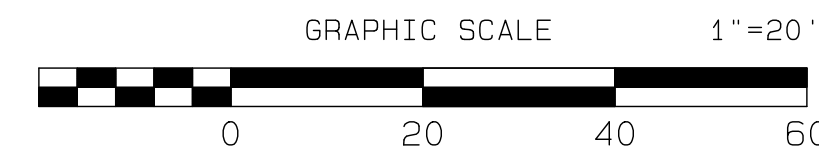
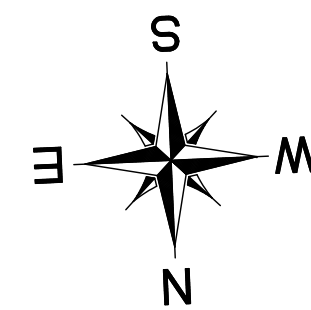
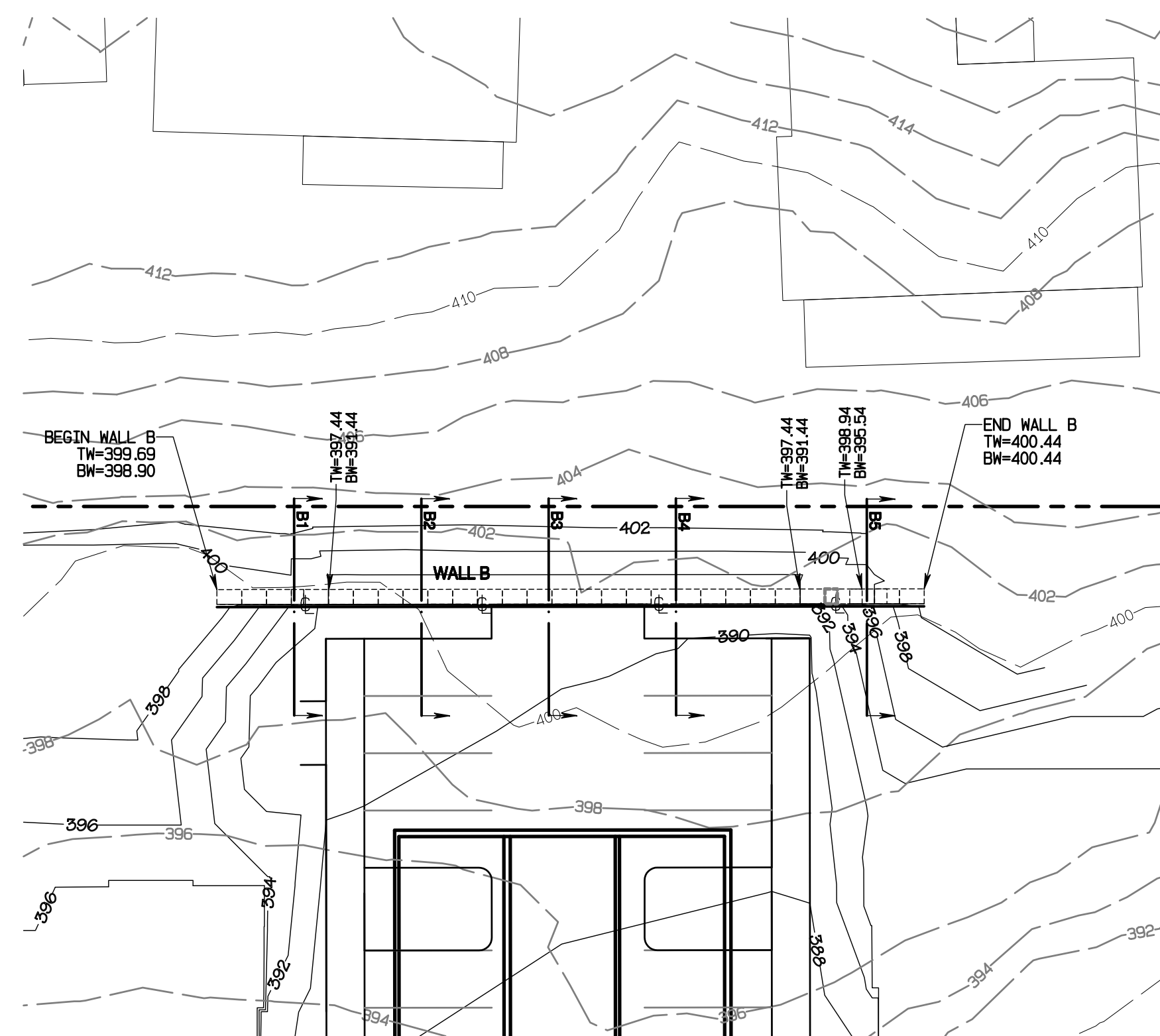
REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/29/24
2 Revised per City review.	4/7/25
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4 Revised per City & Pugh review.	
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Project Desc.: Bradley Heights Plan: E:\sub\3227 - Bradley Heights\Timberlane\Bradley Heights 20250424 E16.dwg P1.dwg Date/Time: 4/24/2025 7:31:02PM

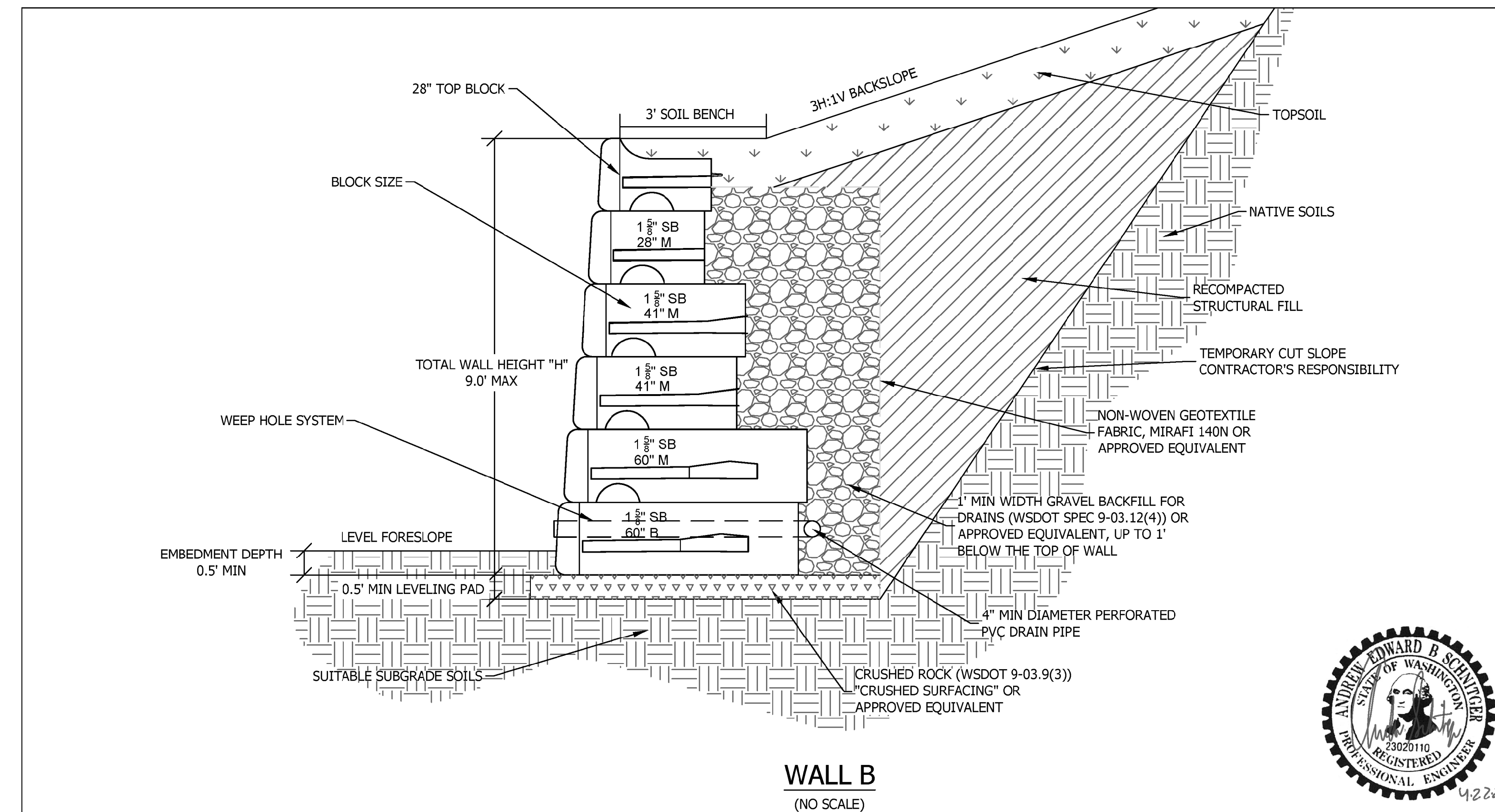
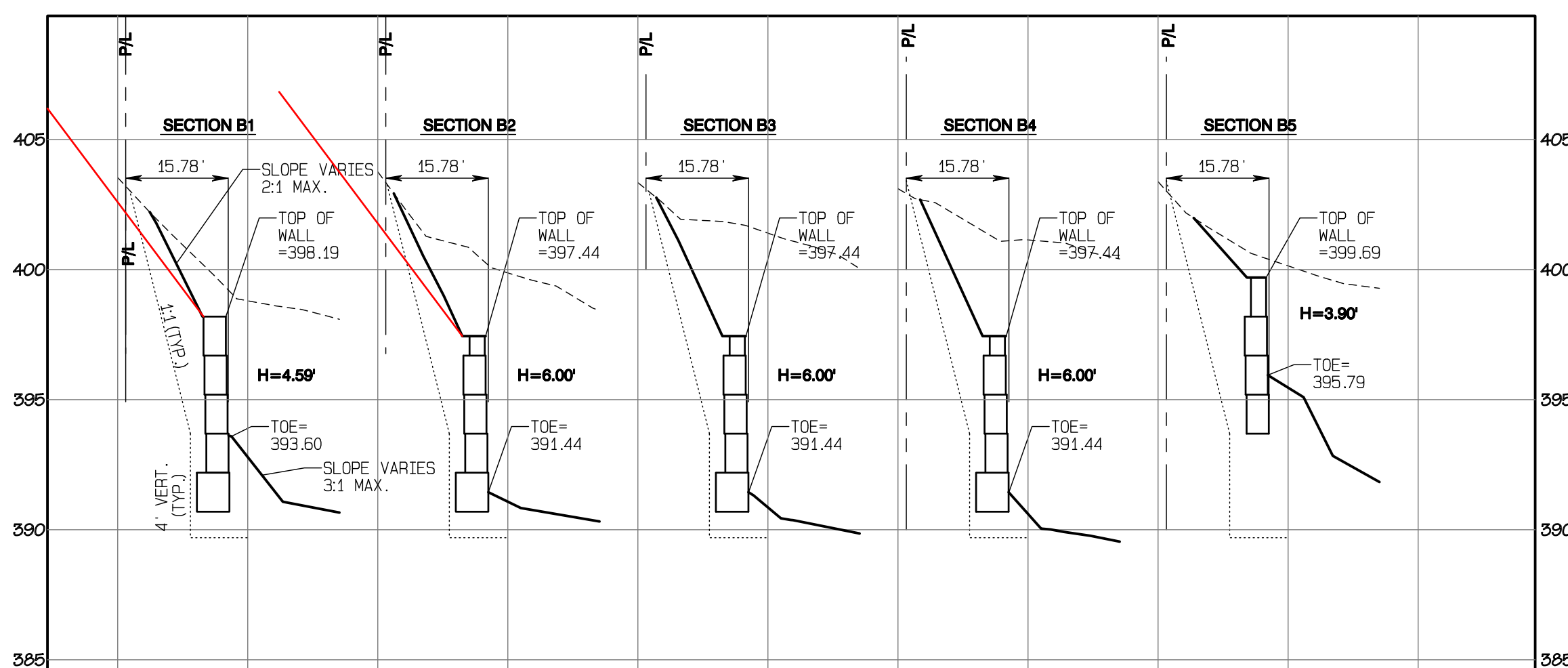
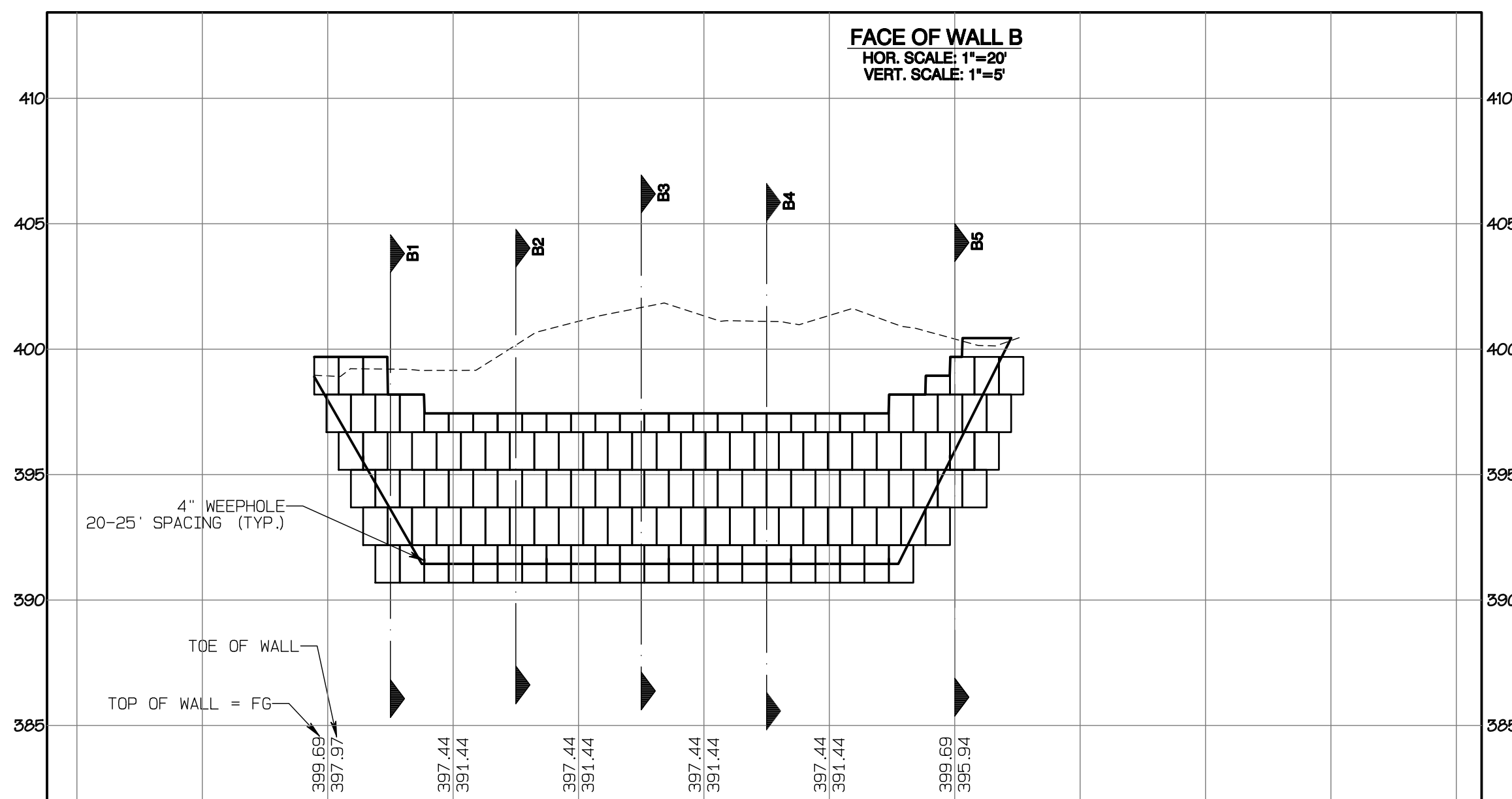
# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



**RETAINING WALL NOTE:**  
RETAINING WALL IS DESIGNED AS A REDIROCK GRAVITY WALL. THIS PLAN IS FOR LAYOUT AND GRADING PLAN PURPOSES. A SEPARATE BUILDING PERMIT WITH ENGINEERED DESIGN WILL BE REQUIRED.

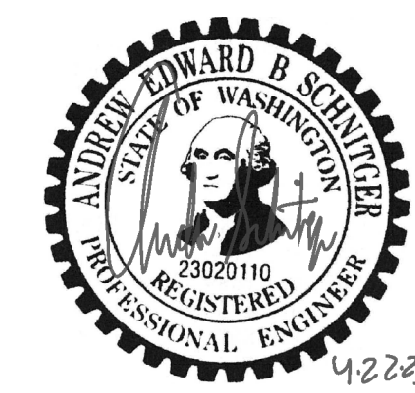
**CROSS-SECTION IS SPECIFICALLY FOR WALL A1 AND IS FOR REFERENCE SEE RETAINING WALL DESIGN UNDER:**  
WALL A1: PRRWF20250214  
WALL A2: PRRWF20250218  
WALL B: PRRWF20250217



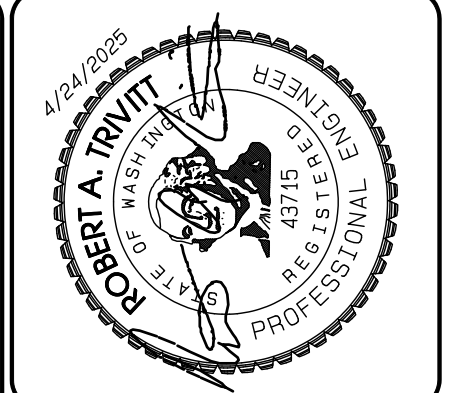
**Notes**  
1. SEE RETAINING WALL DESIGN LETTER FOR FURTHER DETAILS  
2. WALLS SHOULD BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURER'S AND GEORESOURCES' RECOMMENDATION



**Wall B Typical Detail**  
Proposed Redi-Rock Walls  
Bradley Heights  
202 - 27th Avenue East  
Puyallup, Washington  
PN: 0419036006



APPROVED  
BY: CITY OF PUYALLUP DEVELOPMENT SERVICES  
DATE: \_\_\_\_\_  
**NOTE:**  
THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.  
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.  
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.



REVISION	DATE
1 Revised per City review and No.11 A adjustment.	11/29/24
2 Revised per City review.	4/7/25
3 Revised per City & Pugh review.	4/27/25
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JOB NO. 3327  
DATE: May 14, 2024  
DESIGNED BY: Rob Trivitt  
DRAWN BY: Rob Trivitt  
CHECKED BY: Rob Green  
APPROVED BY: Rob Green

**AZURE GREEN CONSULTANTS**  
+ feasibility + planning + engineering + surveying  
409 East Pioneer, Suite A - Puyallup, WA 98372 phone: 253.770.3144 fax: 253.770.3142

**Retaining Wall B Plan**  
Bradley Heights  
Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone: 509.898.0326  
Fax: jordan@timberlanepartners.com

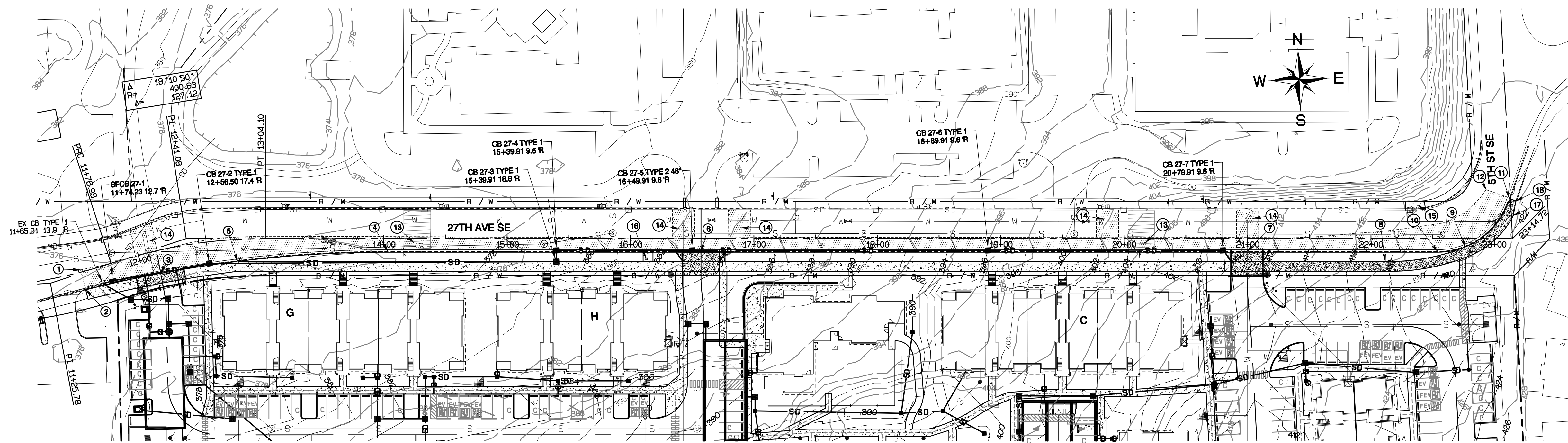
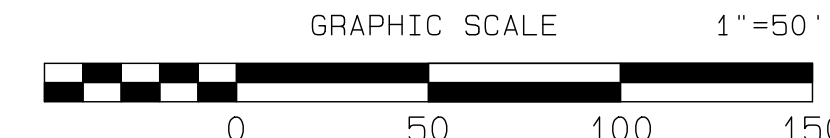
**DRAWING**  
**G-14**  
SHEET 14 OF 60

Project Desc.: Bradley Heights Date: F:\sub\3327 - Bradley Heights\Timberlane\Bradley Heights 20250217.dwg PLOT Date: 4/24/2025 7:31:23PM

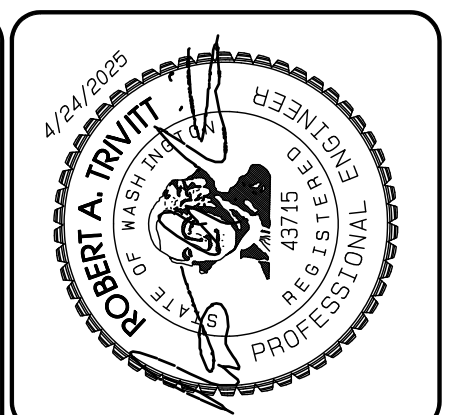


# Bradley Heights

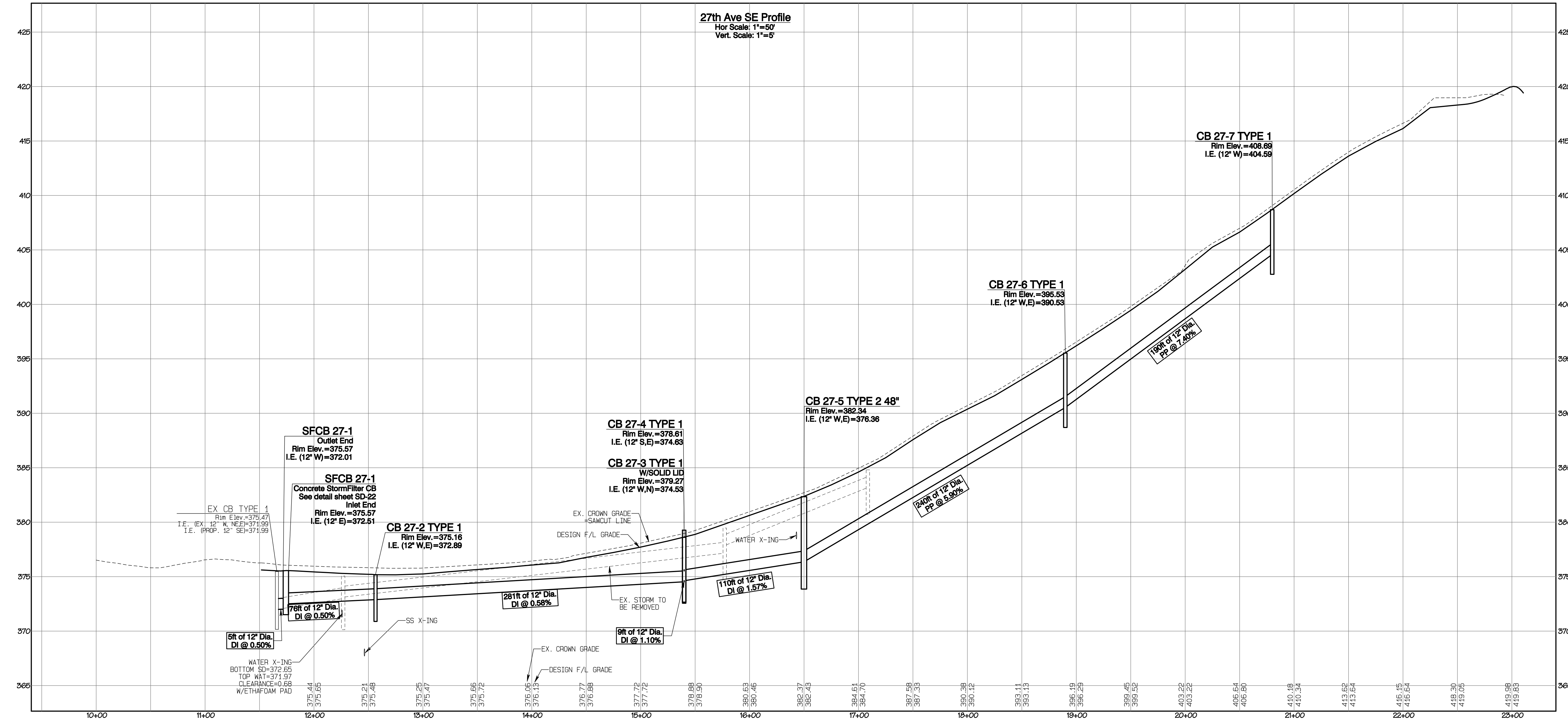
## Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



- ### CONSTRUCTION KEY NOTES
- ① 11+51.70 1.8 L  
BEGIN HALF STREET IMPROVEMENT
  - ② PC 11+51.69 14.3 R 1000' RAD.  
FLOWLINE, BEGIN CURB & GUTTER  
& 8' SIDEWALK, MATCH EXISTING
  - ③ 12+14.47 18.2 R  
CENTER 30' WIDE APPROACH  
STD 01.02.18
  - ④ 14+03.60 10.5 R  
FLOWLINE, PT 1000' RAD.
  - ⑤ 12+80.31 17.8 R  
BEGIN BUFFER TRANSITION
  - ⑥ 16+57.15 10.5 R  
CENTER 30' WIDE APPROACH  
STD 01.02.18
  - ⑦ 20+99.53 10.5 R  
CENTER 30' WIDE APPROACH  
STD 01.02.18, TAPER TO 26'  
BEHIND SIDEWALK
  - ⑧ 22+15.85 18.5 R  
BEGIN BUFFER TRANSITION
  - ⑨ 22+76.38 6.8 R  
END BUFFER TRANSITION
  - ⑩ 22+54.15 10.5 R  
FLOWLINE, PC 60' RAD.
  - ⑪ 23+11.97 33.1 L  
FLOWLINE, PT 60' RAD.  
END CURB & GUTTER/SIDEWALK  
MATCH EXISTING
  - ⑫ 22+93.34 39.0 L  
END HALF-STREET IMPROVEMENT
  - ⑬ RESTORE SPEED TABLE PER  
01.03.16, SHEET SD-24
  - ⑭ 18' WIDE 2\"/>



REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/26/24
2 Revised per City review.	3/4/25
3 Revised per City & Road review.	4/21/25
4 Revised per City & Road review.	
5 Revised per City & Road review.	
6 Revised per City & Road review.	
7 Revised per City & Road review.	
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11 Revised per City & Road review.	
12 Revised per City & Road review.	
13 Revised per City & Road review.	
14 Revised per City & Road review.	
15 Revised per City & Road review.	
16 Revised per City & Road review.	
17 Revised per City & Road review.	
18 Revised per City & Road review.	



JOB NO.	DATE	DESIGNED BY	DRAWN BY	APPROVED BY
3227	May 14, 2024	Rod Trivitt	Rod Trivitt	Rod Trivitt

**AZURE GREEN**  
CONSULTANTS

+feasibility +planning +engineering +surveying

409 East Pioneer, Suite A - Puyallup, WA 98372  
Phone: 253.770.3144, Fax: 253.770.3142

### 27th Ave SE Plan & Profile

**Bradley Heights**

Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.896.0326  
Fax jordan@timberlanepartners.com

APPROVED

BY: \_\_\_\_\_ CITY OF PUYALLUP  
DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

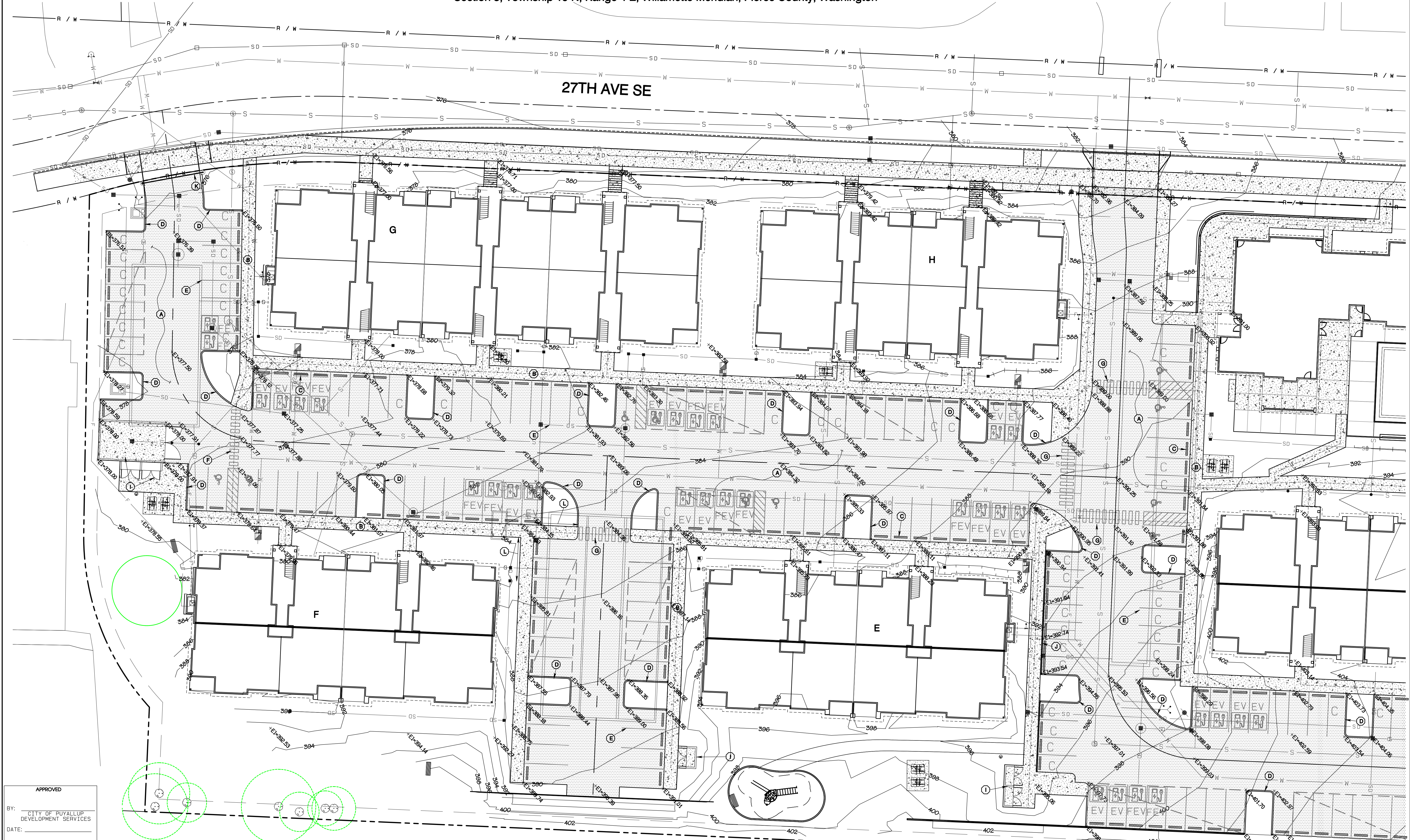
**NOTE:**  
THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.  
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.  
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

Project Date: Bradley Heights - Bradley Heights, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington

27TH AVE SE



APPROVED

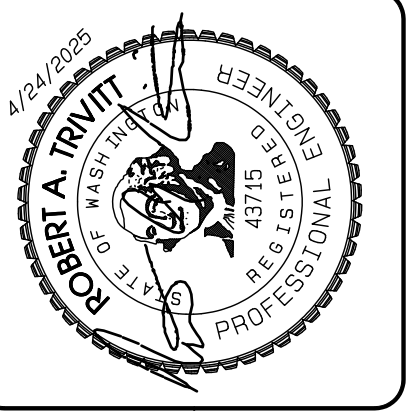
BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES

DATE:

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**KEY NOTES**

- |   |                                   |  |
|---|-----------------------------------|--|
| (A) ASPHALT PAVING - SEE SECTION SHEET SD-17    | (E) 4" WHITE PARKING STRIPE       | (I) CONCRETE PAD, 4" THICK, MIN.   |
| (B) CONCRETE SIDEWALK - SEE SECTION SHEET SD-17 | (F) 4" WIDE CROSS-WALK MARKINGS   | (J) CEMENT CONCRETE TRAFFIC CURB, SEE DETAIL SHEET SD-17   |
| (C) WHEEL STOP - SEE DETAIL SHEET SD-17         | (G) 6" WIDE CROSSWALK MARKINGS    | (K) STEEL TUBE GATE, SEE DETAIL SHEET SD-17  |
| (D) 6" EXTRUDED CURB, SEE DETAIL SHEET SD-17    | (H) 4" WHITE STRIPES, 45° 2" O.C. | (L) SIDEWALK W/INTEGRAL CURB, SEE DETAIL SHEET SD-17<br>SEE SHEETS AD-1 THROUGH AD-8 FOR DETAILED GRADING/REVEAL |



REVISION	DATE
1	11/20/24
2	3/4/25
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1 Revised per City review and No. 1 A adjustment.  
2 Revised per City review.  
3 Revised per City & P&S review.  
4 Revised per City & P&S review.  
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JOB NO. 2307  
DATE: May 14, 2024  
DESIGNED BY: Rob Trivitt  
DRAWN BY: Rob Trivitt  
CHECKED BY: Rob Trivitt  
APPROVED BY: Rob Trivitt

**AZURE GREEN**  
CONSULTANTS

\*feasibility \*planning \*engineering \*surveying

419 East Pioneer, Suite A - Puyallup, WA 98372  
Phone: 253.770.3144, Fax: 253.770.3142

**Paving Plan**

**Bradley Heights**

Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.896.0326  
Fax jordan@timberlanepartners.com

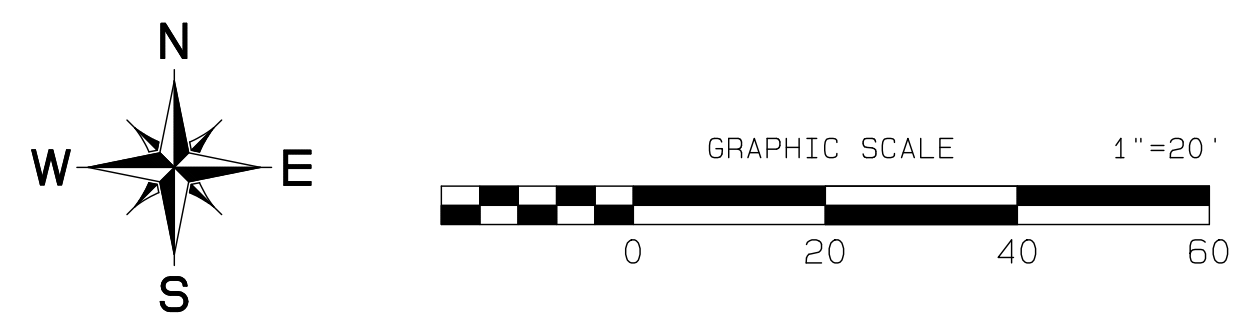
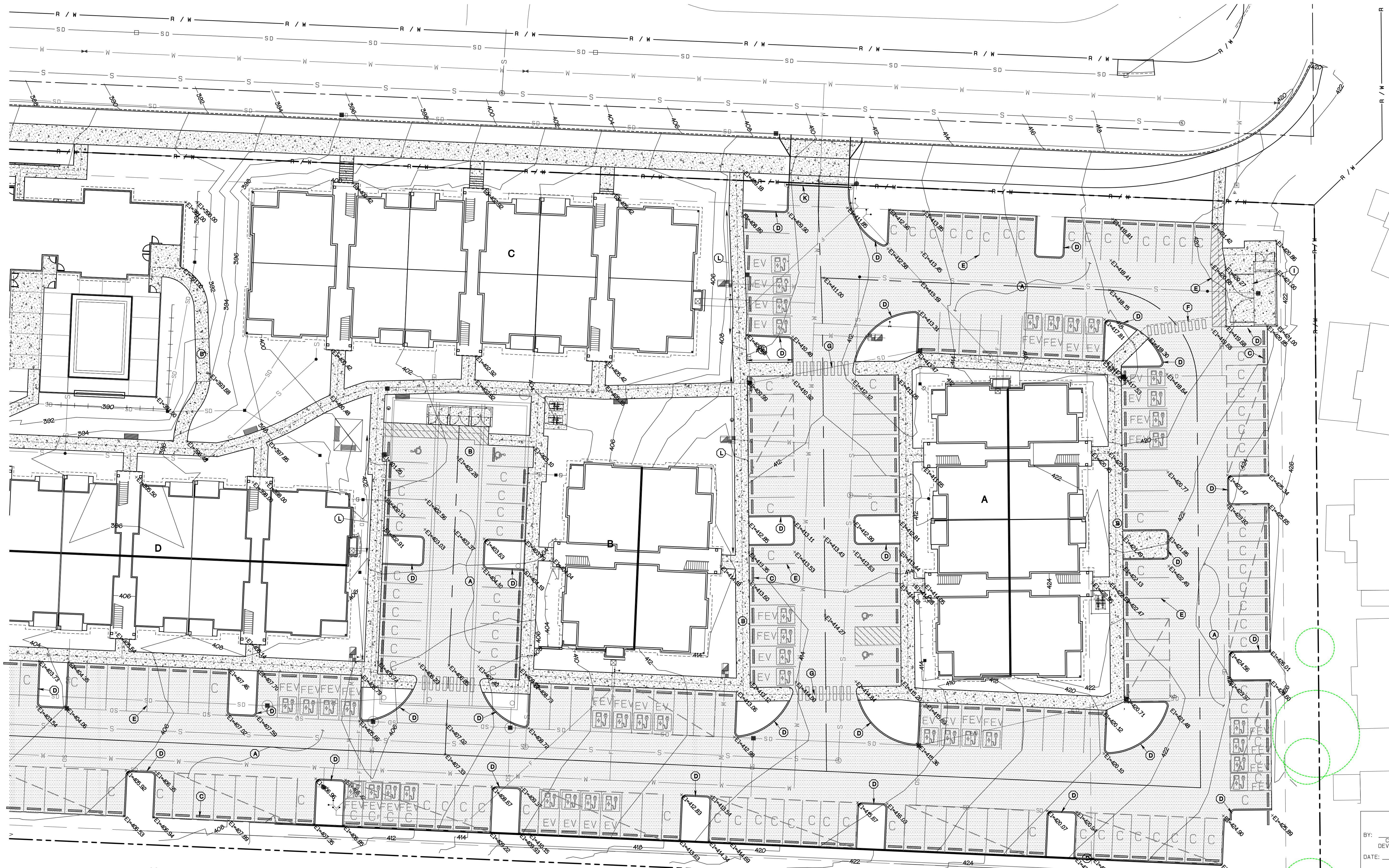
DRAWING

**SD-3**

SHEET 17  
OF 60

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington

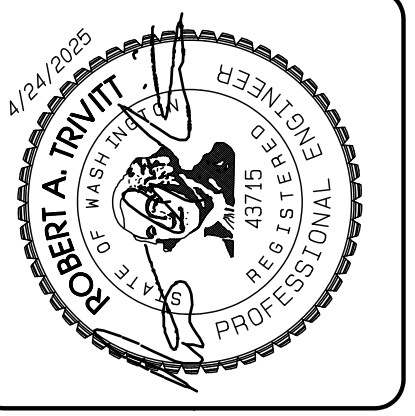


APPROVED

BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

**NOTE:**  
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REVISION	DATE
1 Revised per City review and No. 11 A adjustment.	11/29/24
2 Revised per City review.	3/4/25
3 Revised per City & P&S review.	4/27/25
4 Revised per City & P&S review.	
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JOB NO. 3327  
DATE: May 14, 2024  
DESIGNED BY: Rob Trivitt  
DRAWN BY: Rob Trivitt  
CHECKED BY: Rob Trivitt  
APPROVED BY: Rob Trivitt

419 East Pioneer, Suite A - Puyallup, WA 98372  
phone: 253.770.3144, fax: 253.770.3142

feasibility • planning • engineering • surveying

**Paving Plan**

**Bradley Heights**

Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.886.0326  
Fax jordan@timberlanepartners.com

**DRAWING**

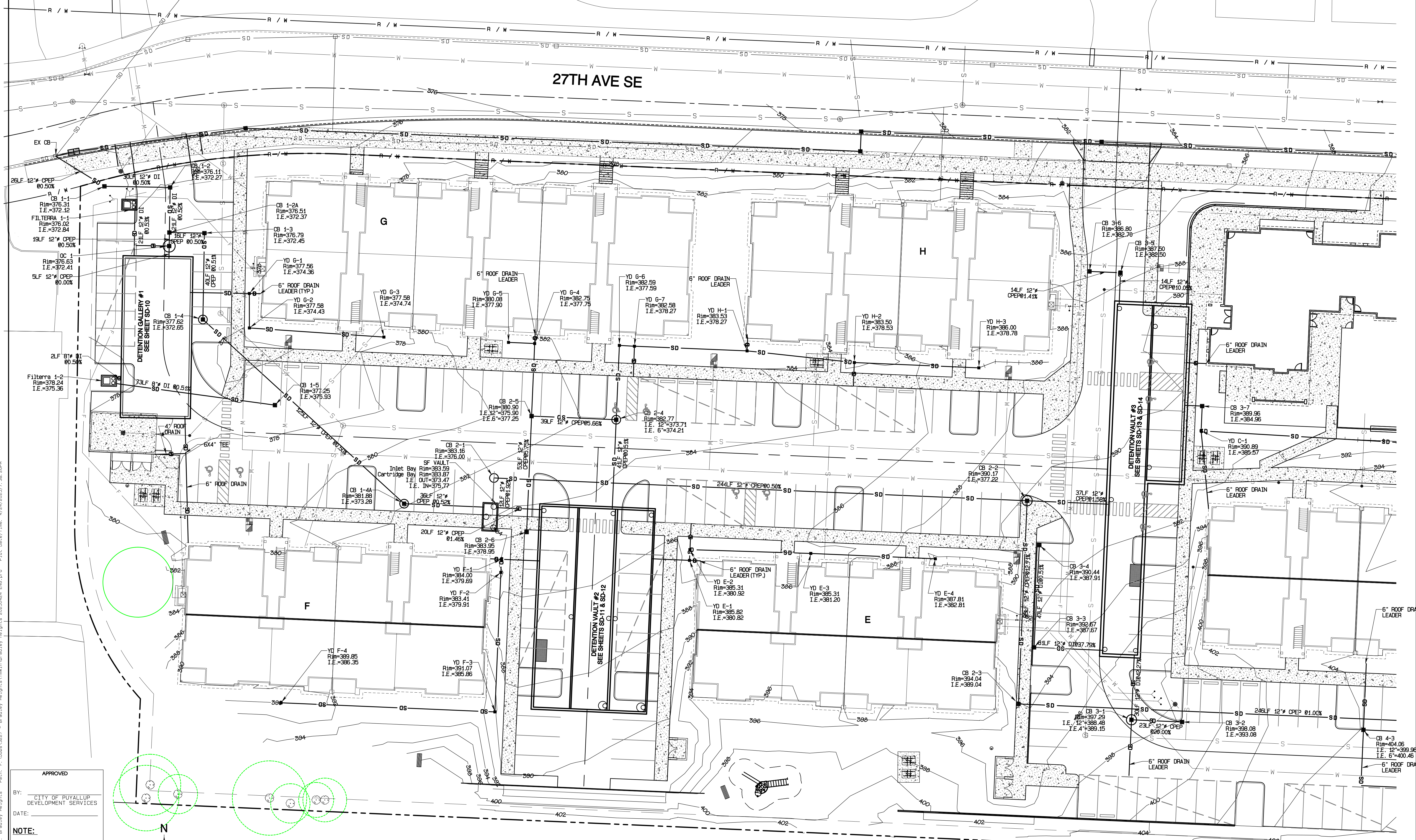
**SD-4**

SHEET 18  
OF 60

Project Desc: Bradley Heights Date: E:\Jobs\3327 - Bradley Heights\Timberlane\Drawings\20250424\_E106.dwg PLOT Date: 5/14/2024 7:53:00PM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington

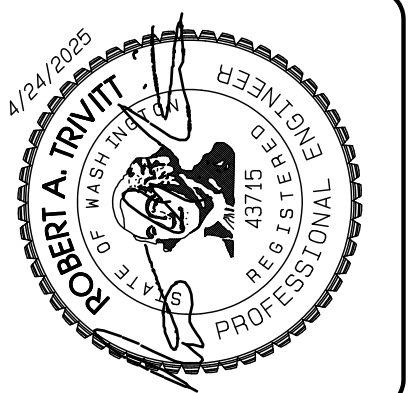
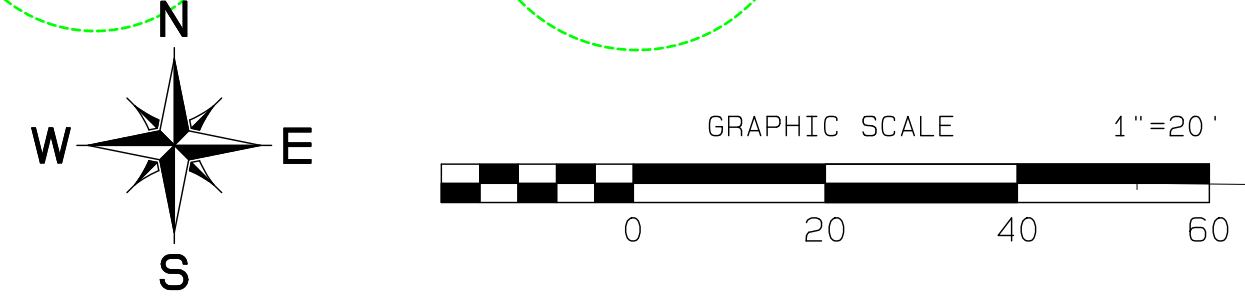


**APPROVED**

BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES

DATE:

**NOTE:**  
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REVISION	DATE
1	11/26/24
2	3/4/25
3	4/21/25
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**JOB NO. 3327**  
**DATE:** May 14, 2024  
**DESIGNED BY:** Rob Trivitt  
**DRAWN BY:** Rob Trivitt  
**CHECKED BY:** Rob Trivitt  
**APPROVED BY:** Rob Trivitt

**AZURE GREEN CONSULTANTS**  
 \*feasibility \*planning \*engineering \*surveying  
 409 East Pioneer, Suite A - Puyallup, WA 98372  
 Phone: 253.770.3144, Fax: 253.770.3142

**Storm Plan**

**Bradley Heights**

Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone: 509.896.0326  
 Fax: jordan@timberlanepartners.com

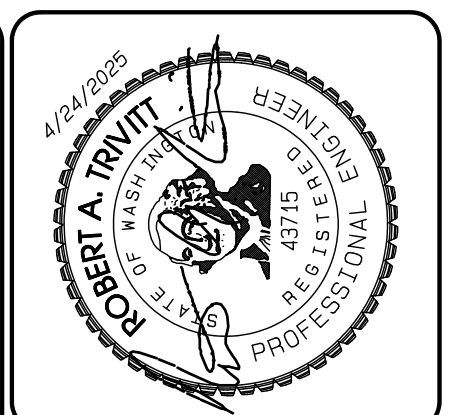
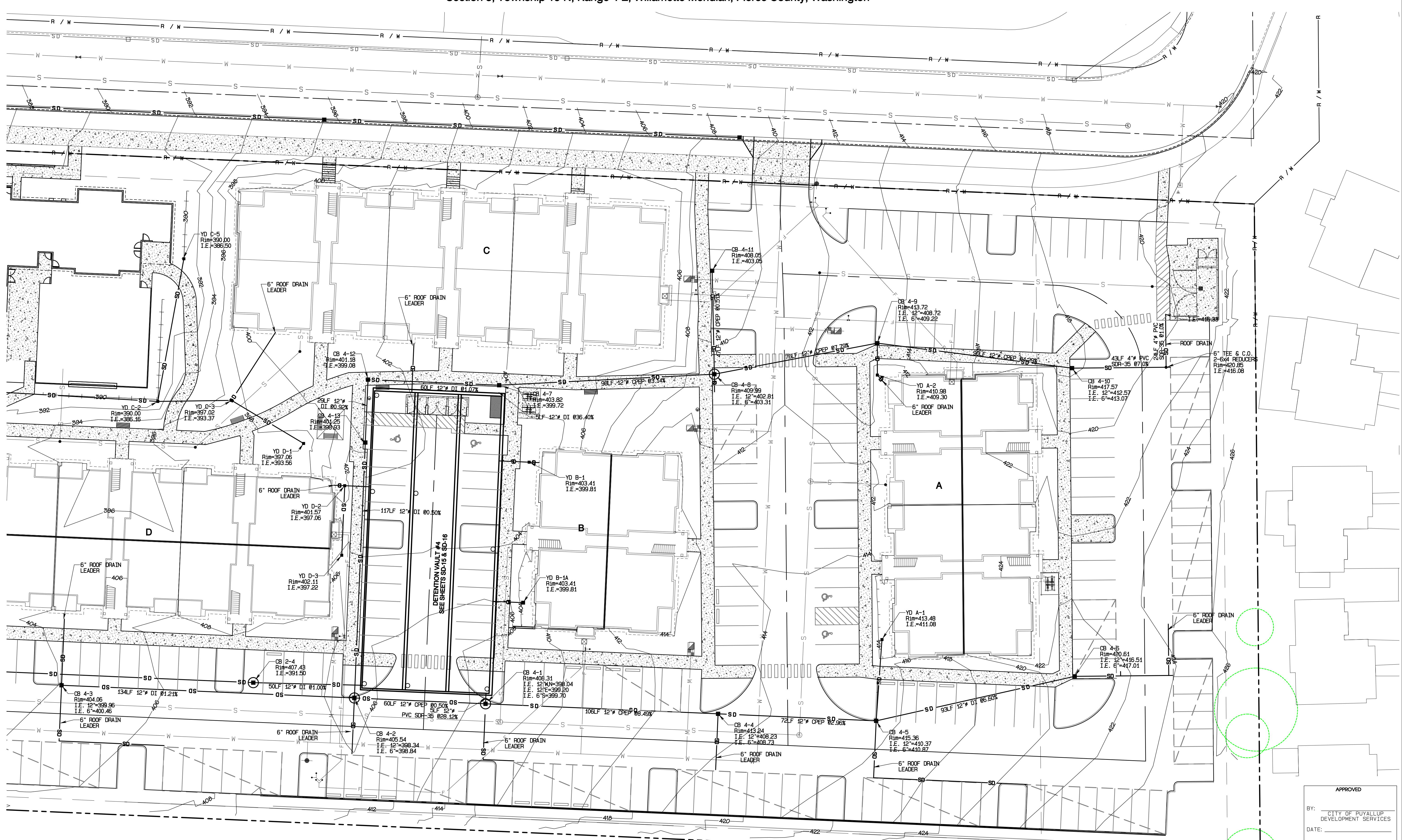
**DRAWING**

**SD-5**

SHEET 19 OF 60

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/29/24
2 Revised per City review.	3/4/25
3 Revised per City review.	4/27/25
4 Revised per City & P&S review.	
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JOB NO. 3327  
 DATE: May 14, 2024  
 DESIGNED BY: Rob Trivitt  
 DRAWN BY: Rob Trivitt  
 CHECKED BY: Rob Trivitt  
 APPROVED BY: Rob Trivitt

**AZURE GREEN**  
 CONSULTANTS

\*feasibility \*planning \*engineering \*surveying  
 409 East Pioneer, Suite A - Puyallup, WA 98372 phone: 253.770.3144 fax: 253.770.3142

APPROVED

BY: \_\_\_\_\_  
 CITY OF PUYALLUP  
 DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

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**Storm Plan**

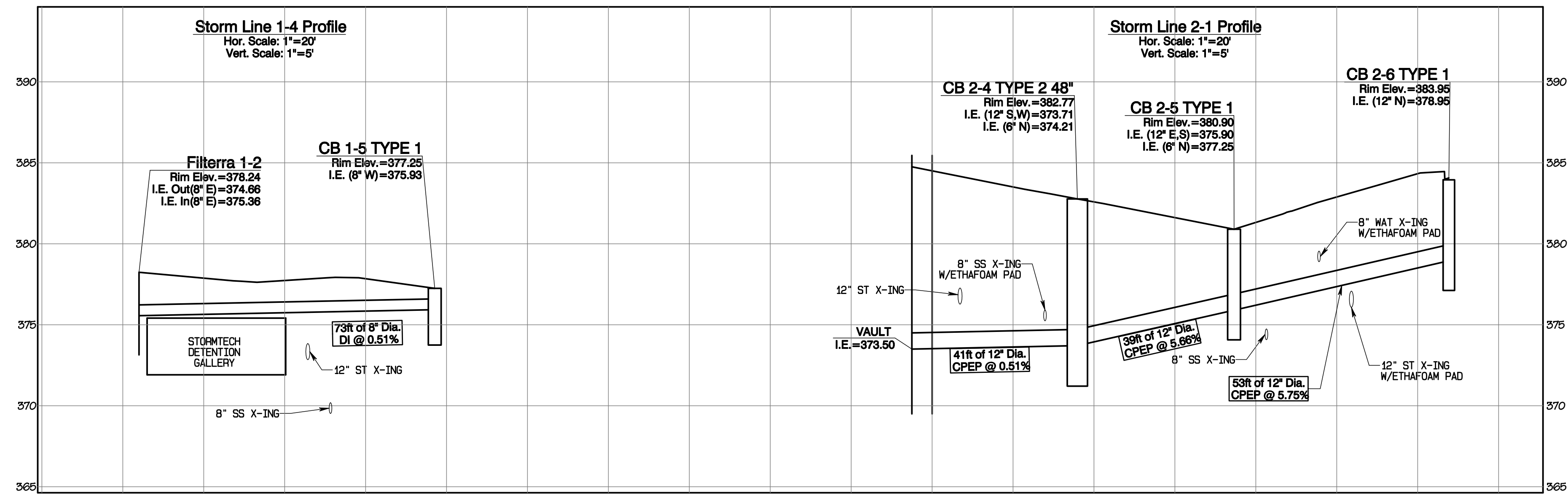
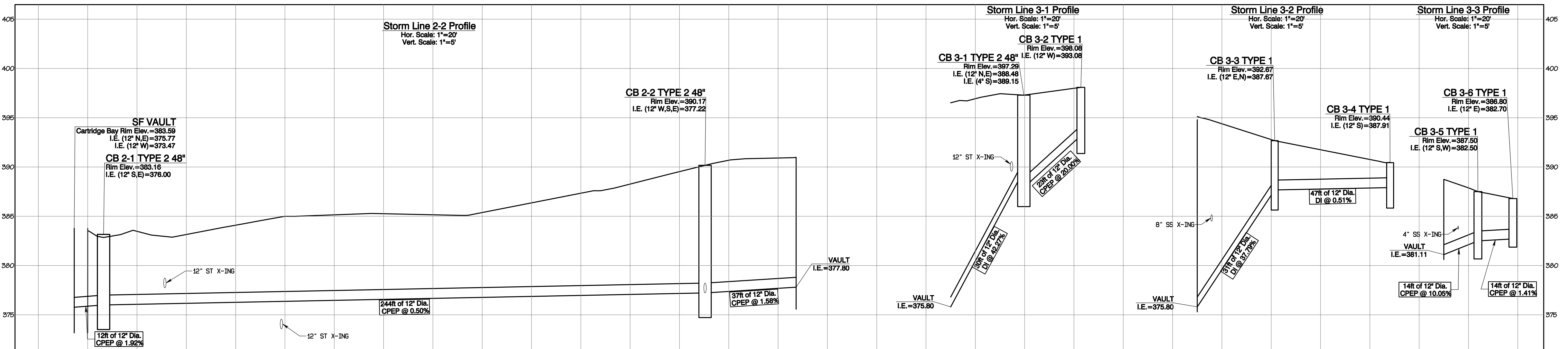
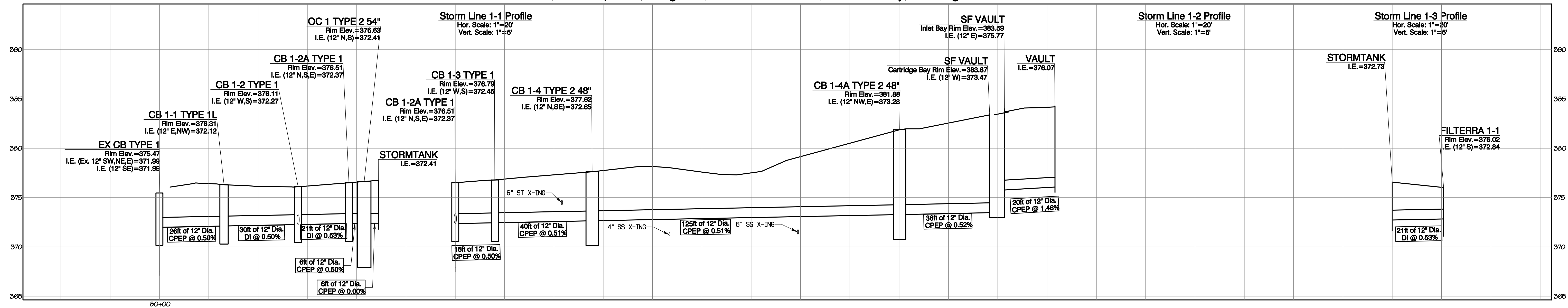
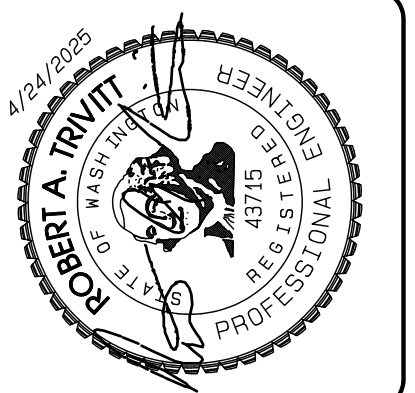
**Bradley Heights**  
 Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.899.0326  
 Fax jordan@timberlanepartners.com

**DRAWING**  
**SD-6**  
 SHEET 20  
 OF 60

Project Desc: Bradley Heights Date: E:\Jobs\3327 - Bradley Heights\Timberlane\Drawings\20250624\_EWG.dwg PLOT Date: 6/11/25 4:24:23 PM 38.02PM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



REVISION	DATE
1	1/15/24
2	3/4/25
3	4/21/25
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JOB NO.	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
2024	May 14, 2024	Rob Trivitt	Rob Trivitt	Rob Trivitt	Rob Trivitt

**AZURE GREEN CONSULTANTS**  
 +feasibility +planning +engineering +surveying  
 409 East Pioneer, Suite A - Puyallup, WA 98372  
 Phone: 253.770.3144, Fax: 253.770.3142

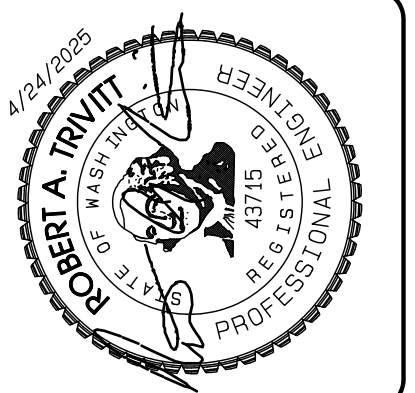
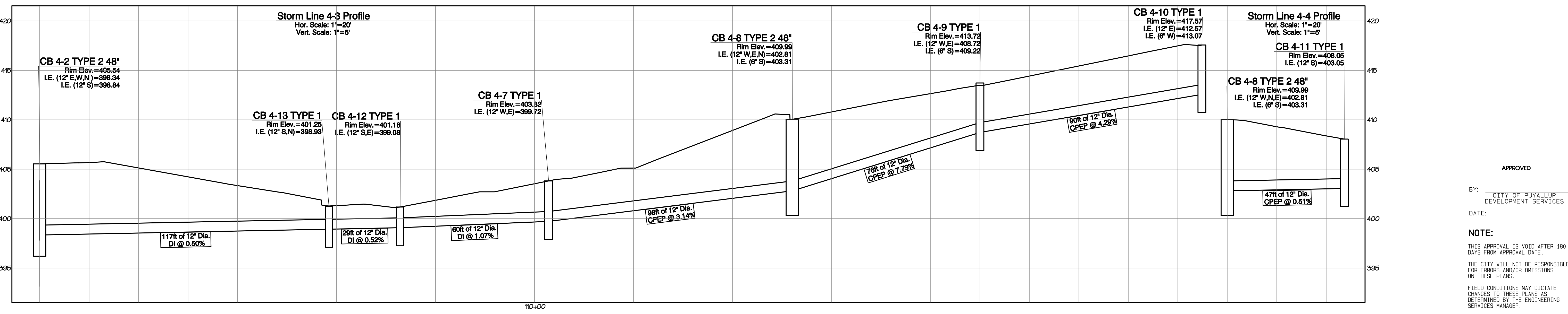
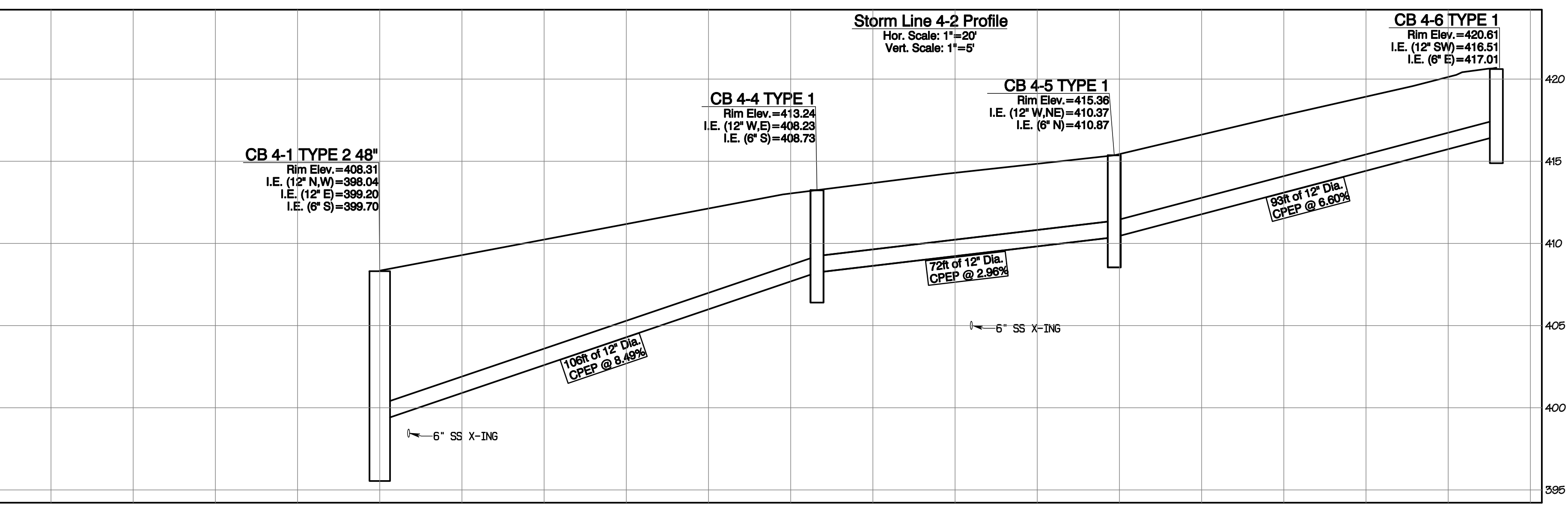
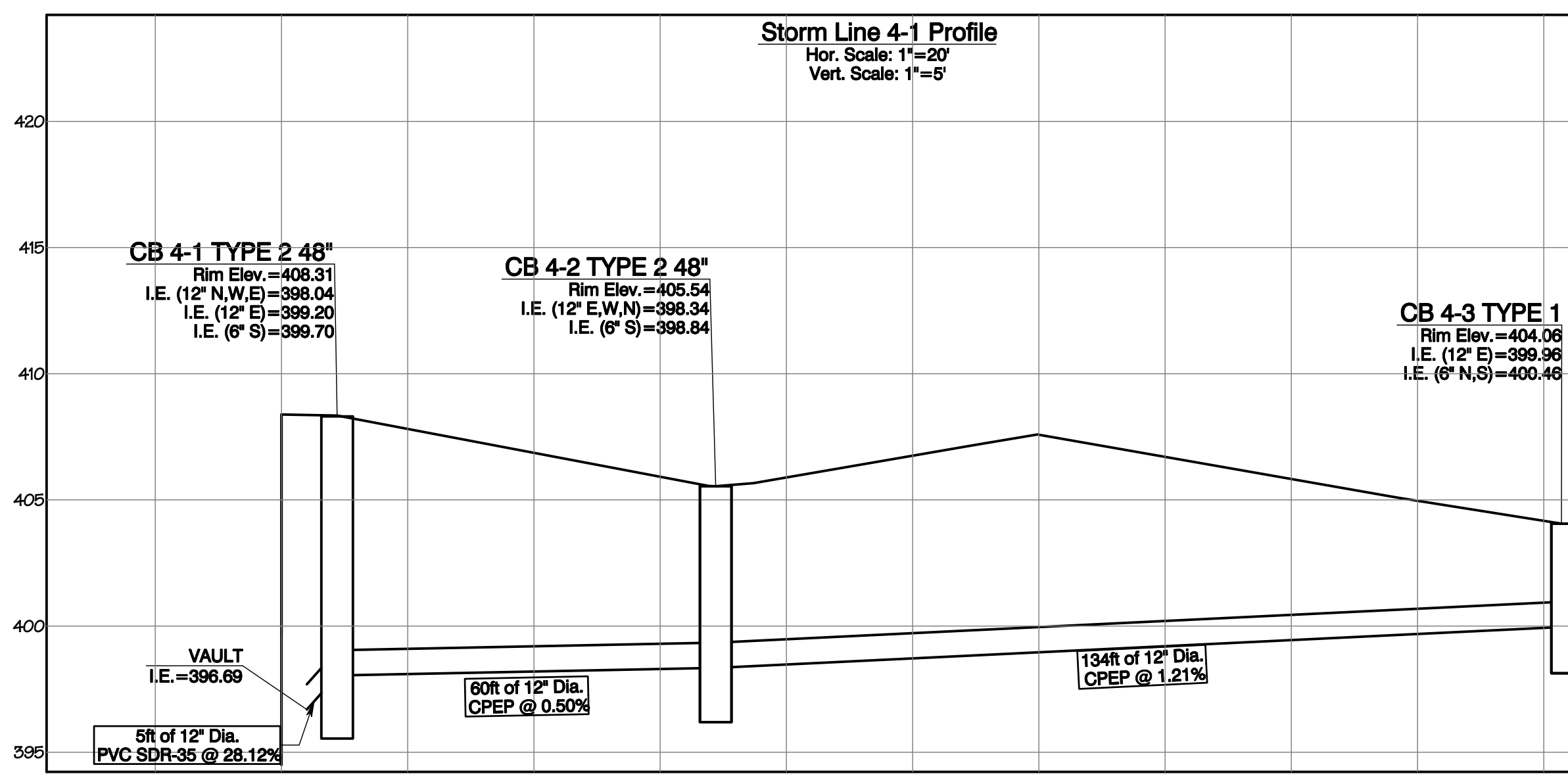
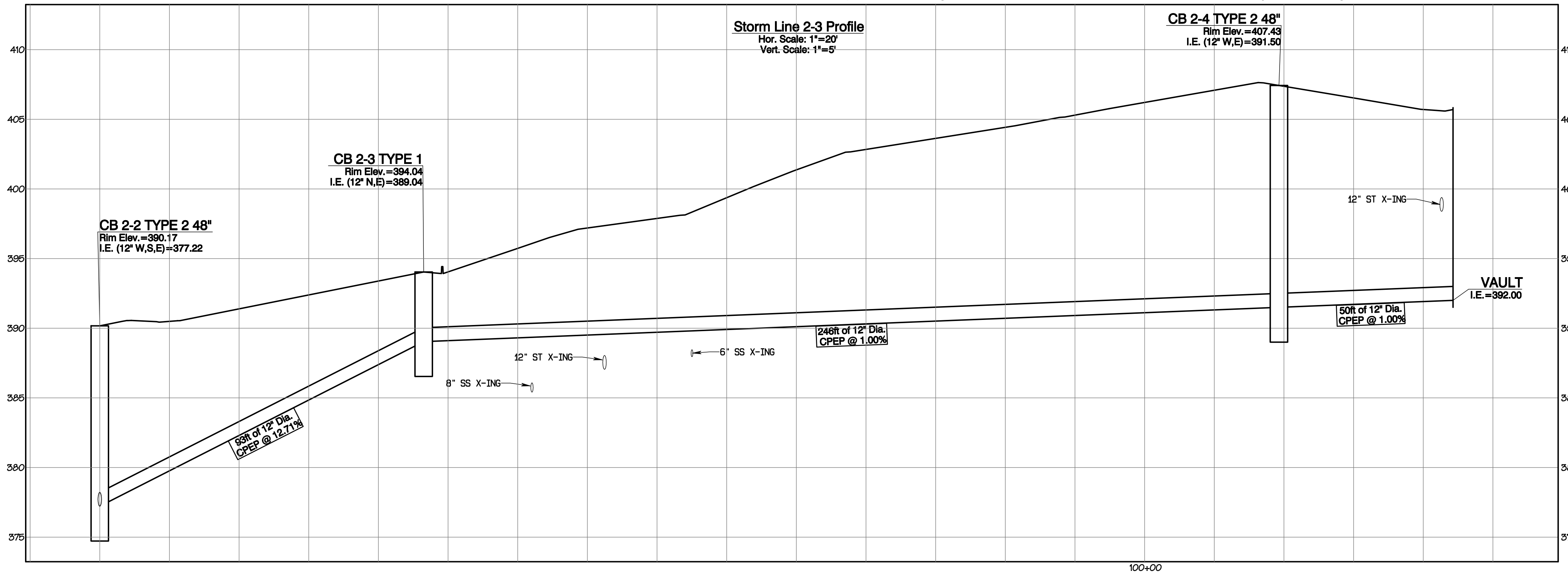
**Storm Profiles**  
**Bradley Heights**  
 Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.896.0326  
 Fax jordan@timberlanepartners.com

APPROVED  
 BY: CITY OF PUYALLUP DEVELOPMENT SERVICES  
 DATE: \_\_\_\_\_  
 NOTE:  
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 FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

Project Date: Bradley Heights Date: E:\sub\3227 - Bradley Heights\Time\Drawings\20250424\_Eng.dwg P:\Data\Files\4/24/2025/7\_41.dgn

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/26/24
2 Revised per City review.	3/4/25
3 Revised per City & Public Review.	4/21/25
4 Revised per City & Public Review.	
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JOB NO.	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
3327	May 14, 2024	Rob. Trivitt	Rob. Trivitt	Rob. Trivitt	Rob. Trivitt

**AZURE GREEN CONSULTANTS**  
 \*feasibility \*planning \*engineering \*surveying  
 409 East Pioneer, Suite A - Puyallup, WA 98372  
 Phone: 253.770.3144, Fax: 253.770.3142

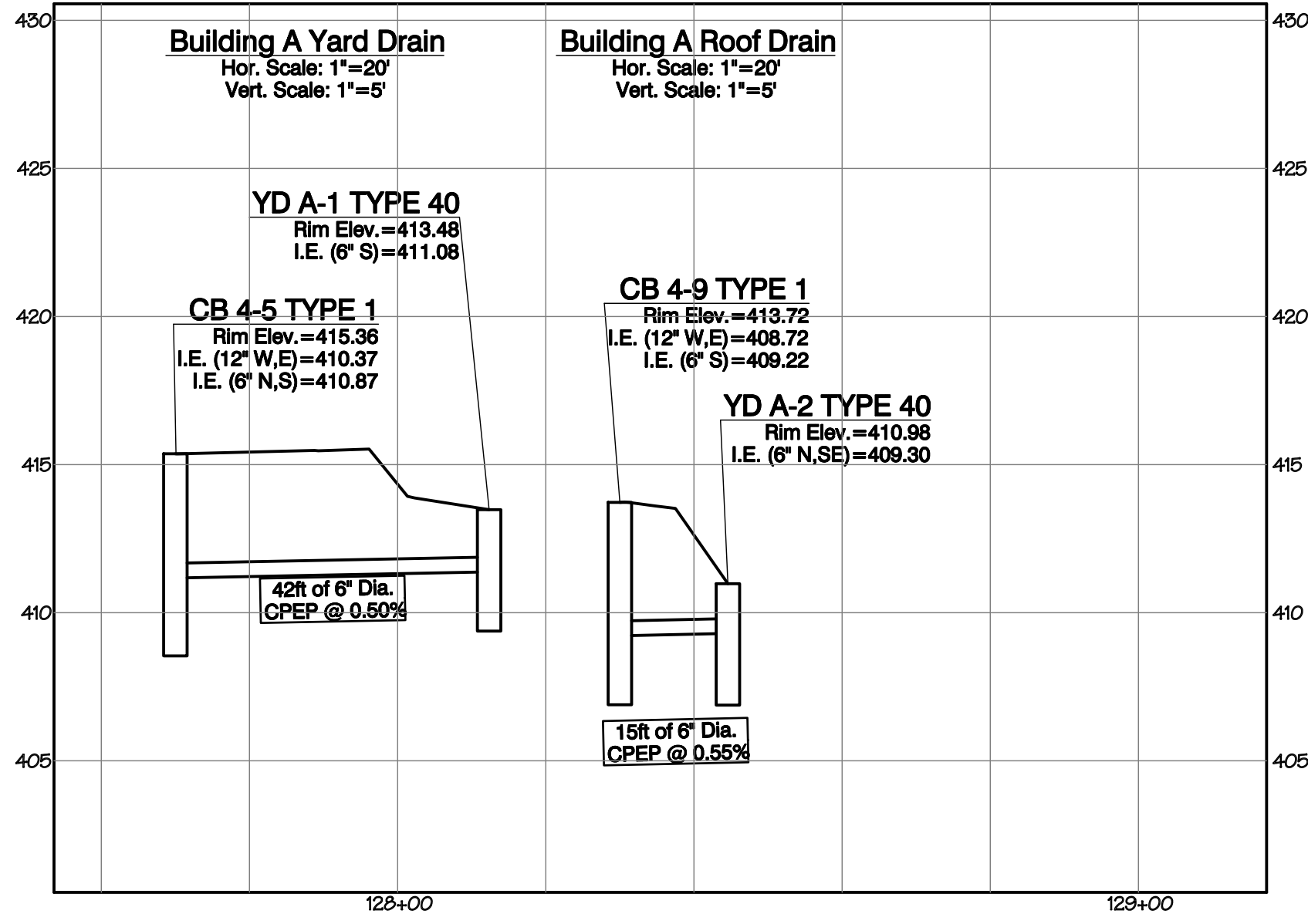
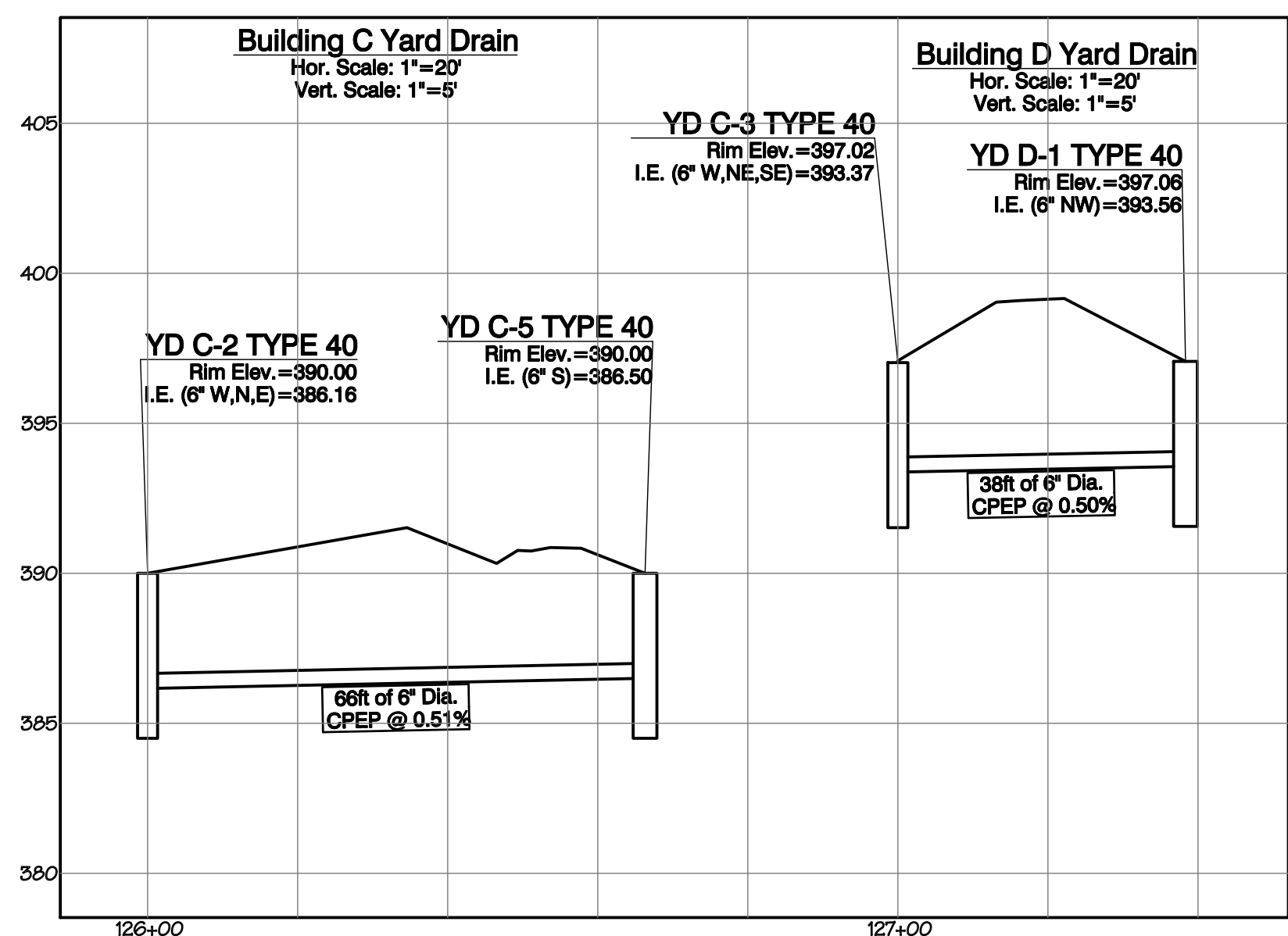
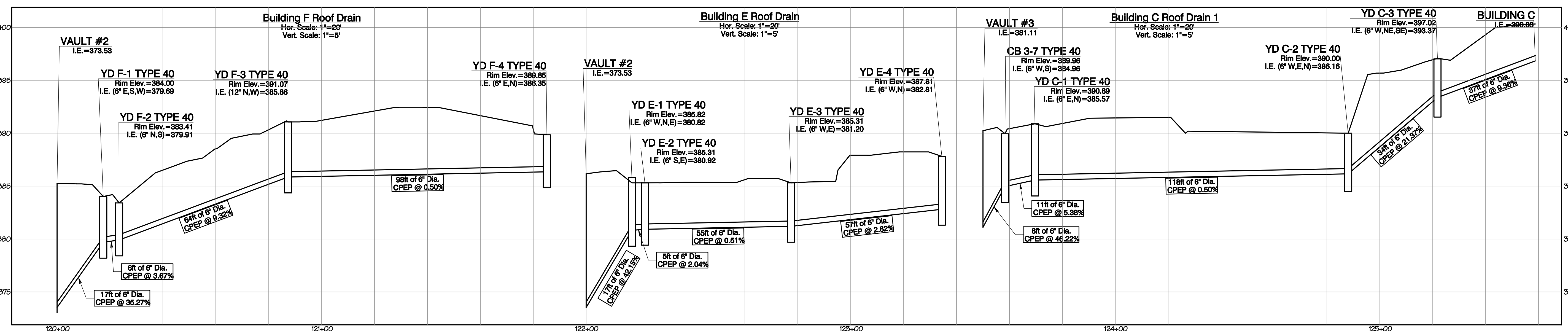
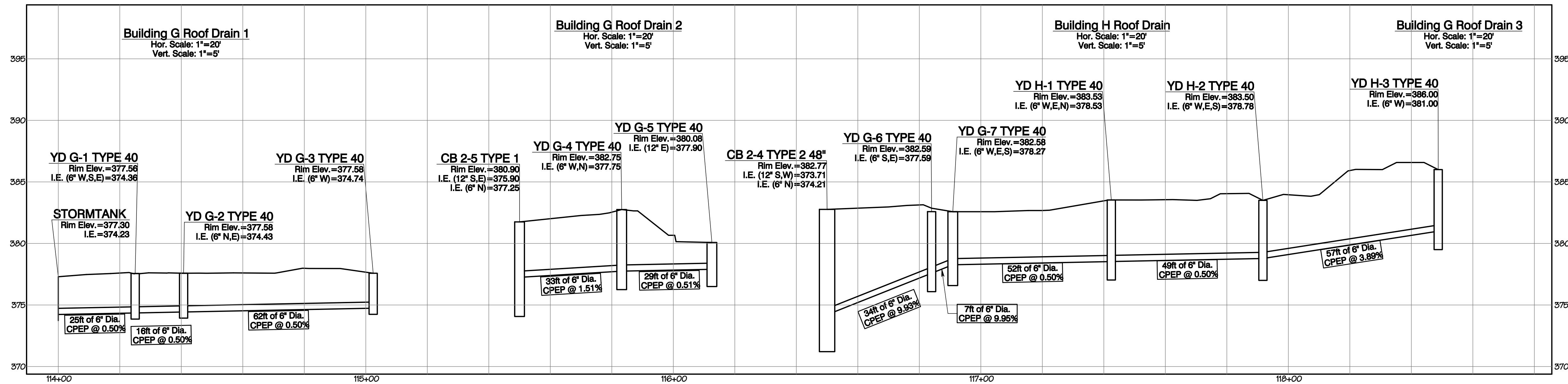
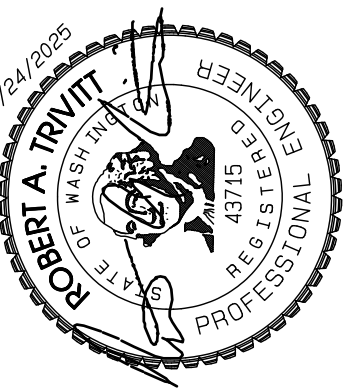
APPROVED  
 BY: CITY OF PUYALLUP DEVELOPMENT SERVICES  
 DATE: \_\_\_\_\_  
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**Storm Profiles**  
**Bradley Heights**  
 Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.896.0326  
 Fax jordan@timberlanepartners.com

Project Date: 11/26/24; Job No: 3327; Title: Storm Profiles; Scale: 1"=20'; Date: 11/26/24; Drawn By: Rob. Trivitt; Checked By: Rob. Trivitt; Approved By: Rob. Trivitt; Job No: 3327; Date: May 14, 2024; Designer: Rob. Trivitt; Drafter: Rob. Trivitt; Checker: Rob. Trivitt; Approver: Rob. Trivitt

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



REVISION	DATE
1	11/29/24
2	3/4/25
3	4/21/25
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DESIGNED BY: R.D. TRIVITT
DRAWN BY: R.D. TRIVITT
CHECKED BY: R.D. TRIVITT
APPROVED BY: R.D. TRIVITT

**AZURE GREEN CONSULTANTS**  
 + feasibility + planning + engineering + surveying  
 409 East Pioneer, Suite A - Puyallup, WA 98372  
 Phone: 253.770.3144, Fax: 253.770.3142

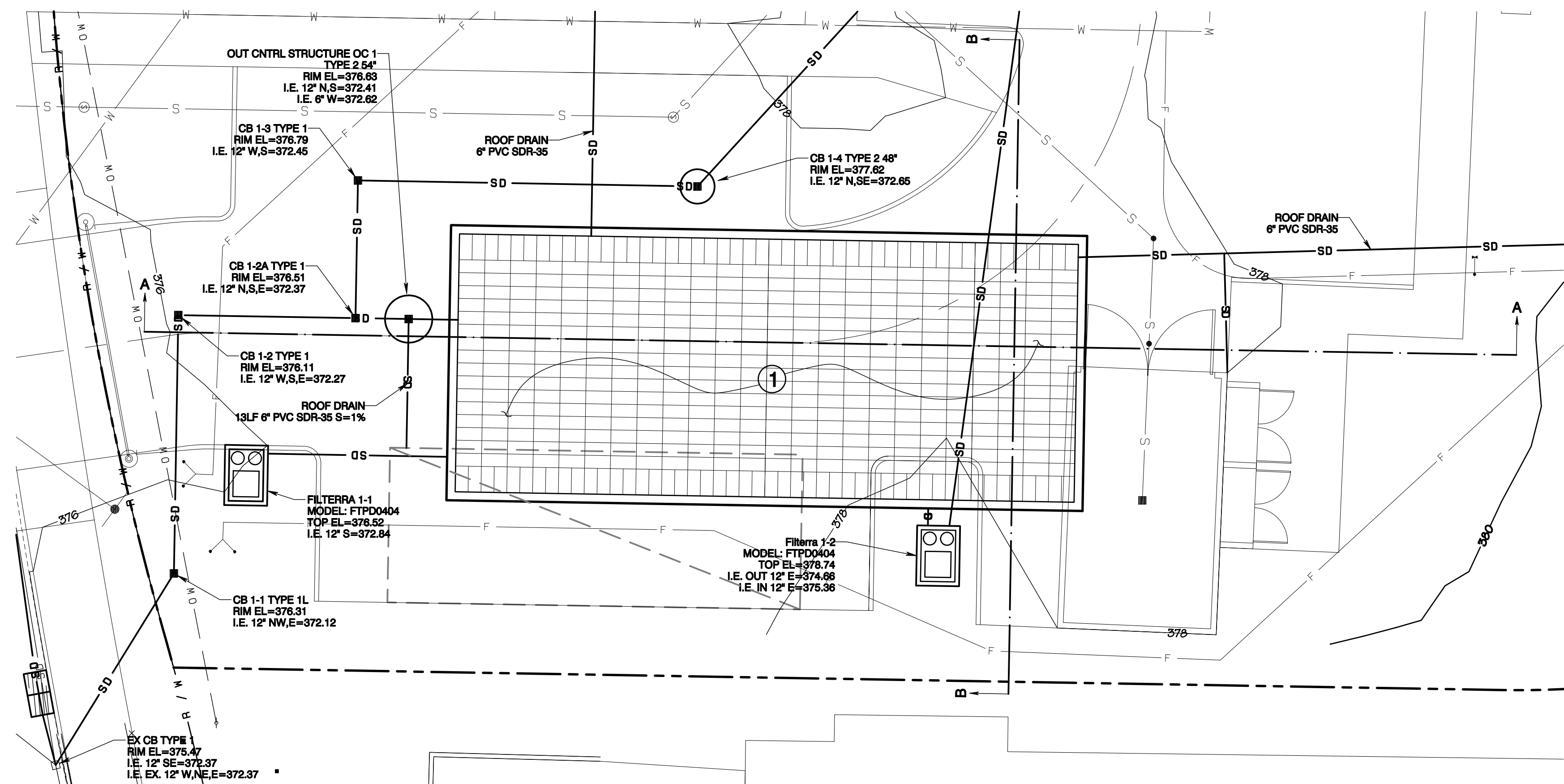
**Roof/Yard Drain Profiles**  
**Bradley Heights**  
 Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.896.0326  
 Fax jordan@timberlanepartners.com

APPROVED  
 BY: CITY OF PUYALLUP DEVELOPMENT SERVICES  
 DATE: \_\_\_\_\_  
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Project Desc.: Bradley Heights Date: F:\sub3\3227 - Bradley Heights\Timberlane\Drawings\20250424\_E106.dwg PLOT Date: 4/24/2025 7:50:38PM

# Bradley Heights

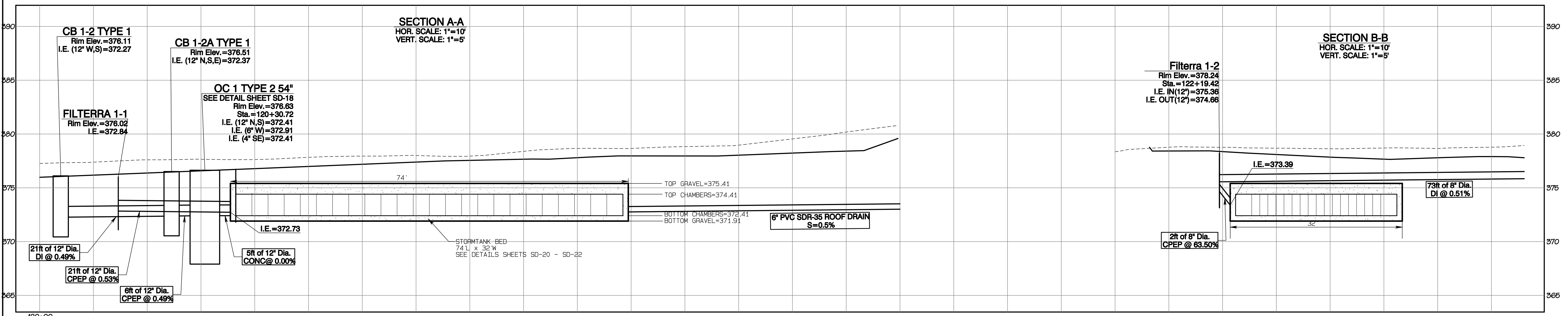
Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



### CONSTRUCTION KEY NOTES

- ① STORMTANK UNDERGROUND GALLERY  
TOTAL BED=32' W X 74' L  
SEE DETAILS SHEETS SD-20 - SD-22

Project Desc.: Bradley Heights; Date: F:\sub\3227 - Bradley Heights\Time\Drawings\Highways\20250424\_EHG.dwg; PLOT Date/Time: 4/24/2025 7:56:21PM

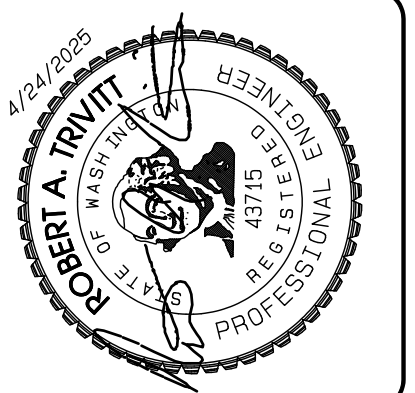


APPROVED

BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

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JOB NO. 3227  
DATE: May 14, 2024  
DESIGNED BY: Rob Trivitt  
DRAWN BY: Rob Trivitt  
CHECKED BY: Paul Green  
APPROVED BY: Paul Green

**AZURE GREEN CONSULTANTS**  
+ feasibility + planning + engineering + surveying

409 East Pioneer, Suite A - Puyallup, WA 98372  
phone: 253.770.3144 fax: 253.770.3142

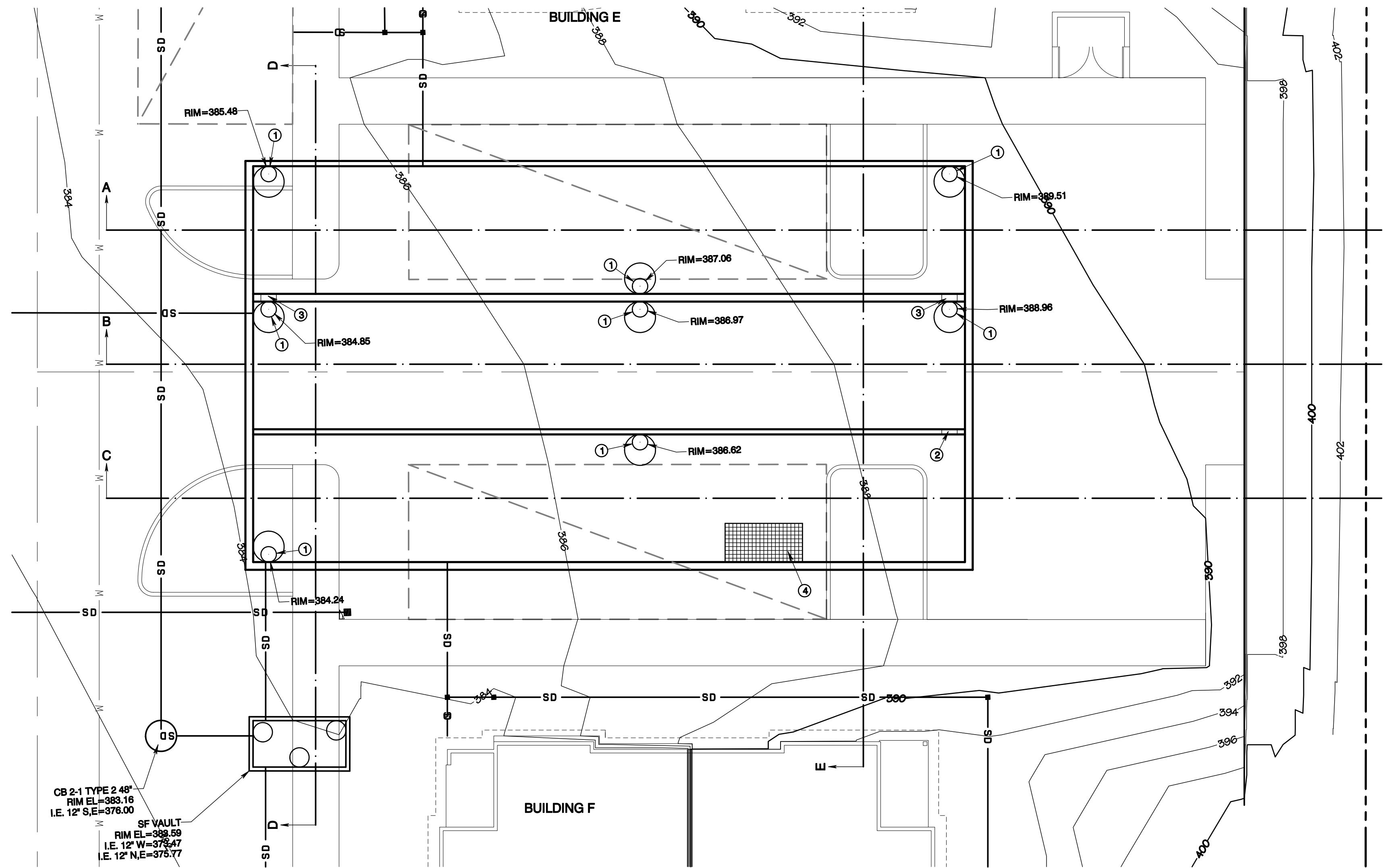
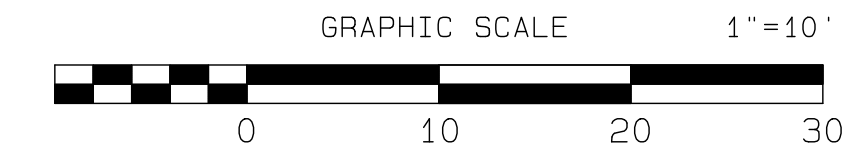
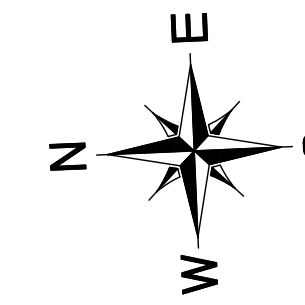
**Detention Gallery #1 Plan**

**Bradley Heights**

Timberlane Partners  
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Seattle, WA 98122  
Phone 509.889.0326  
Fax jordan@timberlanepartners.com

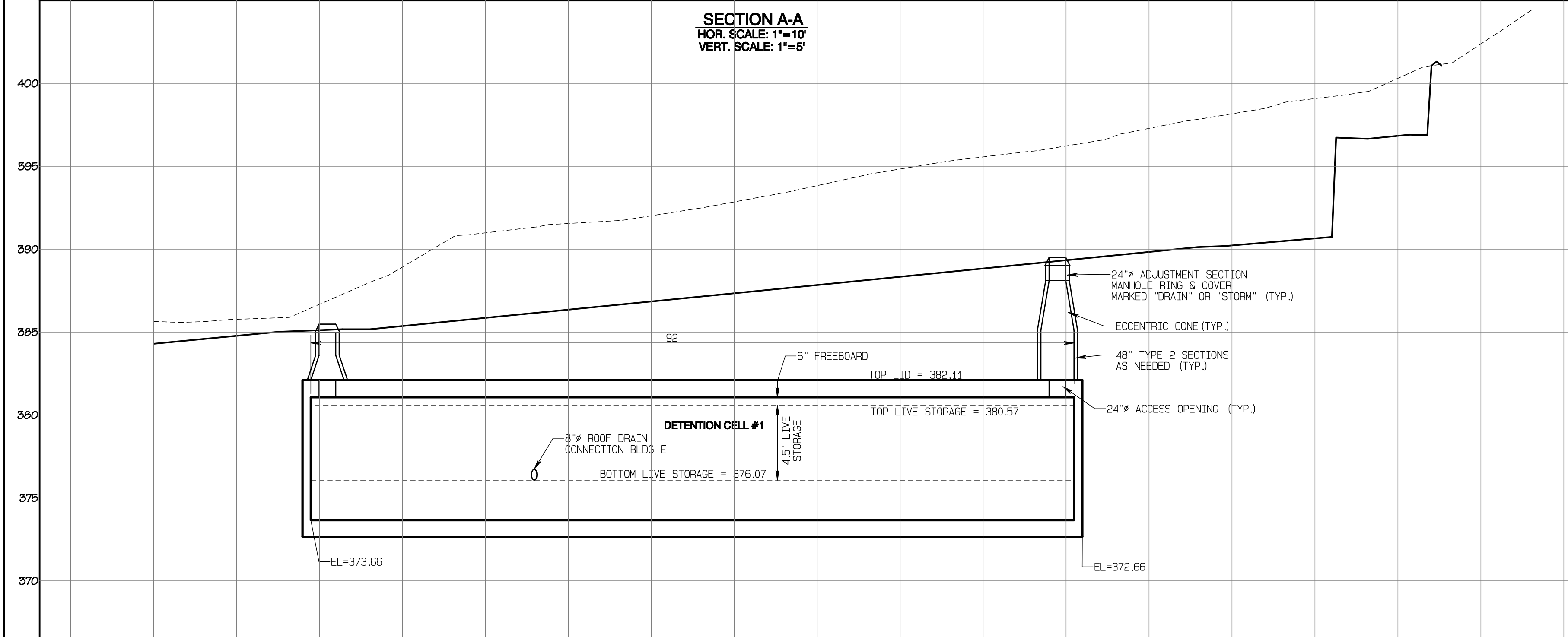
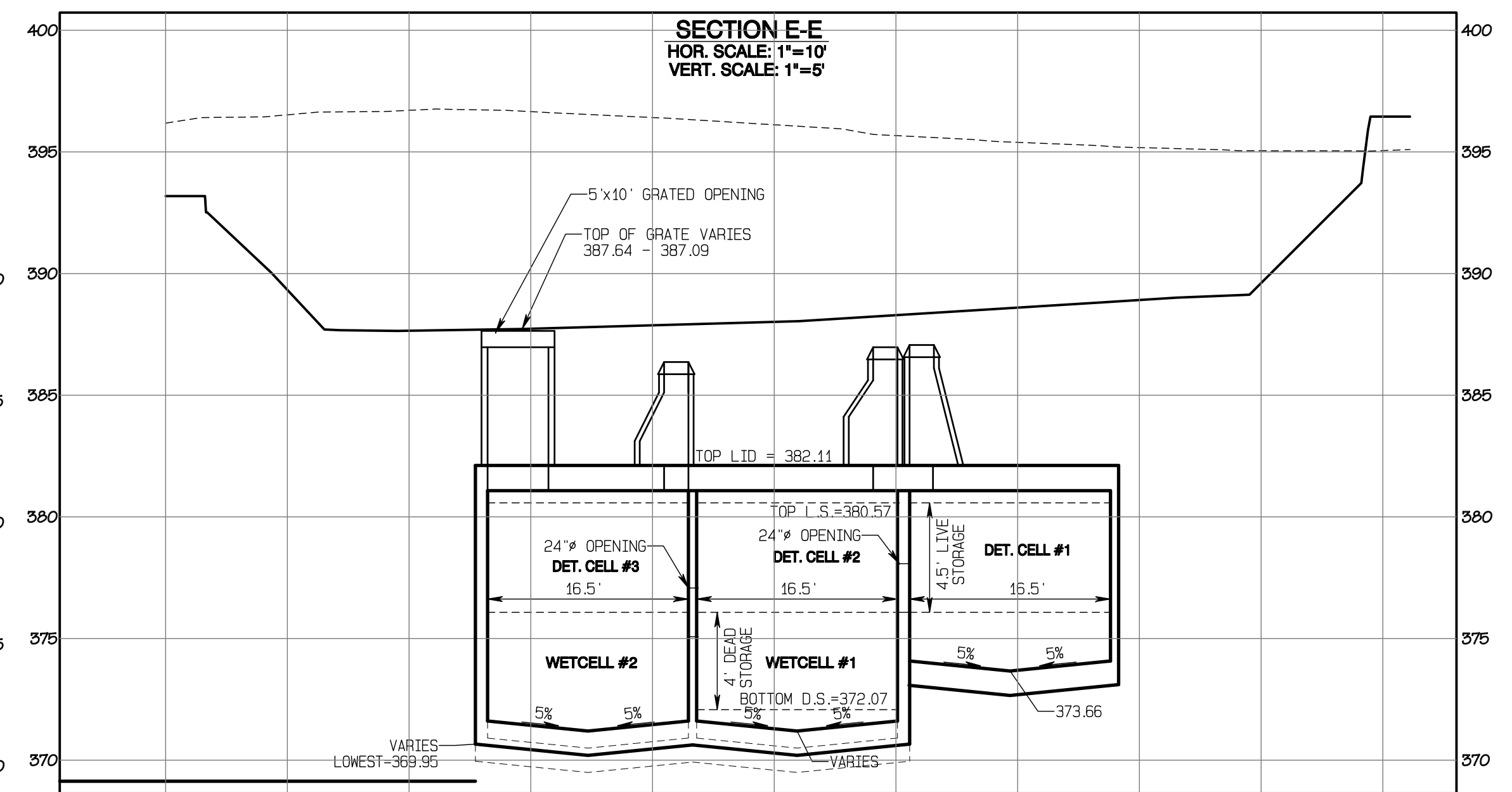
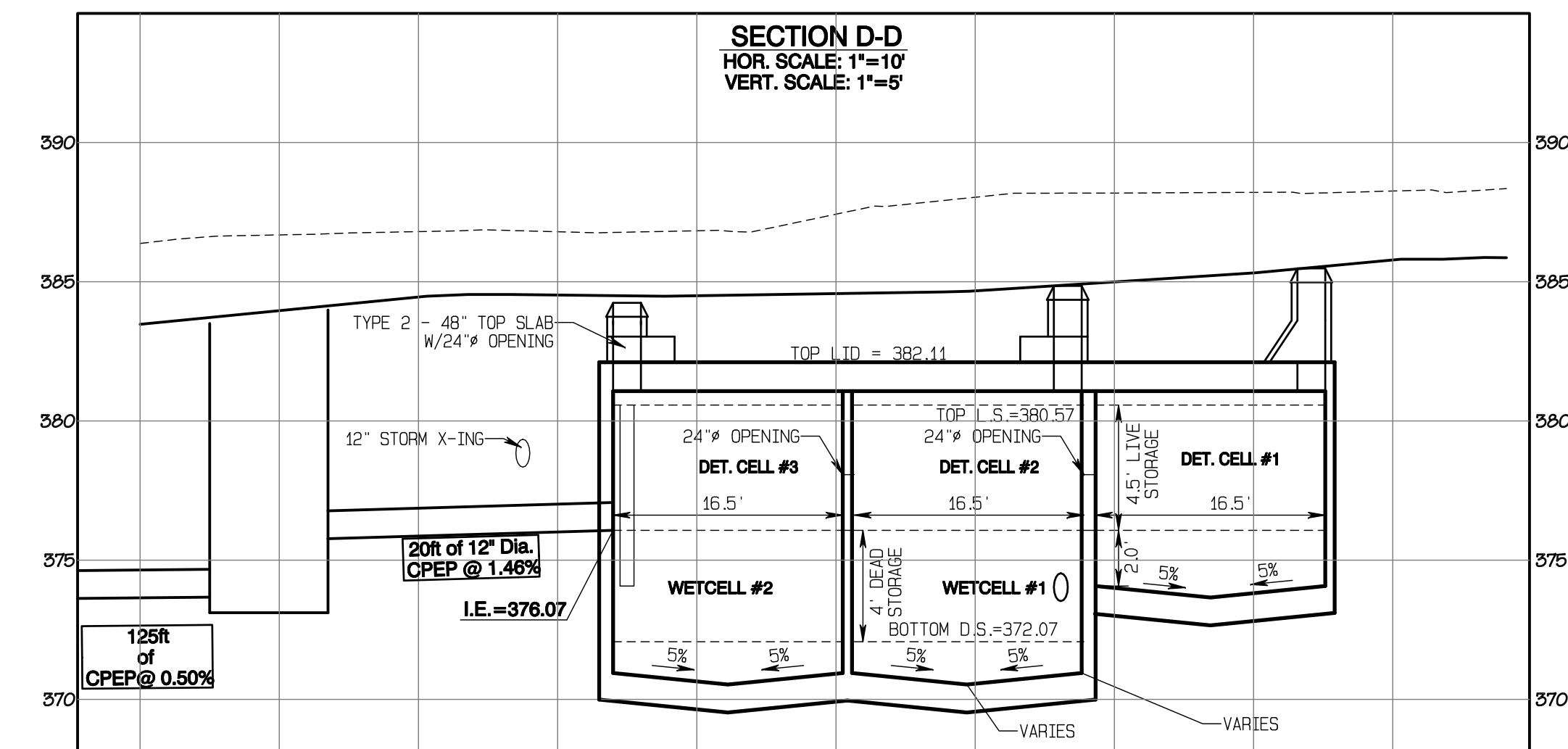
# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



### CONSTRUCTION KEY NOTES

- ① 24" ACCESS LID MARKED "DRAIN" (TYP.) W/LADDER PER STD 05.01.04, SHEET SD-22 & W/OSHA CONFINED ENTRY WARNING SIGN
- ② 24" CONNECTION BETWEEN CELLS I.E. = 375.57
- ③ 24" CONNECTION BETWEEN CELLS I.E. = 376.07
- ④ 5'x10' GRATED OPENING, TRAFFIC RATED W/LADDER PER STD 05.01.04, SHEET SD-22 & W/ BILCO LADDER-UP & W/OSHA CONFINED ENTRY WARNING SIGN



APPROVED

BY: CITY OF PUYALLUP DEVELOPMENT SERVICES

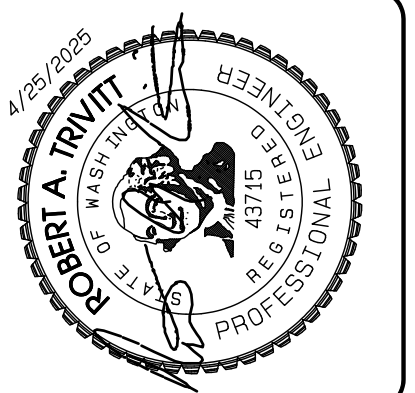
DATE: \_\_\_\_\_

NOTE:

THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.

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FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.



REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/29/24
2 Revised per City review.	3/4/25
3 Revised per City & Josh review.	4/21/25
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JOB NO. 3327  
 DATE: May 14, 2024  
 DESIGNED BY: Rob Trivitt  
 DRAWN BY: Rob Trivitt  
 CHECKED BY: Rob Green  
 APPROVED BY: Rob Green

**AZURE GREEN CONSULTANTS**

feasibility • planning • engineering • surveying

409 East Pioneer, Suite A - Puyallup, WA 98372 phone: 253.770.3144 fax: 253.770.3142

**Vault #2 Plan**

Bradley Heights

Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.886.0326  
 Fax jordan@timberlanepartners.com

DRAWING

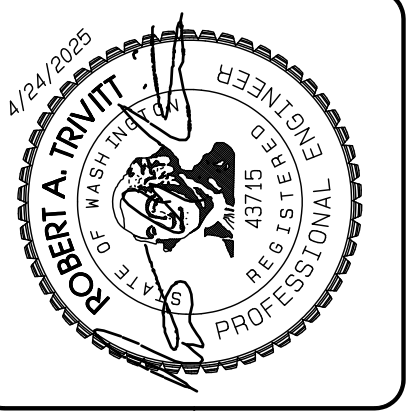
**SD-11**

SHEET 25 OF 60

Project Desc.: Bradley Heights Date: E:\urban\3327 - Bradley Heights\Timeline\Bradley Heights 20250425 EHG.dwg PLOT Date/Time: 4/25/2025 7:37:43AM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



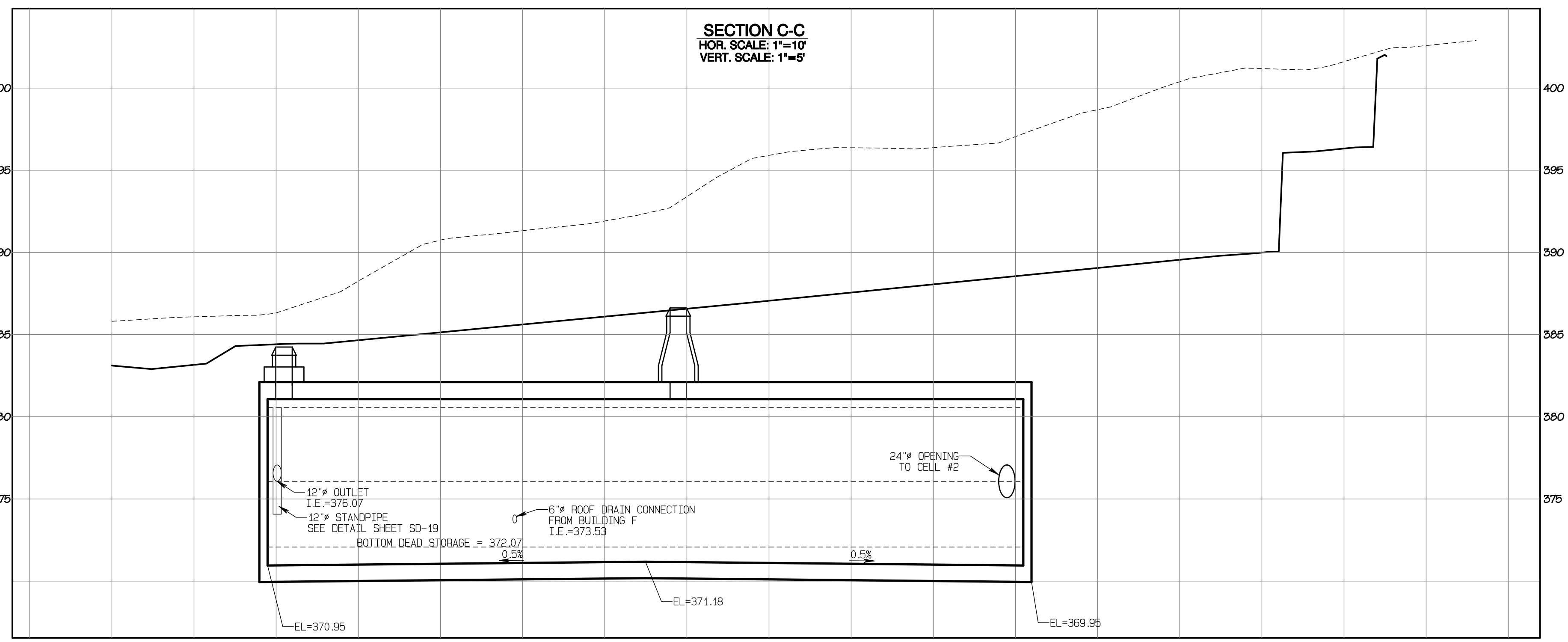
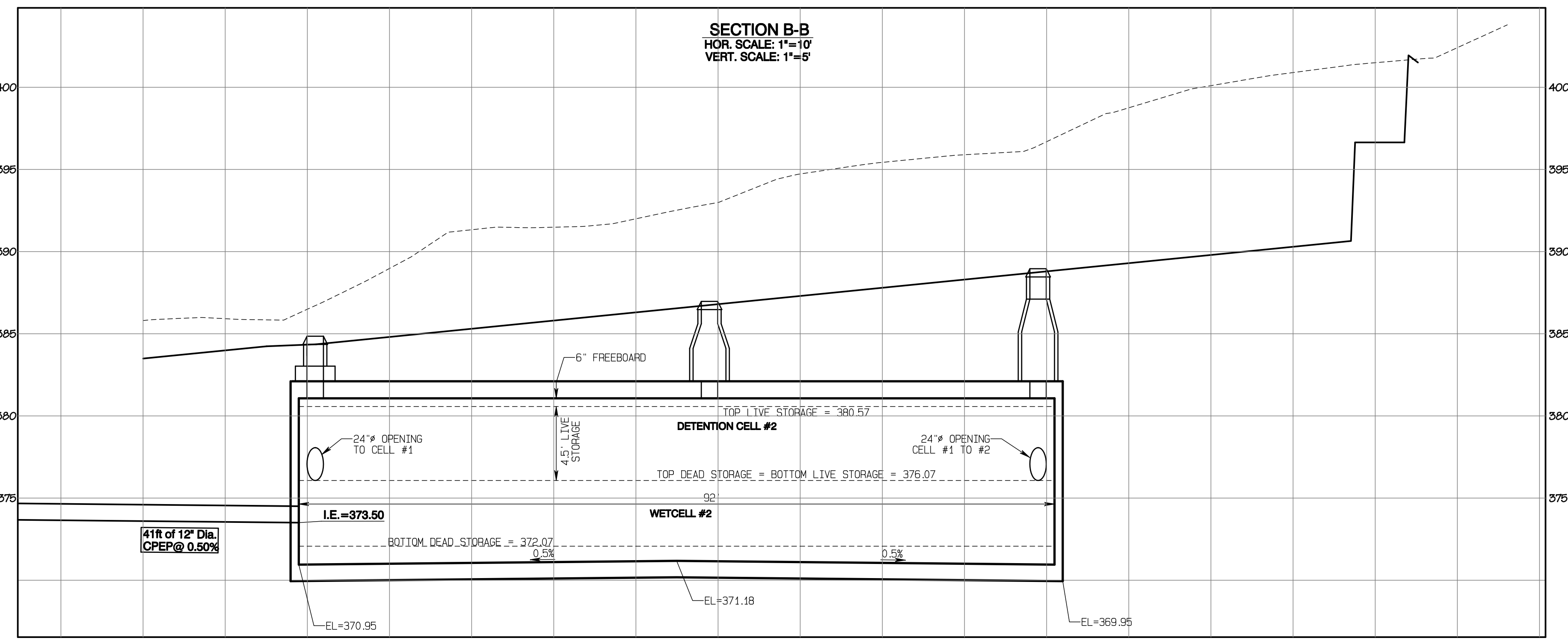
REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/29/24
2 Revised per City review.	3/4/25
3 Revised per City & P&S review.	4/27/25
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JOB NO. 3227
DATE: May 14, 2024
DESIGNED BY: Rob. Trivitt
DRAWN BY: Rob. Trivitt
CHECKED BY: Paul Green
APPROVED BY: Paul Green

**AZURE GREEN**  
CONSULTANTS

+ feasibility + planning + engineering + surveying

409 East Pioneer, Suite A - Puyallup, WA 98372 Phone: 253.770.3144 Fax: 253.770.3142



APPROVED

BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

**NOTE:**

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**Vault #2 Cross-Sections**

**Bradley Heights**

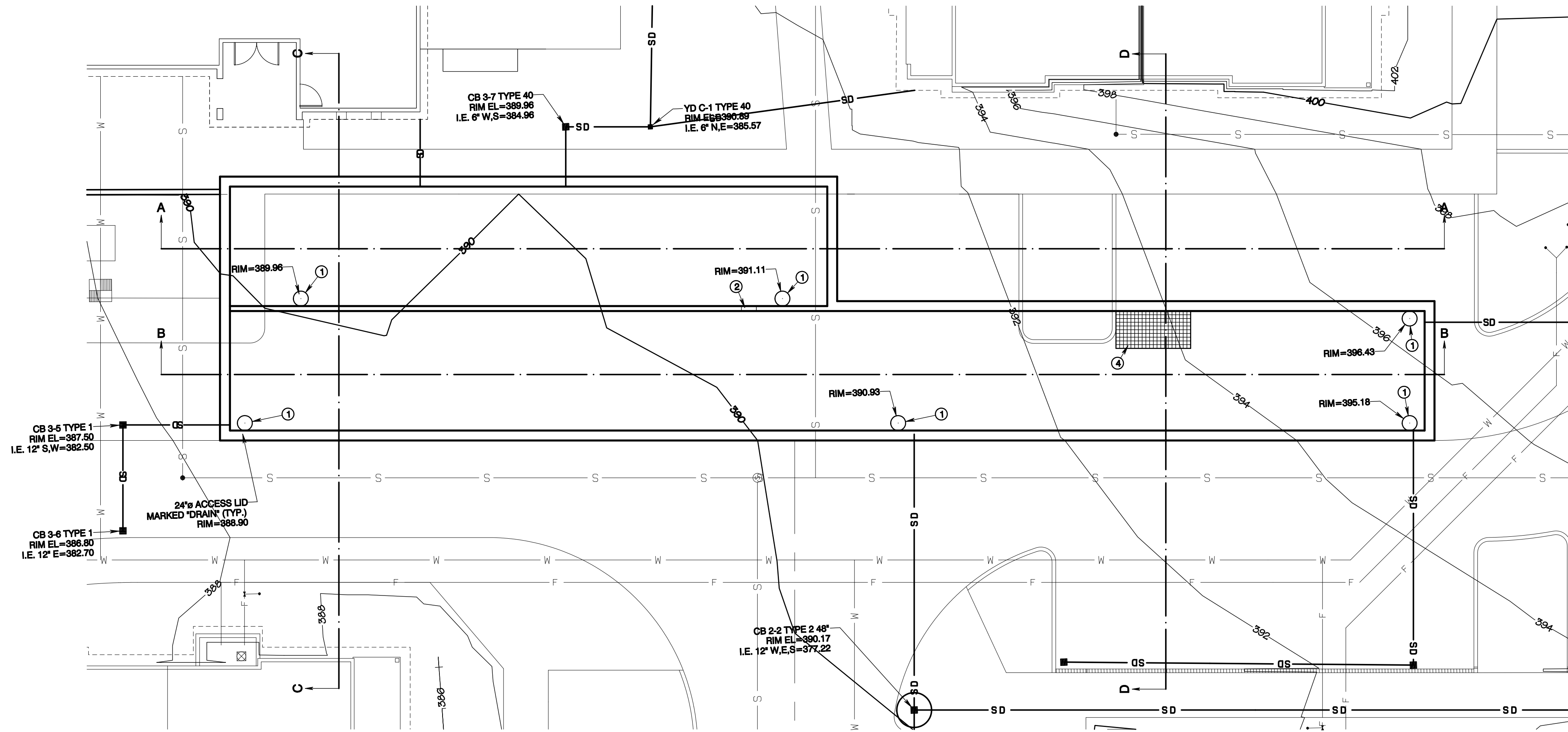
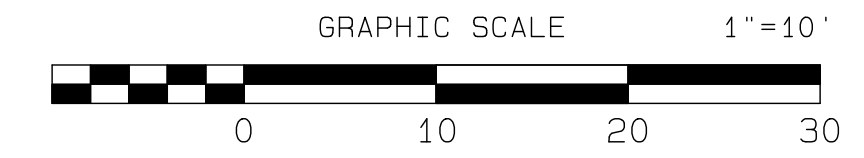
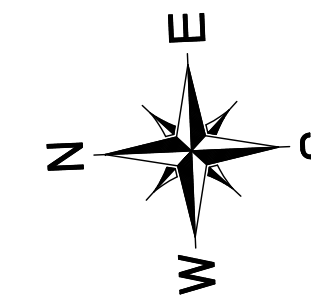
Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.886.0326  
Fax jordan@timberlanepartners.com

DRAWING  
**SD-12**  
SHEET 26  
OF 60

Project Desc.: Bradley Heights Part: E:\urban\3227 - Bradley Heights\Timberlane\Drawings\20250424 EMB.dwg PLOT Date: 5/14/24 4:24:23 PM 7:56:21 PM

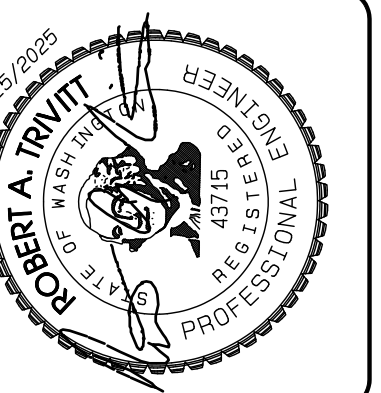
# Bradley Heights

## Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



### CONSTRUCTION KEY NOTES

- ① 24" ACCESS LID MARKED "DRAIN" (TYP.) W/LADDER PER STD. 06.01.04, SHEET SD-22 & W/OSHA CONFINED ENTRY WARNING SIGN
- ② 24" CONNECTION BETWEEN CELLS I.E. = 377.80
- ③ 5'x10' GRATED OPENING, TRAFFIC RATED W/LADDER PER STD. 06.01.04, SHEET SD-22 & W/ BILCO LADDER-UP & W/OSHA CONFINED ENTRY WARNING SIGN



REVISION	DATE
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3 Revised per City & Pugh review.	4/27/25
4 Revised per City & Pugh review.	
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JOB NO. 3327  
 DATE: May 14, 2024  
 DESIGNED BY: Rob Trivitt  
 DRAWN BY: Rob Trivitt  
 CHECKED BY: Rob Trivitt  
 APPROVED BY: Rob Trivitt

**AZURE GREEN**  
 CONSULTANTS

+ feasibility + planning + engineering + surveying

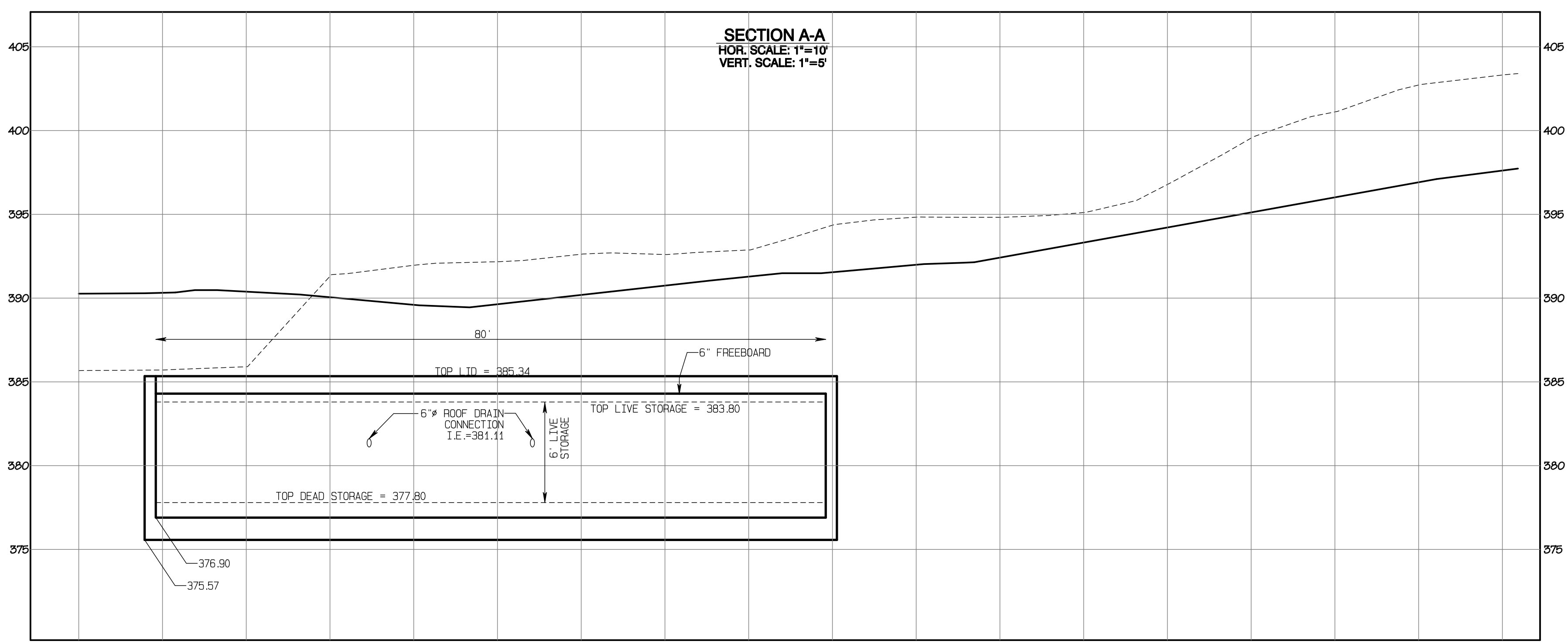
409 East Pioneer, Suite A - Puyallup, WA 98372  
 Phone: 253.770.3144, Fax: 253.770.3142

**Vault #3 Plan**

**Bradley Heights**

Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.889.0326  
 Fax jordan@timberlanepartners.com

DRAWING  
**SD-13**  
 SHEET 27  
 OF 60



APPROVED

BY: \_\_\_\_\_ CITY OF PUYALLUP DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

**NOTE:**

THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.

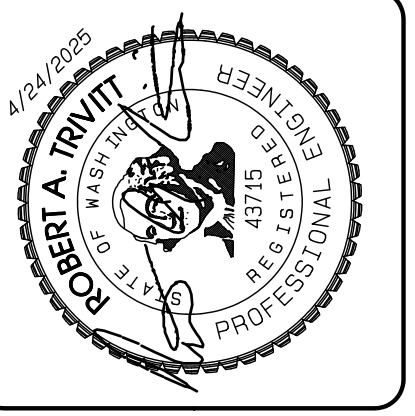
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Project Desc.: Bradley Heights; Date: E:\sub\3327 - Bradley Heights\Timberlane\Drawings\20250425 E10.dwg; PLOT Date/Time: 4/25/2025 7:38:33AM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



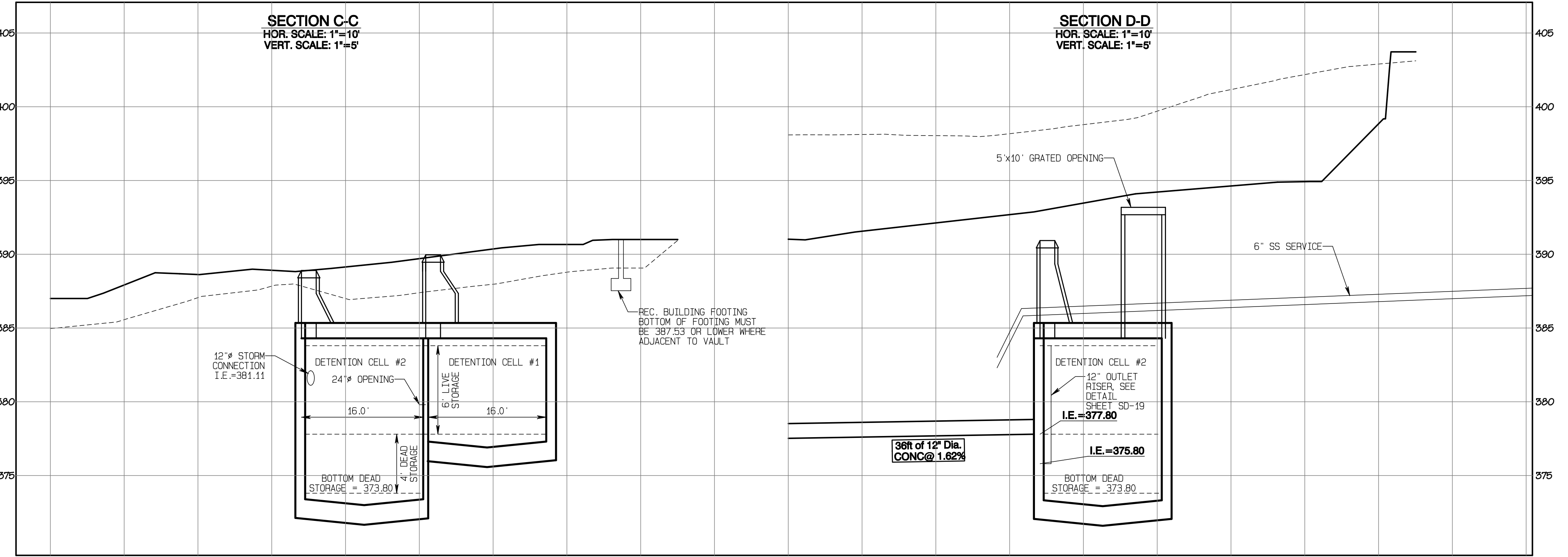
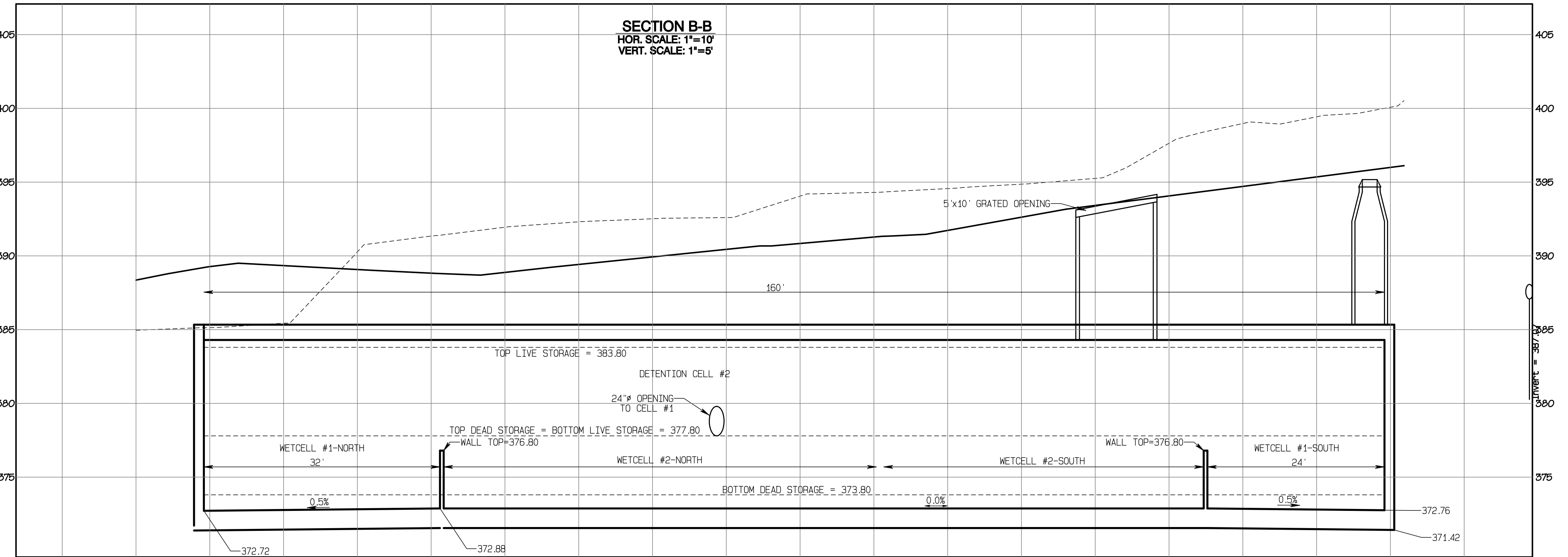
REVISION	DATE
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APPROVED

BY: \_\_\_\_\_ CITY OF PUYALLUP  
 DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

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**Vault #3 Cross-Sections**

**Bradley Heights**

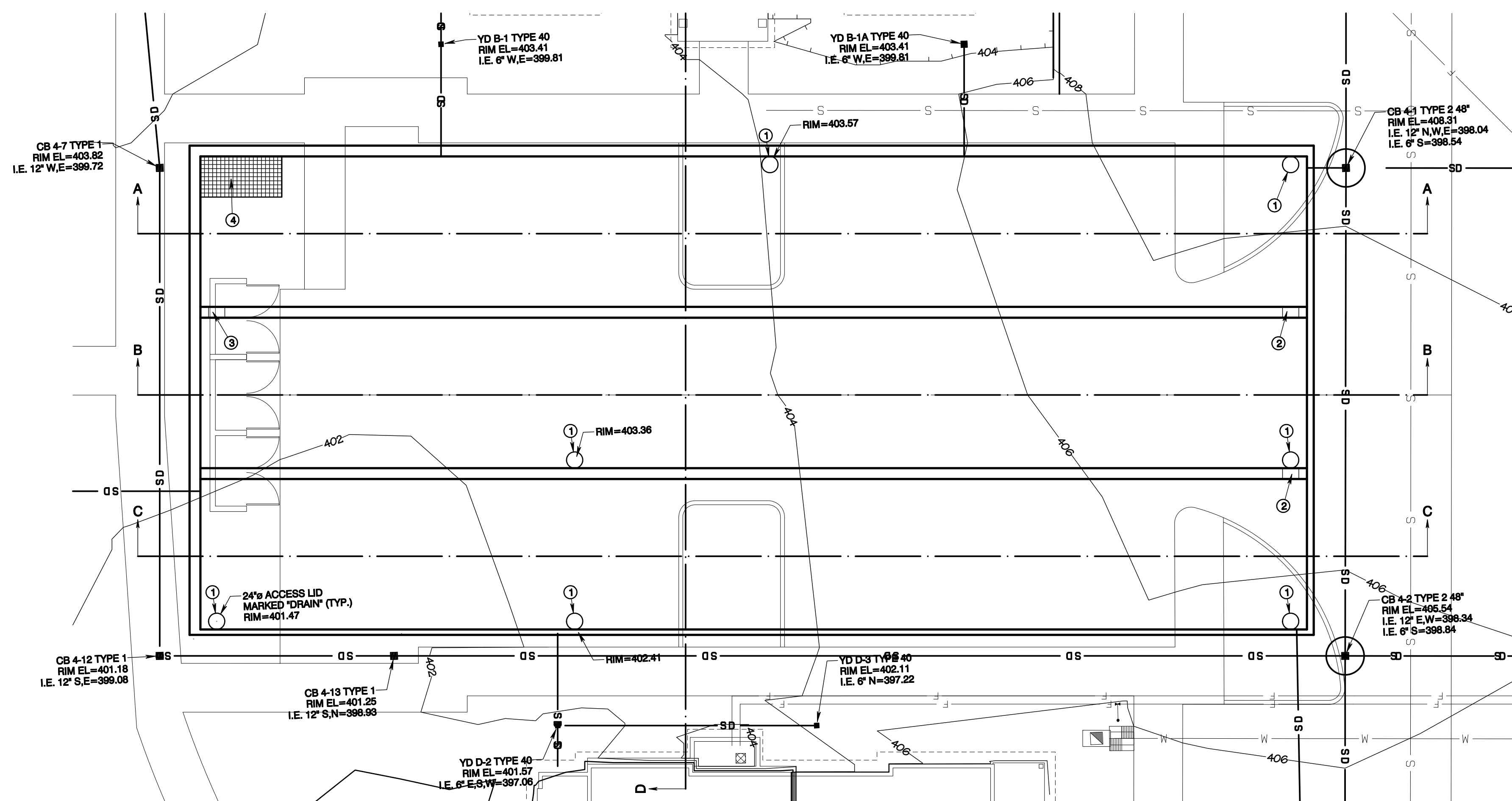
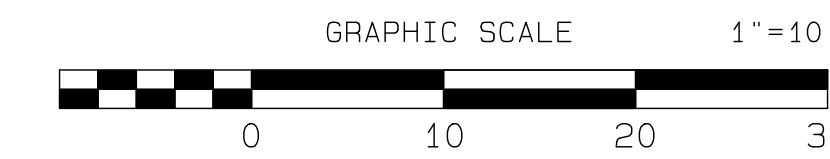
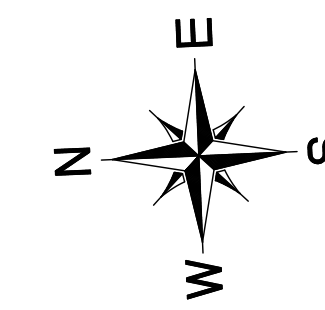
Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.889.0326  
 Fax jordan@timberlanepartners.com

DRAWING  
**SD-14**  
 SHEET 28  
 OF 60

Project Desc.: Bradley Heights Part: E:\urban\3227 - Bradley Heights\Timberlane\19N4E\19N4E.dwg PLOT DATE: 7/1/25 10:02:00 AM

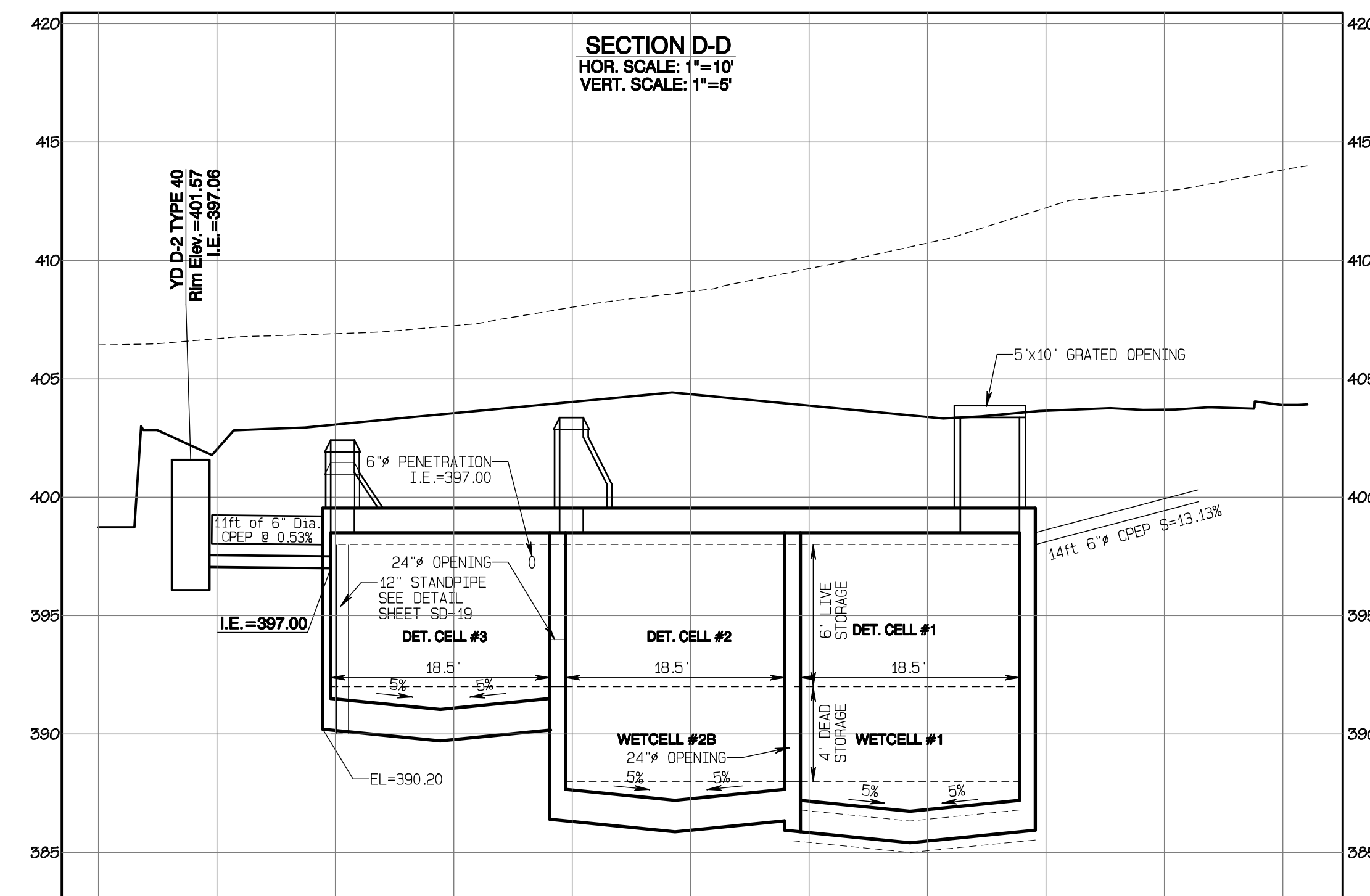
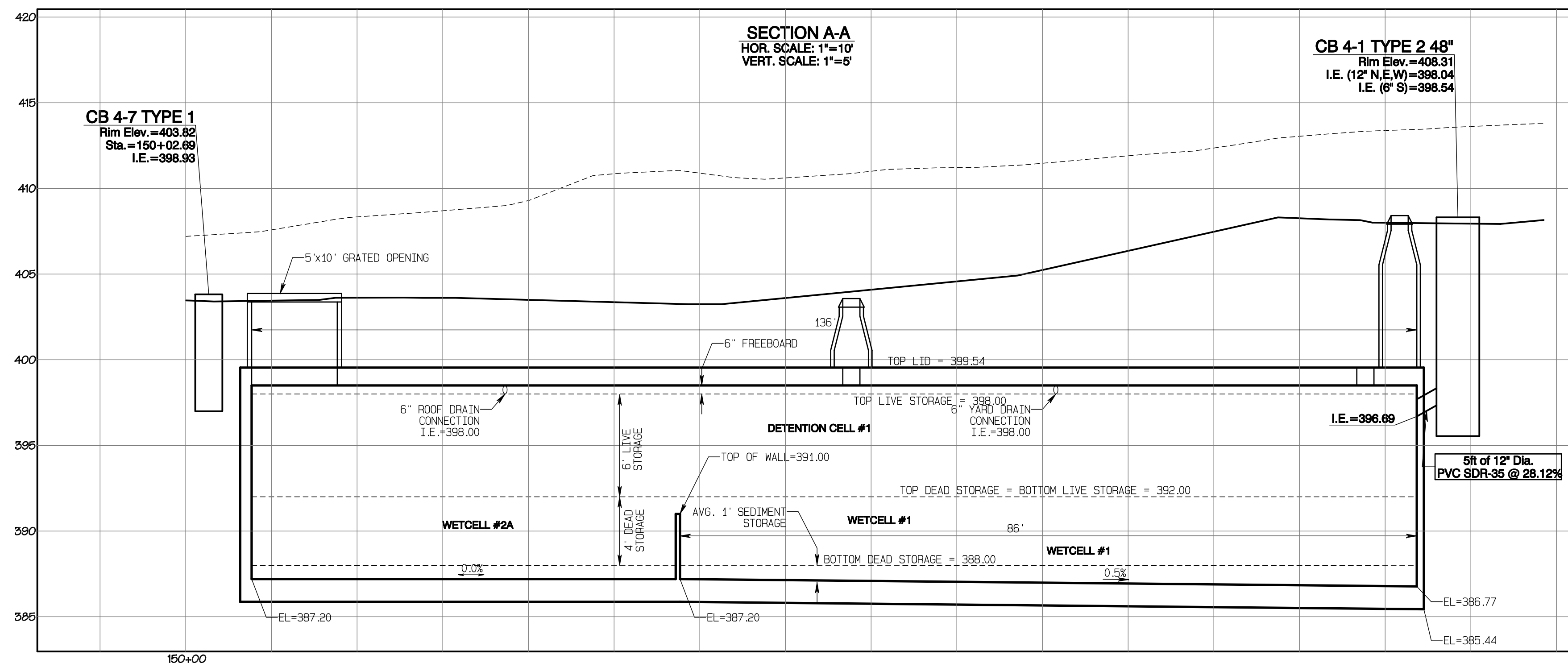
# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



### CONSTRUCTION KEY NOTES

- ① 24" ACCESS LID  
MARKED "DRAIN" (TYP.)  
W/LADDER PER STD 06.01.04, SHEET SD-22  
& W/OSHA CONFINED ENTRY WARNING SIGN
- ② 24" CONNECTION BETWEEN CELLS  
I.E. = 392.00
- ③ 24" CONNECTION BETWEEN CELLS  
I.E. = 388.00
- ④ 5'x10' GRATED OPENING  
W/LADDER PER STD 06.01.04, SHEET SD-22  
& W/STILCO LADDER-UP  
& W/OSHA CONFINED ENTRY WARNING SIGN



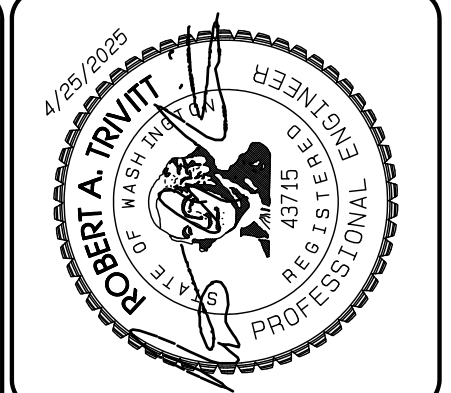
APPROVED  
BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES  
DATE: \_\_\_\_\_  
NOTE:  
THIS APPROVAL IS VOID AFTER 180  
DAYS FROM APPROVAL DATE.  
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Vault #4 Plan

**Bradley Heights**  
Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
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Fax jordan@timberlanepartners.com

**AZURE GREEN**  
CONSULTANTS  
+feasibility +planning +engineering +surveying  
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phone: 253.770.3144 fax: 253.770.3142

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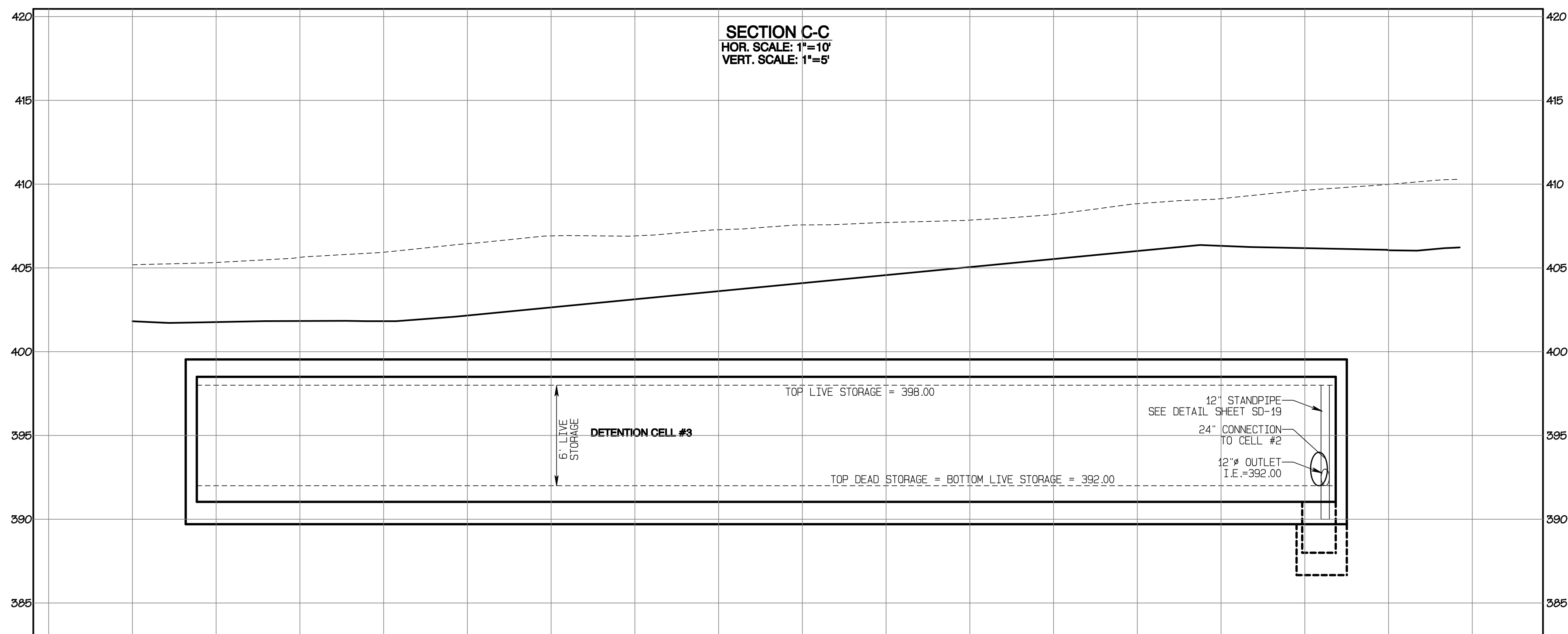
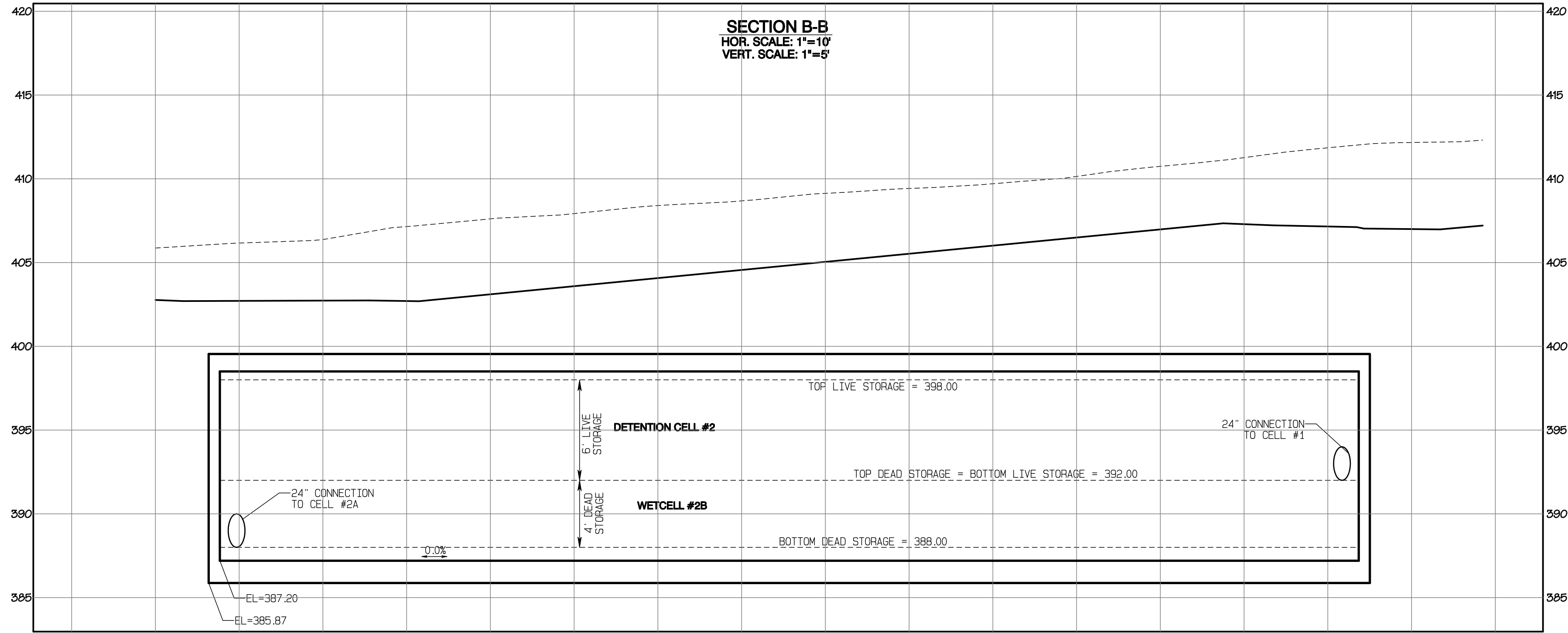


Project Desc.: Bradley Heights; Date: E:\sub\3227 - Bradley Heights\Timberlane\19N4E\20250425\_E16.dwg; Plot Date/Time: 4/25/2025 7:38:27AM

DRAWING  
**SD-15**  
SHEET 29  
OF 60

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington

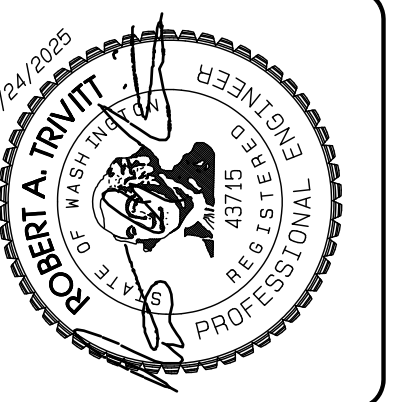


**APPROVED**

BY: \_\_\_\_\_ CITY OF PUYALLUP  
DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

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JOB NO. 3327  
DATE: May 14, 2024  
DESIGNED BY: Rob Trivitt  
DRAWN BY: Rob Trivitt  
CHECKED BY: Paul Green  
APPROVED BY: Paul Green

**AZURE GREEN**  
CONSULTANTS

\*feasibility \*planning \*engineering \*surveying

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Phone: 253.770.3144 Fax: 253.770.3142

**Vault #4 Cross-Sections**

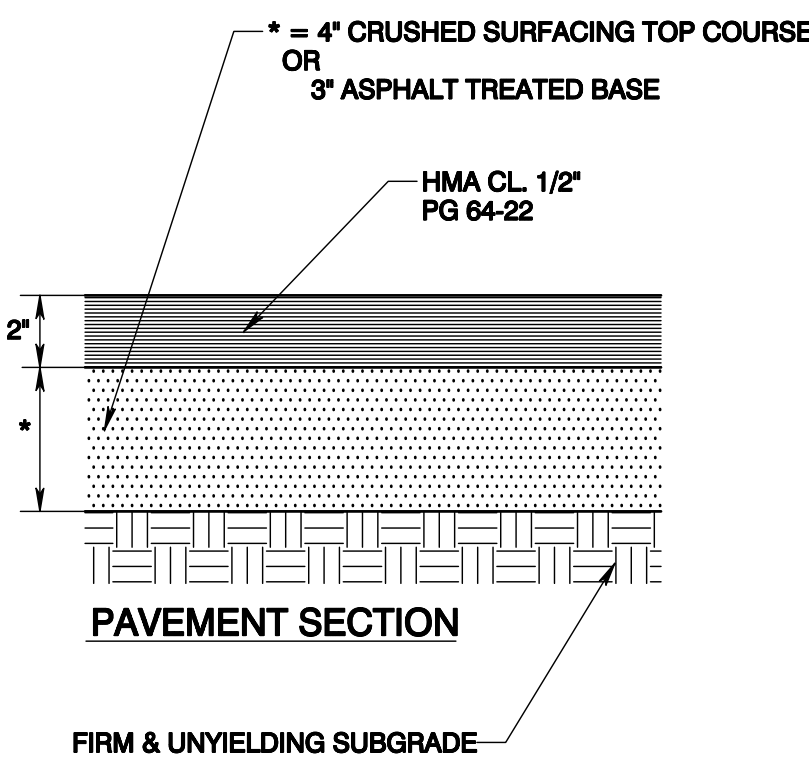
**Bradley Heights**

Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.886.0326  
Fax jordan@timberlanepartners.com

DRAWING  
**SD-16**  
SHEET 30  
OF 60

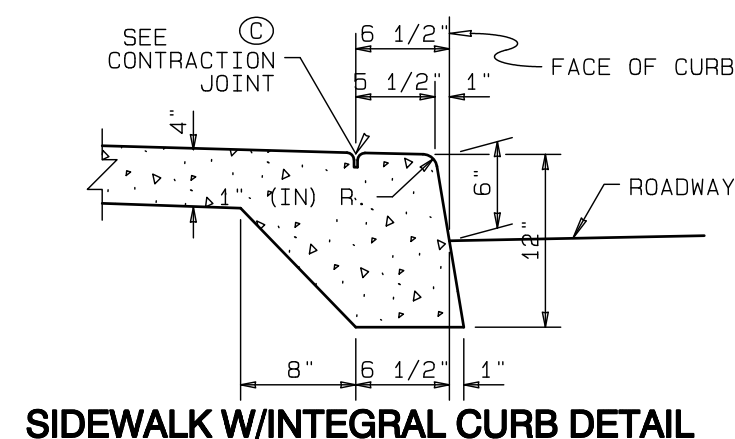
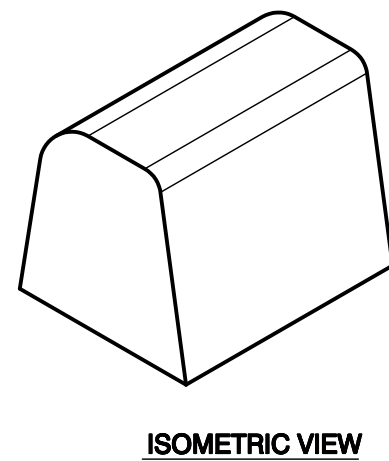
# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



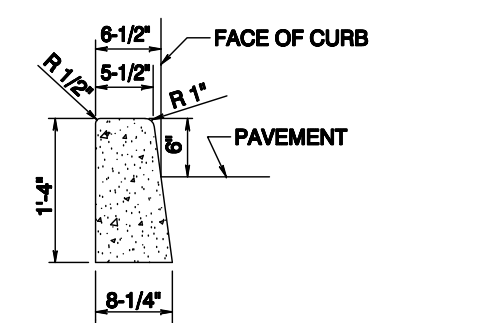
- NOTES:**
1. CONCRETE SHALL BE CLASS 3000 OR COMMERCIAL WITH AIR-ENTRAINMENT.
  2. CONCRETE TO BE ANCHORED WITH ADHESIVE MEETING REQUIREMENTS OF SECTION 9-20 OF THE WSDOT/APWA STANDARD SPECIFICATIONS FOR TYPE II EPOXY RESIN.
  3. CONTROL JOINTS SHALL BE PLACED NOT TO EXCEED 10' CLS.

**EXTRUDED CURB DETAIL**

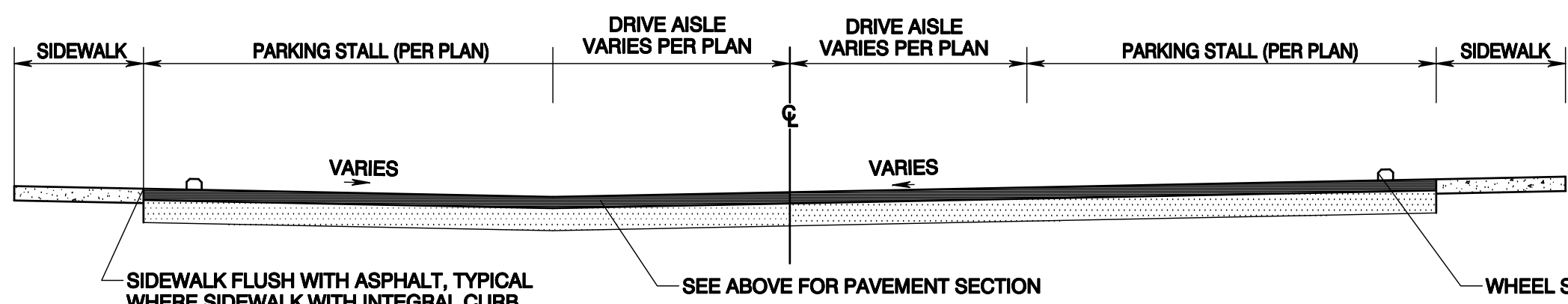


**SIDEWALK W/INTEGRAL CURB DETAIL**

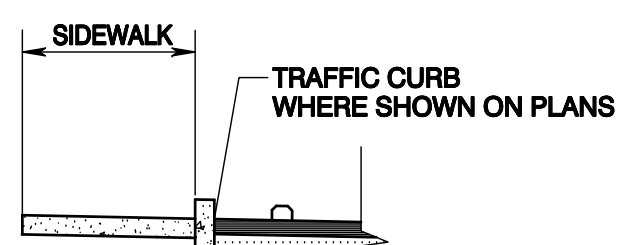
EXTEND SIDEWALK TRANSVERSE EXPANSION JOINTS TO INCLUDE CURB (FULL DEPTH)



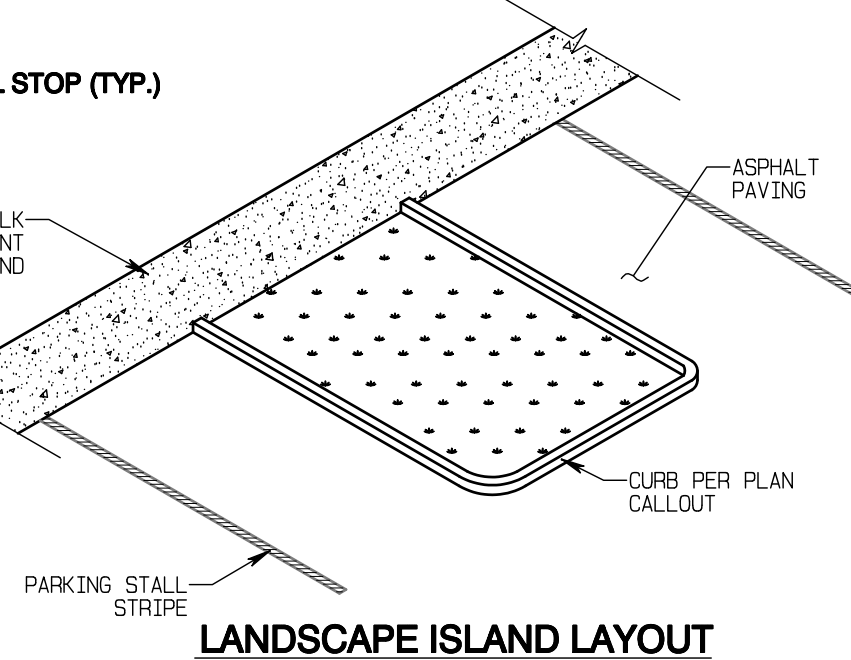
**CEMENT CONCRETE TRAFFIC CURB DETAIL**



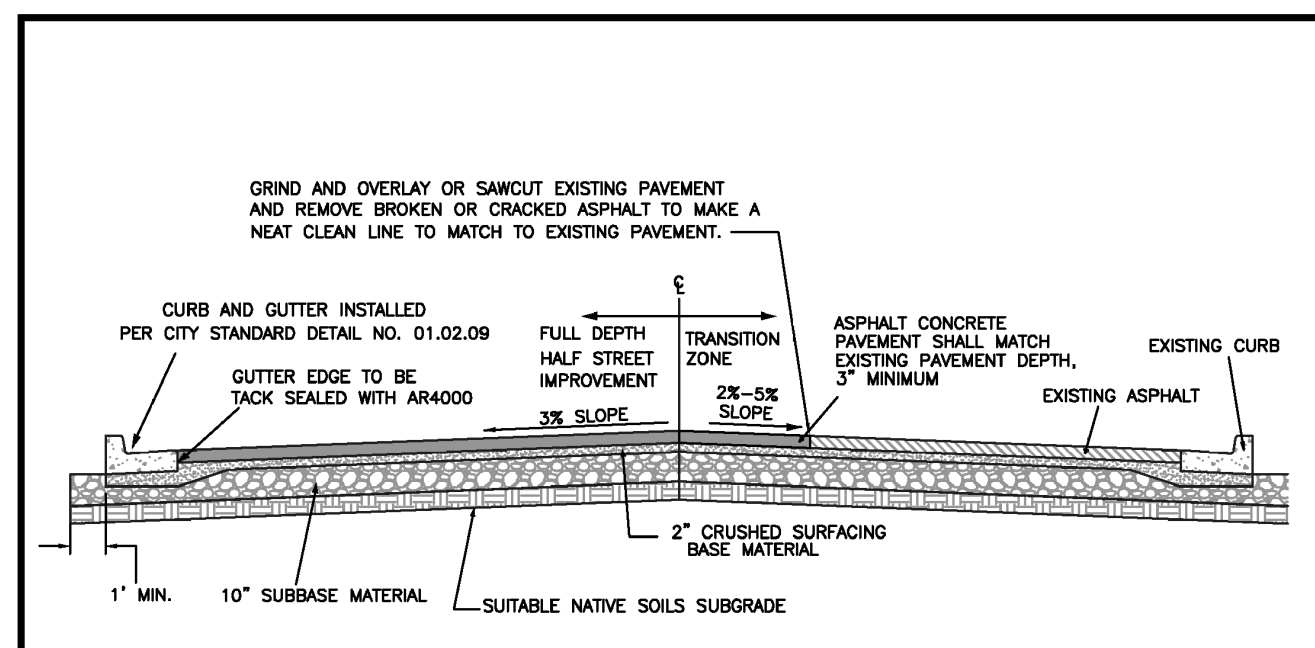
**PAVING CROSS-SECTION (NOT TO SCALE)**



**LAYOUT W/TRAFFIC CURB**

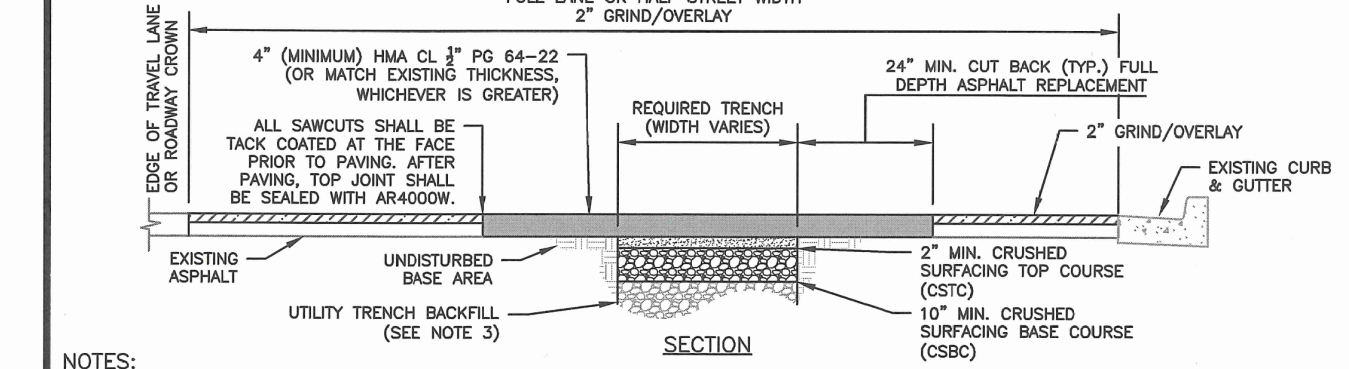
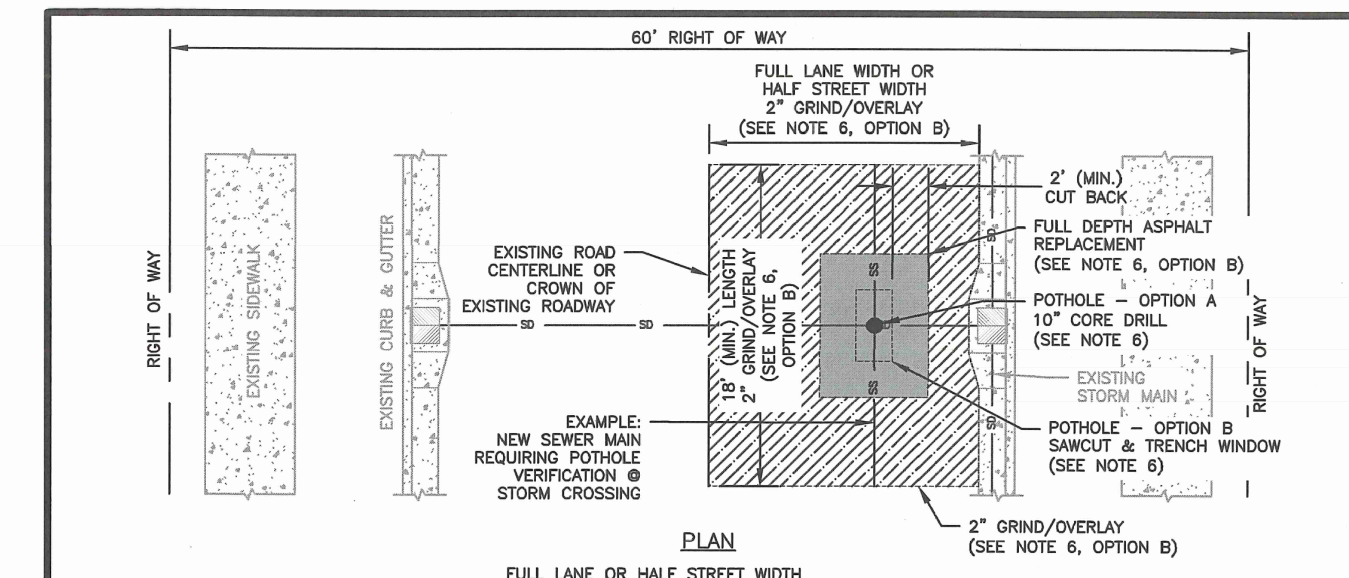


**LANDSCAPE ISLAND LAYOUT**



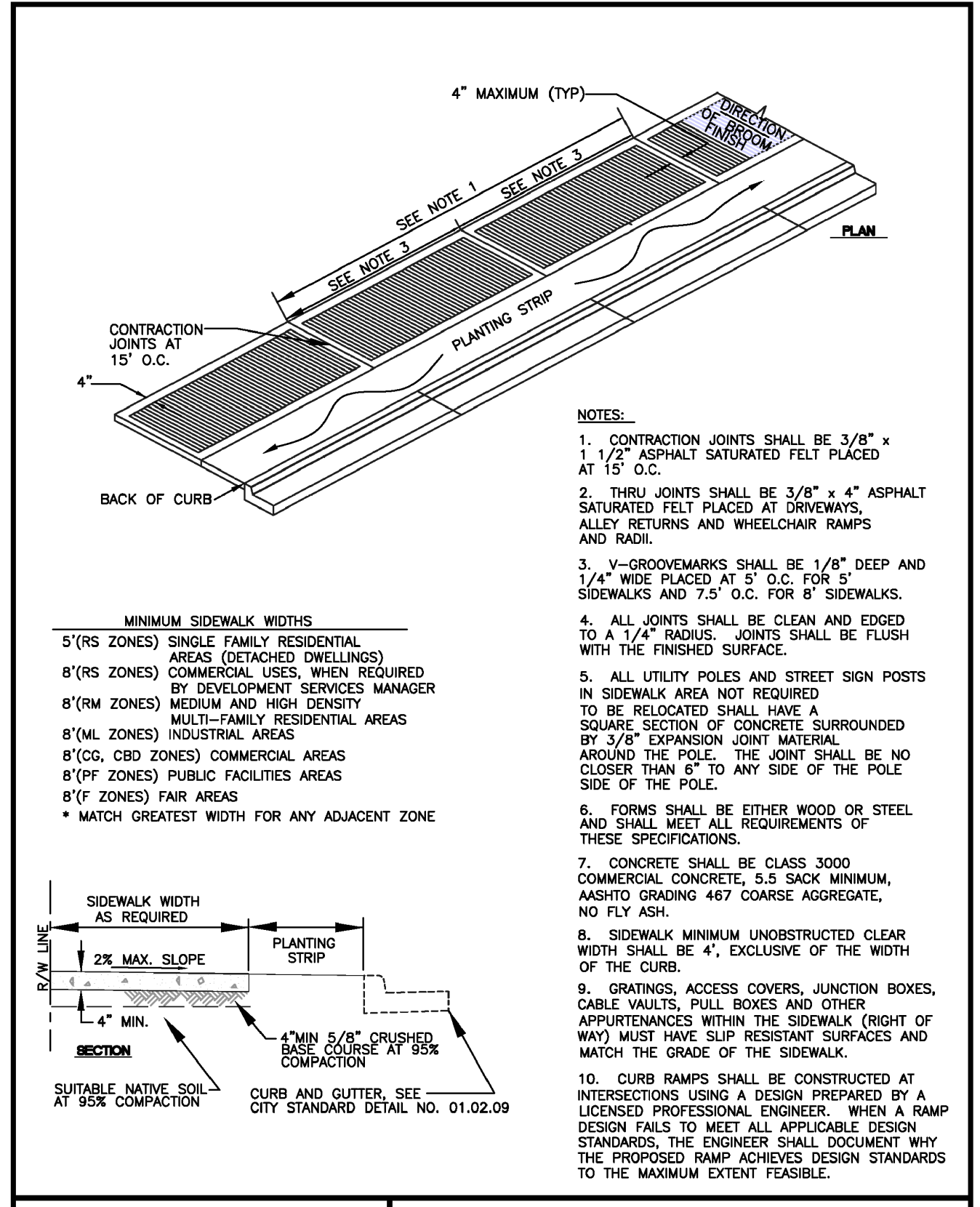
- NOTES:**
1. ALL DEPTHS ARE MINIMUM COMPACTED DEPTHS.
  2. SUBGRADE PREPARATION SHALL MEET THE REQUIREMENTS OF WSDOT STANDARD SPEC. 2-06.3(1). IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MEET THE COMPACTION REQUIREMENTS AND CONTROL ALL WORK. THE CITY OF PUYALLUP RESERVES THE RIGHT TO REQUIRE TESTS AT THE CONTRACTOR'S EXPENSE.
  3. SUBBASE MATERIAL SHALL BE GRAVEL BORROW MEETING THE REQUIREMENTS OF WSDOT STANDARD SPEC. 9-03.14(1) OR CRUSHED BALLAST MEETING THE REQUIREMENTS OF WSDOT STANDARD SPEC. 9-03.9(1). CRUSHED SURFACING SHALL MEET THE GRADATION REQUIREMENTS OF WSDOT STANDARD SPEC. 9-03.9(3). THE SUBBASE AND BASE MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH WSDOT STANDARD SPEC. 4-04.
  4. SOIL STABILIZATION FABRIC MAY BE REQUIRED BY THE DEVELOPMENT REVIEW ENGINEER TO BE INSTALLED PRIOR TO THE INSTALLATION OF THE BASE MATERIAL. WHEN REQUIRED, THE CONTRACTOR SHALL PLACE A GEOTEXTILE FABRIC OVER THE PREPARED SUBGRADE WITH A TWO FOOT MINIMUM OVERLAP. THE FABRIC SHALL BE INSTALLED PER MANUFACTURER SPECIFICATIONS.
  5. ASPHALT CONCRETE PAVEMENT SHALL BE INSTALLED IN ACCORDANCE WITH WSDOT STANDARD SPEC 5-04. DESIGN ENGINEER SHALL SUBMIT A STATE APPROVED HMA MIX FOR APPROVAL.
  6. TEMPERATURE SHALL NOT EXCEED 325°F AT DISCHARGE OF THE PLANT NOR BE LESS THAN 185°F LEAVING THE SPREADER BOX.
  7. THE MAXIMUM COMPACTED THICKNESS OF ANY SINGLE LIFT SHALL MEET WSDOT STANDARD SPEC. 5-04.3(9) TO A MINIMUM AVERAGE COMPACTED DRY DENSITY OF 91 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY WSDOT TEST METHOD SPECIFIED IN STANDARD SPEC. 5-04.3(10B). PERIODIC COMPLIANCE TESTS SHALL BE MADE BY A CERTIFIED TESTING AGENCY AT THE EXPENSE OF THE CONTRACTOR.
  8. THE FACE OF THE GUTTER LIP AND EDGES OF EXISTING ASPHALT MEET LINES SHALL BE TACK COATED PRIOR TO PAVEMENT PLACEMENT. WHEN SUCCESSIVE LIFTS OF ASPHALT ARE REQUIRED, A TACK COAT SHALL BE DISTRIBUTED UNIFORMLY OVER THE PREVIOUS LIFT AT A RATE OF 0.06-0.08 GALLONS PER SQUARE YARD AT A TEMPERATURE OF 100°F AND SHALL BE ALLOWED TO SET TO A TACKY STATE PRIOR TO THE PLACEMENT OF THE NEXT LIFT.
  9. ALL MEET LINES BETWEEN LIFTS OF ASPHALT SHALL BE UNIFORM AND VERTICAL. THE MEET LINES SHALL BE CLEANED AND TACK COATED.
  10. ANY CHANGES TO THE STANDARD PAVEMENT SECTION SHALL REQUIRE APPROVAL BY THE DEVELOPMENT REVIEW ENGINEER. A STRUCTURAL PAVEMENT CROSS SECTION DESIGN WITH CALCULATIONS SHALL BE REQUIRED.
  11. ALL MANHOLE FRAMES, VALVE FRAMES AND MONUMENT COVERS SHALL BE INSTALLED AFTER PLACEMENT OF ASPHALT. IF MORE THAN ONE LIFT IS NECESSARY, FRAMES AND LIDS WILL BE ADJUSTED TO FINISH GRADE AT FIRST LIFT AS DIRECTED BY THE CITY.
  12. ASPHALT SHALL BE HMA CL 1/2\"/>

<b>CITY OF PUYALLUP</b>		<b>HALF STREET IMPROVEMENT</b>	
DESIGNED BY: JIM PERIN/EVS/0004	CHECKED BY: LINDA LIAN	APPROVED BY: COLLIER HARRIS	DATE APPROVED: 01.01.19
DATE APPROVED: 01.01.19	SCALE: AS SHOWN	CITY STANDARD: 01.01.19	



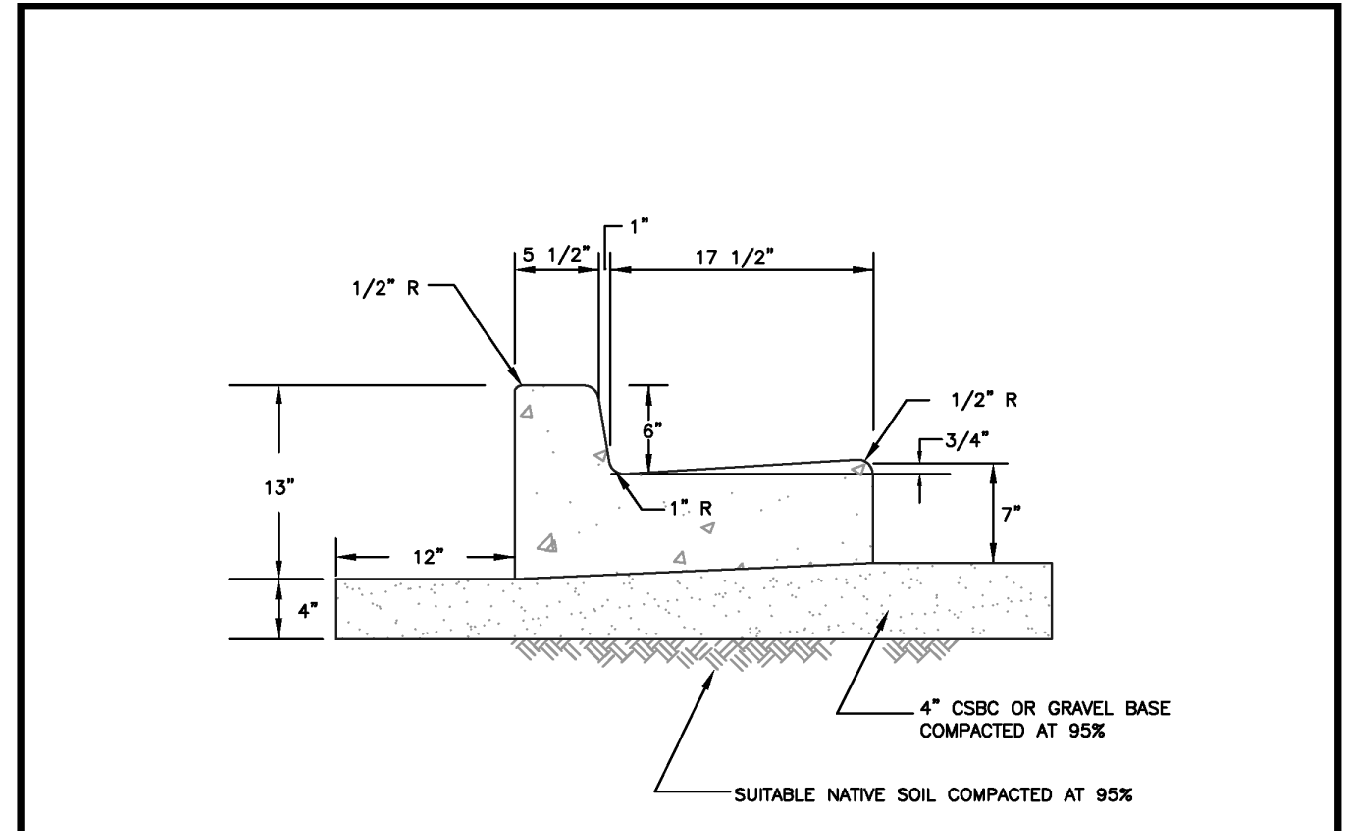
- NOTES:**
1. BASE AND SUBBASE MATERIAL SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY.
  2. ALL DEPTHS INDICATED ARE A MINIMUM COMPACTED DEPTH.
  3. INITIAL BACKFILLING SHALL BE PERFORMED ONLY AFTER INSPECTION AND APPROVAL OF THE INSTALLED PIPE OR STRUCTURE. THE TRENCH BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH CITY STANDARD DETAIL NO. 06.01.01.
  4. ALL BACKFILL FOR PIPE TRENCHES SHALL BE MECHANICALLY COMPACTED BY A POWER-OPERATED MECHANICAL TAMPER(S) AS SPECIFIED IN WSDOT STANDARD SPEC. 2-03.3 (14). COMPACTED EARTH EMBANKMENTS, METHOD C OF THE WSDOT STANDARD SPECIFICATIONS.
  5. IF PAVING SURFACES ADJACENT TO THE TRENCH OPENING MAY BE DAMAGED WHERE TRENCHES ARE MADE PARALLEL TO THE STREET, OR WHERE A NUMBER OF CROSS TRENCHES ARE LAID IN CLOSE PROXIMITY TO ONE ANOTHER OR WHERE THE EQUIPMENT USED MAY CAUSE SUCH DAMAGE, THE CITY ENGINEER MAY REQUIRE A REDUCED CONTRIBUTION FROM THE PERMITTEE FOR RESURFACING IN LIEU OF PATCHING.
  6. FINISHING FOR UTILITIES:
    - OPTION A - UP TO A 10\"/>
  7. ALL MANHOLE FRAMES, VALVE FRAMES AND MONUMENT COVERS SHALL BE INSTALLED AFTER PLACEMENT OF ASPHALT. IF MORE THAN ONE LIFT IS NECESSARY, FRAMES AND LIDS WILL BE ADJUSTED TO FINISH GRADE AT FIRST LIFT AS DIRECTED BY THE CITY.

<b>CITY OF PUYALLUP</b>		<b>STREET PATCH</b>	
DESIGNED BY: JIM PERIN/EVS/0004	CHECKED BY: LINDA LIAN	APPROVED BY: COLLIER HARRIS	DATE APPROVED: 01.01.19
DATE APPROVED: 01.01.19	SCALE: AS SHOWN	CITY STANDARD: 01.01.19	



**SIDEWALK WITH PLANTING STRIP**

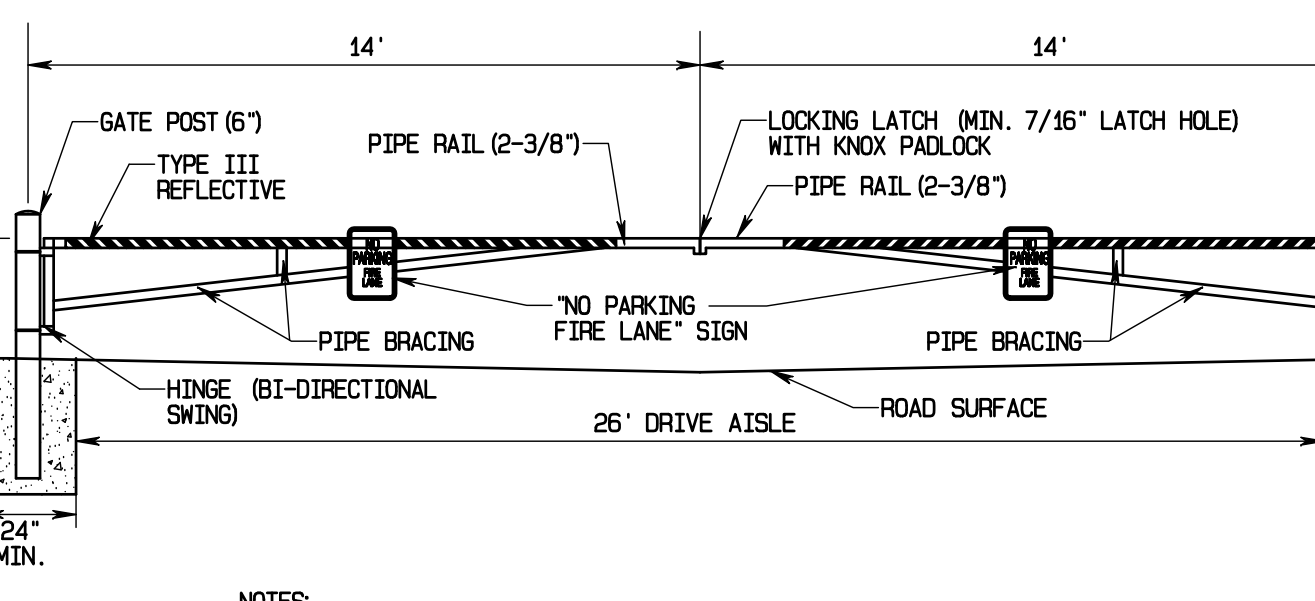
<b>CITY OF PUYALLUP</b>		<b>SIDEWALK WITH PLANTING STRIP</b>	
DESIGNED BY: JIM PERIN/EVS/0004	CHECKED BY: LINDA LIAN	APPROVED BY: COLLIER HARRIS	DATE APPROVED: 01.01.20
DATE APPROVED: 01.01.20	SCALE: AS SHOWN	CITY STANDARD: 01.01.20	



**CURB AND GUTTER**

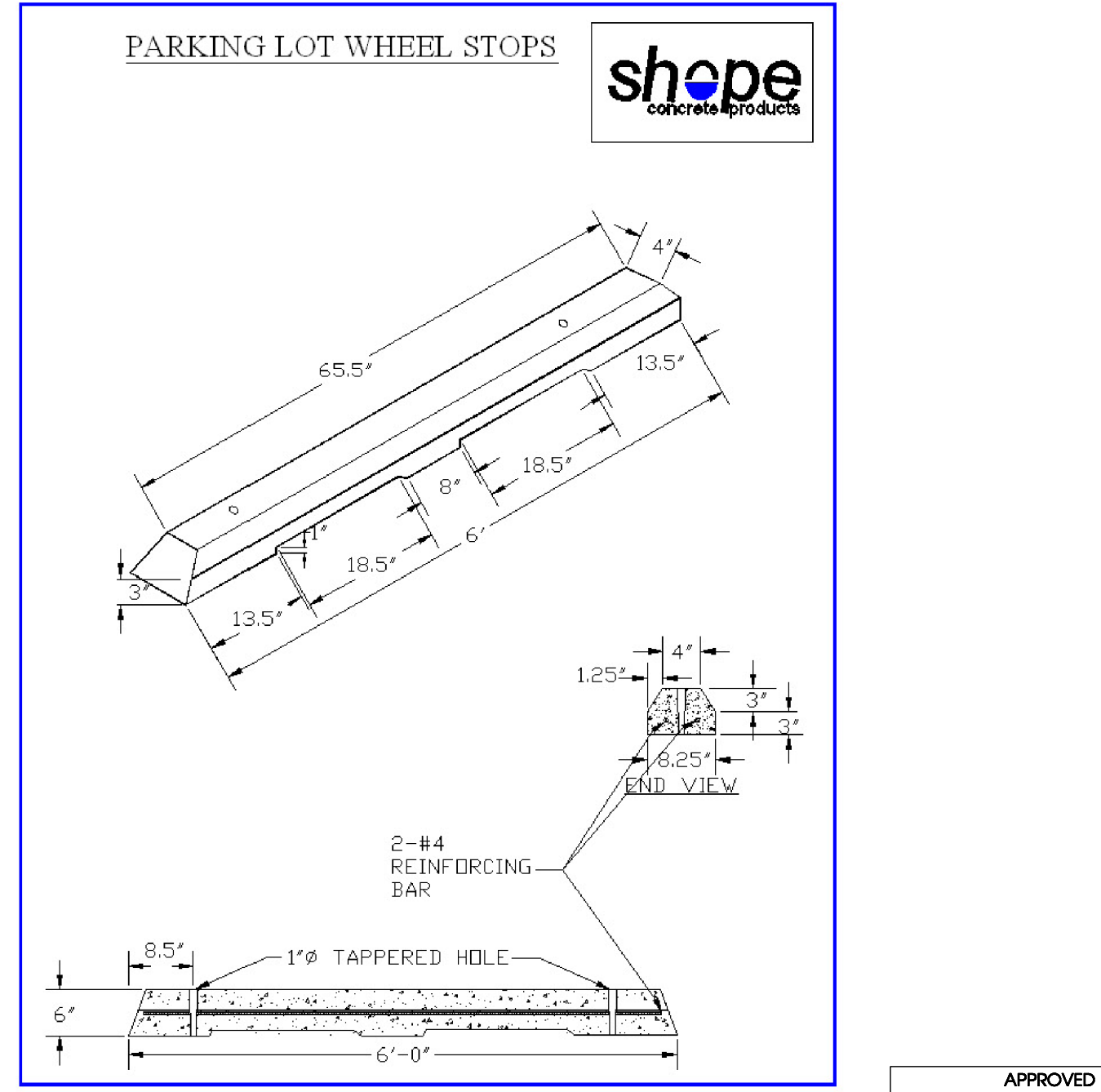
- NOTES:**
1. CONTRACTION JOINTS SHALL BE 3/8" x 1/2" ASPHALT SATURATED FELT PLACED IN ALL EXPOSED SURFACES OF CURB AND GUTTER AND SPACED AT 15' MAX. 10' MIN. O.C.
  2. THRU JOINTS SHALL BE 3/8" ASPHALT SATURATED FELT PLACED AT POINTS OF TRANSITION ON CURVES, AT CATCH BASINS, AND AT EDGES OF ALLEY AND DRIVEWAYS. THE MAXIMUM DISTANCE BETWEEN THRU JOINTS SHALL BE 100'.
  3. CONCRETE SHALL BE CLASS 3000 COMMERCIAL CONCRETE, 5.5 SACK MINIMUM, ASHTO GRADING 467 COARSE AGGREGATE, NO FLY ASH.
  4. FORMS SHALL BE STEEL UNLESS PRIOR APPROVAL IS GIVEN BY THE CITY ENGINEER. FORMS SHALL BE SET TRUE TO LINE AND GRADE AND SECURELY STAKED PRIOR TO CONCRETE PLACEMENT. FULL DEPTH DIVISION PLATES ARE ONLY TO BE USED WHERE THRU JOINTS ARE TO BE PLACED.
  5. THE 1" RADIUS ON THE UPPER FACE OF THE CURB MAY BE FORMED BY AN EDGER TOOL OR BUILT INTO THE FACE FORM. THE 1" RADIUS AT THE BOTTOM FACE OF THE CURB SHALL BE FORMED BY THE FACE FORM.

<b>CITY OF PUYALLUP</b>		<b>CURB AND GUTTER</b>	
DESIGNED BY: JIM PERIN/EVS/0004	CHECKED BY: LINDA LIAN	APPROVED BY: COLLIER HARRIS	DATE APPROVED: 01.01.20
DATE APPROVED: 01.01.20	SCALE: AS SHOWN	CITY STANDARD: 01.01.20	



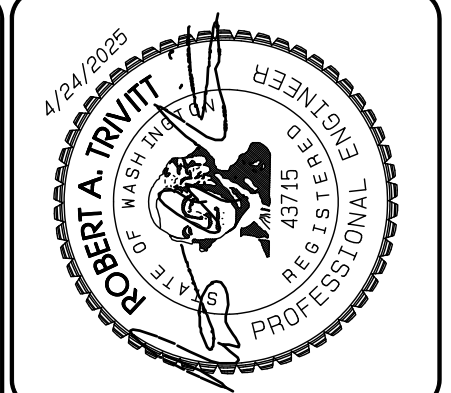
**GATE DETAIL NOT TO SCALE**

- NOTES:**
1. ALL MATERIALS SHALL BE SCHEDULE 40, GALVANIZED STEEL PIPE.
  2. PROTECTIVE FINISH SHALL BE HOT-DIPPED, GALVANIZED GRAY.
  3. CONTRACTOR TO INSTALL NO PARKING, FIRE LANE SIGN ON EACH SIDE OF GATE.
  4. CONTRACTOR TO INSTALL TYPE III REFLECTIVE STRIPING ON BOTH SIDES OF GATE. STRIPING SHALL BE ALTERNATING RED/WHITE STRIPES, 6" WIDE, AD 45° ANGLE.
  5. CONCRETE SHALL BE 3000 PSI.
  6. COORDINATE INSTALLATION OF KNOX PADLOCK WITH FIRE.



**PARKING LOT WHEEL STOPS**

<b>CITY OF PUYALLUP</b>		<b>PARKING LOT WHEEL STOPS</b>	
DESIGNED BY: JIM PERIN/EVS/0004	CHECKED BY: LINDA LIAN	APPROVED BY: COLLIER HARRIS	DATE APPROVED: 01.01.20
DATE APPROVED: 01.01.20	SCALE: AS SHOWN	CITY STANDARD: 01.01.20	



REVISION	DATE	DESCRIPTION
1	11/26/24	1. Revised per City review and Mail A adjustment.
2	3/4/25	2. Revised per City review.
3	4/27/25	3. Revised per City & Ashi review.
4		4. Revised per City review.
5		5. Revised per City review.
6		6. Revised per City review.
7		7. Revised per City review.
8		8. Revised per City review.
9		9. Revised per City review.
10		10. Revised per City review.

**shope**  
concrete products

**AZURE GREEN CONSULTANTS**  
+ feasibility + planning + engineering + surveying  
409 East Pioneer Suite A - Puyallup, WA 98372  
phone: 253.770.3144 fax: 253.770.3142

**Bradley Heights**

Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone: 509.896.0326  
Fax: jordan@timberlanepartners.com

**SD-17**  
SHEET 31 OF 60

Project Date: 11/26/24; Project Name: Bradley Heights; File Path: C:\Users\jperin\OneDrive\Documents\20250624\_EWG.dwg; Plot Date/Time: 4/24/2025 9:26:40PM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington

**NOTES:**

- MAXIMUM LENGTH OF PIPE BETWEEN CATCH BASINS SHALL BE 400'.
- TYPE I CATCH BASIN IS USED FOR DEPTHS LESS THAN 5'-0" FROM TOP OF GRATE TO I.E.(PIPE INVERT).
- PRECAST BASE SECTION SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. KNOCKOUTS SHALL BE ON 4 SIDES WITH A MAXIMUM DIAMETER OF 20" TO PROVIDE FOR A MINIMUM SUMP DEPTH OF 18".
- THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION SHALL NOT EXCEED 1/2" PER FOOT.
- CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (ASHTO M 199) AND ASTM C 890 UNLESS OTHERWISE NOTED.
- CATCH BASIN MARKER WILL BE AFFIXED WITH MANUFACTURER'S EPOXY IN DRY WEATHER, 40 DEGREES OR WARMER. IF CURB EXISTS MARKER IS PLACED ON TOP OF CURB. IF A RAISED EDGE PLACE MARKER ON THE WEDGE. IF NO CURB PLACE ON PAVEMENT ON SIDE LEAST EXPOSED TO TRAFFIC

**CITY OF PUYALLUP**  
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

**CATCH BASIN TYPE I (AREA DRAIN)**

DESIGNED BY: LINDA LANSING	CHECKED BY: LINDA LANSING	APPROVED BY: COLLIER HARRIS	DATE APPROVED: 02/01/05	CITY STANDARD: 02.01.05
FILE NAME: P:\PROJECTS\CONSTRUCTION\020105\020105_020105.dwg	DATE APPROVED: 02/01/05	DATE APPROVED: 02/01/05	SCALE: AS SHOWN	DATE: 02.01.05

**NOTES:**

- MAXIMUM LENGTH OF PIPE BETWEEN CATCH BASINS SHALL BE 400'.
- MAXIMUM GUTTER LINE FLOW LENGTH SHALL BE 300'.
- TYPE I CATCH BASIN IS USED FOR DEPTHS GREATER THAN 5'-0" FROM TOP OF GRATE TO I.E.(PIPE INVERT).
- PRECAST BASE SECTION SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. KNOCKOUTS SHALL BE ON 4 SIDES WITH A MAXIMUM DIAMETER OF 20" TO PROVIDE FOR A MINIMUM SUMP DEPTH OF 18".
- REINFORCING BARS SHALL BE CUT OR BENT AS REQUIRED TO CLEAR CUTOUTS.
- THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION SHALL NOT EXCEED 1/2" PER FOOT.
- CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (ASHTO M 199) AND ASTM C 890 UNLESS OTHERWISE NOTED.
- THE APRON SHALL BE 8" IN DEPTH.
- CATCH BASIN MARKER WILL BE AFFIXED WITH MANUFACTURER'S EPOXY IN DRY WEATHER, 40 DEGREES OR WARMER. IF CURB EXISTS MARKER IS PLACED ON TOP OF CURB. IF A RAISED EDGE PLACE MARKER ON THE WEDGE. IF NO CURB PLACE ON PAVEMENT ON SIDE LEAST EXPOSED TO TRAFFIC

**CITY OF PUYALLUP**  
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

**CATCH BASIN TYPE I (GUTTER DRAIN)**

DESIGNED BY: LINDA LANSING	CHECKED BY: LINDA LANSING	APPROVED BY: COLLIER HARRIS	DATE APPROVED: 02/01/05	CITY STANDARD: 02.01.05
FILE NAME: P:\PROJECTS\CONSTRUCTION\020105\020105_020105.dwg	DATE APPROVED: 02/01/05	DATE APPROVED: 02/01/05	SCALE: AS SHOWN	DATE: 02.01.05

**NOTES:**

- MAXIMUM LENGTH OF PIPE BETWEEN CATCH BASINS SHALL BE 400'.
- MAXIMUM GUTTER LINE FLOW LENGTH SHALL BE 300'.
- TYPE II CATCH BASIN IS USED FOR DEPTHS GREATER THAN 5'-0" FROM TOP OF GRATE TO I.E.(PIPE INVERT).
- PRECAST BASE SECTION SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. KNOCKOUT OR CUTOUT HOLE SIZE SHALL EQUAL THE PIPE OUTER DIAMETER PLUS THE MANHOLE WALL THICKNESS.
- SEE CITY STANDARD DETAIL NO. 02.01.01 FOR ADDITIONAL INFORMATION REGARDING INSTALLATION OF MANHOLE SECTION.
- CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (ASHTO M 199) AND ASTM C 890 UNLESS OTHERWISE NOTED.
- CATCH BASIN MARKER WILL BE AFFIXED WITH MANUFACTURER'S EPOXY IN DRY WEATHER, 40 DEGREES OR WARMER. IF CURB EXISTS MARKER IS PLACED ON TOP OF CURB. IF A RAISED EDGE PLACE MARKER ON THE WEDGE. IF NO CURB PLACE ON PAVEMENT ON SIDE LEAST EXPOSED TO TRAFFIC

**CITY OF PUYALLUP**  
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

**CATCH BASIN TYPE II**

DESIGNED BY: LINDA LANSING	CHECKED BY: LINDA LANSING	APPROVED BY: COLLIER HARRIS	DATE APPROVED: 02/01/05	CITY STANDARD: 02.01.04
FILE NAME: P:\PROJECTS\CONSTRUCTION\020105\020105_020104.dwg	DATE APPROVED: 02/01/05	DATE APPROVED: 02/01/05	SCALE: AS SHOWN	DATE: 02.01.04

**NOTES:**

- MATERIAL SHALL CONFORM TO SECTION 9-05.15 "METAL CASTINGS" OF THE "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION" PUBLISHED BY THE STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER.
- THE NAME OF THE MANUFACTURE AND DIRECTION OF FLOW SHALL BE EMBOSSED ON THE TOP SURFACE OF EACH GRATE. LETTERING TO BE RECESSED 1/16".
- THE MATERIAL USED FOR THE GRATE SHALL BE DESIGNATED BY EMBASSING EITHER DI (FOR DUCTILE IRON) OR CS (FOR CAST STEEL) NEAR THE NAME OF THE MANUFACTURER.
- DIMENSIONS SHALL HAVE A +/- 1/16" TOLERANCE, EXCEPT AS NOTED.
- EDGES SHALL HAVE 1/8" RADIUS.
- WELDING IS NOT PERMITTED.
- AS AN ALTERNATE, B PADS 1 1/2" X 3/4" X 1/8", INTEGRALLY CAST WITH THE GRATE, MAY BE USED.

**CITY OF PUYALLUP**  
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

**CATCH BASIN FRAME AND GRATE/VANED GRATE**

DESIGNED BY: LINDA LANSING	CHECKED BY: LINDA LANSING	APPROVED BY: COLLIER HARRIS	DATE APPROVED: 02/01/05	CITY STANDARD: 02.01.05
FILE NAME: P:\PROJECTS\CONSTRUCTION\020105\020105_020105.dwg	DATE APPROVED: 02/01/05	DATE APPROVED: 02/01/05	SCALE: AS SHOWN	DATE: 02.01.05

**NOTES FOR FLOW CONTROL MANHOLE:**

- NEAT LINE CUTS SHALL BE AT TOP WITH A HOT PAVING GRADE ASPHALT AND FACE OF CUT TACKED.
- FLOW CONTROL MANHOLES SHALL BE USED AS A SINGLE USE STRUCTURE.
- MANHOLE RUNG SHALL CONFORM TO SECTION R, ASTM C 478 (ASHTO M-199) AND MEET ALL WISHA REQUIREMENTS. MANHOLE RUNGS SHALL BE PARALLEL OR APPROXIMATELY RADIAL AT THE OPTION OF THE MANUFACTURER, EXCEPT THAT ALL STEPS IN ANY MANHOLE SHALL BE SIMILAR. PENETRATION OF OUTER WALL BY A RUNG LEG IS PROHIBITED. SEE MANHOLE STEP AND LADDER DETAIL, CITY STANDARD DETAIL NO. 06.01.04.
- PRECAST RISER SECTION SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE WALL THICKNESS OF TWO (2) INCHES MINIMUM. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS MANHOLE WALL THICKNESS. MINIMUM DISTANCE BETWEEN HOLES IS EIGHT (8) INCHES.
- PRECAST CONCRETE MANHOLE COMPONENTS SHALL CONFORM TO ASTM C 478.
- FLEXIBLE JOINTS SHALL BE RUBBER GASKETED IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATIONS. MORTARED, DRY-PACKED, OR CAST-IN-PLACE JOINTS WILL BE PERMITTED FOR CONNECTIONS TO OR THROUGH MANHOLES. A FLEXIBLE GASKETED JOINT SHALL BE INSTALLED WITHIN ONE (1) FOOT OF EACH CONNECTION TO OR THROUGH SAID MANHOLES. CONNECTIONS TO MANHOLE WITH PVC PIPE SHALL UTILIZE A MANHOLE COUPLING AND RUBBER GASKET.
- THE COVER ON THE MANHOLE SHALL BE MARKED WITH "STORM" OR "DRAIN" IN TWO (2) INCH RAISED LETTERS. SEE MANHOLE RING AND COVER DETAIL, CITY STANDARDS DETAIL NO. 06.01.02 AND 06.01.03.
- STAINLESS STEEL PIPE CLAMP WITH 1/2" DIAMETER STAINLESS STEEL THREADED ROD WITH WASHER AND NUT EACH SIDE OF CLAMP. PROVIDE 1/2" DIAMETER DROP-IN ANCHOR WITH JAMB NUT AT WALL. PIPE CLAMPS SHALL BE PLACED AT SIXTEEN (16) INCHES ON CENTER.
- FLOW CONTROL UNIT SHALL BE MADE FROM PVC PIPE AND SHALL CONFORM TO THE STANDARD PIPE SPECIFICATIONS.

**CITY OF PUYALLUP**  
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

**FLOW CONTROL MANHOLE WITH FLAT TOP**

DESIGNED BY: LINDA LANSING	CHECKED BY: LINDA LANSING	APPROVED BY: COLLIER HARRIS	DATE APPROVED: 02/01/05	CITY STANDARD: 02.01.07
FILE NAME: P:\PROJECTS\CONSTRUCTION\020105\020105_020107.dwg	DATE APPROVED: 02/01/05	DATE APPROVED: 02/01/05	SCALE: AS SHOWN	DATE: 02.01.07

**CITY OF PUYALLUP**  
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

**FLOW CONTROL MANHOLE NOTES**

DESIGNED BY: LINDA LANSING	CHECKED BY: LINDA LANSING	APPROVED BY: COLLIER HARRIS	DATE APPROVED: 02/01/05	CITY STANDARD: 02.01.08
FILE NAME: P:\PROJECTS\CONSTRUCTION\020105\020105_020108.dwg	DATE APPROVED: 02/01/05	DATE APPROVED: 02/01/05	SCALE: AS SHOWN	DATE: 02.01.08

**NOTES:**

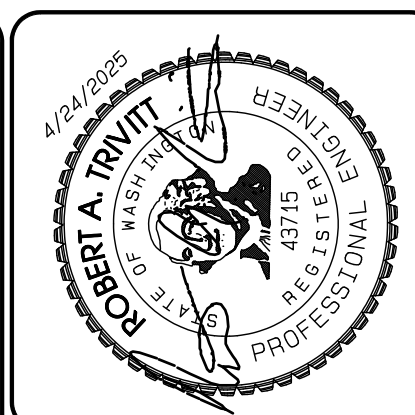
- CAST IRON COVER MARKED "SDCO" FOR FOOTING DRAINS OR "SDCO" FOR STORM LINES.
- CAST IRON FRAME AND COVER SHALL BE DRILLED AND TAPPED WITH 3/8"-11 NC STAINLESS STEEL TYPE 304 HEAD BOLTS, 2" LONG.
- BOLT LOCKING CAST IRON FRAME AND COVER SHALL BE H2-20 RATED IF USED IN RIGHT-OF-WAY OR EASEMENTS.
- 14" BOLT LOCKING CAST IRON FRAME AND COVER SHALL BE EQUAL TO OLYMPIC FOUNDRY PART # M1600.
- CAST IRON FRAME AND COVER SHALL BE FLUSH WITH FINISHED GRADE.
- CLEANOUTS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 10 DEGREE BEND.
- STORM PIPE BEDDING AND BACKFILL SHALL CONFORM TO STD DETAIL 06.01.01.
- FINAL JOINTS SHALL BE SAW CUT, FACE OF CUT TACKED AND ALL JOINTS SEALED WITH SEALANT (AR4600W).
- STORM DRAIN STUB SHALL EXTEND 10' FROM PROPERTY LINE OR EASEMENT LINE TO PREVENT DAMAGE AND MINIMIZE CONFLICT WITH FUTURE UTILITIES.
- EACH CLEANOUT ASSEMBLY SHALL CONSIST OF: ONE CLEANOUT ADAPTOR (Ø 8" x FEMALE INSIDE PIPE THREAD, PVC SLP R6), AND ONE CLEANOUT PLUG (MALE OUTSIDE THREAD WITH RAISED NUT, PVC).
- FOR LANDSCAPED AREAS (OUTSIDE OF CITY ROW, EASEMENTS AND FACILITIES) A GREEN "CARSON" MODEL #10 YARD BOX MAY BE USED FOR C.O. PIPE DIA. LESS THAN OR EQUAL TO 6". YARD BOX SHALL BE FASTENED WITH 3/8" HEX BOLTS. THE COVER MARKED "STORM" AND FLUSH WITH FINISHED GRADE.

**CITY OF PUYALLUP**  
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS

**STORM DRAIN CLEANOUT**

C.O. PIPE DIAMETER	RING AND COVER DIAMETER	PIPE SLEEVE DIAMETER
4"	12"	12"
6"	14"	14"
8"	16"	16"

DESIGNED BY: LINDA LANSING	CHECKED BY: LINDA LANSING	APPROVED BY: COLLIER HARRIS	DATE APPROVED: 02/01/05	CITY STANDARD: 02.01.09
FILE NAME: P:\PROJECTS\CONSTRUCTION\020105\020105_020109.dwg	DATE APPROVED: 02/01/05	DATE APPROVED: 02/01/05	SCALE: AS SHOWN	DATE: 02.01.09



DATE: 11/26/24	DATE: 3/4/25	DATE: 4/21/25
1. Revised per City review and Mail A adjustment.	2. Revised per City review.	3. Revised per City & Road review.
4. Revised per City & Road review.	5. Revised per City & Road review.	6. Revised per City & Road review.
7. Revised per City & Road review.	8. Revised per City & Road review.	9. Revised per City & Road review.
10. Revised per City & Road review.	11. Revised per City & Road review.	12. Revised per City & Road review.

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409 East Pioneer, Suite A - Puyallup, WA 98372  
phone: 253.770.3144, fax: 253.770.3142

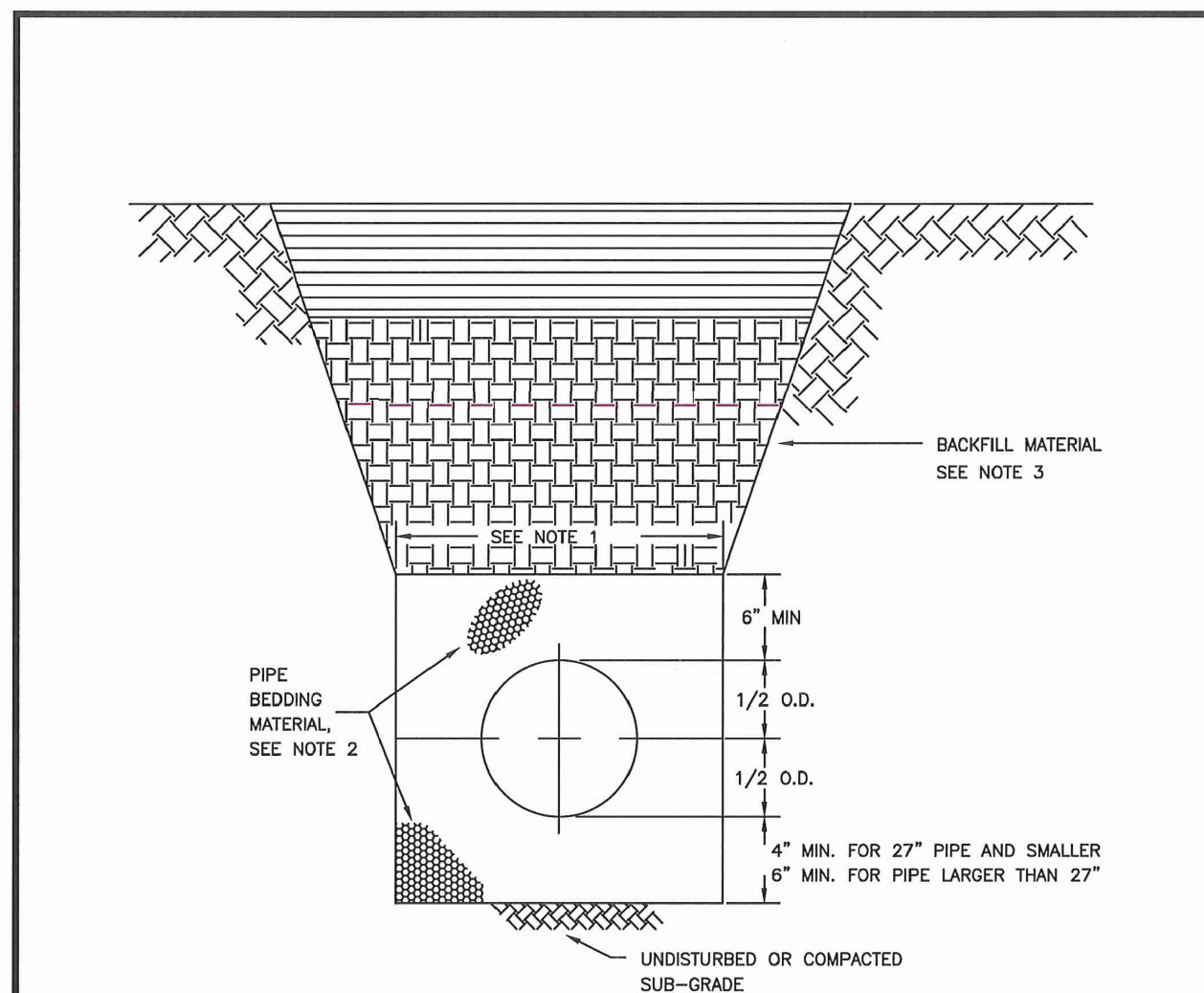
**Storm Details**  
Bradley Heights  
Timberline Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone: 509.886.0326  
Fax: jordan@timberlinepartners.com

**DRAWING SD-18**  
SHEET OF 32 60

Project Date: 02/01/2025 - Bradley Heights - Bradley Heights, No. 117624, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington

# Bradley Heights

## Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington

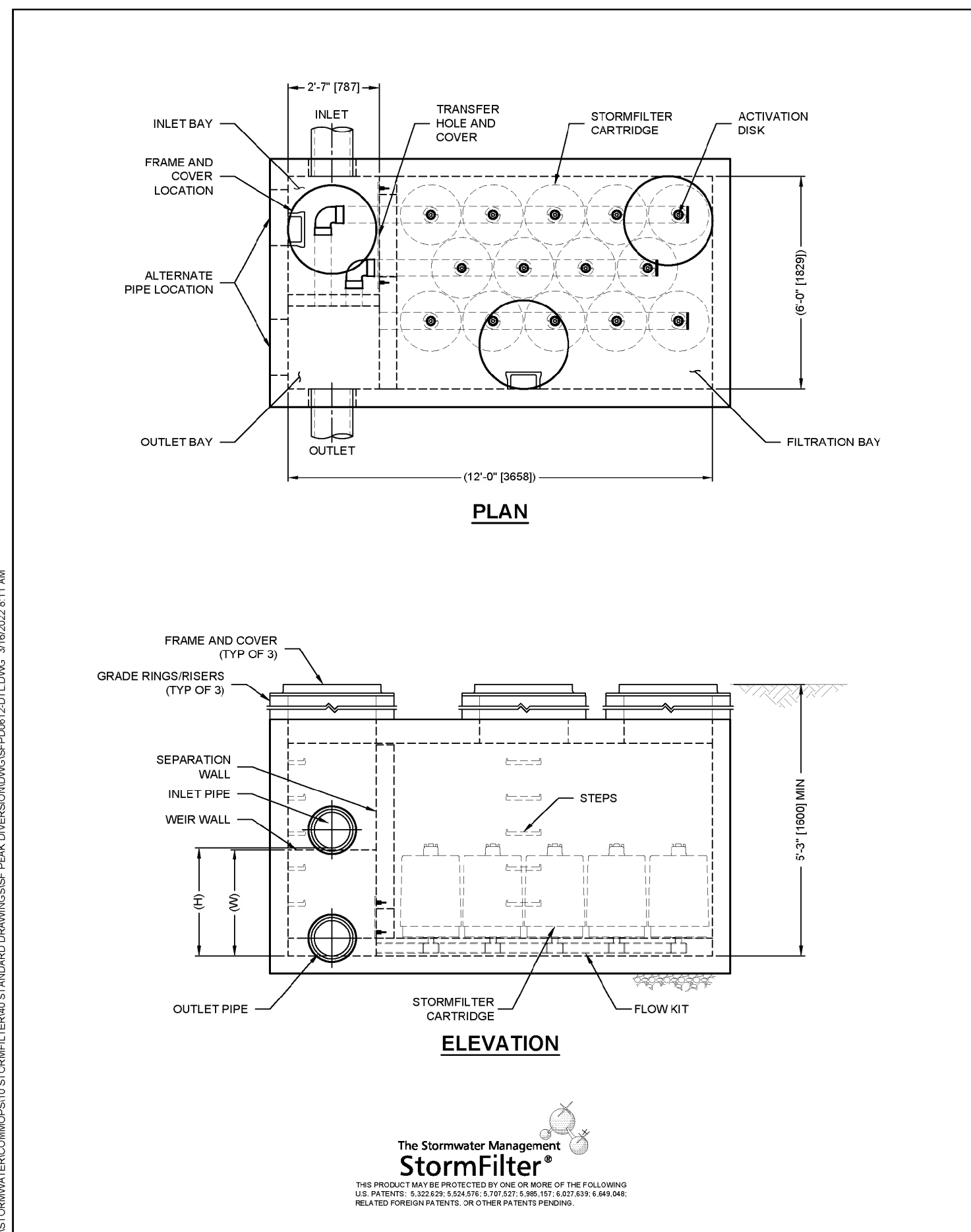


- TRENCHING SHALL MEET THE REQUIREMENTS OF SECTION 7-08.3(1) AND 2-06.3(1) OF THE WSDOT SPECIFICATIONS.
- BEDDING MATERIAL SHALL CONFORM TO 9-03.12(3) GRAVEL BACKFILL FOR PIPE ZONE BEDDING.
- GRAVEL BACKFILL SHALL CONFORM TO 9-03.12(1) GRAVEL BACKFILL FOR FOUNDATIONS, CLASS A.

**CITY OF PUYALLUP**  
OFFICE OF THE CITY ENGINEER

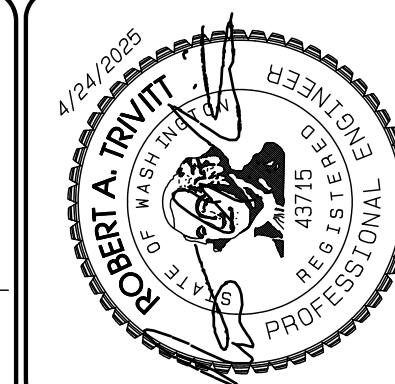
**PIPE TRENCHING BEDDING AND BACKFILL**

DATE: 06.01.01



### STORMWATER NOTES:

- All work in City right-of-way requires a permit from the City of Puyallup. Prior to any work commencing, the general contractor shall arrange for a preconstruction meeting at the Development Services Center to be attended by all contractors that will perform work shown on the engineering plans, representatives from all applicable Utility Companies, the project owner and appropriate City staff. Contact Engineering Services to schedule the meeting (253) 841-5568. The contractor is responsible to have their own approved set of plans at the meeting.
- After completion of all items shown on these plans and before acceptance of the project, the contractor shall obtain a "punch list" prepared by the City's inspector detailing remaining items of work to be completed. All items of work shown on these plans shall be completed to the satisfaction of the City prior to acceptance of the water system and provision of sanitary sewer service.
- All materials and workmanship shall conform to the Standard Specifications for Road, Bridge, and Municipal Construction (hereinafter referred to as the "Standard Specifications"), Washington State Department of Transportation and American Public Works Association, Washington State Chapter, latest edition, unless superseded or amended by the City of Puyallup City Standards for Public Works Engineering and Construction (hereinafter referred to as the "City Standards").
- A copy of these approved plans and applicable city developer specifications and details shall be on site during construction.
- Any revisions made to these plans must be reviewed and approved by the developer's engineer and the Engineering Services Staff prior to any implementation in the field. The City shall not be responsible for any errors and/or omissions on these plans.
- The contractor shall have all utilities verified on the ground prior to any construction. Call (811) at least two working days in advance. The owner and his/her engineer shall be contacted immediately if a conflict exists.
- Any structure and/or obstruction which require removal or relocation relating to this project, shall be done so at the developer's expense.
- During construction, all existing and newly installed drainage structures shall be protected from sediments.
- All storm manholes shall conform to City Standard Detail No. 02.01.01. Flow control manhole/oil water separator shall conform to City Standard Detail No. 02.01.05 and 02.01.07.
- Manhole ring and cover shall conform to City Standard Detail 06.01.02.
- Catch basins Type I shall conform to City Standard Detail No.02.01.02 and 02.01.03 and shall be used only for depths less than 5 feet from top of the grate to the invert of the storm pipe.
- Catch basins Type II shall conform to City Standard Detail No.02.01.04 and shall be used for depths greater than 5 feet from top of the grate to the invert of the storm pipe.
- Cast iron or ductile iron frame and grate shall conform to City Standard Detail No.02.01.05. Grate shall be marked with drains to stream. Solid catch basin lids (square unless noted as round) shall conform to WSDOT Standard Plan B-30.20-04 (Olympic Foundry No. SM60 or equal). Vented grates shall conform to WSDOT Standard Plan B-30.30-03 (Olympic Foundry No. SM60 or equal).
- Stormwater pipe shall be only PVC, concrete, ductile iron pipe, or dual walled Polypropylene pipe.
  - The use of any other type shall be reviewed and approved by the Engineering Services Staff prior to installation.
  - PVC pipe shall be per ASTM D3034, SDR 35 for pipe size 15-inch and smaller and F679 for pipe sizes 18 to 27 inch. Minimum cover on PVC pipe shall be 3.0 feet.
  - Concrete pipe shall conform to the WSDOT Standard Specifications for concrete underdrain pipe. Minimum cover on concrete pipe shall not less than 3.0 feet.
  - Ductile iron pipe shall be Class 50, conforming to AWWA C151. Minimum cover on ductile iron pipe shall be 10 feet.
  - Polypropylene Pipe (PP) shall be dual walled, have a smooth interior and exterior corrugations and meet WSDOT 9-05.24(d). 12-inch through 30-inch pipe shall meet or exceed ASTM F2736 and AASHTO M330, Type S, or Type D. 36-inch through 60-inch pipe shall meet or exceed ASTM F2881 and AASHTO M330, Type S, or Type D. Testing shall be per ASTM F1417. Minimum cover over Polypropylene pipe shall be 3-feet.
- Trenching, bedding, and backfill for pipe shall conform to City Standard Detail No. 06.01.01.
- Storm pipe shall be a minimum of 10 feet away from building foundations and/or roof lines.
- All storm drain mains shall be tested and inspected for acceptance as outlined in Section 406 of the City of Puyallup Sanitary Sewer System Standards.
- All temporary sedimentation and erosion control measures, and protective measures for critical areas and significant trees shall be installed prior to initiating any construction activities.



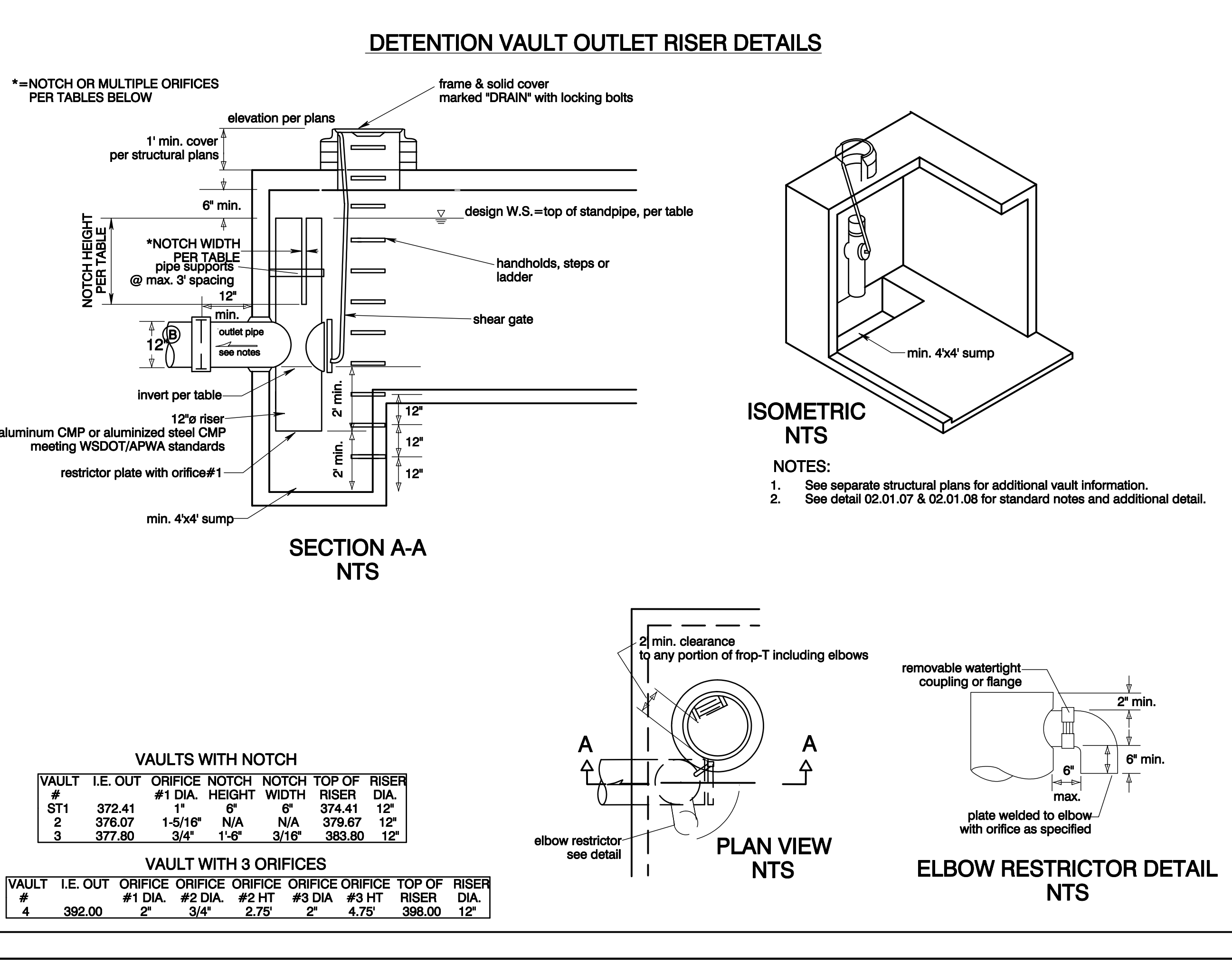
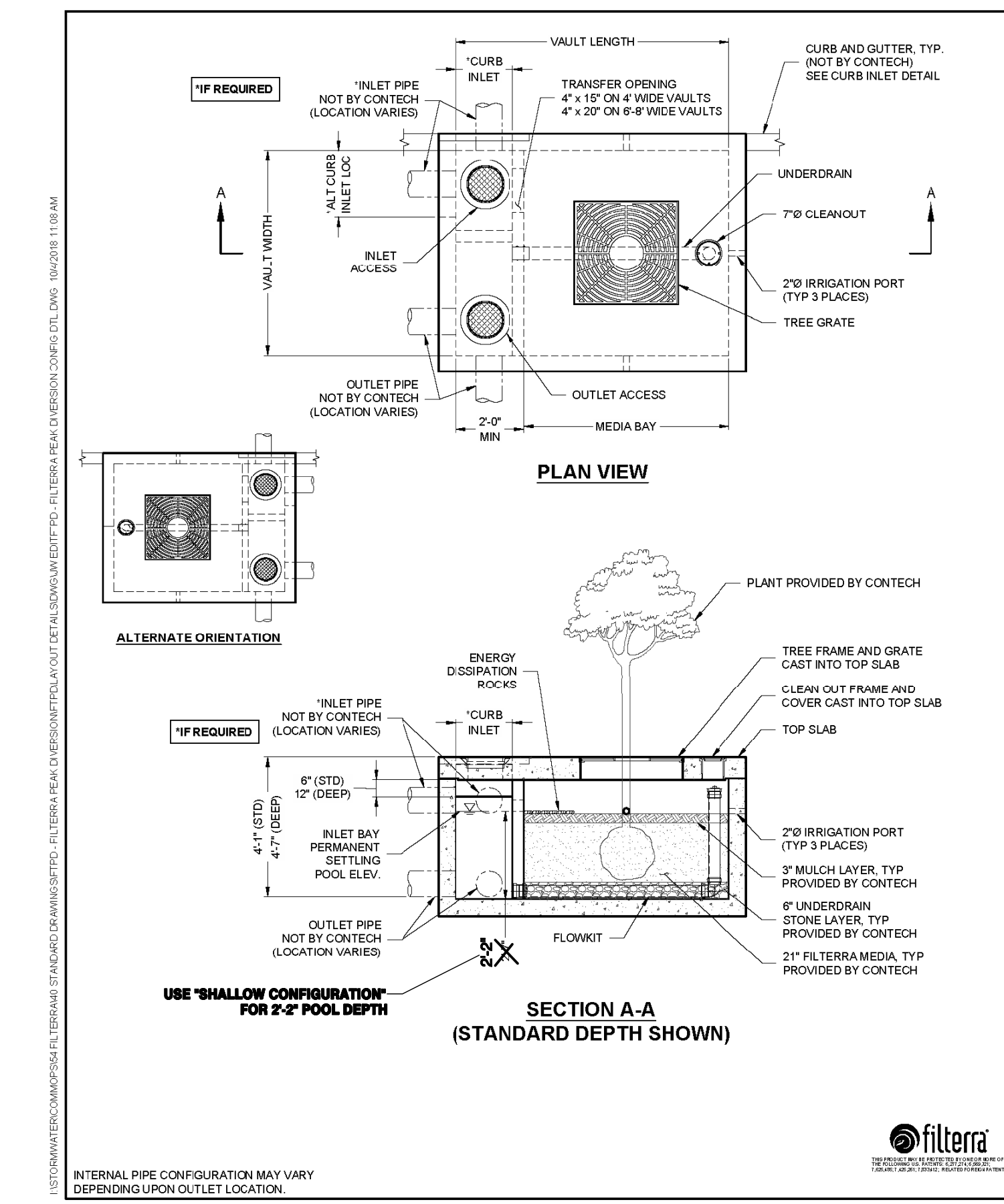
REVISION	DATE	DESCRIPTION
1	11/26/24	REVISED PER CITY REVIEW AND MAIL A. ADJUSTMENT.
2	3/4/25	REVISED PER CITY REVIEW.
3	4/21/25	REVISED PER CITY & ASH REVIEW.
4		
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DATE: May 14, 2024  
DESIGNED BY: RDT, TRV  
DRAWN BY: RDT, TRV  
CHECKED BY: RDT, TRV  
APPROVED BY: RDT, TRV

**AZURE GREEN CONSULTANTS**  
feasibility • planning • engineering • surveying  
409 East Pioneer, Suite A • Puyallup, WA 98372  
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**Storm Details**  
Bradley Heights  
Timberline Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.896.0326  
Fax jordan@timberlinepartners.com

**DRAWING**  
**SD-19**  
SHEET 33  
OF 60



Project Date: 06/01/2027 - Bradley Heights - Bradley Heights, Inc. 20250424\_Eng.dwg PLOT Date: 06/01/2027 - 4/24/2025 (P. 27) 3394

# Bradley Heights

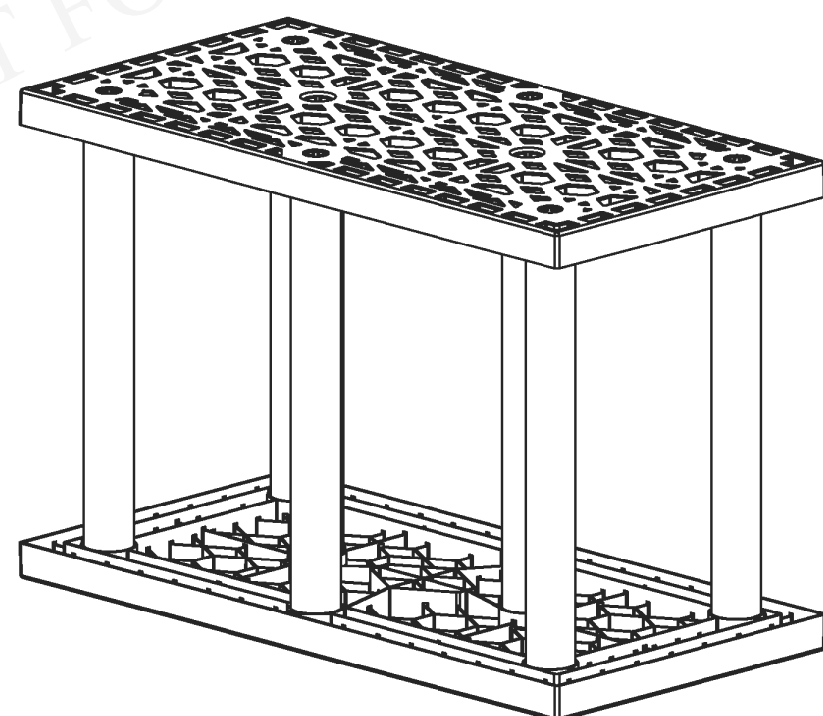
Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



## BRENTWOOD STORMTANK MODULE LAYOUT DRAWINGS

### BRADLEY HEIGHTS APARTMENTS

Puyallup, WA



**Pages:**

Cover Page	01 OF 07
Module Layout	02 OF 07
TYP. Construction Details	03 OF 07
TYP. Pipe Penetration Details	04 OF 07
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Supplementary Notes	07 OF 07

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REFER TO STORMTANK  
INSTALLATION INSTRUCTIONS

**LAYFIELD**  
1901 Raymond Ave. S.W., Suite B  
Renton, WA 98057  
Ph: (425) 254-1075  
seattle@layfieldgroup.com

#### SINGLE STACK MODULE SYSTEM

Total Storage Volume	4,154.88 ft <sup>3</sup>
Module Storage Volume	4,154.88 ft <sup>3</sup>
Stone Storage Volume	--- ft <sup>3</sup>
System Footprint	2,368 ft <sup>2</sup>
Estimated Geotextile Fabric	NuBarrier 677 yd <sup>2</sup> LPS 1,168 yd <sup>2</sup>
Estimated Liner	5,254 ft <sup>2</sup>
Estimated Stone Volume	146.96 yd <sup>3</sup>
Minimum Excavation Required	394.67 yd <sup>3</sup>
Minimum Excavation Depth	4.50 ft
Stone Type	3/4" Clear Stone
Stone Void Space	40%
Model Type	25 Series ST-24

Bradley Heights Apartments  
Puyallup, WA

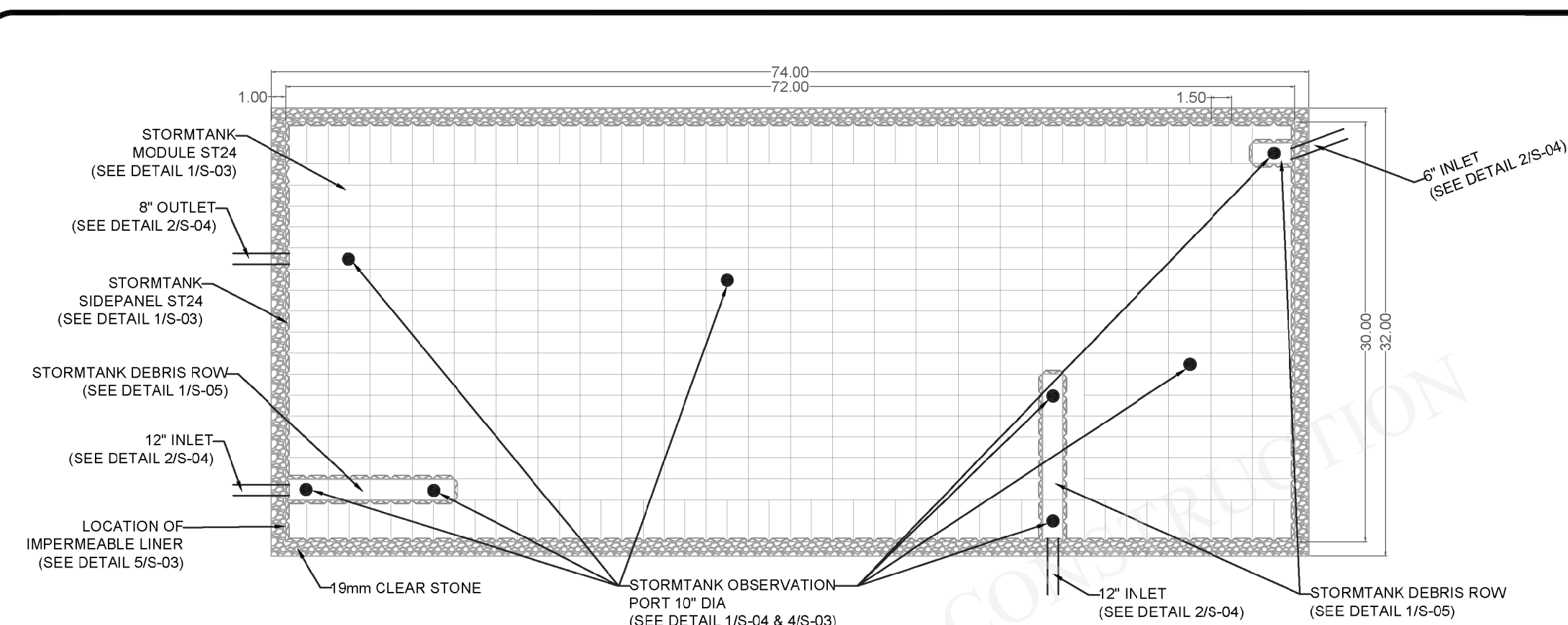
REV	Record of Changes	Date	By
△	Preliminary Drawing	15SEP2023	AK
△	Task Re-Design	08NOV2024	GM

Project Number	OP2023-7367		
Page Name	Cover Page		
Drawn by	AK	Checked by	JF
Scale	NTS	Date	19SEP2023

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01 OF 07

ANSI B Size Page (Horizontal)



#### NOTES

- All dimensions are measured in feet unless noted otherwise.
- Reference Brentwood Industries standard drawings and notes for detailed information.
- Reference current Brentwood Module installation instructions for proper installation practices.
- Engineer of record to confirm conformance to manufacturer's allowable proximity to other structures and slopes.
- All inlet and pipe locations and designs by others.
- The sub-grade and side backfill needs to be compacted to 95%, unless noted otherwise.
- During and after installation, the Brentwood Module area should be clearly marked and roped off to prevent unauthorized construction and equipment trafficking over the modules.
- Top of Ground water is to be maintained 610 mm (2 ft) below the module to prevent buoyancy, unless otherwise noted by engineer.
- The quantities related to stone and geosynthetics are estimated values as the roll size, overlaps, waste, ect. may vary.
- Materials must be stored in a manner to prevent prolonged exposure to UV light.
- Materials shall not be handled in temperatures lower than 4.4 °C to prevent damage.
- Tank System is not considered complete until completely backfilled, including top backfill, to finished grade. Installer must ensure the project site remains dry until top backfill is complete to avoid damage due to buoyancy.

#### Material Quantity (ST-24)

ST-24	480
Platens	960
24" Columns	3840
24" Side Panels	175
10" Observation Port	8
6" Saddle Port (By Others)	0

#### Elevations

Leveling Stone Bottom	371.91
Module Bottom	372.41
Module Invert	372.56
Top of Module	374.41
Top of Stone Backfill	375.41
Minimum Finished Grade	376.41
Maximum Finished Grade	383.41

Contractor to confirm that quantities shipped to site match those listed above. Please report any discrepancy or damage to Layfield immediately.

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Bradley Heights Apartments  
Puyallup, WA

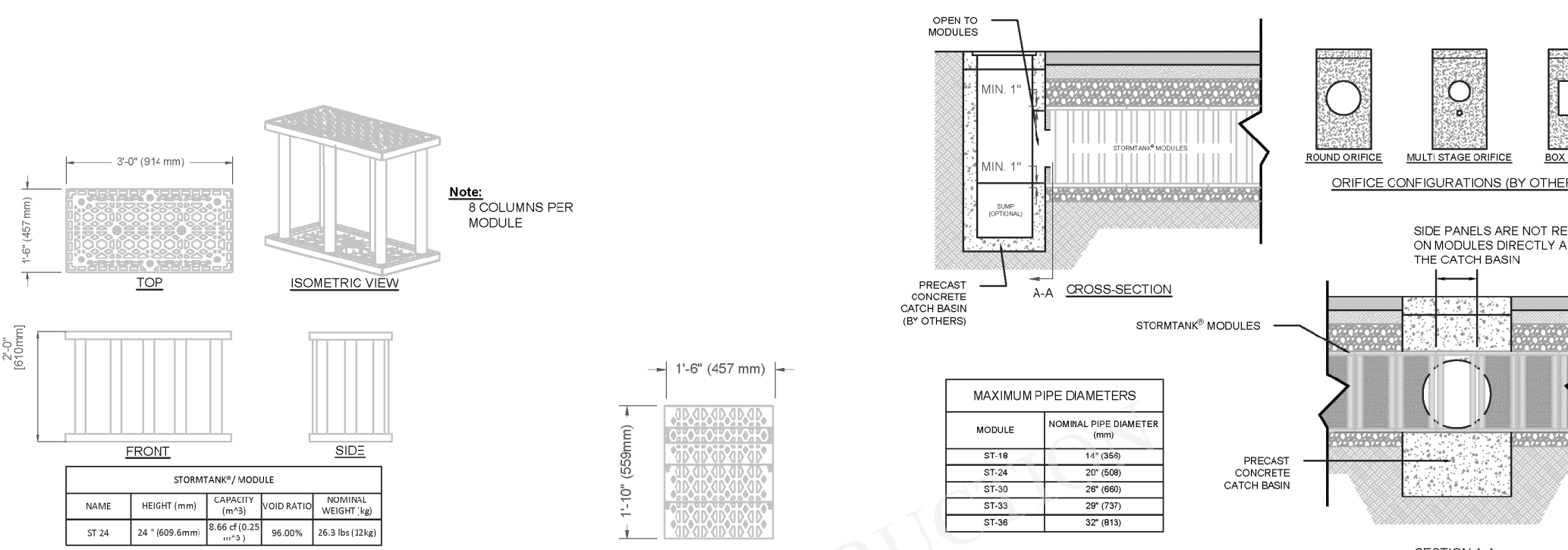
REV	Record of Changes	Date	By
△	Preliminary Drawing	15SEP2023	AK
△	Task Re-Design	08NOV2024	GM

Project Number	OP2023-7367		
Page Name	Module Layout		
Drawn by	AK	Checked by	JF
Scale	NTS	Date	19SEP2023

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02 OF 07

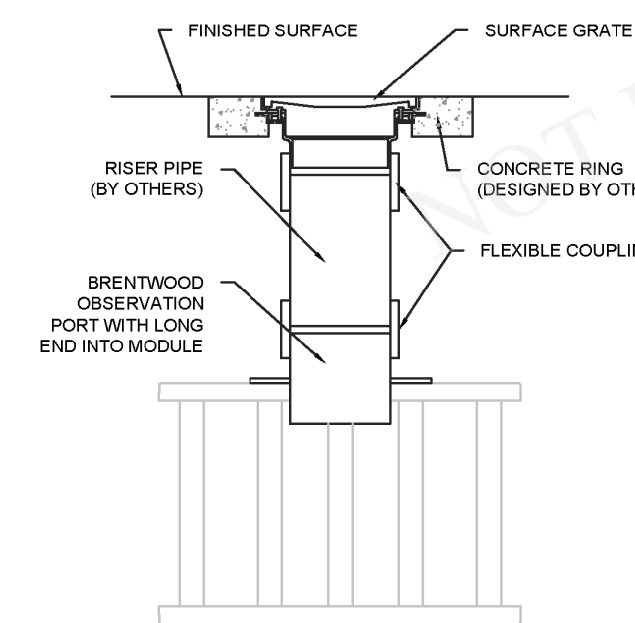
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1 S-03 24" (610 mm) MODULE DETAIL

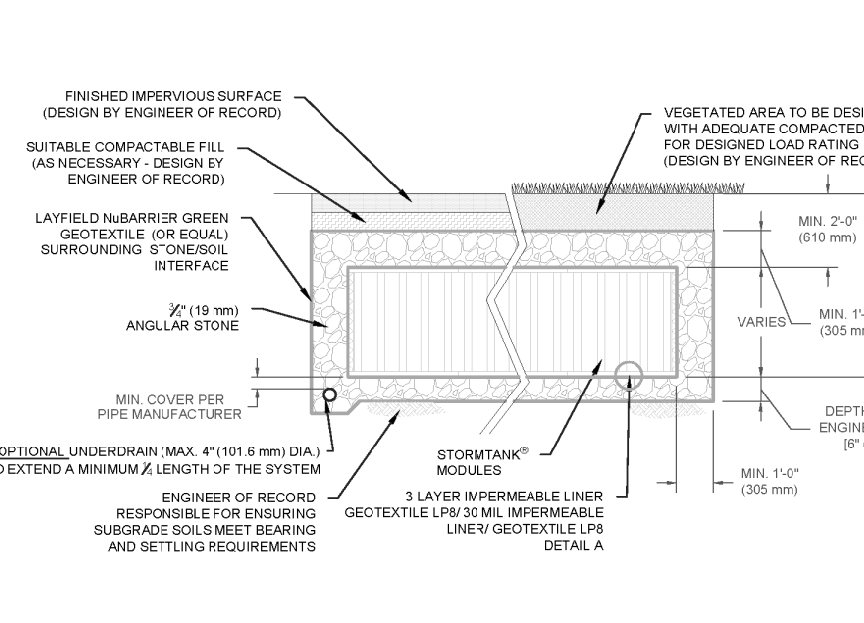
2 S-03 24" (610 mm) SIDE PANEL DETAIL

3 S-03 TYP. CATCH BASIN ABUTMENT DETAIL (IF APPLICABLE)



4 S-03 SINGLE STACK OBSERVATION PORT DETAIL

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5 S-03 TYPICAL SINGLE STACKED SYSTEM BASIC CROSS-SECTION

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Bradley Heights Apartments  
Puyallup, WA

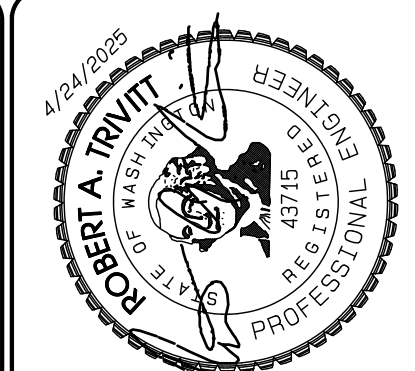
REV	Record of Changes	Date	By
△	Preliminary Drawing	15SEP2023	AK
△	Task Re-Design	08NOV2024	GM

Project Number	OP2023-7367		
Page Name	TYP. Construction Details		
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REVISION	DATE
1	11/15/24
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3	4/21/25
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JOB NO.	3327
DATE:	May 14, 2024
DESIGNED BY:	Rob. Trivitt
DRAWN BY:	Rob. Trivitt
CHECKED BY:	Rob. Trivitt
APPROVED BY:	Rob. Trivitt

**AZURE GREEN CONSULTANTS**  
+ feasibility + planning + engineering + surveying  
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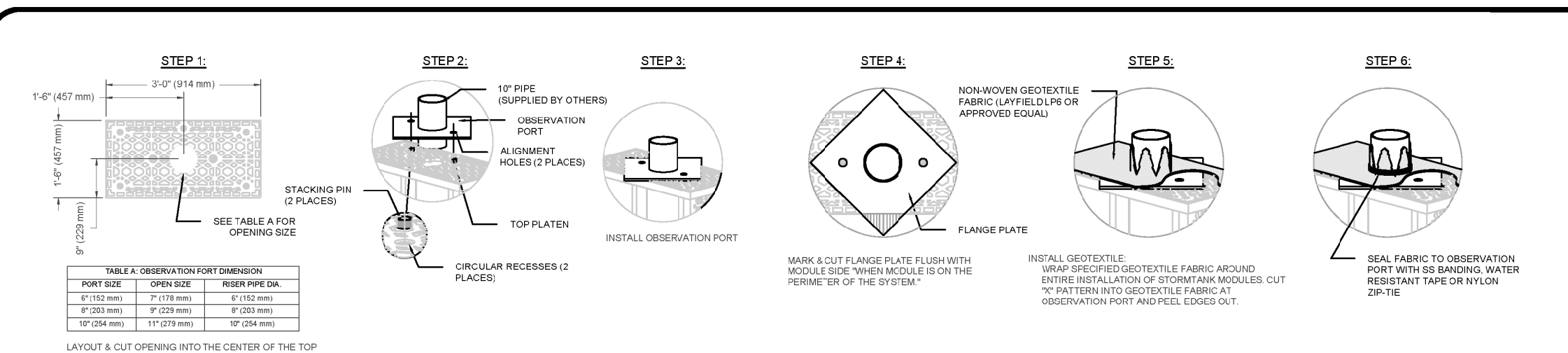
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**DRAWING**  
**SD-20**  
SHEET 34  
OF 60

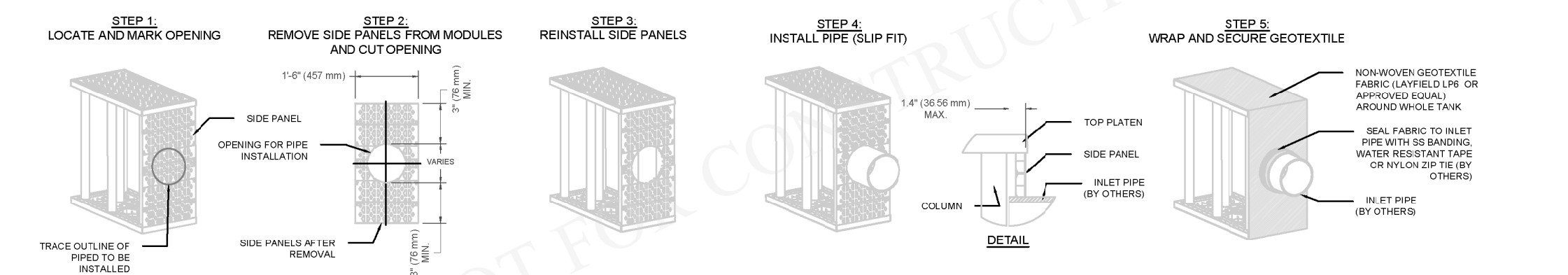
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# Bradley Heights

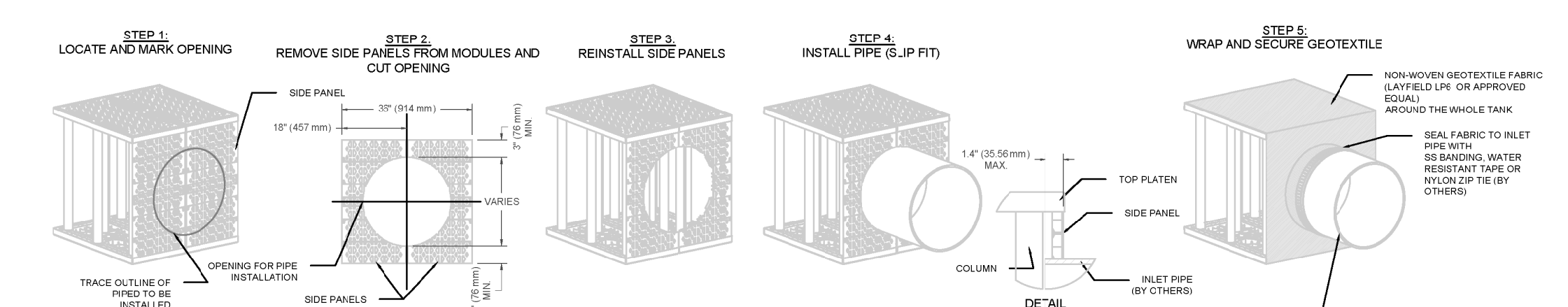
Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



1 TYP. OBSERVATION PORT INSTALLATION DETAIL



2 SMALL DIAMETER (14" [356 mm] AND SMALLER) PIPE CONNECTION DETAIL



3 LARGE DIAMETER (15" [381 mm] AND GREATER) PIPE CONNECTION DETAIL

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## SINGLE STACK MODULE SYSTEM

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Bradley Heights Apartments  
Puyallup, WA

REV	Record of Changes	Date	By
Δ	Preliminary Drawing	19SEPT2023	AK
Δ	Task Re-Design	08NOV2024	GM

Project Number: OP2023-7367

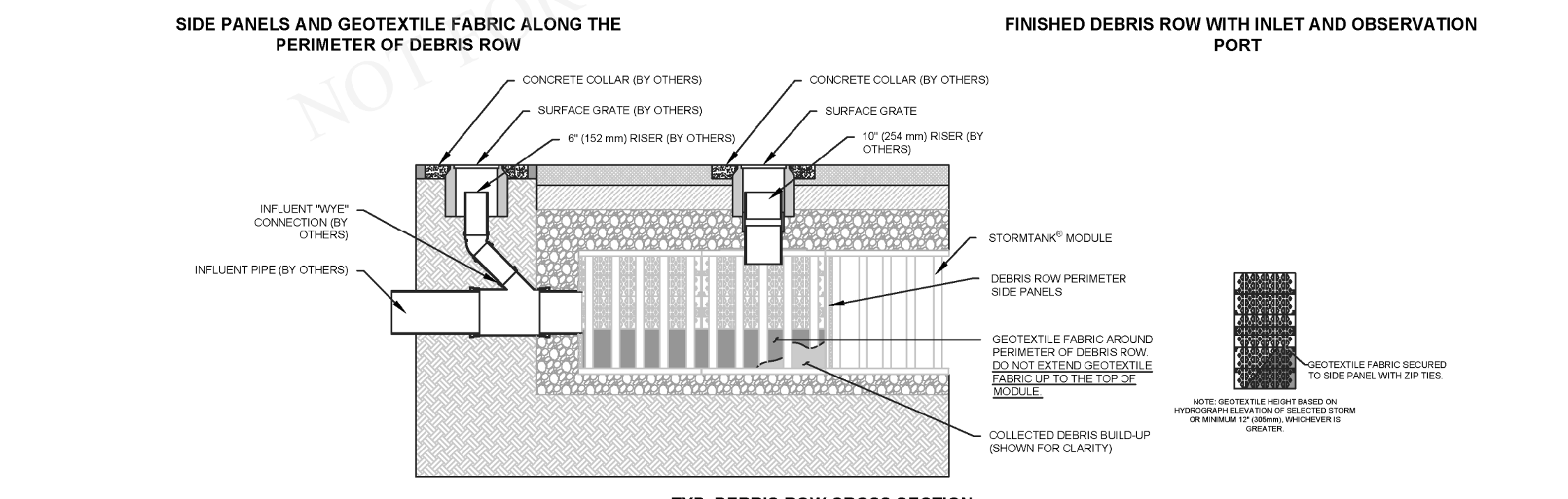
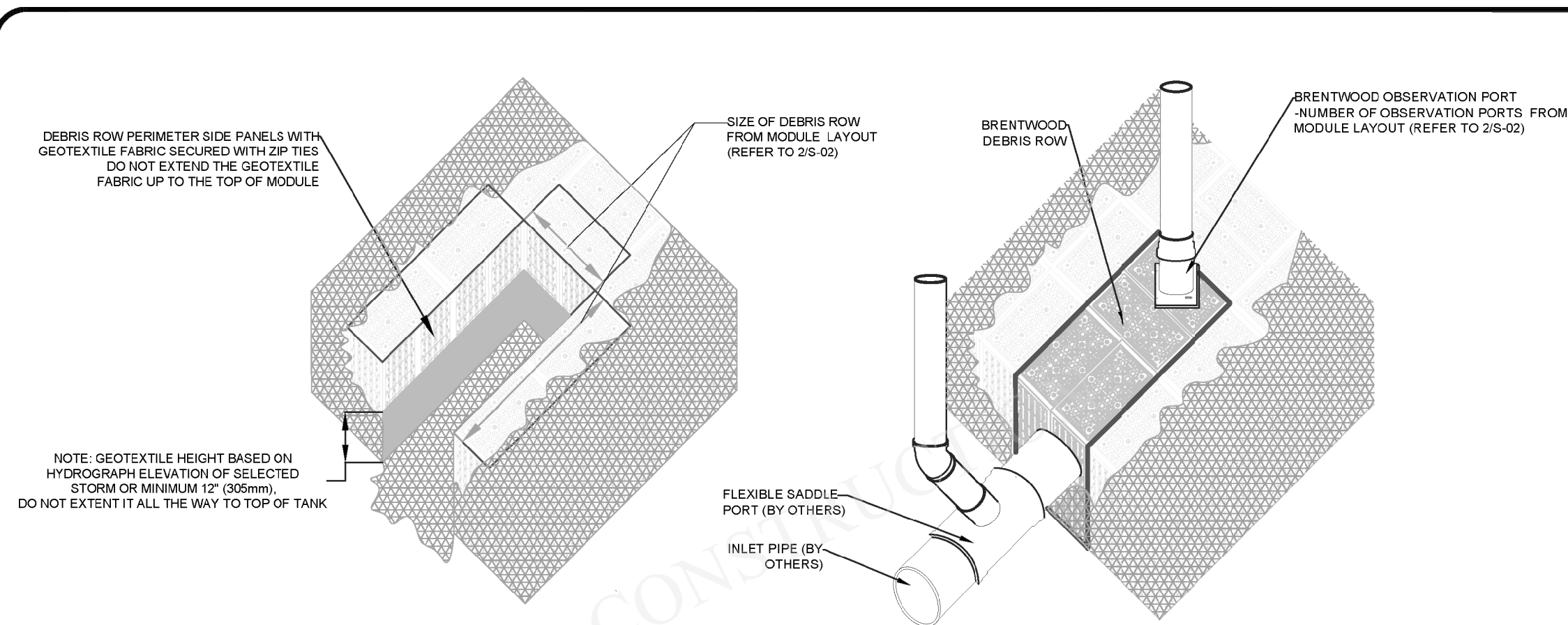
Page Name: TYP. Pipe Penetration Details

Drawn by: AK Checked by: JF

Scale: NTS Date: 19SEPT2023

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1 TYP. DEBRIS ROW DETAIL SINGLE STACK SYSTEM

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Bradley Heights Apartments  
Puyallup, WA

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Page Name: TYP. Debris Row Details

Drawn by: AK Checked by: JF

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**General Conditions**

- Review installation procedures and coordinate the installation with other construction activities, such as grading, excavation, utilities, construction access, erosion control, etc.
- Engineered Contract Drawings supersede all provided documentation, as the information furnished in this document is based on a typical installation.
- Coordinate the installation with manufacturer's representative/distributor to be on-site to review start up procedures and installation instructions.
- Components shall be unloaded, handled and stored in an area protected from traffic and in a manner to prevent damage.
- Assembled modules may be walked on, but vehicular traffic is prohibited until backfilled per Manufacturer's requirements. Protect the installation against damage with highly visible construction tape, fencing, or other means until construction is complete.

Ensure all construction occurs in accordance with Federal, Provincial and Local Laws, Ordinances, Regulations and Safety Requirements

- Extra care and caution should be taken when temperatures are at or below 40° F (4.4° C).

**NOT FOR CONSTRUCTION**

These drawings shall not be used for construction until they have been reviewed for all design aspects (structural, geotechnical, stormwater) and approved by the Engineer of Record for the Project.

It is the Buyer's responsibility to ensure that the design into which the Product will be used has been approved by the Engineer of Record (not Layfield) with a review that may include, but not be limited to, inlet and outlet configurations including inverts and pipe connections, storage volume, system footprint, Stormtank elevations including cover size requirements, and proximity to structures and slopes.

Site design / engineering elements may include but not be limited to the following:

- Review elevations and if necessary adjust grading to ensure the chamber cover requirements are met.
- Evaluating site-specific information on soil conditions and/or bearing capacity.
- Assessing the bearing resistance (allowable bearing capacity) of the sub-grade soils and the depth of foundation stone with consideration for the range of expected soil moisture conditions

**1.0 StormTank® Assembly**

StormTank® Modules:

StormTank® modules are delivered to the site as palletized components requiring simple assembly. No special equipment, tools or bonding agents are required, only a rubber mallet. A single worker can typically assemble a module in two minutes.

**ASSEMBLY INSTRUCTIONS:**

- Place a platen on a firm level surface and insert the eight (8) columns into the platen receiver cups. Firmly tap each column with a rubber mallet to ensure the column is seated.
- Place a second platen on a firm level surface. Flip the previously assembled components upside down onto the second platen, aligning the columns into the platen receiver cups.
- Once aligned, seat the top assembly by alternating taps, with a rubber mallet at each structural column until all columns are firmly seated.

**2.0 Basin Excavation**

- Stake out and excavate to elevations per approved plans/Excavation Requirements:
  - Sub-grade excavation must be a minimum of 6" (152 mm) below designed StormTank® Module invert.
  - The excavation should extend a minimum of 12" (305 mm) beyond the StormTank® dimensions in each length and width (an additional 24" [610 mm] in total length and total width) to allow for adequate placement of side backfill material.
- Remove objectionable material encountered within the excavation, including protruding material from the walls.
- Furnish, install, monitor and maintain excavation support (e.g., shoring, bracing, trench boxes, etc.) as required by Federal, Provincial and Local Laws, Ordinances, Regulations and Safety Requirements.

**3.0 Sub-Grade Requirements**

- Sub-grade shall be unfrozen, level (plus or minus 1%), and free of lumps or debris with no standing water, mud or muck. Do not use materials nor mix with materials that are frozen and/or coated with ice or frost.
- Unstable, unsuitable and/or compromised areas should be brought to the Engineer's attention and mitigating efforts determined prior to compacting the sub-grade.
- Sub-grade must be compacted to 95% Standard Proctor Density or as approved by the Engineer of Record. If code requirements restrict subgrade compaction, it is the requirement of the geotechnical Engineer to verify that the bearing capacity and settlement criteria for support of the system are met.

**4.0 Leveling Bed Installation**

- Install geotextile fabric and/or liner material, as specified.
  - Geotextile fabric shall be placed per manufacturer's recommendations.

**5.0 StormTank® Module Placement**

1. Install geotextile fabric and/or liner material, as specified.
  - Geotextile fabric shall be placed per manufacturer's recommendations.
  - Additional material to be utilized for wrapping above the system must be protected from damage until use.
2. After the geotextile is secured, place a minimum 6" (152 mm) Leveling Bed.
  - Material should be a 3/4" (19 mm) angular stone meeting Appendix B - Acceptable Fill Material.
  - Material should be raked free of voids, lumps, debris, sharp objects and plate vibrated to a level with a maximum 1% slope.
3. Correct any unsatisfactory conditions.

**4. If side panels are required, firmly tap the top platen upward to raise the top platen. Insert the side panel into the bottom platen.**

**5. Align the top of the side panel with the top platen and firmly seat the top platen utilizing a rubber mallet.**

**GENERAL NOTES:**

- Remove packaging material and check for any damage. Report any damaged components to a StormTank® Distributor or Brentwood personnel.
- StormTank® components are backed by a one year warranty, when installed per manufacturer's recommendations.

**1. Install geotextile fabric and/or liner material, as specified.**

- Geotextile fabric shall be placed per manufacturer's recommendations.
- Additional material to be utilized for wrapping above the system must be protected from damage until use.

**2. Mark the footprint of the modules for placement.**

- Ensure module perimeter outline is square or similar prior to Module placement.
- Care should be taken to note any connections, ports or other irregular units to be placed.

**3. Install the individual modules by hand, as detailed below.**

- The modules should be installed as shown in the StormTank® submittal drawings with the short side of perimeter modules facing outward, except as otherwise required.
- Make sure the top/bottom platens are in alignment in all directions to within a maximum 1/4" (6.4 mm).
- For double stack configurations:
  - Install the bottom module first. **DO NOT INTERMIX VARIOUS MODULE HEIGHTS ACROSS LAYERS.** Backfilling prior to proceeding to second layer is optional.
  - Insert stacking pins (2 per module) into the top platen of the bottom module.
  - Place the upper module directly on top of the bottom module in the same direction, making sure to engage the pins.

**4. Install the modules to completion, taking care to avoid damage to the geotextile and/or liner material.**

**5. Locate any ports or other penetration of the StormTank®.**

- Install ports/penetrations in accordance with the approved submittals, contract documents and manufacturer's recommendations.
- Upon completion of module installation, wrap the modules in geotextile fabric and/or liner.
  - Geotextile fabric shall be wrapped and secured per manufacturer's recommendations.
  - Seal any ports/penetrations per Manufacturer's requirements.

**Notes:**

- If damage occurs to the geotextile fabric or impermeable liner, repair the material in accordance with the geotextile/liner Manufacturer's recommendations.

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Bradley Heights Apartments  
Puyallup, WA

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Δ	Task Re-Design	08NOV2024	GM

Project Number: OP2023-7367

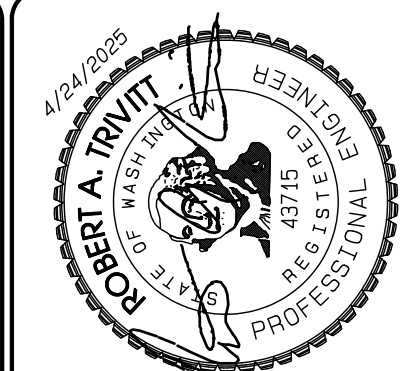
Page Name: Supplementary Notes

Drawn by: AK Checked by: JF

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REVISION	DATE	BY
1	11/16/24	AK
2	3/4/25	AK
3	4/21/25	AK
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DESIGNED BY: JF  
DRAWN BY: AK  
CHECKED BY: JF  
APPROVED BY: GM

JOB NO: 2307

DATE: May 14, 2024

DESIGNED BY: JF

DRAWN BY: AK

CHECKED BY: JF

APPROVED BY: GM

**AZURE GREEN CONSULTANTS**

feasibility • planning • engineering • surveying

409 East Pioneer, Suite A • Puyallup, WA 98372 • phone: 253.770.3144 • fax: 253.770.3142

**StormTank Details**

Bradley Heights

Timberlane Partners  
1816 11th Ave Unit C  
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Fax jordan@timberlanepartners.com

**DRAWING**

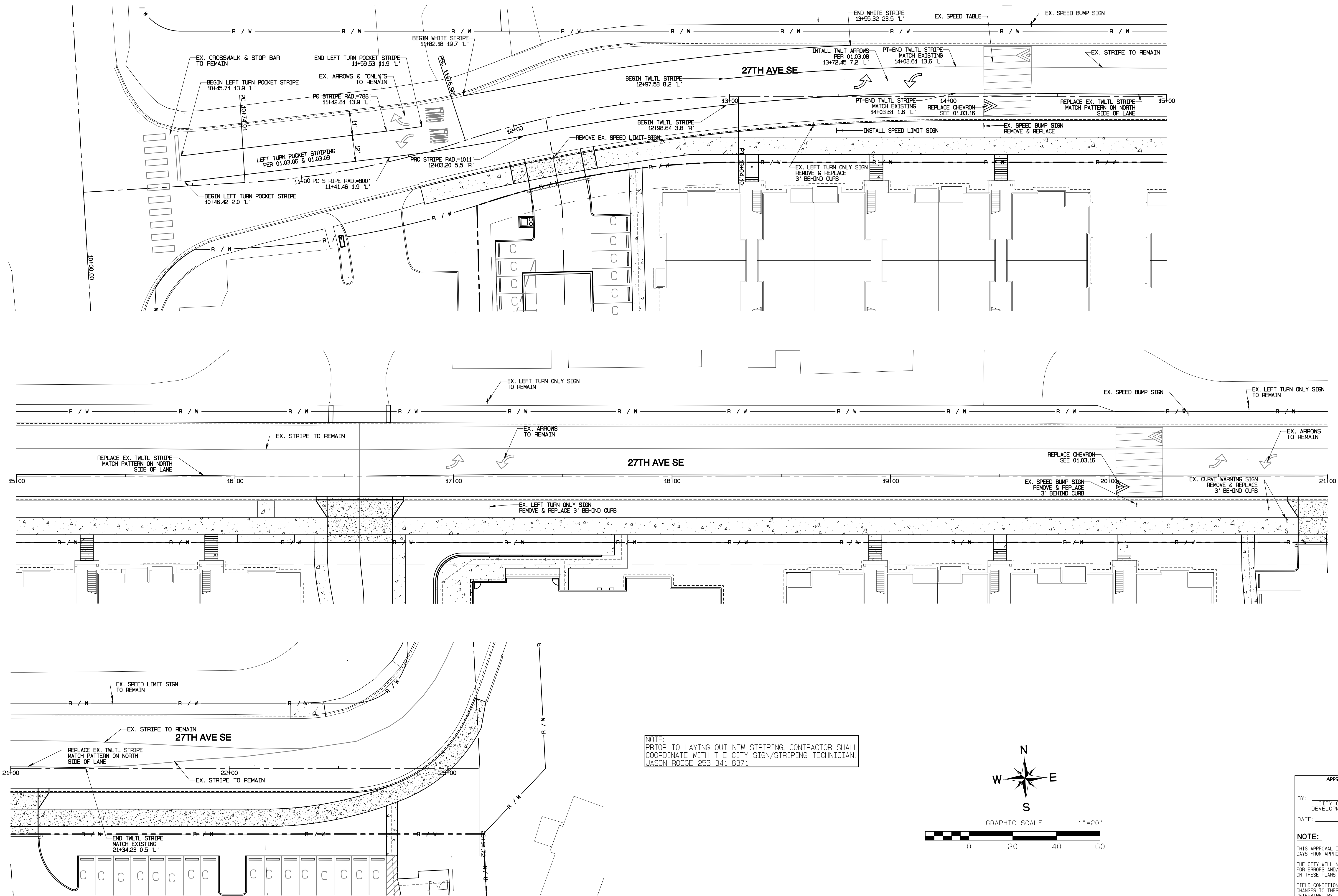
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SHEET 35 OF 60

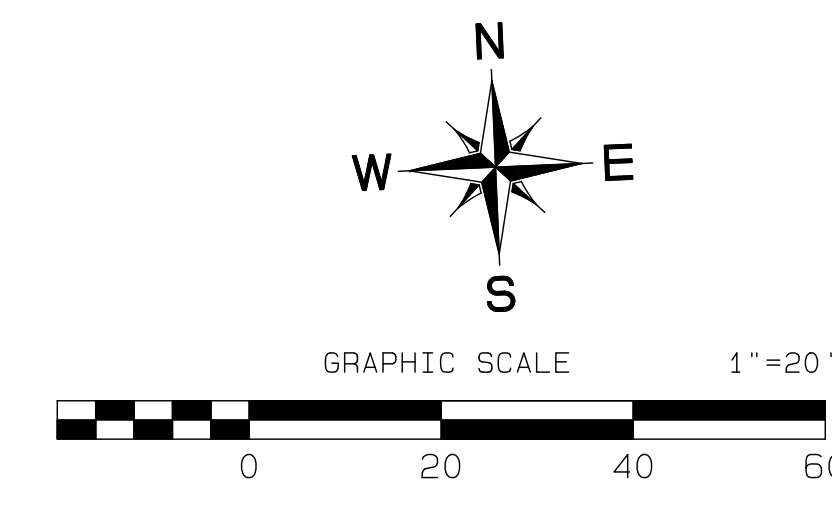


# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



NOTE:  
PRIOR TO LAYING OUT NEW STRIPING, CONTRACTOR SHALL  
COORDINATE WITH THE CITY SIGN/STRIPING TECHNICIAN.  
JASON ROGGE 253-341-8374



APPROVED  
BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES  
DATE: \_\_\_\_\_  
NOTE:  
THIS APPROVAL IS VOID AFTER 180  
DAYS FROM APPROVAL DATE.  
THE CITY WILL NOT BE RESPONSIBLE  
FOR ERRORS AND/OR OMISSIONS  
ON THESE PLANS.  
FIELD CONDITIONS MAY DICTATE  
CHANGES TO THESE PLANS AS  
DETERMINED BY THE ENGINEERING  
SERVICES MANAGER.



REVISION	DATE
1	11/26/24
2	3/4/25
3	4/21/25
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JOB NO. 3327  
DATE: May 14, 2024  
DESIGNED BY: Rob. Trivitt  
DRAWN BY: Rob. Trivitt  
CHECKED BY: Jason Rogge  
APPROVED BY: Paul Green

**AZURE GREEN**  
CONSULTANTS  
+feasibility +planning +engineering +surveying  
409 East Pioneer, Suite A - Puyallup, WA 98372  
Phone: 253.770.3144, fax: 253.770.3142

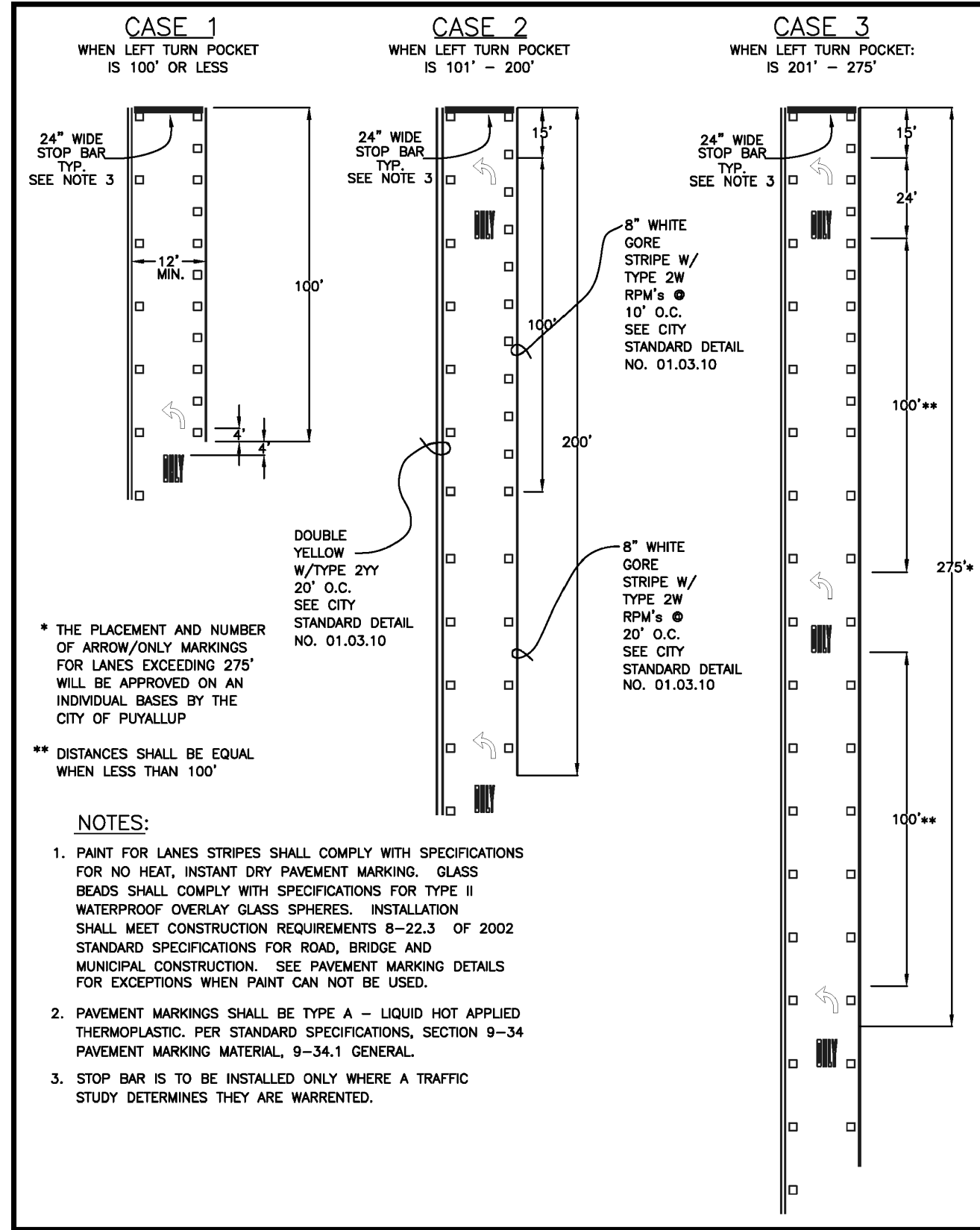
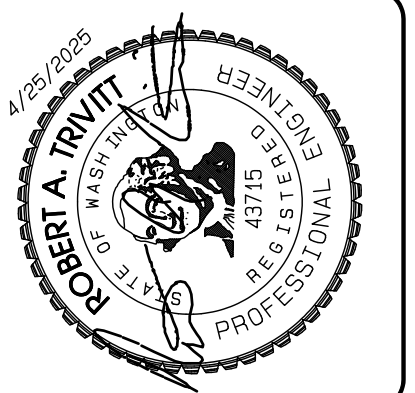
**Channelization Plan**  
Bradley Heights  
Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.889.0326  
Fax jordan@timberlanepartners.com

DRAWING  
**SD-23**  
SHEET 37  
OF 60

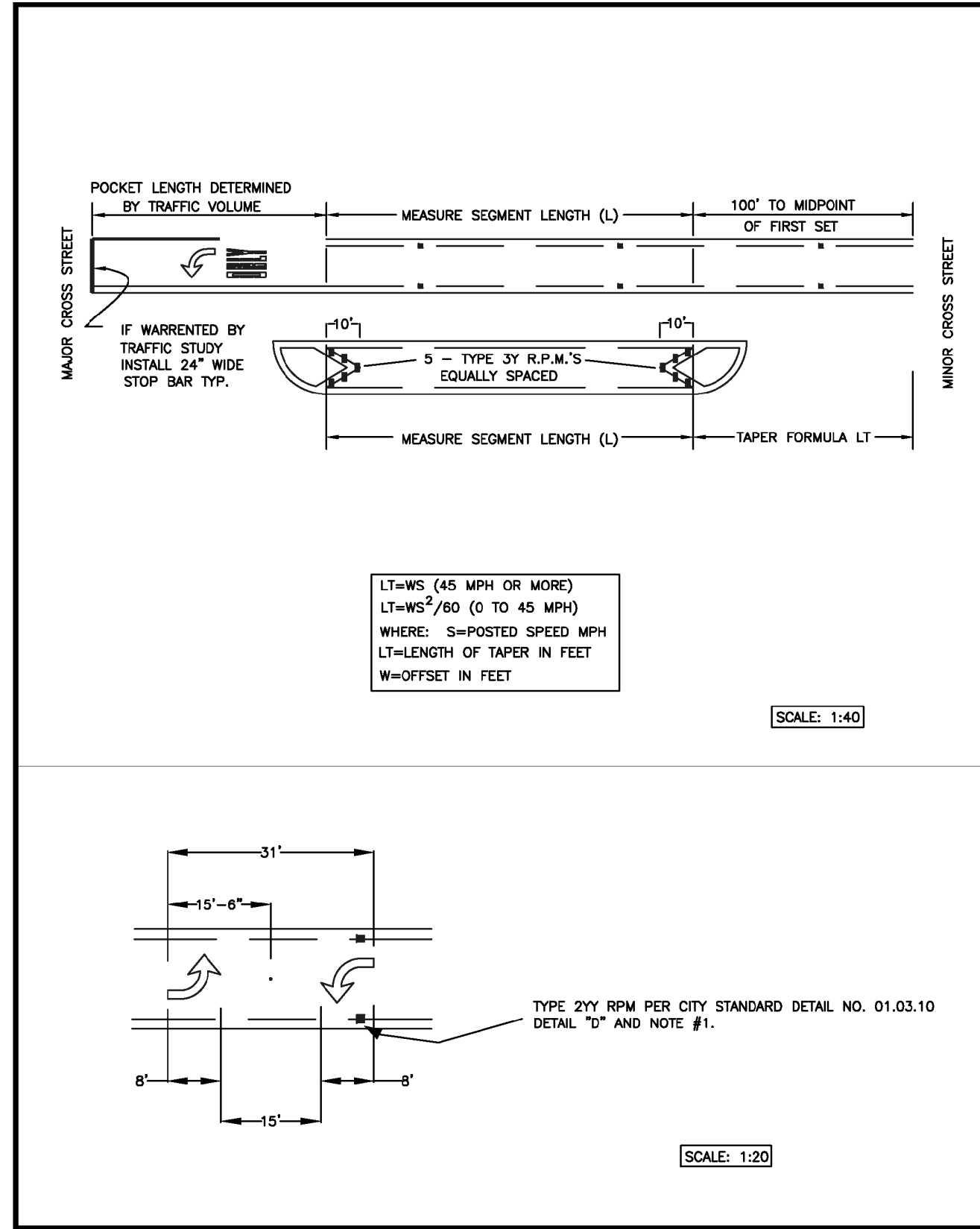
Project Desc.: Bradley Heights; Date: E:\sub3\3327 - Bradley Heights\Timberlane\Bradley Heights 20250424 EHG.dwg; PLOT Date/Time: 4/24/2025 9:26:03AM

# Bradley Heights

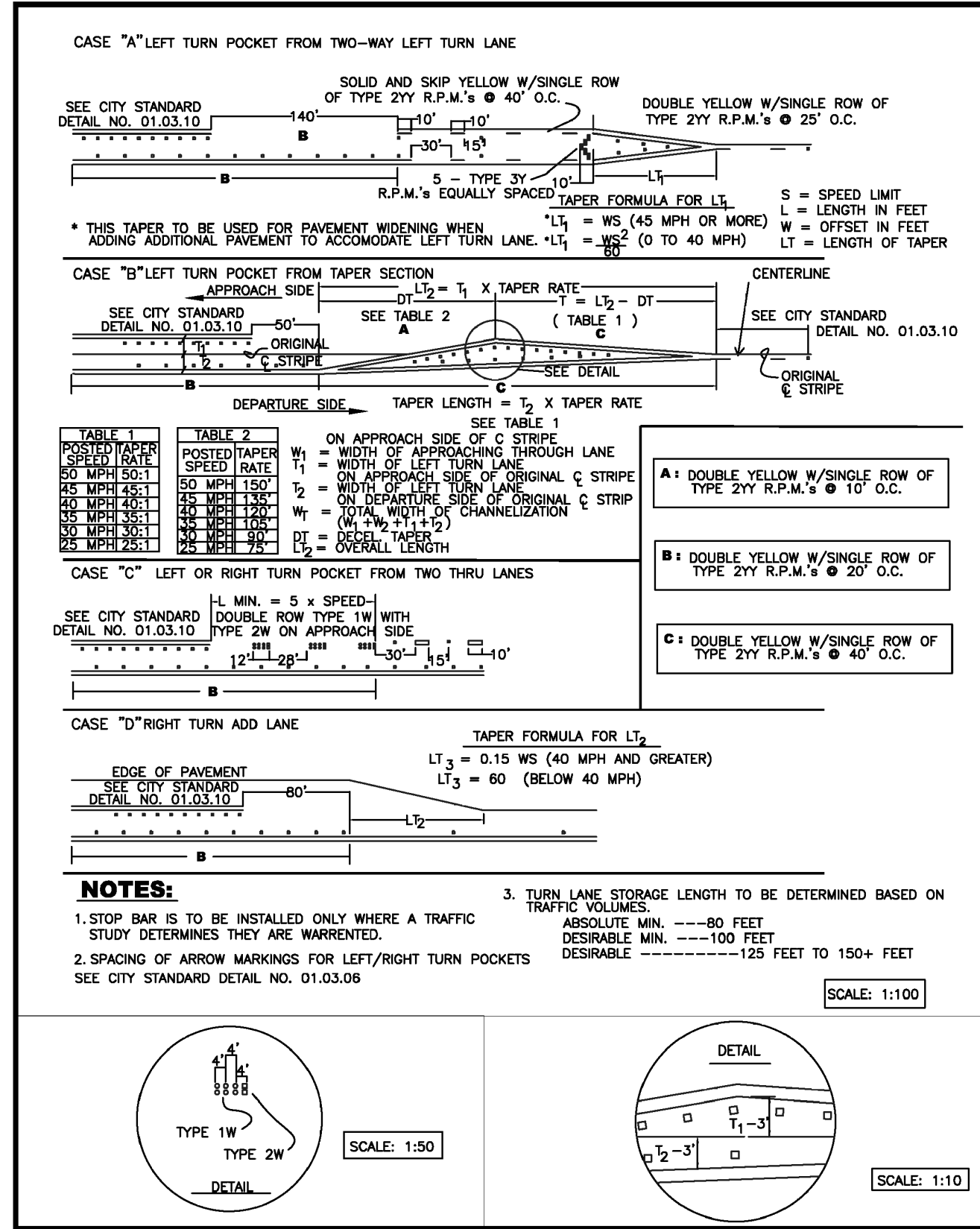
## Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



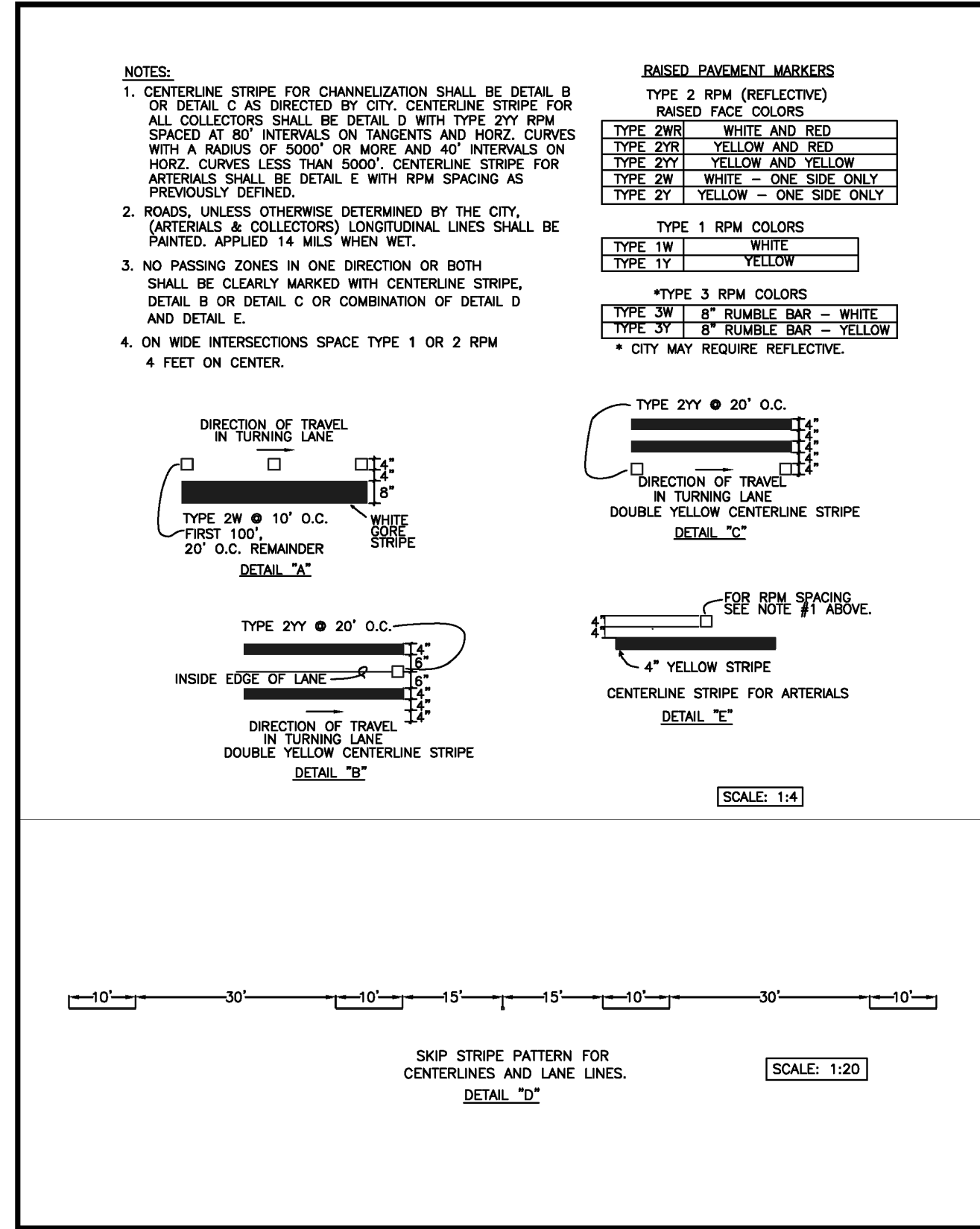
<b>CITY OF PUYALLUP</b>	<b>LEFT/RIGHT TURN POCKET ARROW AND ONLY LAYOUT</b>
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS DRAWN BY: JIM FRENZ (EYB/ODA) CHECKED BY: LINDA LIAN (LND/LAN) FILE NAME: P:\PROJECTS\BRADLEYHEIGHTS\020526\0425\01.03.10.DWG DATE APPROVED: 01/03/10 DATE REVISION: 01/03/10 SCALE: 1/4"=1'-0" CITY STANDARD: 01.03.06	DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS DRAWN BY: JIM FRENZ (EYB/ODA) CHECKED BY: LINDA LIAN (LND/LAN) FILE NAME: P:\PROJECTS\BRADLEYHEIGHTS\020526\0425\01.03.10.DWG DATE APPROVED: 01/03/10 DATE REVISION: 01/03/10 SCALE: 1/4"=1'-0" CITY STANDARD: 01.03.06



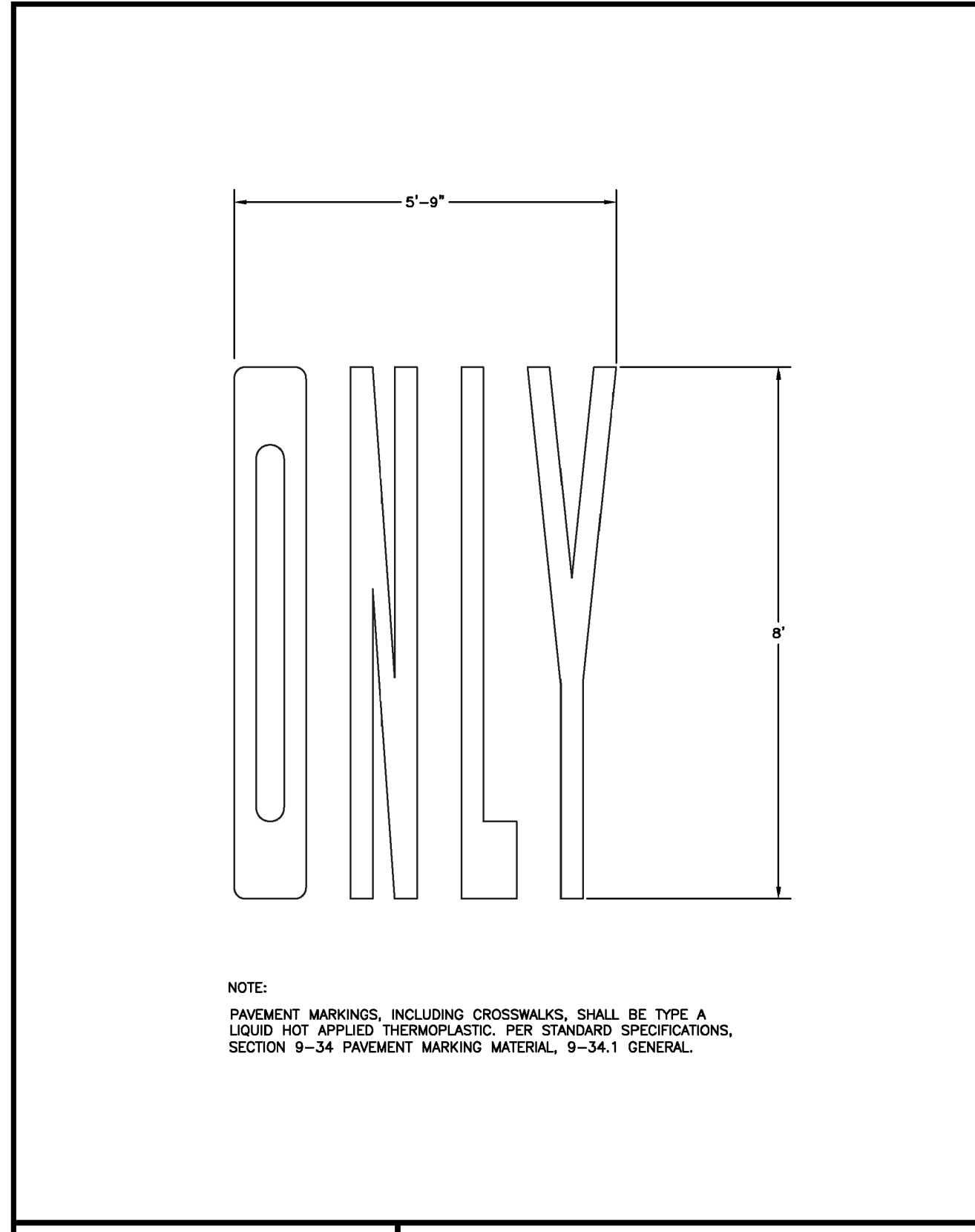
<b>CITY OF PUYALLUP</b>	<b>TWO-WAY LEFT TURN CHANNELIZATION (CONT.)</b>
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS DRAWN BY: JIM FRENZ (EYB/ODA) CHECKED BY: LINDA LIAN (LND/LAN) FILE NAME: P:\PROJECTS\BRADLEYHEIGHTS\020526\0425\01.03.10.DWG DATE APPROVED: 01/03/10 DATE REVISION: 01/03/10 SCALE: 1/4"=1'-0" CITY STANDARD: 01.03.08	DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS DRAWN BY: JIM FRENZ (EYB/ODA) CHECKED BY: LINDA LIAN (LND/LAN) FILE NAME: P:\PROJECTS\BRADLEYHEIGHTS\020526\0425\01.03.10.DWG DATE APPROVED: 01/03/10 DATE REVISION: 01/03/10 SCALE: 1/4"=1'-0" CITY STANDARD: 01.03.08



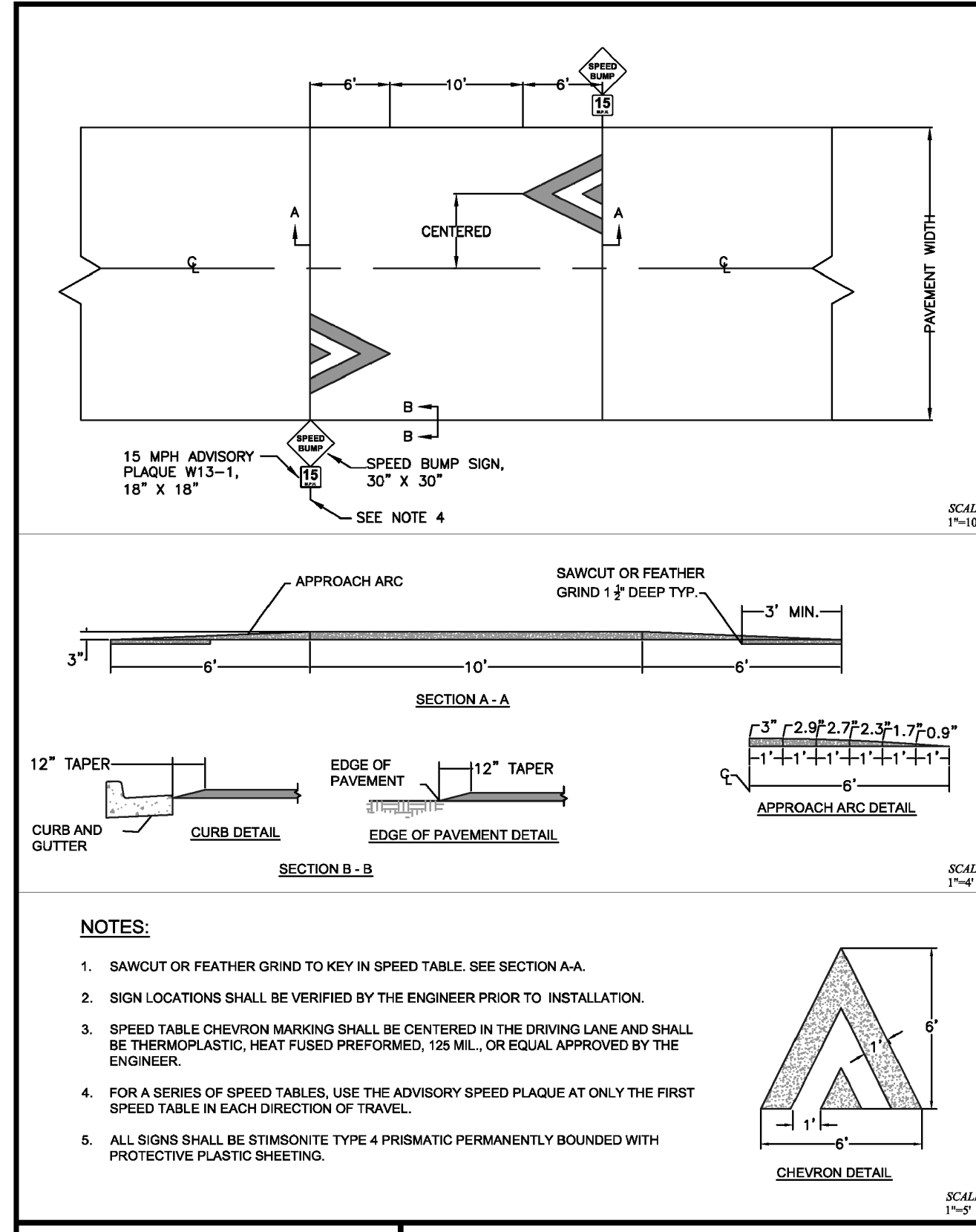
<b>CITY OF PUYALLUP</b>	<b>LEFT TURN POCKETS</b>
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS DRAWN BY: JIM FRENZ (EYB/ODA) CHECKED BY: LINDA LIAN (LND/LAN) FILE NAME: P:\PROJECTS\BRADLEYHEIGHTS\020526\0425\01.03.10.DWG DATE APPROVED: 01/03/10 DATE REVISION: 01/03/10 SCALE: 1/4"=1'-0" CITY STANDARD: 01.03.09	DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS DRAWN BY: JIM FRENZ (EYB/ODA) CHECKED BY: LINDA LIAN (LND/LAN) FILE NAME: P:\PROJECTS\BRADLEYHEIGHTS\020526\0425\01.03.10.DWG DATE APPROVED: 01/03/10 DATE REVISION: 01/03/10 SCALE: 1/4"=1'-0" CITY STANDARD: 01.03.09



<b>CITY OF PUYALLUP</b>	<b>PAVEMENT MARKING DETAILS</b>
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS DRAWN BY: JIM FRENZ (EYB/ODA) CHECKED BY: LINDA LIAN (LND/LAN) FILE NAME: P:\PROJECTS\BRADLEYHEIGHTS\020526\0425\01.03.10.DWG DATE APPROVED: 01/03/10 DATE REVISION: 01/03/10 SCALE: 1/4"=1'-0" CITY STANDARD: 01.03.10	DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS DRAWN BY: JIM FRENZ (EYB/ODA) CHECKED BY: LINDA LIAN (LND/LAN) FILE NAME: P:\PROJECTS\BRADLEYHEIGHTS\020526\0425\01.03.10.DWG DATE APPROVED: 01/03/10 DATE REVISION: 01/03/10 SCALE: 1/4"=1'-0" CITY STANDARD: 01.03.10



<b>CITY OF PUYALLUP</b>	<b>PAVEMENT MARKER "ONLY"</b>
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS DRAWN BY: JIM FRENZ (EYB/ODA) CHECKED BY: LINDA LIAN (LND/LAN) FILE NAME: P:\PROJECTS\BRADLEYHEIGHTS\020526\0425\01.03.10.DWG DATE APPROVED: 01/03/10 DATE REVISION: 01/03/10 SCALE: 1/4"=1'-0" CITY STANDARD: 01.03.15	DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS DRAWN BY: JIM FRENZ (EYB/ODA) CHECKED BY: LINDA LIAN (LND/LAN) FILE NAME: P:\PROJECTS\BRADLEYHEIGHTS\020526\0425\01.03.10.DWG DATE APPROVED: 01/03/10 DATE REVISION: 01/03/10 SCALE: 1/4"=1'-0" CITY STANDARD: 01.03.15



<b>CITY OF PUYALLUP</b>	<b>SPEED TABLE</b>
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS DRAWN BY: JIM FRENZ (EYB/ODA) CHECKED BY: LINDA LIAN (LND/LAN) FILE NAME: P:\PROJECTS\BRADLEYHEIGHTS\020526\0425\01.03.10.DWG DATE APPROVED: 01/03/10 DATE REVISION: 01/03/10 SCALE: 1/4"=1'-0" CITY STANDARD: 01.03.16	DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS DRAWN BY: JIM FRENZ (EYB/ODA) CHECKED BY: LINDA LIAN (LND/LAN) FILE NAME: P:\PROJECTS\BRADLEYHEIGHTS\020526\0425\01.03.10.DWG DATE APPROVED: 01/03/10 DATE REVISION: 01/03/10 SCALE: 1/4"=1'-0" CITY STANDARD: 01.03.16

JOB NO: 3327 DATE: May 14, 2024 DESIGNED BY: JIM FRENZ DRAWN BY: JIM FRENZ CHECKED BY: LINDA LIAN APPROVED BY: JIM FRENZ	REVISION 1. Revised per City review and Mail A adjustment. 11/26/24 2. Revised per City review. 3/4/25 3. Revised per City & Road review. 4/21/25
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JOB NO: 3327 DATE: May 14, 2024 DESIGNED BY: JIM FRENZ DRAWN BY: JIM FRENZ CHECKED BY: LINDA LIAN APPROVED BY: JIM FRENZ
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**AZURE GREEN CONSULTANTS**

feasibility • planning • engineering • surveying

409 East Pioneer, Suite A • Puyallup, WA 98372  
 phone: 253.770.3144 fax: 253.770.3142

**Channelization Details**

**Bradley Heights**

Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.899.0326  
 Fax jordan@timberlanepartners.com

**DRAWING**

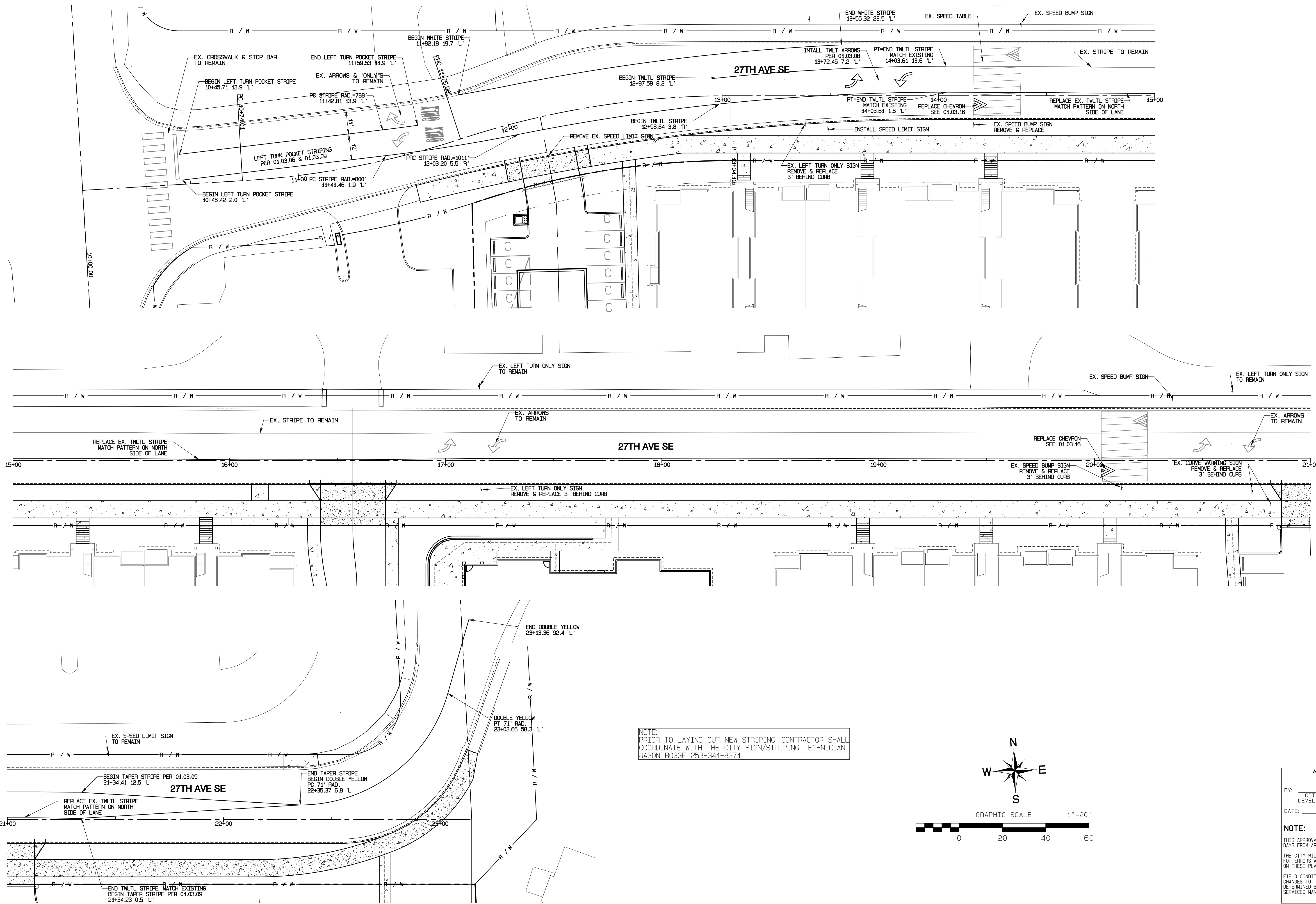
**SD-24**

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 OF 60

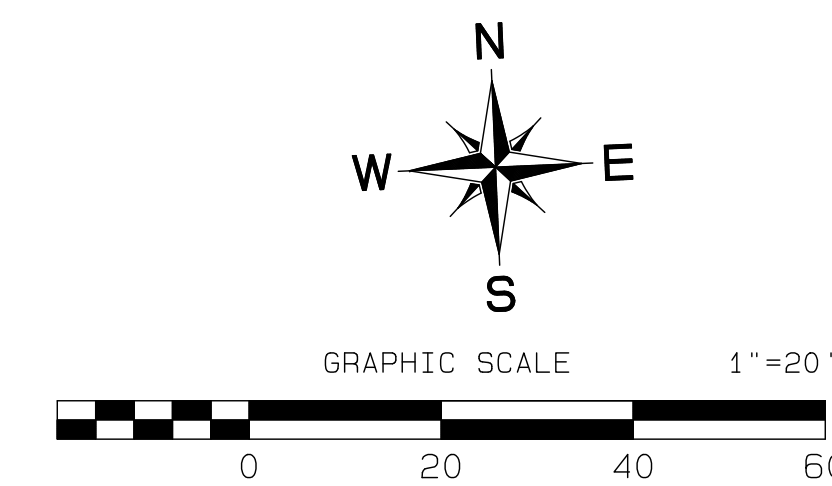
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# Bradley Heights

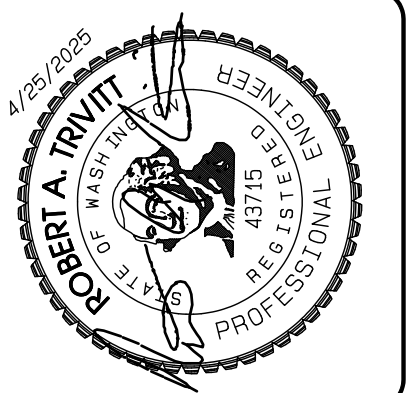
Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



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JASON ROGGE 253-341-8374



APPROVED  
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DEVELOPMENT SERVICES  
DATE: \_\_\_\_\_  
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JOB NO. 3327  
DATE: May 14, 2024  
DESIGNED BY: Rob. Trivitt  
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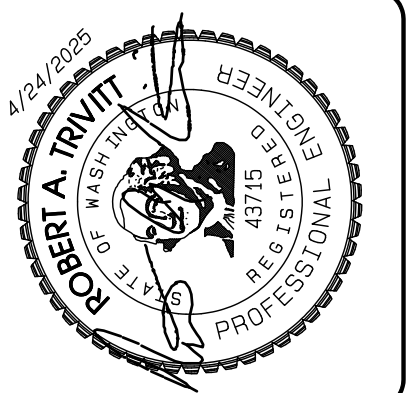
**Channelization Plan**  
Bradley Heights  
Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.886.0326  
Fax jordan@timberlanepartners.com

DRAWING  
**SD-23**  
SHEET 37  
OF 60

Project Desc.: Bradley Heights Date: E:\urban\3327 - Bradley Heights\Timberlane\KALV HEIGHTS 20250425 EMB.dwg PLOT DATE: 5/14/24 4:25:23 PM 07:43 AM

# Bradley Heights

## Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



REVISION	DATE
1	11/26/24
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3	4/21/25
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DESIGNED BY: RND, TRIVETT	DATE: MAY 14, 2024
DRAWN BY: RND, TRIVETT	REVISION: 1
CHECKED BY: RND, TRIVETT	REVISION: 2
APPROVED BY: RND, TRIVETT	REVISION: 3

**AZURE GREEN CONSULTANTS**

+ feasibility + engineering + surveying + planning

409 East Pioneer Suite A • Puyallup, WA 98372  
phone: 253.770.3144 fax: 253.770.3142

**Street Light Details**

**Bradley Heights**

Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.889.0326  
Fax jordan@timberlanepartners.com

DRAWING  
**SD-26**  
SHEET 40  
OF 60

### STREET LIGHTING SPECIFICATIONS

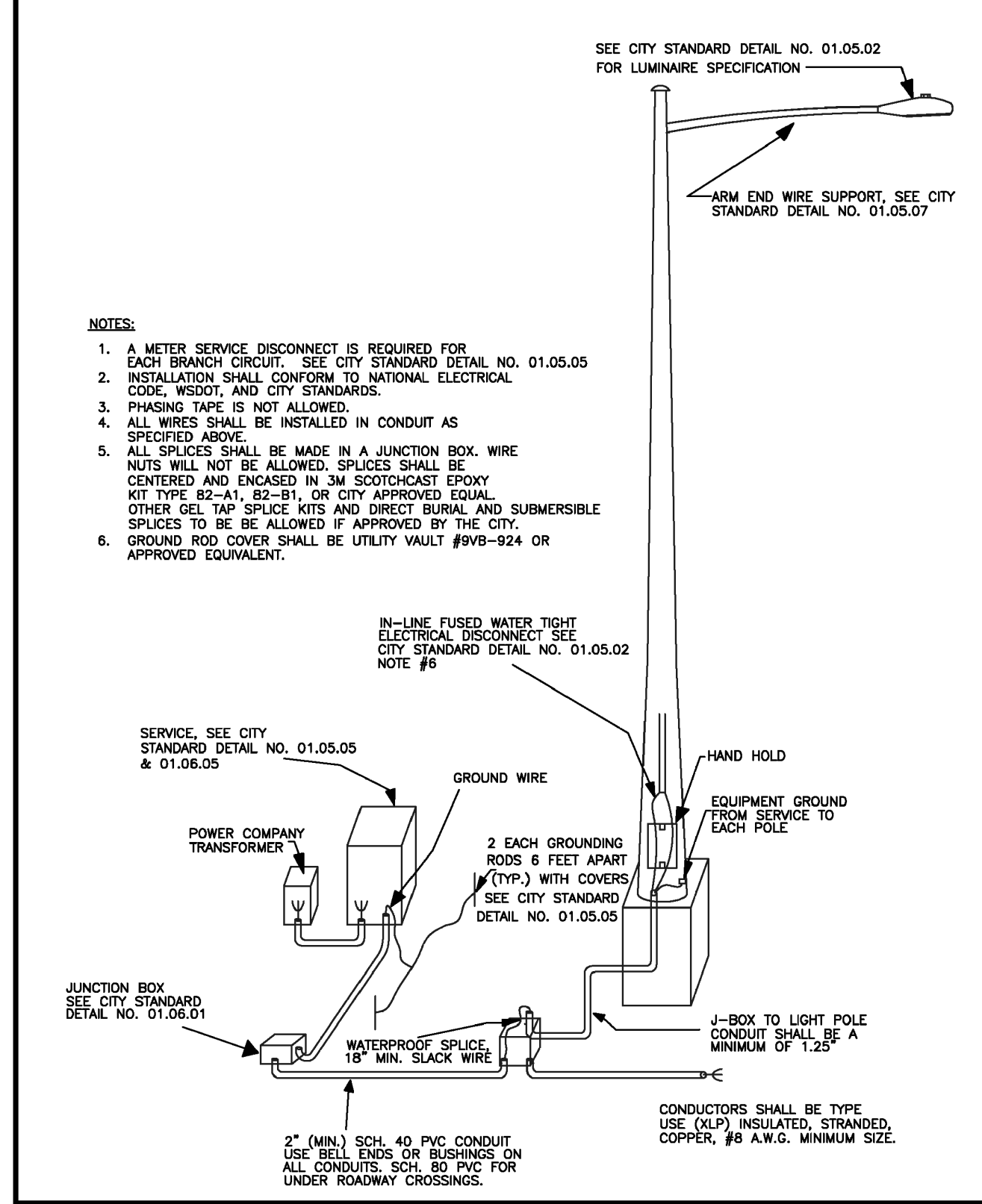
- 30-FOOT STEEL STREETLIGHT STANDARD
  - DIMENSIONS**  
STREETLIGHT STANDARDS SHALL PROVIDE A FIXTURE MOUNTING HEIGHT OF 30'0" PLUS OR MINUS 6" WITH A TYPICAL 12 FOOT MAST ARM WITH A THREE FOOT OVERHANG.  
BASE PLATE SHALL HAVE SLOTTED HOLES TO ACCOMMODATE 1-INCH ANCHOR BOLTS AND 1 1/2" BOLT CIRCLE WITH MINIMUM CLEARANCE OF 1" BETWEEN BOLT AND POLE.  
HANDHOLE CENTER SHALL BE LOCATED APPROXIMATELY 12 INCHES FROM THE BASE PLATE, ROTATED 270 DEGREES FROM MAST ARM SO AS THE HANDHOLE IS LOCATED ON THE SIDE OPPOSING ONCOMING TRAFFIC.
  - STRENGTH**  
POLES SHALL MEET ALL STRENGTH REQUIREMENTS OF AASHTO FOR 90 MPH ISOTACH WHEN USED WITH A LUMINAIRE WEIGHING 48 POUNDS WITH A E.P.A. OF 1.1 SQUARE FEET, ALL ATTACHING BOLTS AND SCREWS THAT ARE NOT GALVANIZED SHALL BE STAINLESS STEEL.
  - FINISH**  
THE POLES AND ALL HARDWARE SHALL BE HOT DIPPED GALVANIZED, MINIMUM 3 MIL THICKNESS.
  - MAST ARM ATTACHMENT** SHALL BE SECURED BY 3 BOLTS.
  - EACH POLE SHALL HAVE HANDHOLE (WITH COVER), GROUND LUG AND REMOVABLE POLE CAP.
  - EACH CITY POLE SHALL HAVE A BLACK 4" TO 6" LETTER C STENCILED ON ROADWAY SIDE OF POLE 16" ABOVE GRADE.
- ANCHORAGE**
  - POLES SHALL BE ANCHORED WITH 4 BOLTS, 1"x3/8"x4" #8UNC WITH HOT DIPPED GALVANIZING AFTER THREADS ARE CUT. GALVANIZED AREA SHALL EXTEND FROM THREADED END FOR A MINIMUM OF 12 INCHES. BOLTS SHALL BE PROVIDED WITH 2 GALVANIZED NUTS AND FLAT WASHERS FOR LEVELING. SHIMS WILL NOT BE USED.
  - A NON-SHRINKING GROUT SHALL BE INSTALLED WITH ONE 1/2" DRAIN HOLE UNDER THE BASE PLATE AFTER THE ENGINEER HAS APPROVED THE POLE INSTALLATION.
- CONDUIT**  
ALL CONDUIT SHALL BE BURIED A MINIMUM OF 24 INCHES DEEP. ALL ROADWAY CROSSINGS SHALL BE RIGID METALLIC OR SCHEDULE 80 PVC. CONDUIT SHALL CONFORM TO SECTION 8-29 OF WSDOT STANDARD SPECIFICATIONS. SCHEDULE 80 PVC MAY BE USED IN LOCATIONS OTHER THAN ROADWAY CROSSINGS.

	<b>CITY OF PUYALLUP</b>	<b>STREET LIGHT SPECIFICATIONS</b>
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	DESIGNED BY: RND, TRIVETT CHECKED BY: RND, TRIVETT APPROVED BY: RND, TRIVETT DATE APPROVED: 05/14/2024 SCALE: 1" = 10'-0"	CITY STANDARD NO. 01.05.01

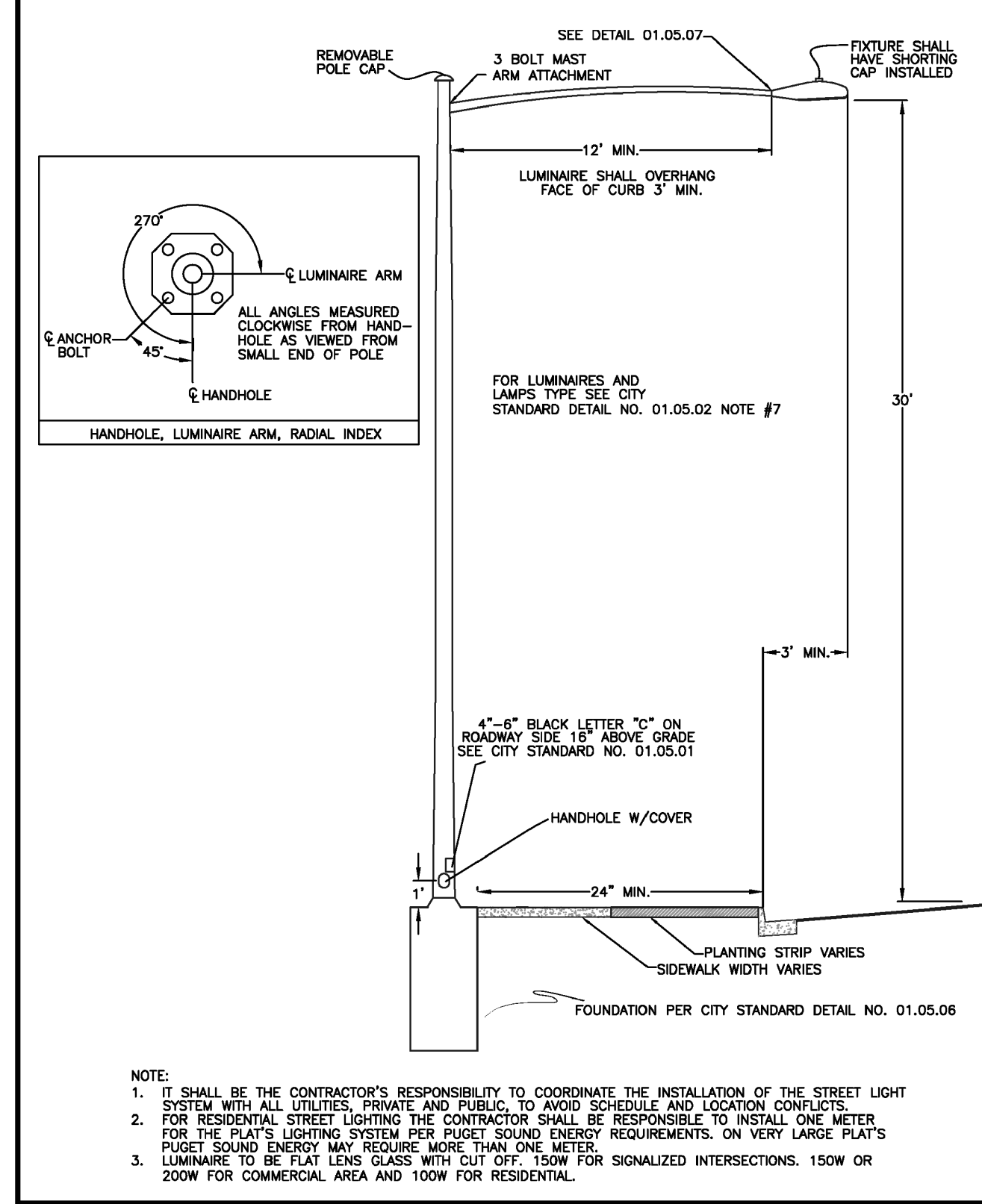
### (STR LIGHT SPECS CONTINUED)

- JUNCTION BOXES (WHEN REQUIRED)**  
JUNCTION BOXES SHALL BE INSTALLED AT LOCATIONS AS SHOWN ON THE PLANS. THEY WILL CONFORM TO WSDOT STANDARD PLAN J-40.10-02, TYPE 1. THEY SHALL BE LEVEL WITH THE SIDEWALK GRADE AND FINELY BEDED TO PREVENT FUTURE SETTLING. JUNCTION BOXES ARE PREFERRED NOT TO BE INSTALLED IN THE SIDEWALK. THE COVER SHALL BE GALVANIZED AND GROUND. THE LETTERS "J" SHALL BE ETCHED ON THE COVER. (SEE CITY STANDARD DETAIL NO. 01.05.01). IF THE JUNCTION BOX IS NOT IN THE SIDEWALK THEN IT SHALL HAVE A CONCRETE COLLAR. IF THE JUNCTION BOX IS IN THE SIDEWALK THEN IT SHALL HAVE A NON-SLIP SURFACE TREATMENT. SEE CITY STANDARD DETAIL NO. 01.05.01.
- CONDUCTORS, WIRES, ETC.**  
WIRE CONDUCTORS FOR UNDERGROUND FEEDER RUNS AND FOR CIRCUITRY FROM THE IN-LINE FUSE IN THE POLES TO THE JUNCTION BOX SHALL BE 600 VOLT, SINGLE CONDUCTOR STRANDED COPPER AND INSULATED WITH USE GRADE POLYVINYL CHLORIDE COMPOUND (XLP) OR APPROVED EQUAL IN ACCORDANCE WITH THE INSULATED POWER CABLE ENGINEER'S ASSOCIATION SPECIFICATIONS. AN AWG NO. 8 GREEN INSULATED STRANDED COPPER WIRE WILL BE RUN TO THE SERVICE GROUND LUG ON EACH POLE. FEEDERS SHALL BE SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. WIRES INSIDE THE POLE BETWEEN BALLAST AND IN-LINE FUSES SHALL BE RIGID 20 AWG 10 STRANDED POLE AND BRACKET WIRE OR APPROVED EQUAL. SPLICES WILL BE ALLOWED IN JUNCTION BOXES AND POLE BASES ONLY. NO MORE THAN 2 CONDUITS WILL BE ALLOWED INSIDE THE STREET POLE.
- FUSES**  
LUMINAIRE FUSING AND ELECTRICAL CONNECTIONS AT LIGHT STANDARD BASES SHALL CONFORM TO SECTION 8-29.7 OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS AND AS SHOWN ON THE UNIFORM LUMINAIRE WIRING DETAIL IN THE APPENDIX. IN-LINE FUSE HOLDERS SHALL BE SEC. MODEL 1791-SF WITH FM-5 FUSES OR APPROVED EQUAL. (REFER TO CITY STANDARD DETAIL NO. 01.06.01)
- LUMINAIRES AND LAMPS**  
~~ESSENTIAL STREETS AND NEIGHBORHOOD COLLECTORS: LEOTEX 54W GC-18-30J-MV-40K-2R-GY-080-X00~~  
~~LEOTEX LED LITE-MV-NW-2-530 (67 WATT LED)~~  
~~ARTERIALS AND COMMERCIAL COLLECTORS: DE VOLVO LED ERS2-E-0-HX-EX-5-40 (130 WATT LED)~~  
THE CITY WILL ENERGIZE THE STREET LIGHTS WHEN A HOME IS OCCUPIED ADJACENT TO A STREET LIGHT OR IMMEDIATELY ACROSS THE STREET. AT THE DEVELOPER'S REQUEST, STREET LIGHTS MAY BE ENERGIZED PRIOR TO OCCUPANCY OF HOMES. HOWEVER, THE DEVELOPER OR BUILDER SHALL ASSUME FULL RESPONSIBILITY FOR ELECTRICAL POWER COSTS AND REPAIR COSTS DUE TO VANDALISM, THEFT, OR CONSTRUCTION.
- SAFE WIRING LABELS**  
THE CONTRACTOR IS ADVISED THAT SAFE WIRING LABELS REQUIRED BY LABOR AND INDUSTRIES SHALL APPLY ON THIS PROJECT. (ELECTRICAL INSPECTION STICKER)
- GUARANTEE**  
THE CONTRACTOR SHALL SURRENDER TO THE CITY OF PUYALLUP ANY GUARANTEE OR WARRANTY ACQUIRED BY HIM AS A NORMAL TRADE PRACTICE IN CONNECTION WITH THE PURCHASE OF ANY MATERIALS OR ITEMS USED IN THE CONSTRUCTION OF THE ILLUMINATION.
- LOCATION**  
SEE CITY STANDARD SECTION 01.01 ROADWAY DESIGN.

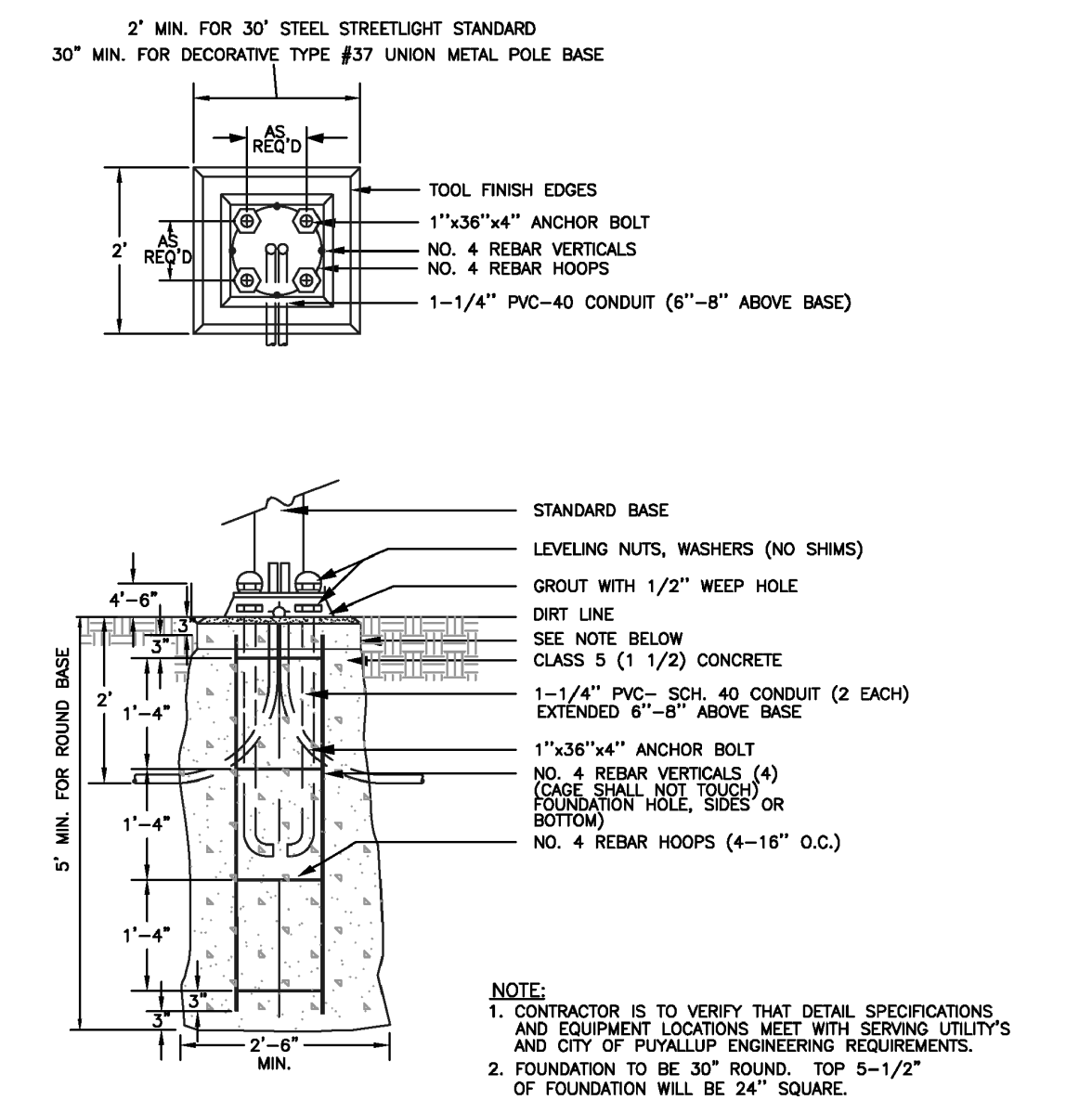
	<b>CITY OF PUYALLUP</b>	<b>STREET LIGHT SPECIFICATIONS (CONT.)</b>
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	DESIGNED BY: RND, TRIVETT CHECKED BY: RND, TRIVETT APPROVED BY: RND, TRIVETT DATE APPROVED: 05/14/2024 SCALE: 1" = 10'-0"	CITY STANDARD NO. 01.05.02



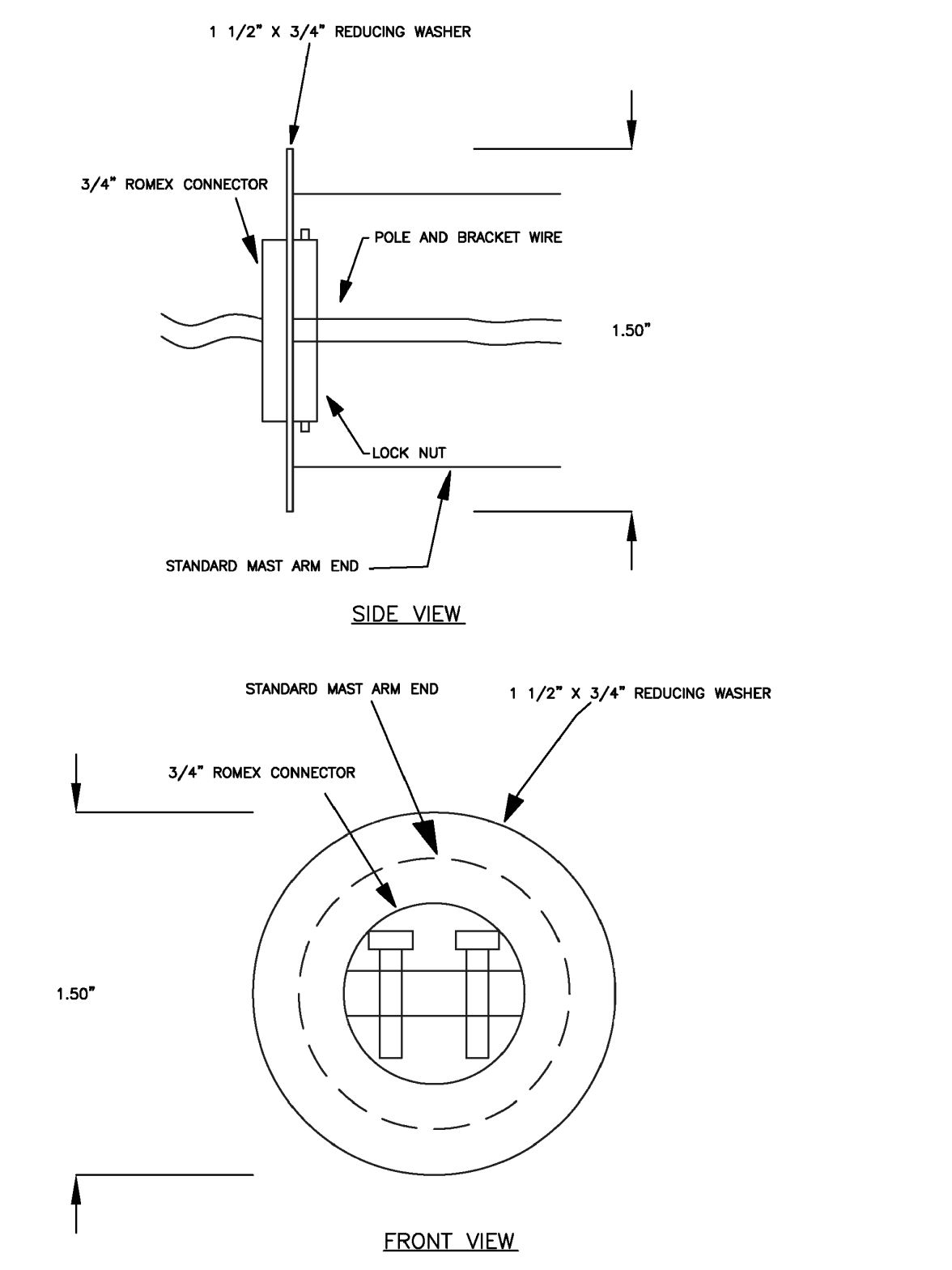
	<b>CITY OF PUYALLUP</b>	<b>TYPICAL STREET LIGHT INSTALLATION</b>
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	DESIGNED BY: RND, TRIVETT CHECKED BY: RND, TRIVETT APPROVED BY: RND, TRIVETT DATE APPROVED: 05/14/2024 SCALE: 1" = 10'-0"	CITY STANDARD NO. 01.05.03



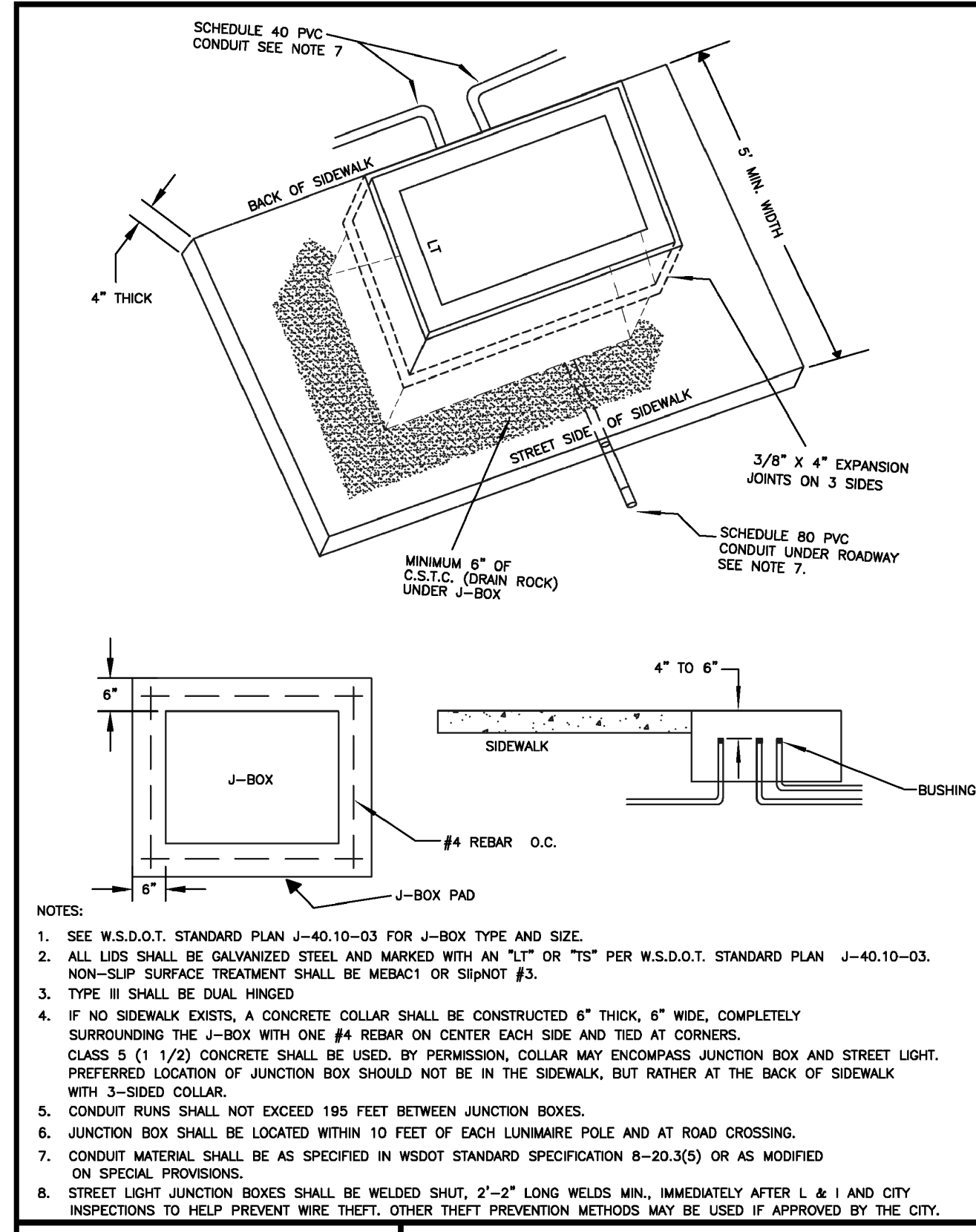
	<b>CITY OF PUYALLUP</b>	<b>STREET LIGHT</b>
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	DESIGNED BY: RND, TRIVETT CHECKED BY: RND, TRIVETT APPROVED BY: RND, TRIVETT DATE APPROVED: 05/14/2024 SCALE: 1" = 10'-0"	CITY STANDARD NO. 01.05.04



	<b>CITY OF PUYALLUP</b>	<b>CONCRETE STREETLIGHT FOUNDATION TYPICAL</b>
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	DESIGNED BY: RND, TRIVETT CHECKED BY: RND, TRIVETT APPROVED BY: RND, TRIVETT DATE APPROVED: 05/14/2024 SCALE: 1" = 10'-0"	CITY STANDARD NO. 01.05.06



	<b>CITY OF PUYALLUP</b>	<b>STREET LIGHT POLE AND BRACKET WIRE SUPPORT AT ARM END</b>
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	DESIGNED BY: RND, TRIVETT CHECKED BY: RND, TRIVETT APPROVED BY: RND, TRIVETT DATE APPROVED: 05/14/2024 SCALE: 1" = 10'-0"	CITY STANDARD NO. 01.05.07



	<b>CITY OF PUYALLUP</b>	<b>JUNCTION BOX</b>
DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	DESIGNED BY: RND, TRIVETT CHECKED BY: RND, TRIVETT APPROVED BY: RND, TRIVETT DATE APPROVED: 05/14/2024 SCALE: 1" = 10'-0"	CITY STANDARD NO. 01.06.01

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington

## FIRE LANE IDENTIFICATION

EACH SIDE OF THE ACCESS FOR PARKING LOT C/L A AND C/L B SHALL BE IDENTIFIED BY A 4-INCH WIDE LINE OR BY PAINTING THE CURB IN A BRIGHT YELLOW COLOR AND SHALL BE MARKED WITH SIGNS PER ACC 10.36.175 READING:

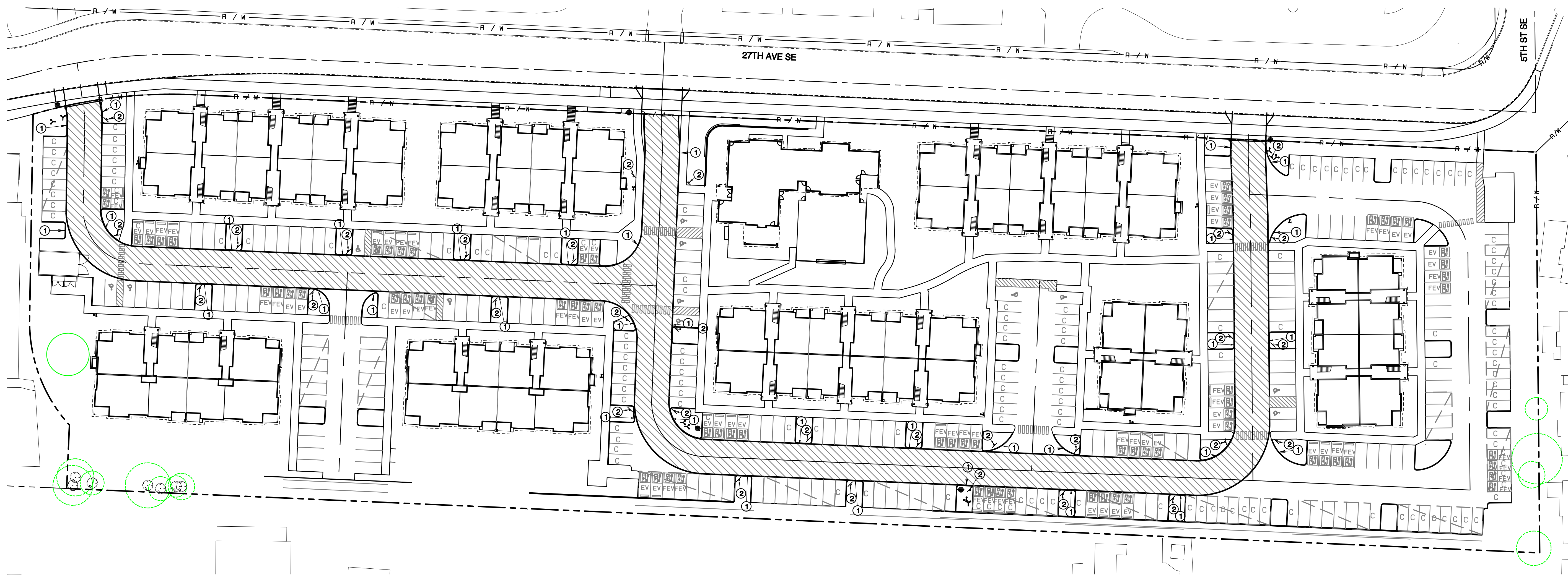
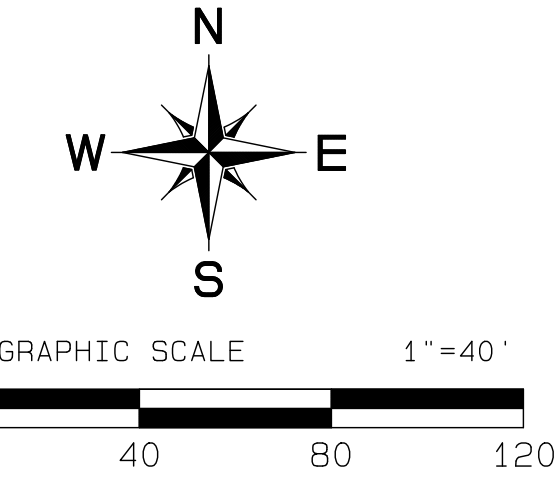
NO PARKING	3 INCH LETTERS - CLASS C WIDTH 3 INCH LETTERS - CLASS B WIDTH
FIRE LANE	2 INCH LETTERS - CLASS B WIDTH 2 INCH LETTERS - CLASS C WIDTH

- SIGNS SHALL BE 12 INCHES WIDE BY 18 INCHES HIGH
- SIGNS SHALL BE REFLECTIVE IN NATURE
- LETTERS SHALL BE IN RED WITH WHITE BACKGROUND
- SIGNS SHALL BE PLACED AT 50 FOOT INTERVALS
- SIGNS SHALL BE NO LESS THAN 4 FEET OFF GROUND
- SIGNS SHALL BE PLACED AT A 45° ANGLE TO THE DRIVE AISLE

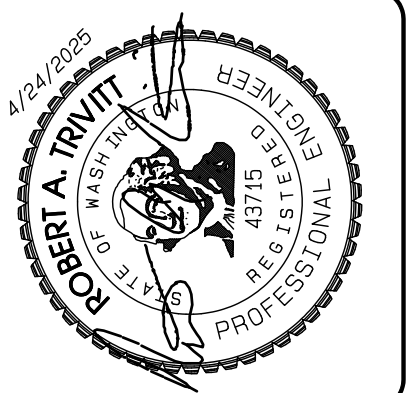
## FIRE LANE LEGEND/KEY NOTES



- 6" WIDE RED STRIPE WITH "FIRE LANE - NO PARKING" IN 4" WHITE LETTERS, REPEATED ON 15' SPACING. REQUIRED ANY LOCATION WHERE CURB OR SIDEWALK IS IMMEDIATELY ADJACENT TO FIRE LANE.
- FIRE LANE SIGN, SEE NOTES TO LEFT



APPROVED  
BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES  
DATE: \_\_\_\_\_  
NOTE:  
THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.  
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.  
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.



REVISION	DATE
1 Revised per City review and No. 11 A adjustment.	11/29/24
2 Revised per City review.	3/4/25
3 Revised per City & RSDH review.	4/27/25
4	
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JOB NO. 3227  
DATE: May 14, 2024  
DESIGNED BY: Rob Trivitt  
DRAWN BY: Rob Trivitt  
CHECKED BY: Rob Trivitt  
APPROVED BY: Rob Trivitt

**AZURE GREEN**  
CONSULTANTS  
+ feasibility + planning + engineering + surveying  
409 East Pioneer, Suite A - Puyallup, WA 98372  
phone: 253.770.3144 fax: 253.770.3142

**Fire Lane Plan**  
Bradley Heights  
Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.886.0326  
Fax jordan@timberlanepartners.com

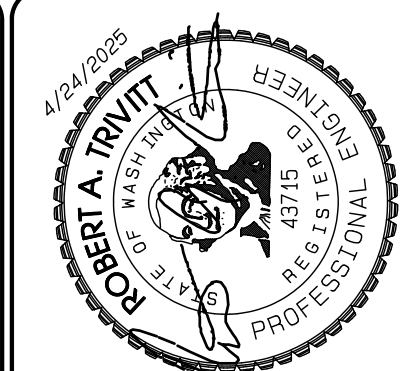
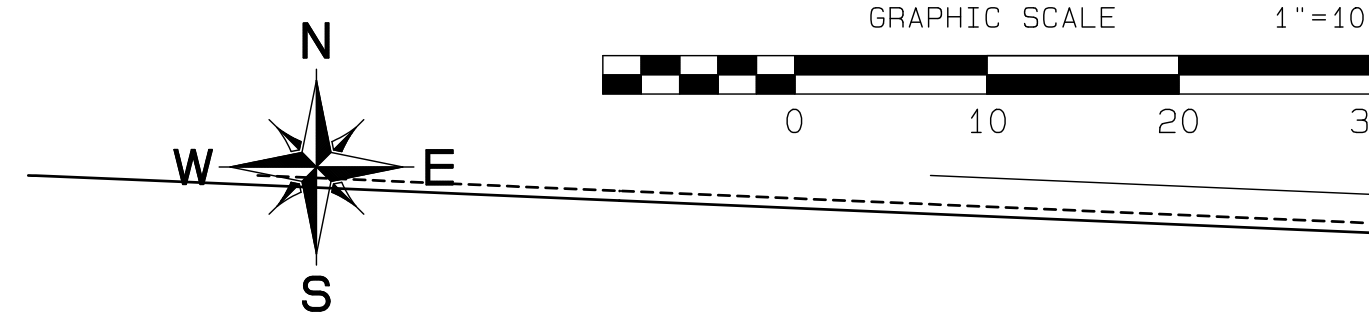
DRAWING  
**SD-27**  
SHEET 41  
OF 60

Project Desc.: Bradley Heights - Bradley Heights - 20250424\_EIRB.dwg PLOT DATE: 5/14/24 4/24/2025 20:18PM

# Bradley Heights

## Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington

- KEY NOTES**
- ① EXTRUDED CURB TOP=6" ABOVE PAVING OR LANDSCAPE GRADE
  - ② SIDEWALK FLUSH WITH PAVEMENT
  - ③ SIDEWALK WITH INTEGRAL CURB
  - ④ TRAFFIC CURB TOP=6" ABOVE PAVING OR LANDSCAPE GRADE



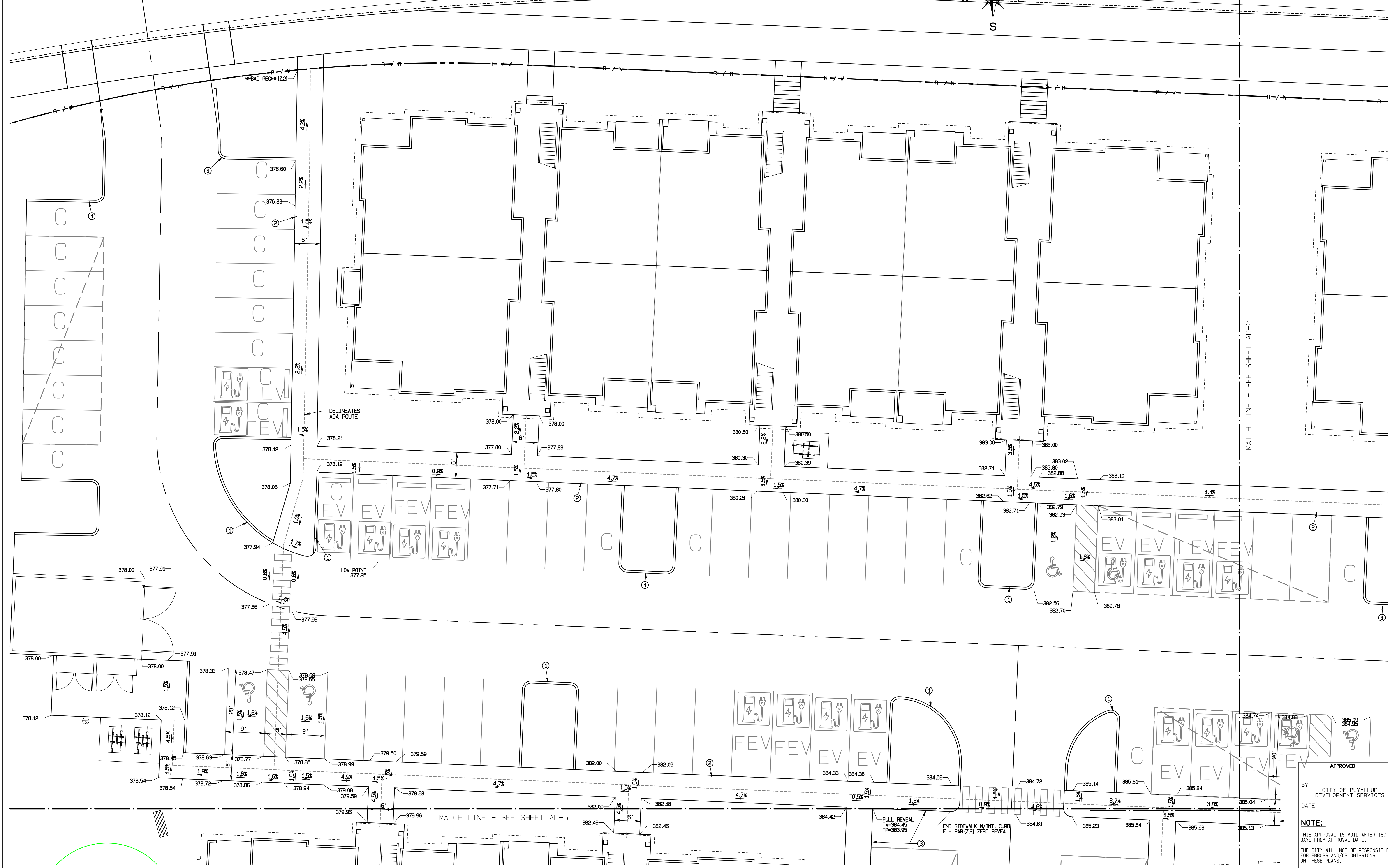
REVISION	DATE
1	11/29/24
2	3/4/25
3	4/21/25
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JOB NO. 3327  
 DATE: March 4, 2025  
 DESIGNED BY:  
 DRAWN BY:  
 APPROVED BY: PAUL BREWER

**AZURE GREEN**  
 CONSULTANTS

+ feasibility + planning + engineering + surveying

409 East Pioneer, Suite A - Puyallup, WA 98372  
 Phone: 253.770.3144, Fax: 253.770.3142



APPROVED

BY: CITY OF PUYALLUP  
 DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

**NOTE:**  
 THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.  
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 FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

**ADA Route/Grading Details**

**Bradley Heights**

Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.886.0326  
 Fax jordan@timberlanepartners.com

**DRAWING**

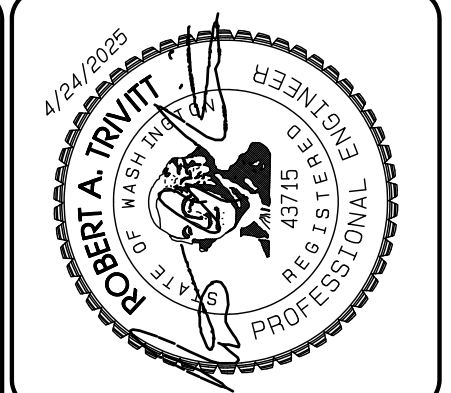
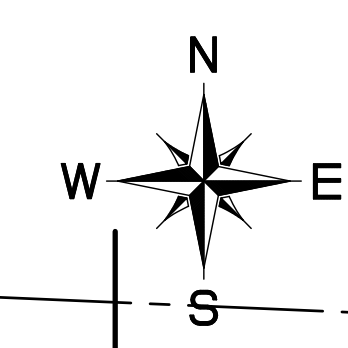
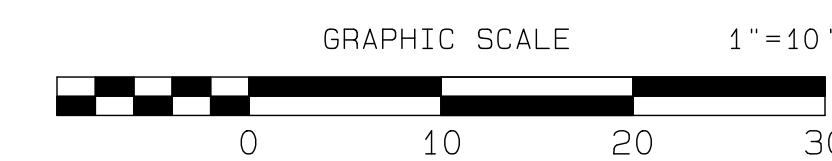
**AD-1**

SHEET 42  
 OF 60

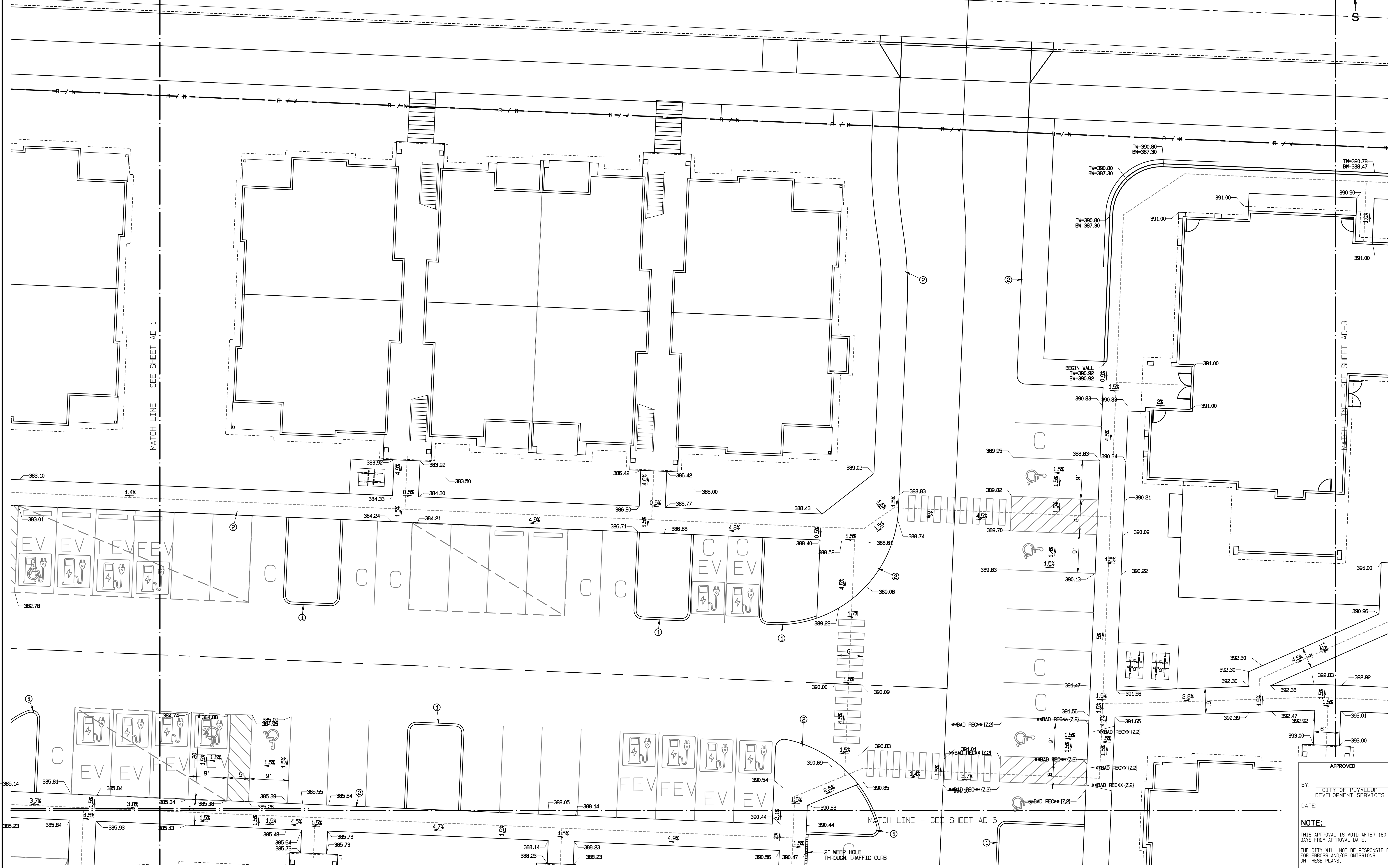
Project Desc.: Bradley Heights; Date: E:\urban\3327 - Bradley Heights\Timberlane\Bradley Heights 20250424 EIR.dwg; PLOT Date/Time: 4/24/2025 9:30:52PM

# Bradley Heights

## Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



- KEY NOTES**
- ① EXTRUDED CURB TOP=6" ABOVE PAVING OR LANDSCAPE GRADE
  - ② SIDEWALK FLUSH WITH PAVEMENT
  - ③ SIDEWALK WITH INTEGRAL CURB
  - ④ TRAFFIC CURB TOP=6" ABOVE PAVING OR LANDSCAPE GRADE



Project Desc.: Bradley Heights; Plan: E:\urban\3227 - Bradley Heights\Timberlane\Bradley Heights 20250424 EMB.dwg; PLOT: DATE: 11/26/24; 4/24/2025 9:31:17PM

REVISION	DATE	DESCRIPTION
1	11/26/24	Revised per City review and M&J A adjustment.
2	3/4/25	Revised per City review.
3	4/21/25	Revised per City & Paul review.
4		Revised per City & Paul review.
5		
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JOB NO: 3227  
 DATE: March 4, 2025  
 DESIGNED BY:  
 DRAWN BY:  
 APPROVED BY: PAUL BREWER

**AZURE GREEN**  
 CONSULTANTS

+ feasibility + planning + engineering + surveying

409 East Pioneer, Suite A - Puyallup, WA 98372  
 phone: 253.770.3144 fax: 253.770.3142

**ADA Route/Grading Details**

**Bradley Heights**

Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.899.0326  
 Fax jordan@timberlanepartners.com

APPROVED

BY: CITY OF PUYALLUP  
 DEVELOPMENT SERVICES

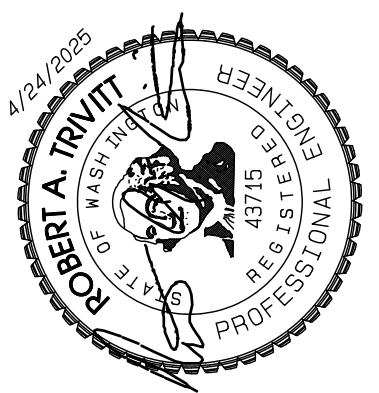
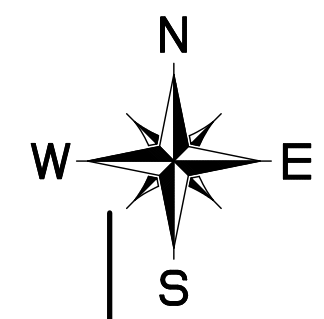
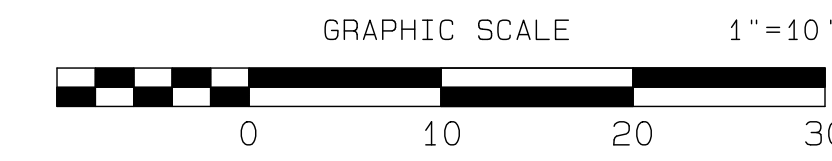
DATE: \_\_\_\_\_

**NOTE:**  
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 FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

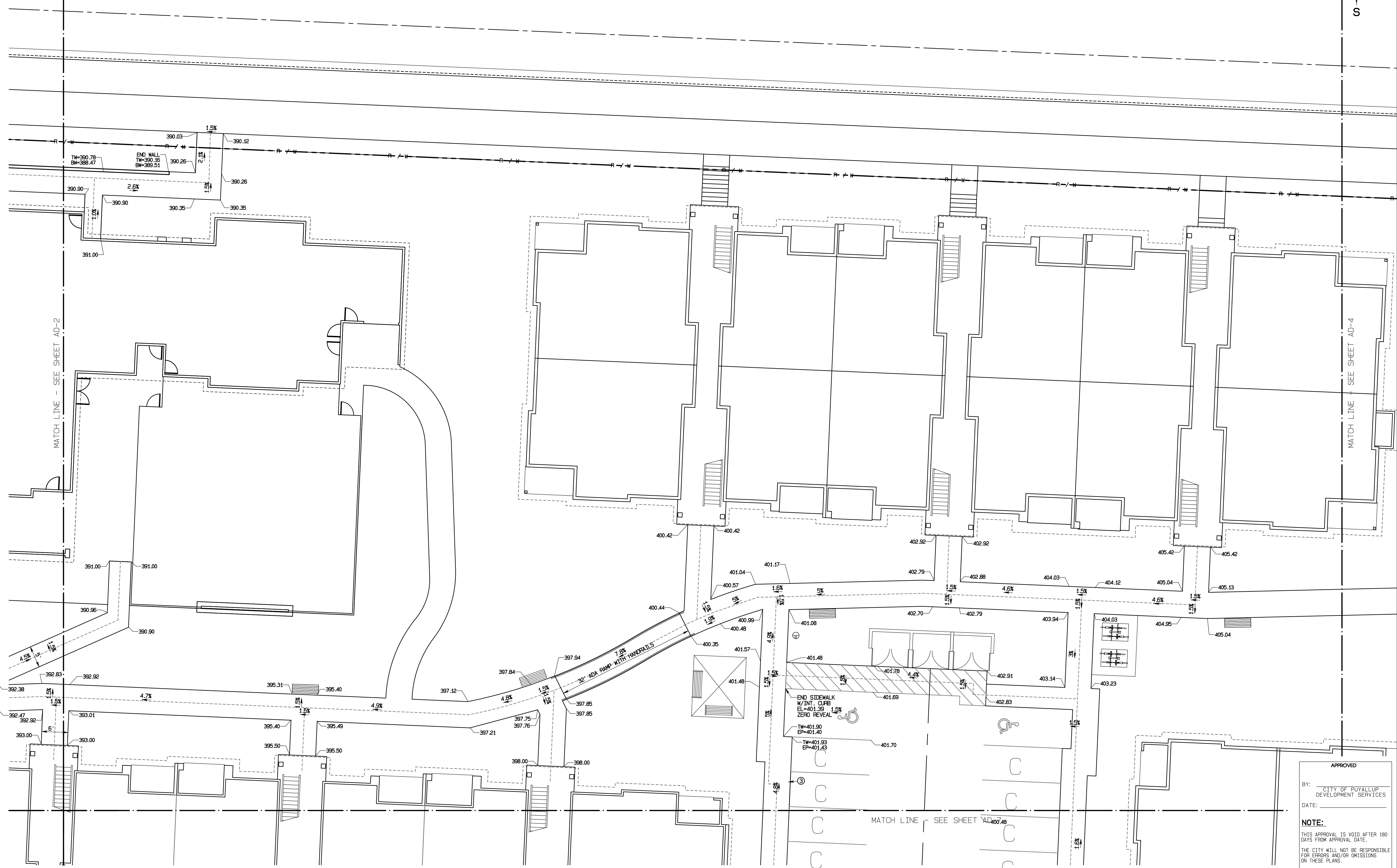
DRAWING  
**AD-2**  
 SHEET 43  
 OF 60

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



- KEY NOTES**
- ① EXTRUDED CURB TOP=6" ABOVE PAVING OR LANDSCAPE GRADE
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  - ③ SIDEWALK WITH INTEGRAL CURB
  - ④ TRAFFIC CURB TOP=6" ABOVE PAVING OR LANDSCAPE GRADE



REVISION	DATE	DESCRIPTION
1	11/26/24	Revised per City review and Mail A adjustment.
2	3/4/25	Revised per City review.
3	4/21/25	Revised per City & P&H review.
4		Revised per City & P&H review.
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JOB NO: 3327  
 DATE: March 4, 2025  
 DESIGNED BY:  
 DRAWN BY:  
 APPROVED BY: PAUL BREWER

**AZURE GREEN**  
 CONSULTANTS

\*feasibility \*planning \*engineering \*surveying

419 East Pioneer, Suite A - Puyallup, WA 98372  
 phone: 253.770.3144 fax: 253.770.3142

**ADA Route/Grading Details**

**Bradley Heights**

Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.898.0326  
 Fax jordan@timberlanepartners.com

APPROVED

BY: CITY OF PUYALLUP  
 DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

**NOTE:**  
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**DRAWING**

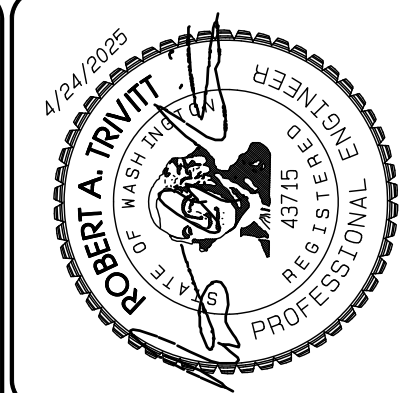
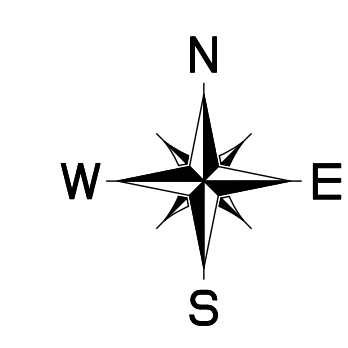
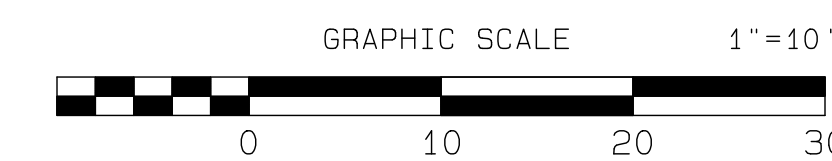
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SHEET 44  
 OF 60

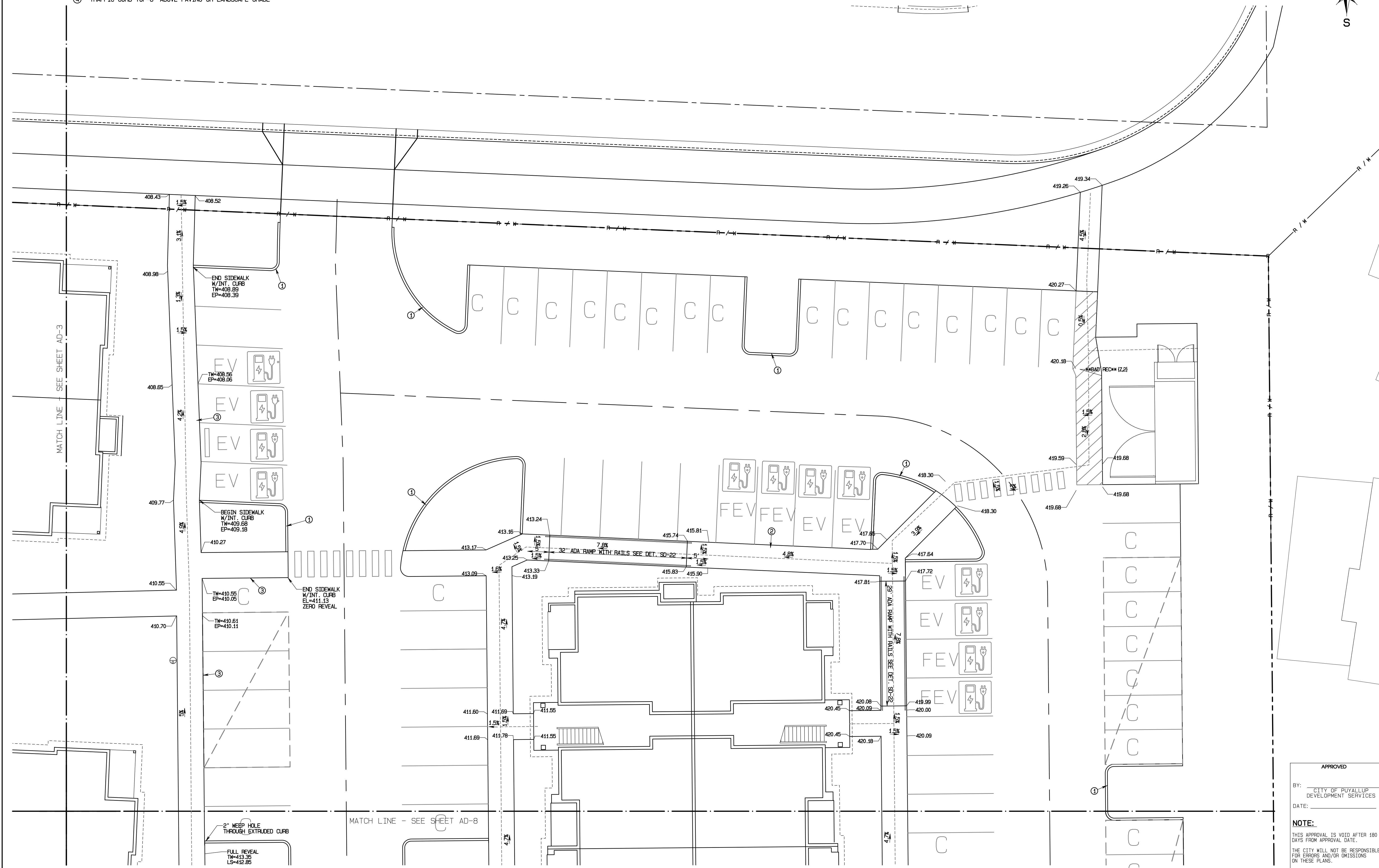
Project Desc.: Bradley Heights Part: E:\Jobs\3327 - Bradley Heights\Timberlane\ADA 20250424 EMB.dwg PLOT DATE/TIME: 4/24/2025 9:31:30PM

# Bradley Heights

## Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



- KEY NOTES**
- ① EXTRUDED CURB TOP=6" ABOVE PAVING OR LANDSCAPE GRADE
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  - ④ TRAFFIC CURB TOP=6" ABOVE PAVING OR LANDSCAPE GRADE



REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/20/24
2 Revised per City review.	3/4/25
3 Revised per City & Pugh review.	4/21/25
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JOB NO. 3327  
 DATE: March 4, 2025  
 DESIGNED BY:  
 DRAWN BY:  
 APPROVED BY: PAUL BREWER

**AZURE GREEN**  
 CONSULTANTS

\*feasibility \*planning \*engineering \*surveying

409 East Pioneer, Suite A - Puyallup, WA 98372  
 Phone: 253.770.3144, Fax: 253.770.3142

APPROVED

BY: CITY OF PUYALLUP  
 DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

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**ADA Route/Grading Details**

**Bradley Heights**

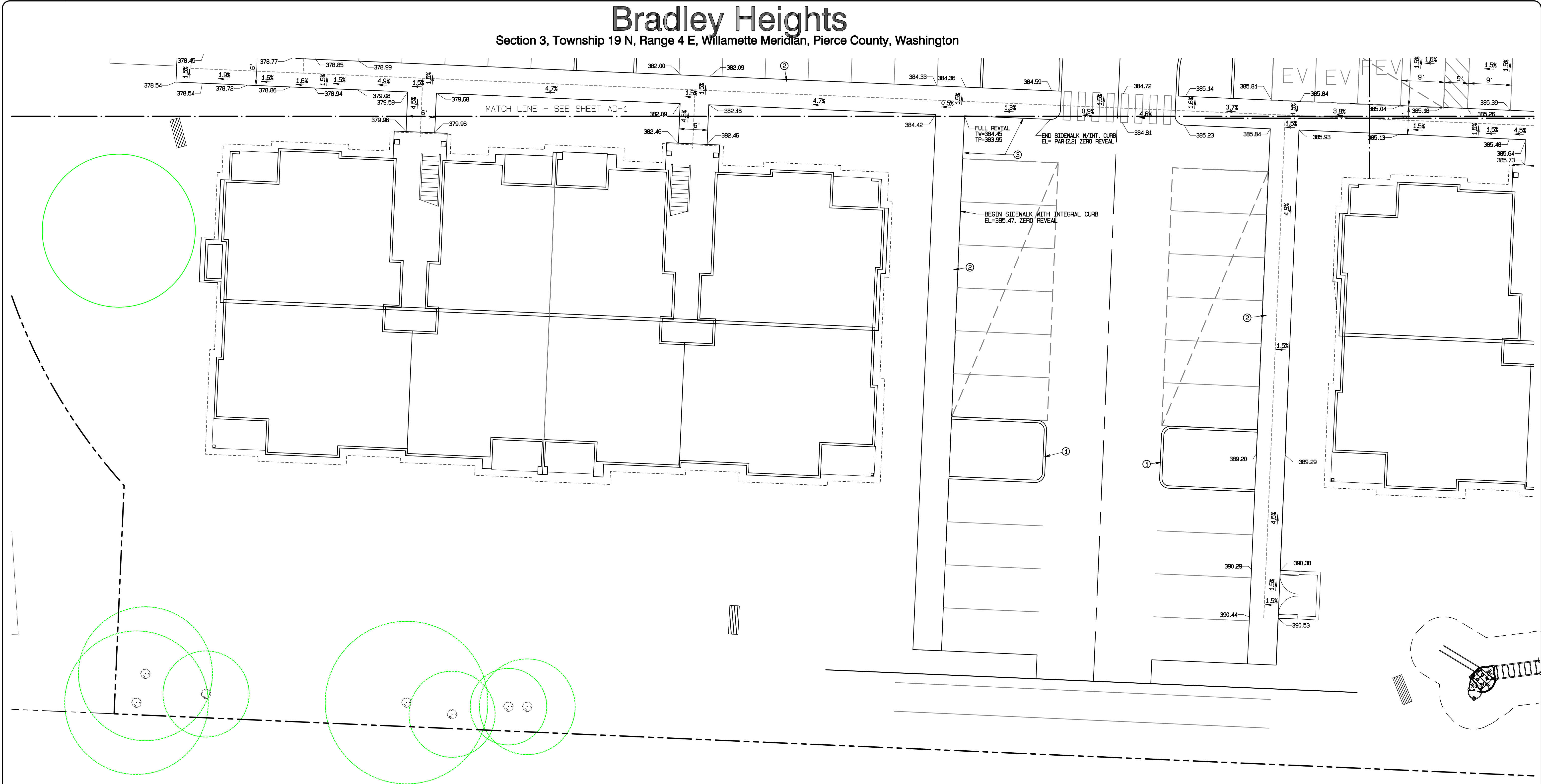
Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.896.0326  
 Fax jordan@timberlanepartners.com

**DRAWING**  
**AD-4**  
 SHEET 45  
 OF 60

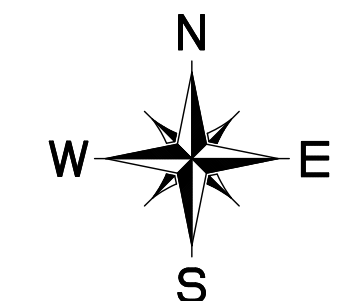
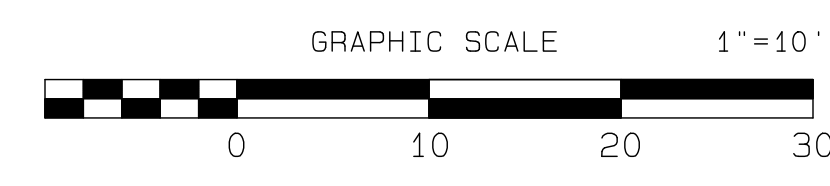
Project Desc.: Bradley Heights; Plan#: F:\urban\3327 - Bradley Heights\Timberlane\AD-4.dwg; PLOT DATE/TIME: 4/24/2025 9:31:45PM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



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  - ④ TRAFFIC CURB TOP=6" ABOVE PAVING OR LANDSCAPE GRADE



APPROVED

BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

**NOTE:**

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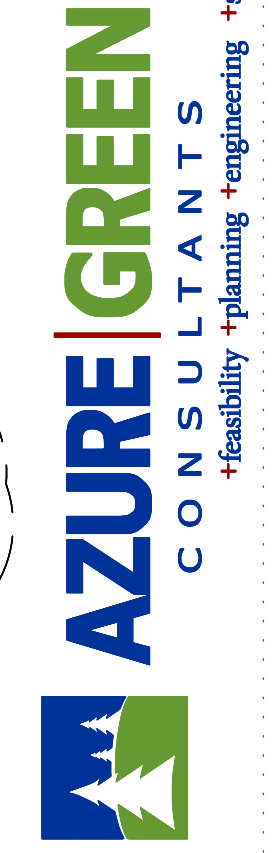
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

ADA Route/Grading Details

Bradley Heights

Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.886.0326  
Fax jordan@timberlanepartners.com

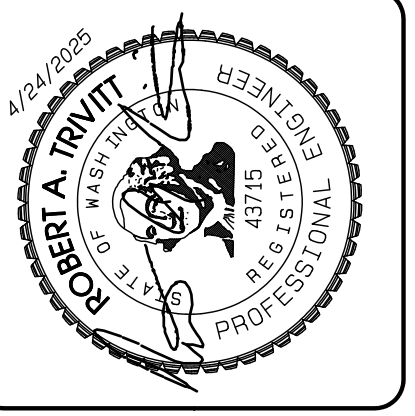
DRAWING  
**AD-5**  
SHEET 46  
OF 60



409 East Pioneer, Suite A - Puyallup, WA 98372  
phone: 253.770.3144 fax: 253.770.3142

JOB NO: 3327  
DATE: March 4, 2025  
DESIGNED BY:  
DRAWN BY:  
CHECKED BY:  
APPROVED BY: PAUL GREER

REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/26/24
2 Revised per City review.	3/4/25
3 Revised per City & Paul review.	4/21/25
4 Revised per City & Paul review.	
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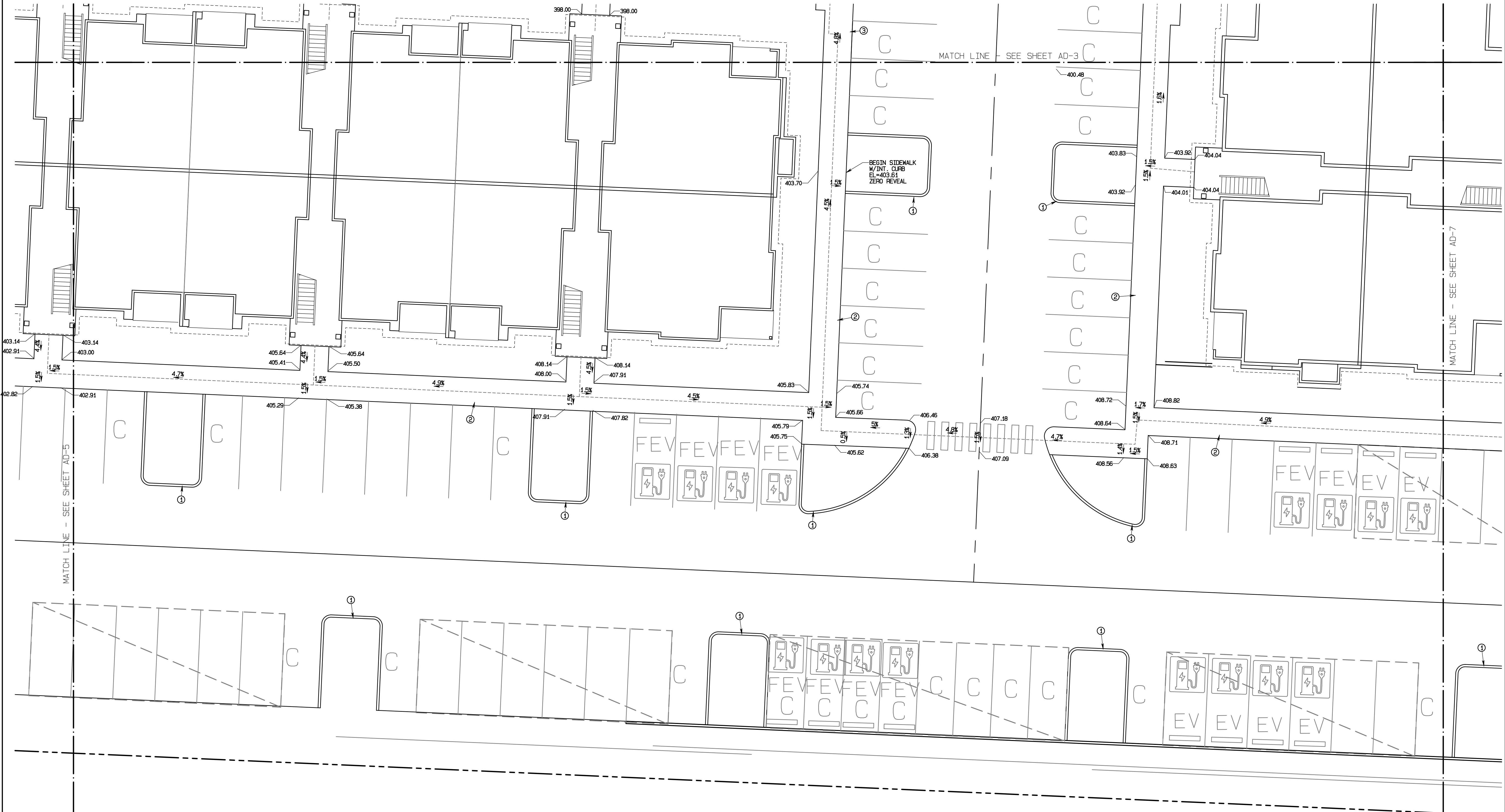


Project Desc.: Bradley Heights; Path: F:\urban\3327 - Bradley Heights\Timberlane\Bradley Heights 20250424 EMB.dwg; PLOT Date/Time: 4/24/2025 9:34:58PM

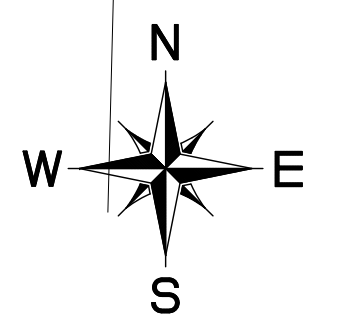
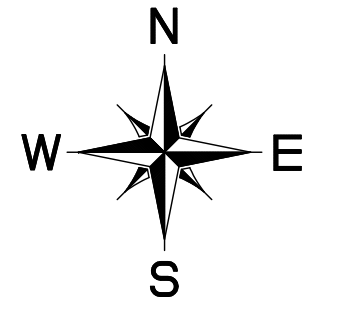
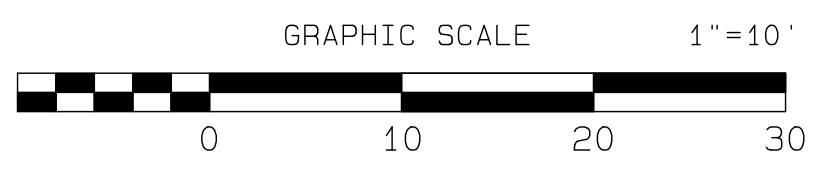


# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



- KEY NOTES**
- ① EXTRUDED CURB TOP=6" ABOVE PAVING OR LANDSCAPE GRADE
  - ② SIDEWALK FLUSH WITH PAVEMENT
  - ③ SIDEWALK WITH INTEGRAL CURB
  - ④ TRAFFIC CURB TOP=6" ABOVE PAVING OR LANDSCAPE GRADE



APPROVED

BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

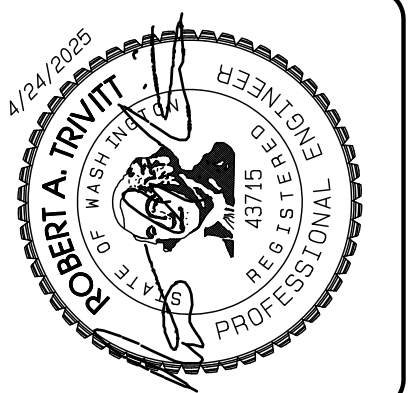
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Project Desc.: Bradley Heights; Plan#: F:\urban\3227 - Bradley Heights\Timberlane\Bradley Heights 20250424 EMB.dwg; PLOT Date\FTime: 4/24/2025 9:32:42PM



REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/29/24
2 Revised per City review.	3/4/25
3 Revised per City & Paul review.	4/21/25
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JOB NO: 3227  
DATE: March 4, 2025  
DESIGNED BY:  
DRAWN BY:  
CHECKED BY:  
APPROVED BY: Paul Greer

**AZURE GREEN CONSULTANTS**

feasibility • planning • engineering • surveying

419 East Pioneer, Suite A • Puyallup, WA 98372  
Phone: 253.770.3144, Fax: 253.770.3142

**ADA Route/Grading Details**

**Bradley Heights**

Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.896.0326  
Fax jordan@timberlanepartners.com

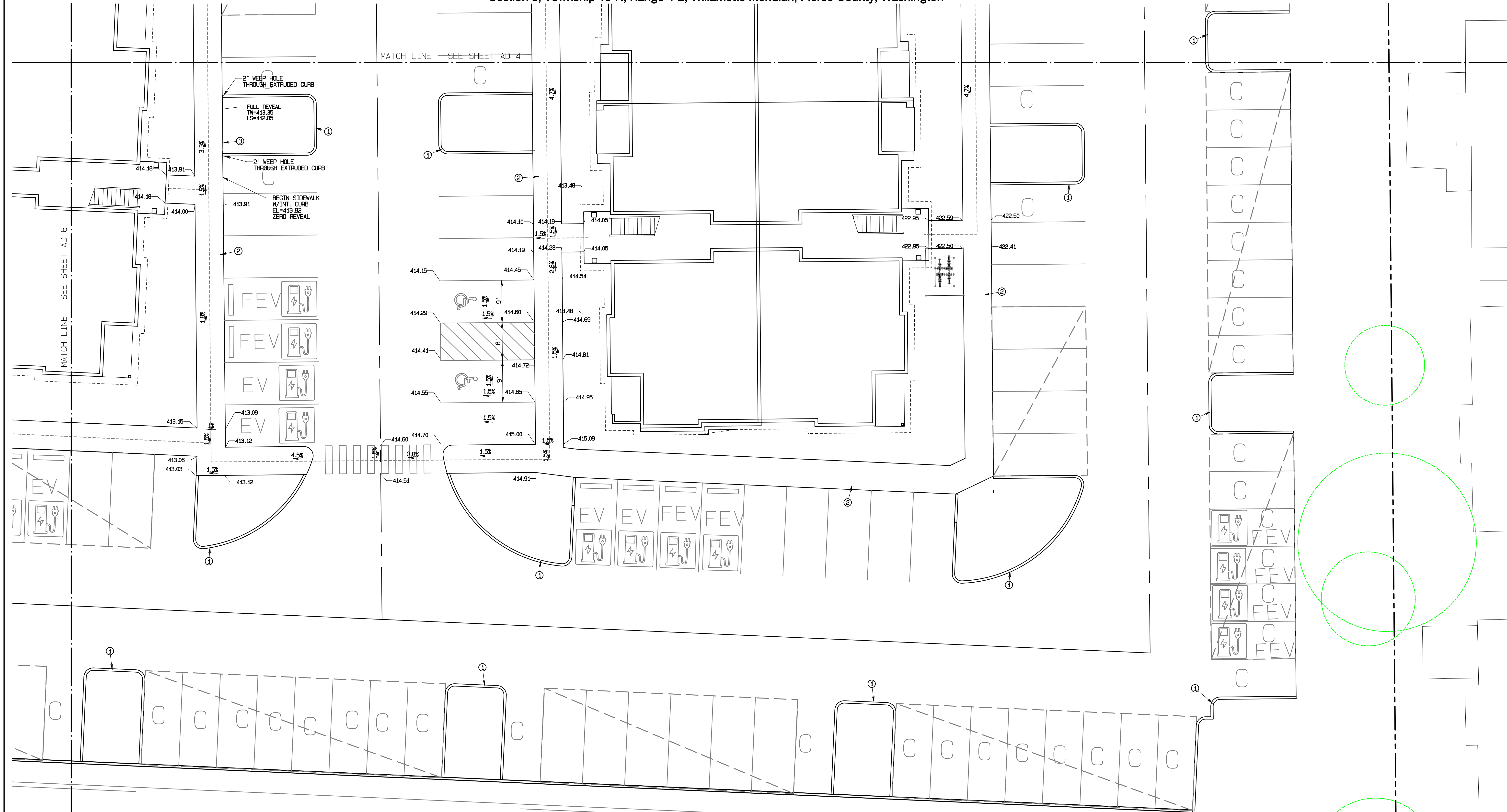
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**AD-7**

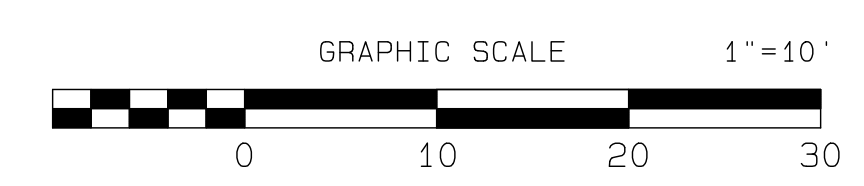
SHEET 48  
OF 60

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



- KEY NOTES**
- ① EXTRUDED CURB TOP=6" ABOVE PAVING OR LANDSCAPE GRADE
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  - ④ TRAFFIC CURB TOP=6" ABOVE PAVING OR LANDSCAPE GRADE



APPROVED

BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES

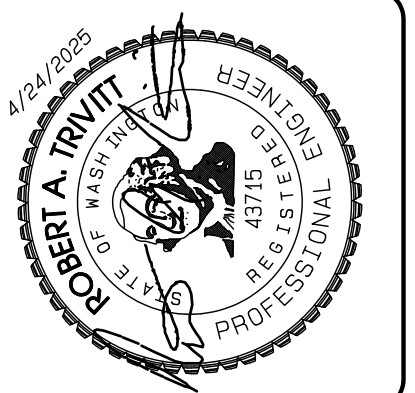
DATE: \_\_\_\_\_

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JOB NO. 3327  
DATE: March 4, 2025  
DESIGNED BY:  
DRAWN BY:  
APPROVED BY: Paul Green

feasibility • planning • engineering • surveying

409 East Pioneer, Suite A • Puyallup, WA 98372 • phone: 253.770.3144 • fax: 253.770.3142

**ADA Route/Grading Details**

**Bradley Heights**

Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.886.0326  
Fax jordan@timberlanepartners.com

**DRAWING**

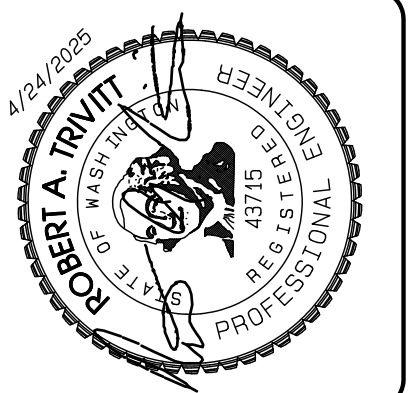
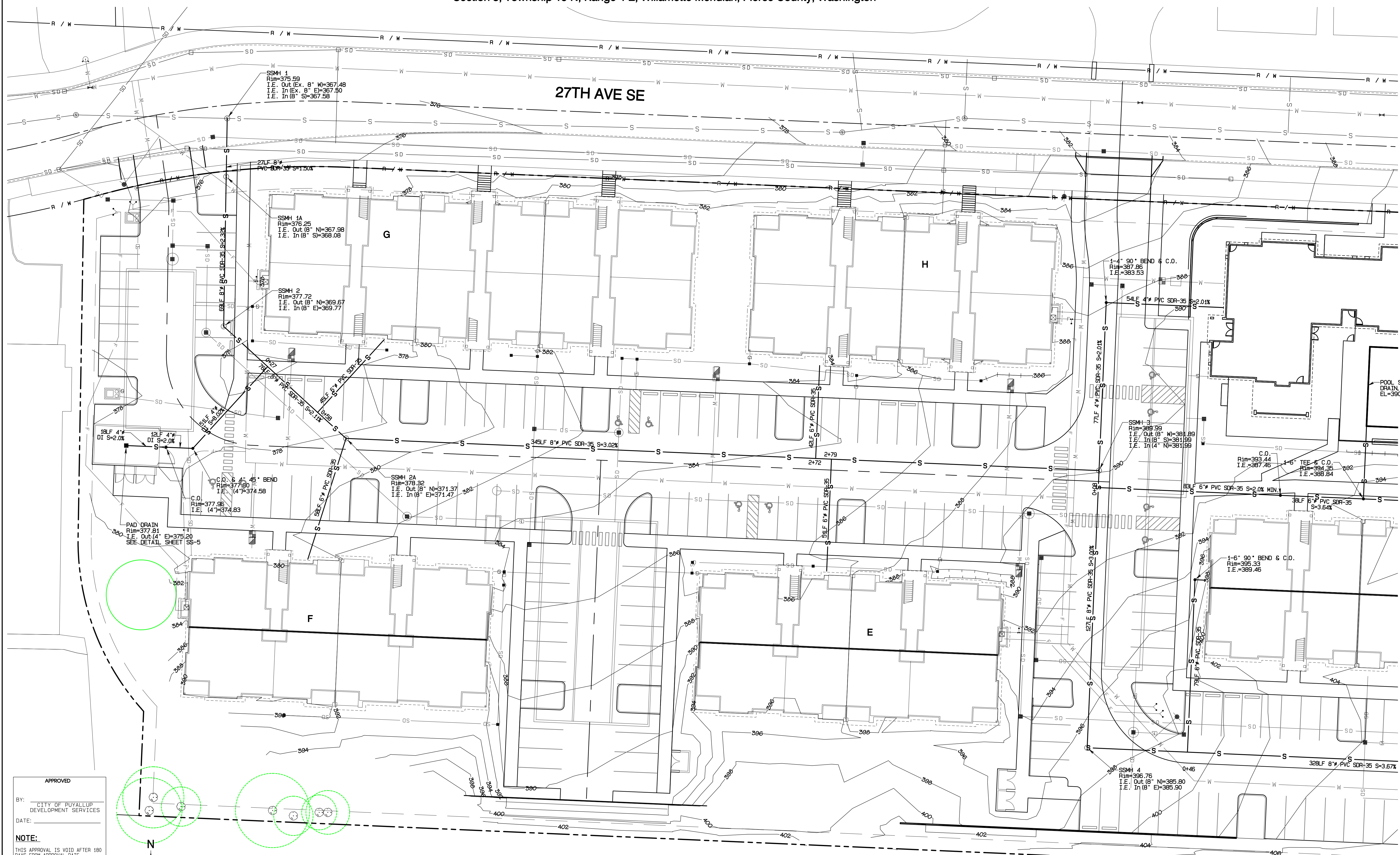
**AD-8**

SHEET 49  
OF 60

Project Desc.: Bradley Heights; Plan#: F:\urban\3327 - Bradley Heights\Timberlane\Bradley Heights 20250424 EMB.dwg; PLOT Date: 4/24/2025 9:33:39PM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/26/24
2 Revised per City review.	3/4/25
3 Revised per City & Ashi review.	4/21/25
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JOB NO. 2327  
 DATE: May 14, 2024  
 DESIGNED BY: Rob Trivitt  
 DRAWN BY: Rob Trivitt  
 CHECKED BY: Rob Green  
 APPROVED BY: Rob Green

**AZURE GREEN**  
 CONSULTANTS

+feasibility +planning +engineering +surveying

419 East Pioneer, Suite A - Puyallup, WA 98372  
 phone: 253.770.3144, fax: 253.770.3142

**SS Plan**

**Bradley Heights**

Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.886.0326  
 Fax jordan@timberlanepartners.com

**DRAWING**

**SS-1**

SHEET 50  
 OF 60

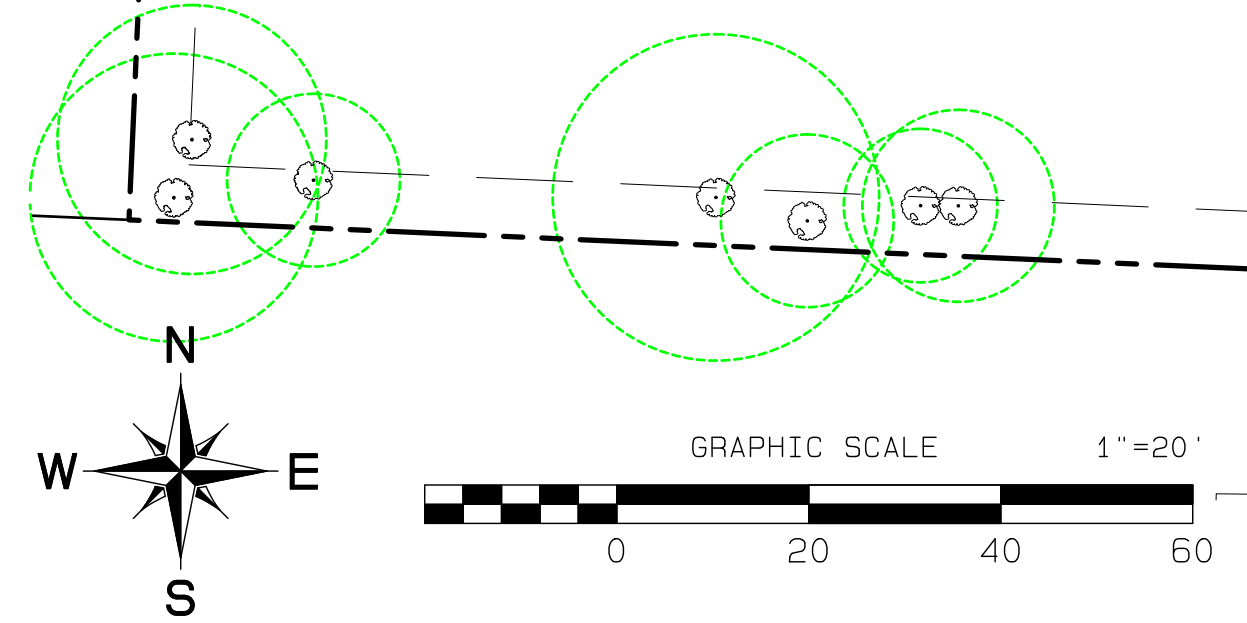
Project Desc.: Bradley Heights; Date: E:\urban\3227 - Bradley Heights\Timberlane\Drawings\20250424\_EHG.dwg; P01; Date/Time: 4/24/2025 9:37:28PM

**APPROVED**

BY: CITY OF PUYALLUP  
 DEVELOPMENT SERVICES

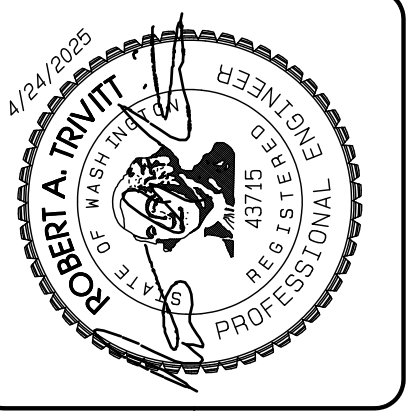
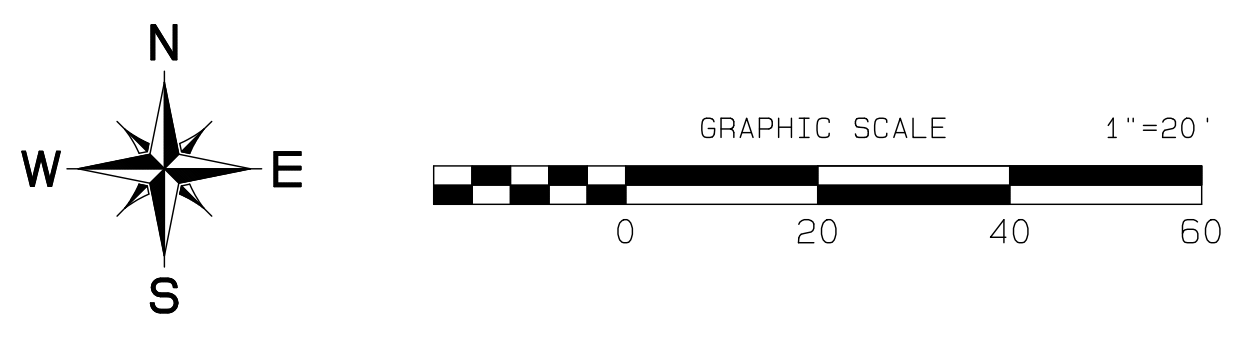
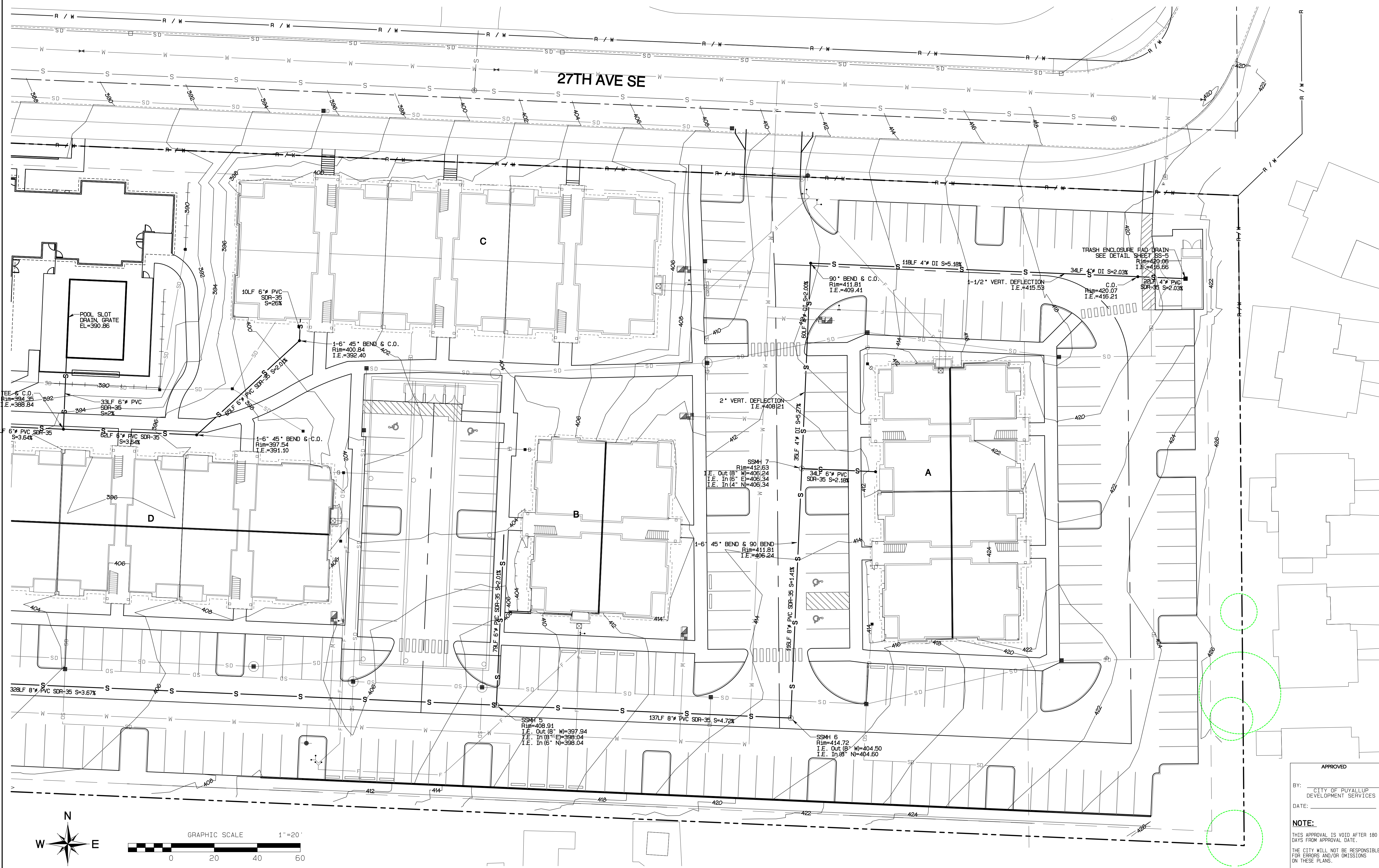
DATE:

**NOTE:**  
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 DAYS FROM APPROVAL DATE.  
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 FOR ERRORS AND/OR OMISSIONS  
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 FIELD CONDITIONS MAY DICTATE  
 CHANGES TO THESE PLANS AS  
 DETERMINED BY THE ENGINEERING  
 SERVICES MANAGER.



# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



REVISION	DATE
1	11/20/24
2	3/1/25
3	4/21/25
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JOB NO. 3327  
 DATE: May 14, 2024  
 DESIGNED BY: RND, Trivitt  
 DRAWN BY: RND, Trivitt  
 CHECKED BY: RND, Trivitt  
 APPROVED BY: RND, Trivitt

**AZURE GREEN CONSULTANTS**  
 feasibility • planning • engineering • surveying  
 409 East Pioneer, Suite A • Puyallup, WA 98372 • phone: 253.770.3144 • fax: 253.770.3142

APPROVED  
 BY: CITY OF PUYALLUP DEVELOPMENT SERVICES  
 DATE: \_\_\_\_\_  
 NOTE:  
 THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.  
 THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.  
 FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

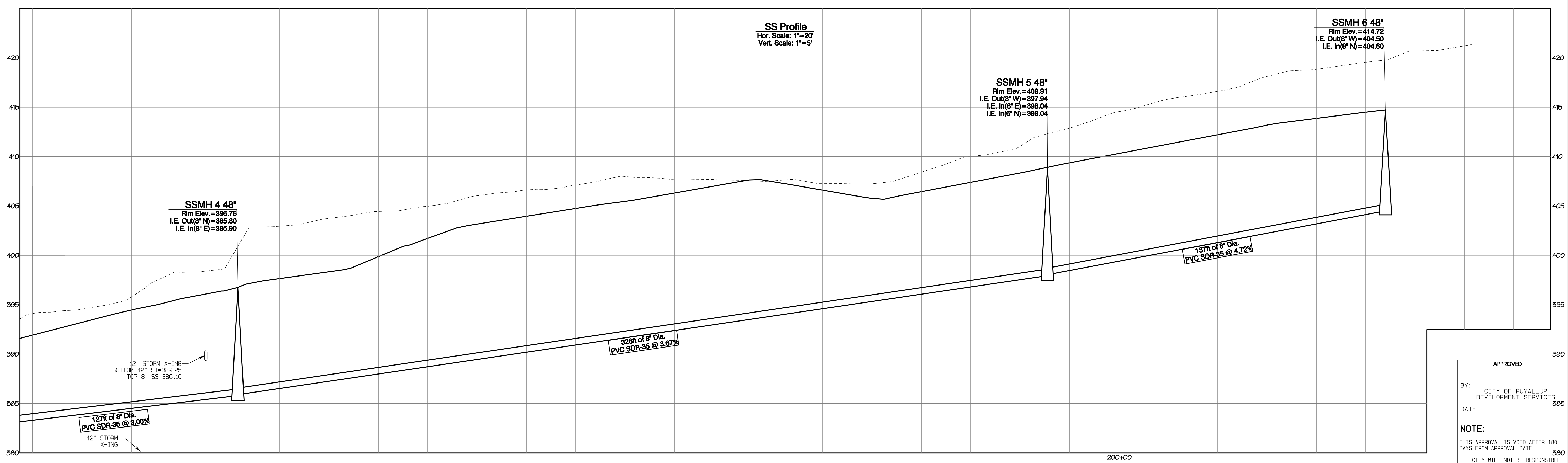
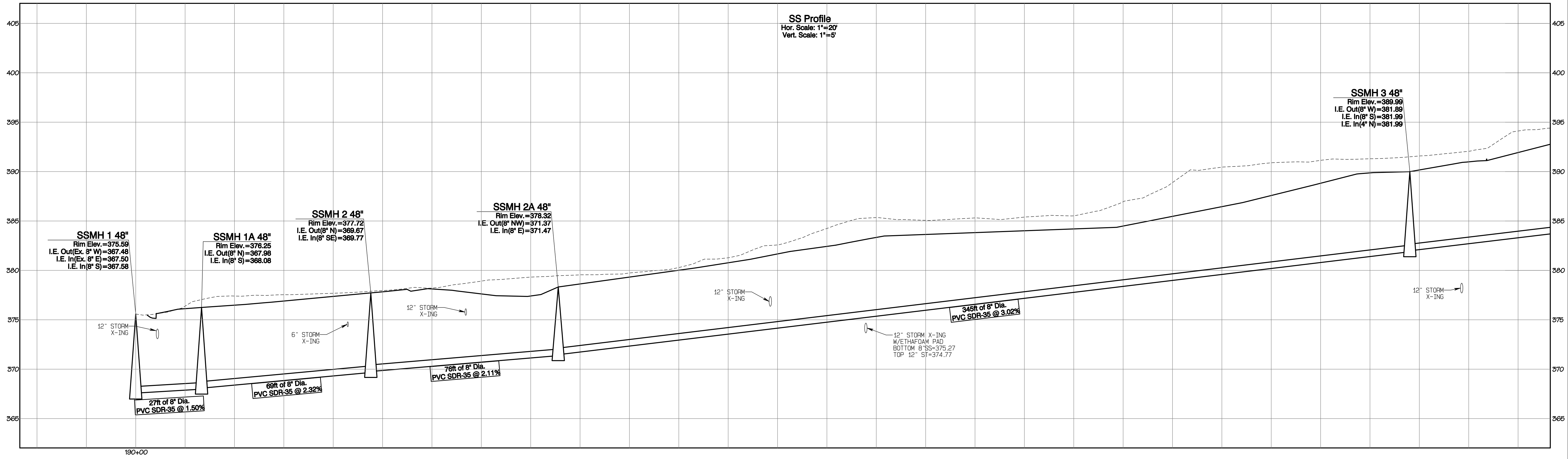
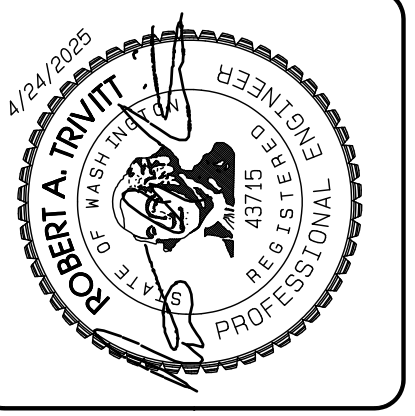
**SS Plan**  
 Bradley Heights  
 Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.898.0326  
 Fax jordan@timberlanepartners.com

**DRAWING**  
**SS-2**  
 SHEET 51  
 OF 60

Project Desc: Bradley Heights; Date: E:\sub\3327 - Bradley Heights\Timberlane\Drawings\20250424\_EHG.dwg; PLOT Date/Time: 4/24/2025 9:37:46PM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



APPROVED

BY: CITY OF PUYALLUP  
DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

**NOTE:**  
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FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/20/24
2 Revised per City review.	3/4/25
3 Revised per City & Ash review.	4/21/25
4	
5	
6	
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JOB NO. 3227  
DATE: May 14, 2024  
DESIGNED BY: Rob Trivitt  
DRAWN BY: Rob Trivitt  
CHECKED BY: Paul Green  
APPROVED BY: Paul Green

**AZURE GREEN CONSULTANTS**  
+ feasibility + planning + engineering + surveying

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**SS Profiles**

**Bradley Heights**

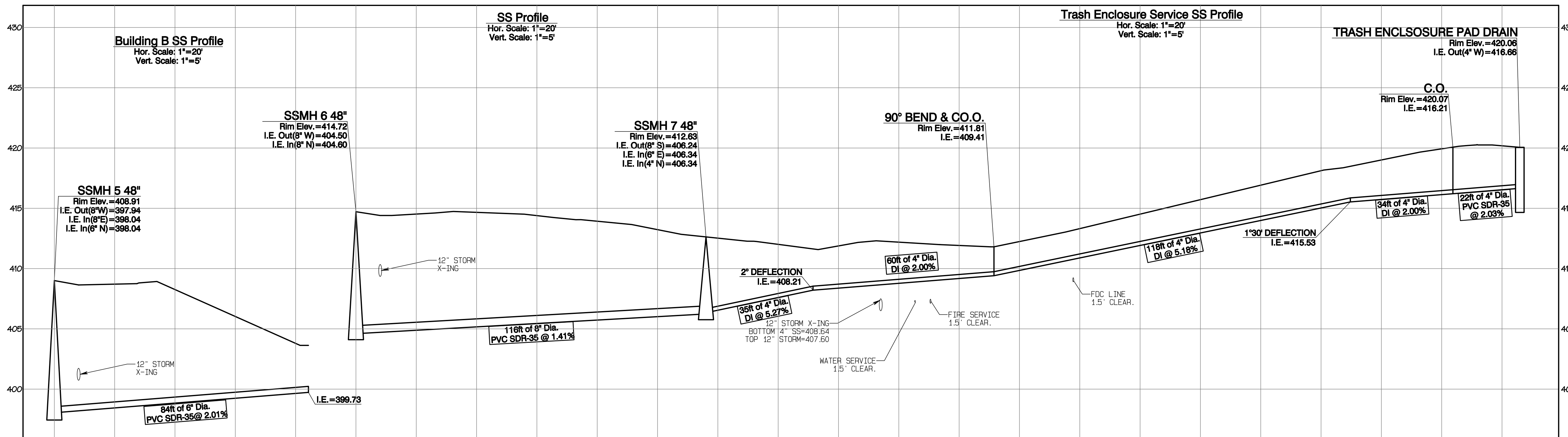
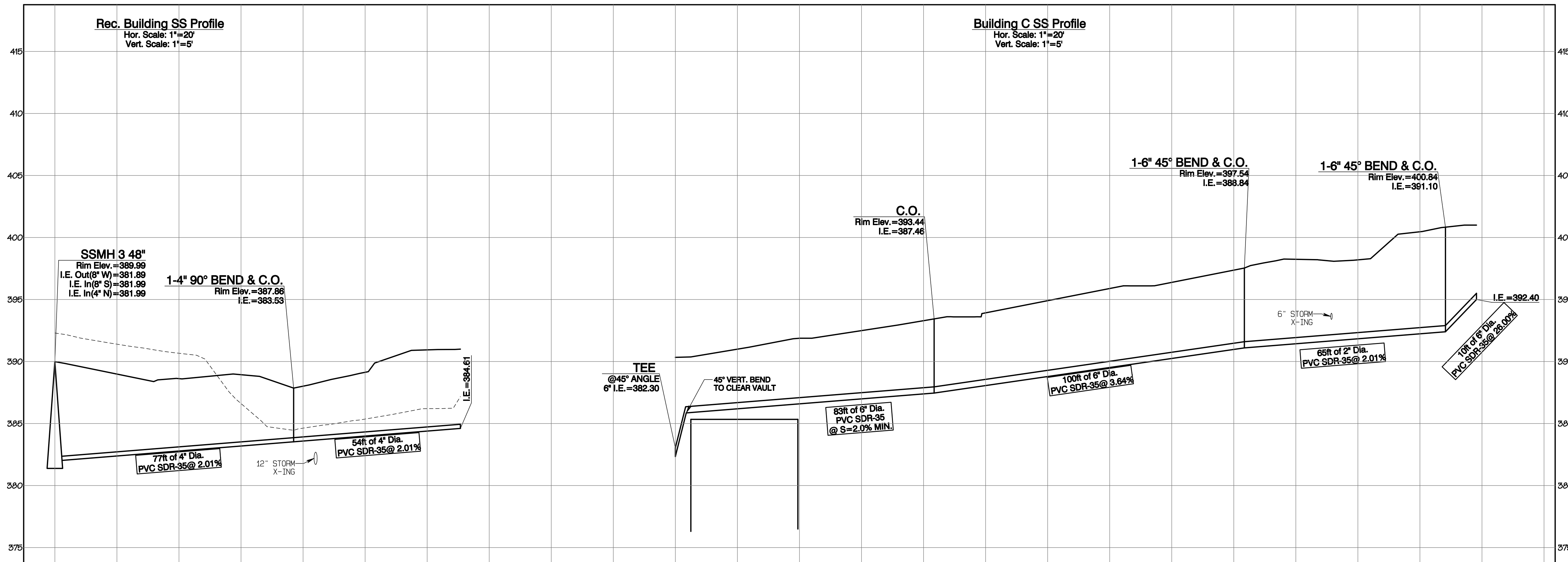
Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.889.0326  
Fax jordan@timberlanepartners.com

**DRAWING**  
**SS-3**  
SHEET 52  
OF 60

Project Desc.: Bradley Heights Part: F:\sub\3227 - Bradley Heights\Time\Drawings\heights\_20250424\_EWG.dwg PLOT DATE: 4/24/2025 9:38:03 AM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



APPROVED

BY: \_\_\_\_\_  
CITY OF PUYALLUP  
DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

**NOTE:**

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THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.

FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

REVISION	DATE
1	11/20/24
2	3/4/25
3	4/21/25
4	
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JOB NO. 3227  
DATE: May 14, 2024  
DESIGNED BY: Rtd. Trivitt  
DRAWN BY: Rtd. Trivitt  
CHECKED BY: Rtd. Green  
APPROVED BY: Rtd. Green

**AZURE GREEN**  
CONSULTANTS

\*feasibility \*planning \*engineering \*surveying

409 East Pioneer, Suite A - Puyallup, WA 98372  
Phone: 253.770.3144, Fax: 253.770.3142

**SS Profiles**

**Bradley Heights**

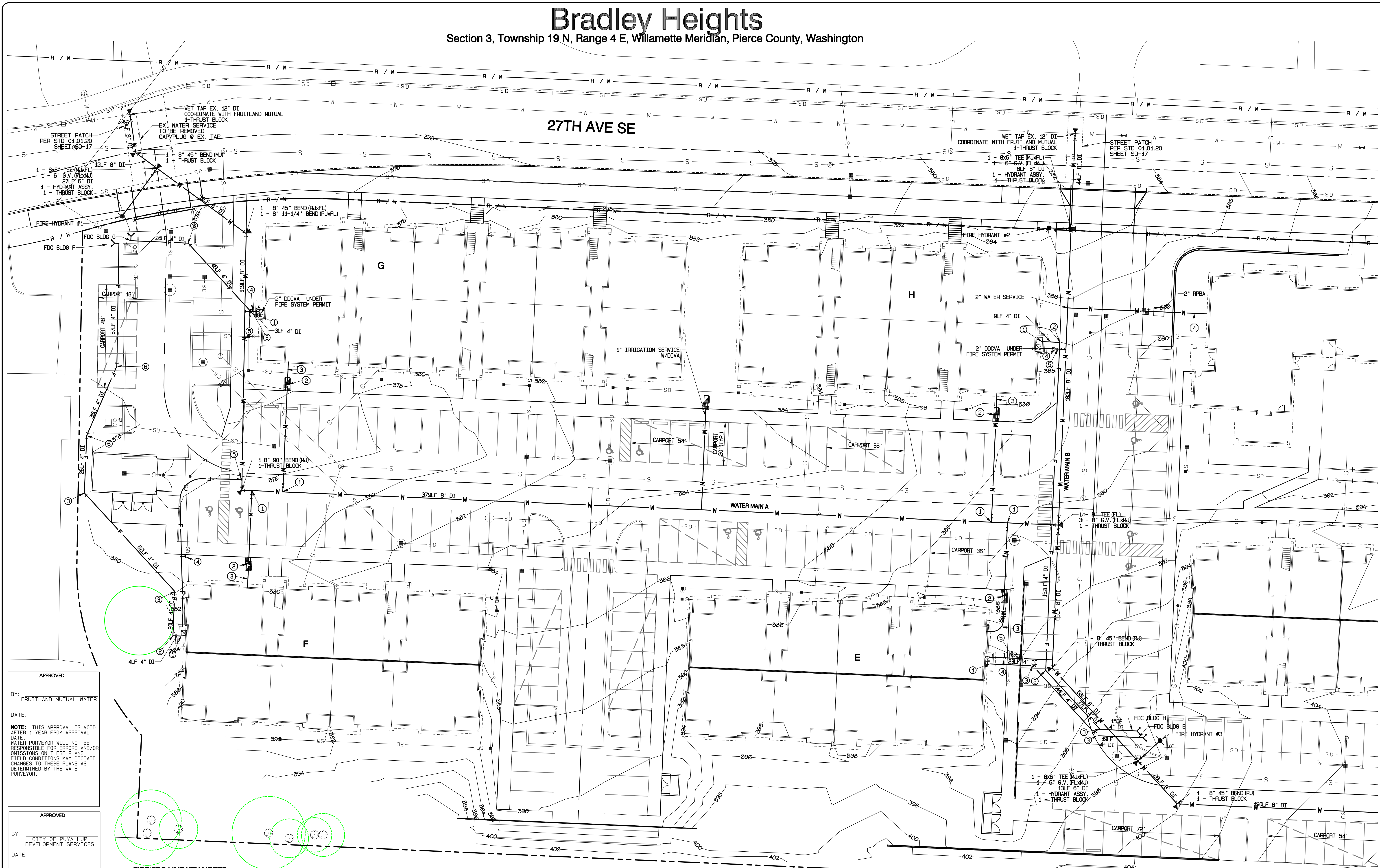
Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone 509.886.0326  
Fax jordan@timberlanepartners.com

Project Desc.: Bradley Heights; Path: F:\sub\3227 - Bradley Heights\Timberlane\Drawings - P1.dwg; Date: 4/24/2025 9:38:43 AM



# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



Project Date: 1/17/24  
 Date: 1/17/24  
 Designer: R. J. ...  
 Drawn By: R. J. ...  
 Checked By: R. J. ...  
 Approved By: R. J. ...

**APPROVED**

BY: FRUITLAND MUTUAL WATER

DATE:

**NOTE:** THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE. WATER PURVEYOR WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE WATER PURVEYOR.

**APPROVED**

BY: CITY OF PUYALLUP DEVELOPMENT SERVICES

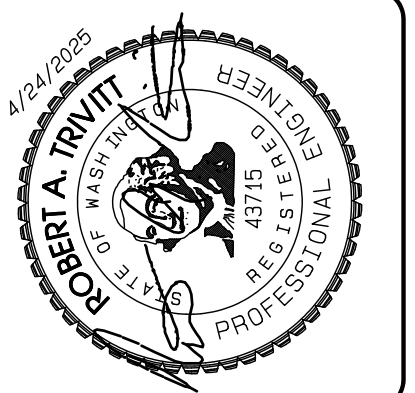
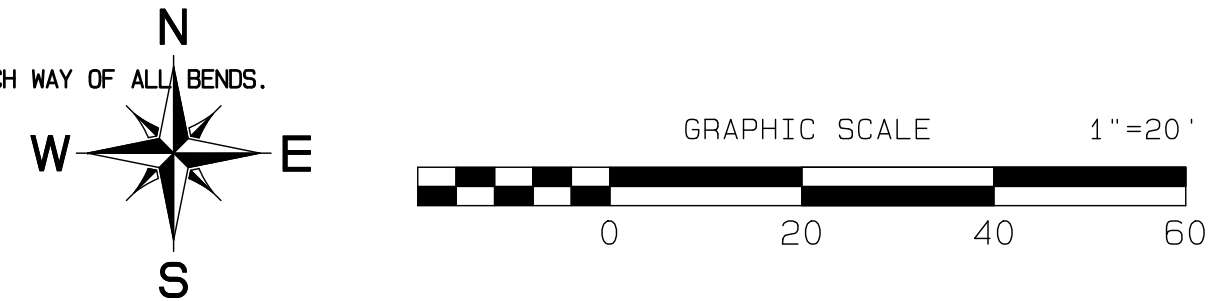
DATE:

**NOTE:** THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

- FIRE/FDC LINE KEY NOTES**
- ENTRY TO BUILDING, COORDINATE WITH SPRINKLER SYSTEM DESIGN DCVCA INSIDE BUILDING
  - 1-4" 90° BEND (RJ)
  - 1-4" 45° BEND (RJ)
  - PIV
  - 2" FIRE SERVICE CONNECTION
  - 1-4" 22-1/2" BEND (RJ)
- WATER SERVICE KEY NOTES**
- 1-1/2" DOMESTIC SERVICE PER STD 03.03.02
  - 1-1/2" METER & DCVCA PER STD 03.03.02 & 03.04.01
  - 1-1/2" HOPE SIDR 7 TO BUILDING COORDINATE WITH PLUMBING PLAN
  - 2" HOPE SIDR 7 TO BUILDING COORDINATE WITH PLUMBING PLAN

- GENERAL NOTES:**
- DOMESTIC & IRRIGATION SERVICES: FRUITLAND WATER WILL SET A METER SETTLER WITH BOX AND A TAIL PIECE TO WHICH CONNECT.
  - FIRE LINES: FRUITLAND WATER WILL SET THE VALVE ON THE MAIN BUT OWNER'S CONTRACTOR WILL CONSTRUCT FROM THAT POINT ON.
  - FRUITLAND WATER WILL CONSTRUCT OR HIRE THE PROJECT OUT. IF HIRED OUT, FRUITLAND WATER WILL PURCHASE PIPE AND FITTINGS.

- WATER NOTES:**
- USE MEGALUGS ON ALL MJ FITTINGS.
  - FIELD LOCK GASKETS REQUIRED TWO JOINTS EACH WAY OF ALL BENDS.
  - DCVCA REQUIRED ON ALL DOMESTIC LINES.
  - STANDARD REQUIRED COVER IS 3.5".



REVISION	DATE
1	1/17/24
2	3/1/24
3	4/27/25
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JOB NO: 3327  
 DATE: May 14, 2024  
 DESIGNED BY: R. J. ...  
 DRAWN BY: R. J. ...  
 CHECKED BY: R. J. ...  
 APPROVED BY: R. J. ...

**AZURE GREEN CONSULTANTS**

feasibility • planning • engineering • surveying

419 East Pioneer, Suite A - Puyallup, WA 98372  
 phone: 253.770.3144, fax: 253.770.3142

**Water Plan**

**Bradley Heights**

Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 206.886.0326  
 Fax jordan@timberlanepartners.com

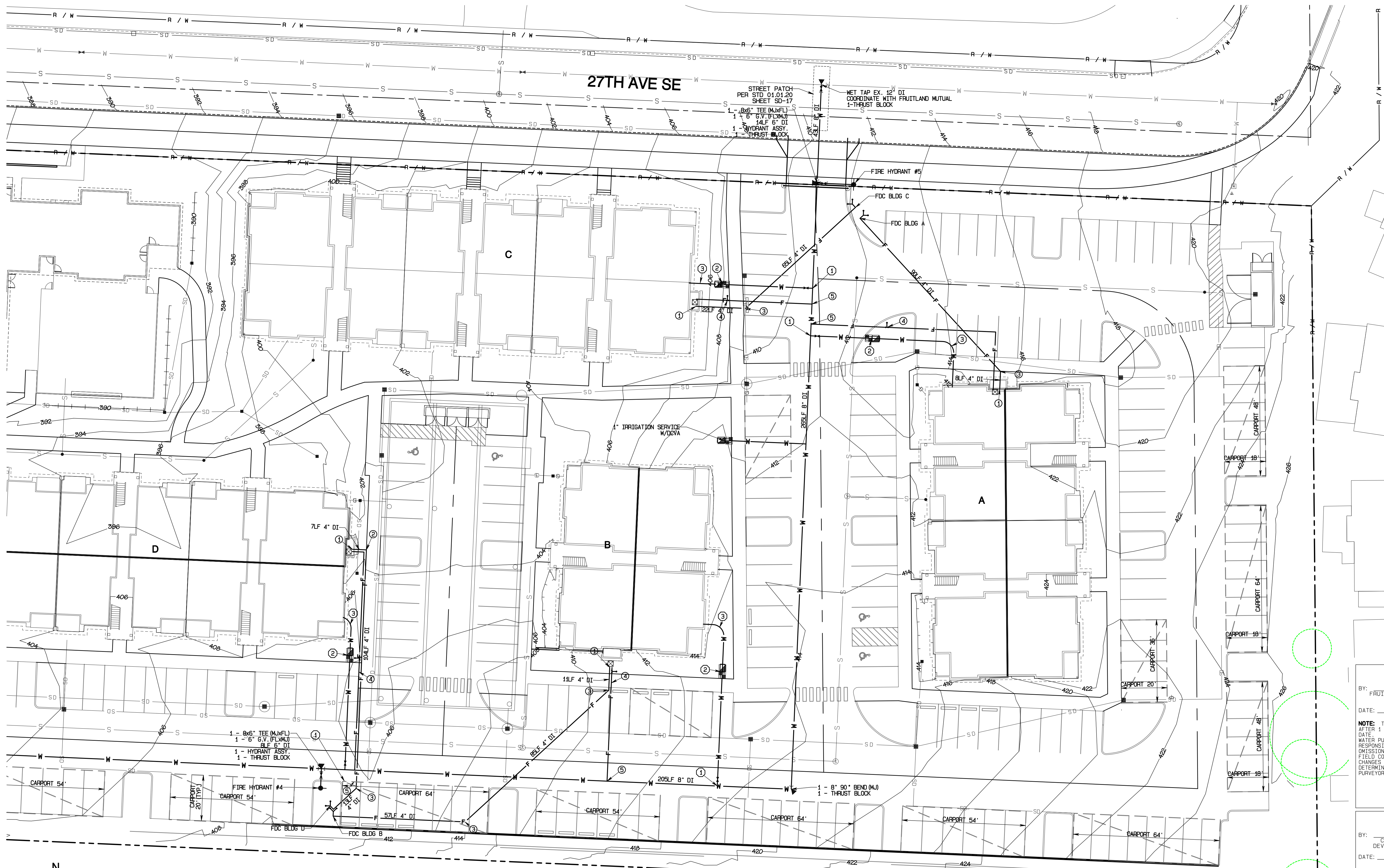
**DRAWING**

**W-1**

SHEET 55 OF 60

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



Project Desc: Bradley Heights; Date: E:\Jobs\3227 - Bradley Heights\Time\Drawings\HighRes\20250424\_E106.dwg; PLOT Date/FTime: 4/24/2025 9:40:30PM



REVISION	DATE
1 Revised per City review and Mail A adjustment.	11/25/24
2 Revised per City review.	3/1/25
3 Revised per City & Ashi review.	4/27/25
4 Revised per City & Ashi review.	
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JOB NO. 3227  
 DATE: May 14, 2024  
 DESIGNED BY: Rob Trivitt  
 DRAWN BY: Rob Trivitt  
 CHECKED BY: Rob Trivitt  
 APPROVED BY: Rob Trivitt

**AZURE GREEN**  
 CONSULTANTS

\*feasibility \*planning \*engineering \*surveying

419 East Pioneer, Suite A - Puyallup, WA 98372 phone: 253.770.3144 fax: 253.770.3142

APPROVED

BY: FRUITLAND MUTUAL WATER

DATE: \_\_\_\_\_

**NOTE:** THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE. WATER PURVEYOR WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE WATER PURVEYOR.

APPROVED

BY: CITY OF PUYALLUP DEVELOPMENT SERVICES

DATE: \_\_\_\_\_

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**Water Plan**

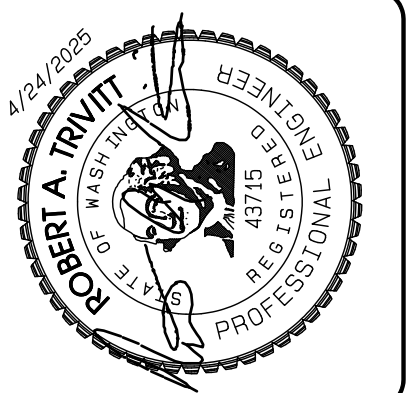
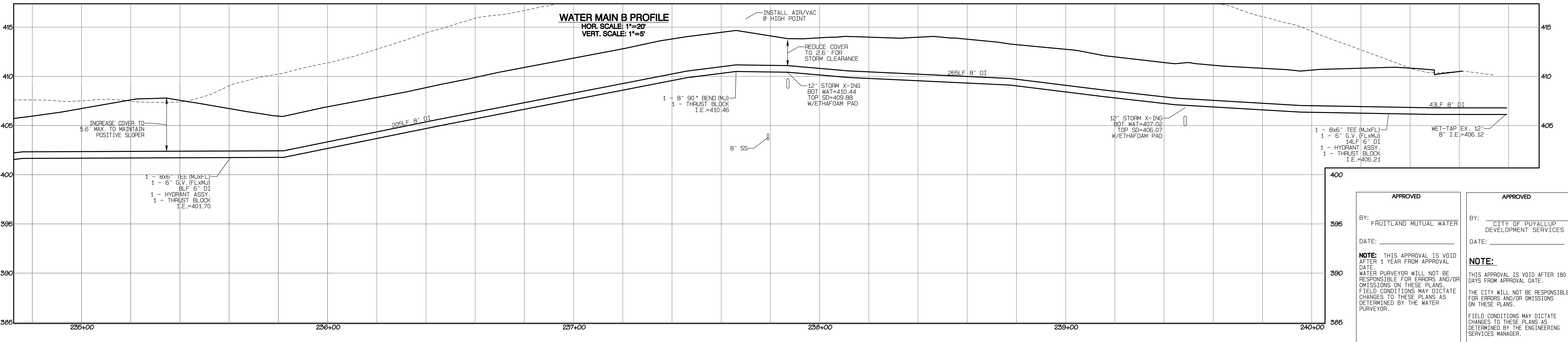
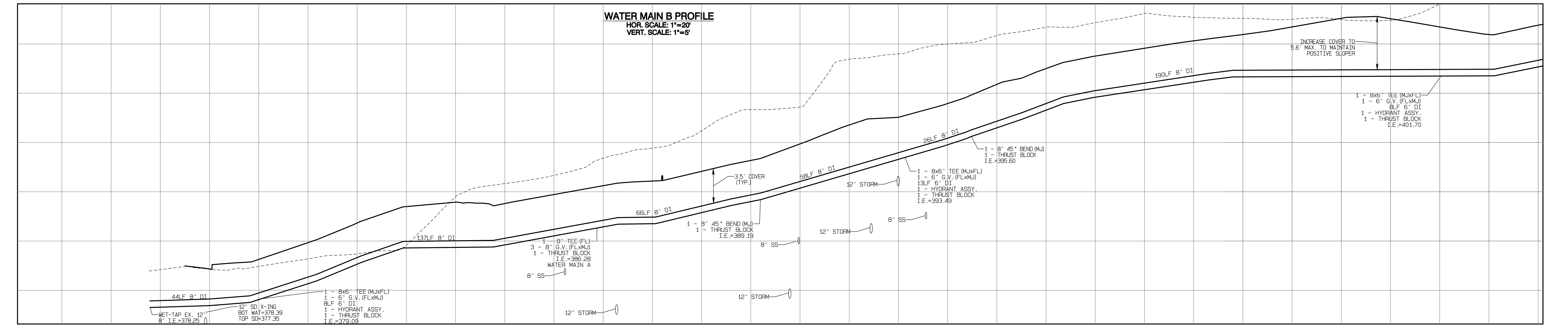
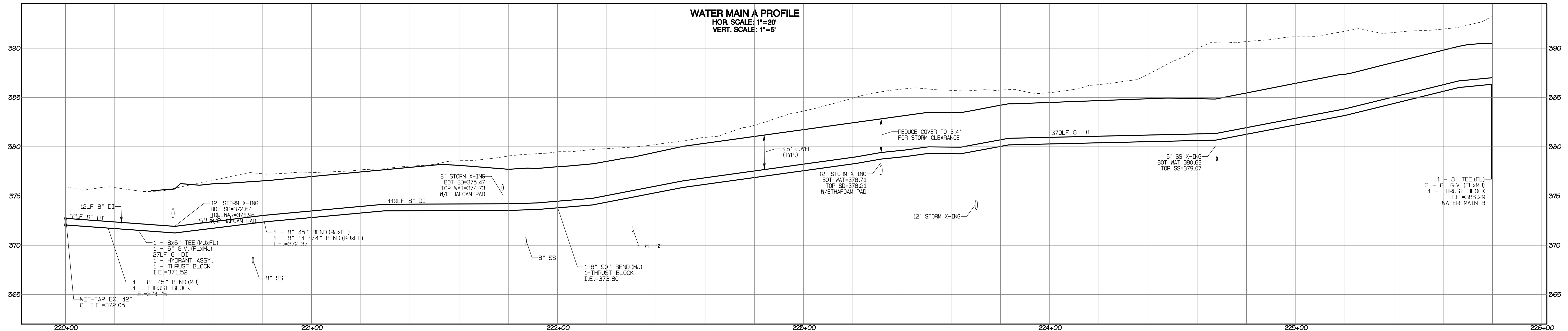
**Bradley Heights**

Timberline Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.886.0326  
 Fax jordan@timberlinepartners.com

**DRAWING**  
**W-2**  
 SHEET 56  
 OF 60

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



REVISION	DATE	DESCRIPTION
1	11/20/24	REVISED PER CITY REVIEW AND MAIL A ADJUSTMENT.
2	3/1/25	REVISED PER CITY REVIEW.
3	4/21/25	REVISED PER CITY & ASH REVIEW.
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JOB NO: 3227  
 DATE: May 14, 2024  
 DESIGNED BY: RBT, TRV  
 DRAWN BY: RBT, TRV  
 CHECKED BY: RBT, TRV  
 APPROVED BY: RBT, TRV

**AZURE GREEN CONSULTANTS**  
 feasibility • planning • engineering • surveying  
 409 East Pioneer, Suite A - Puyallup, WA 98372  
 phone: 253.770.3144, fax: 253.770.3142

**Water Main Profiles**  
 Bradley Heights  
 Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.899.0326  
 Fax jordan@timberlanepartners.com

**DRAWING**  
**W-3**  
 SHEET 57  
 OF 60

**APPROVED**  
 BY: FRUITLAND MUTUAL WATER  
 DATE: \_\_\_\_\_

**NOTE:** THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE. WATER PURVEYOR WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE WATER PURVEYOR.

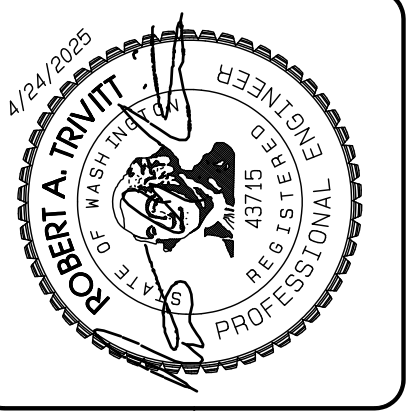
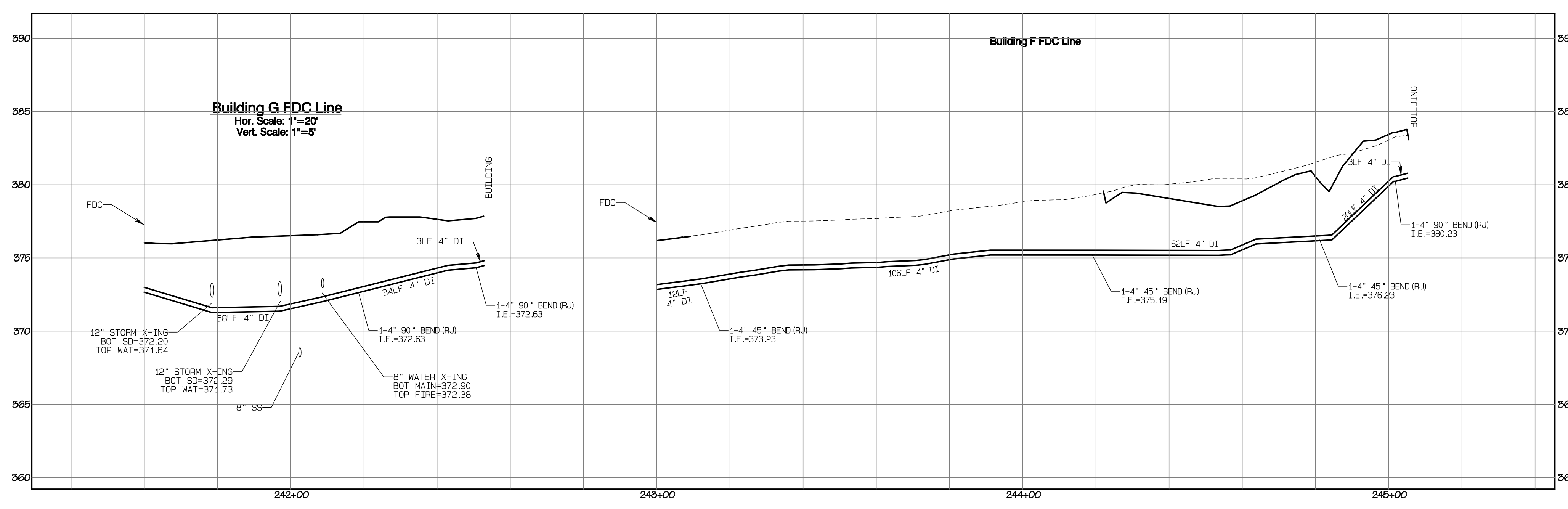
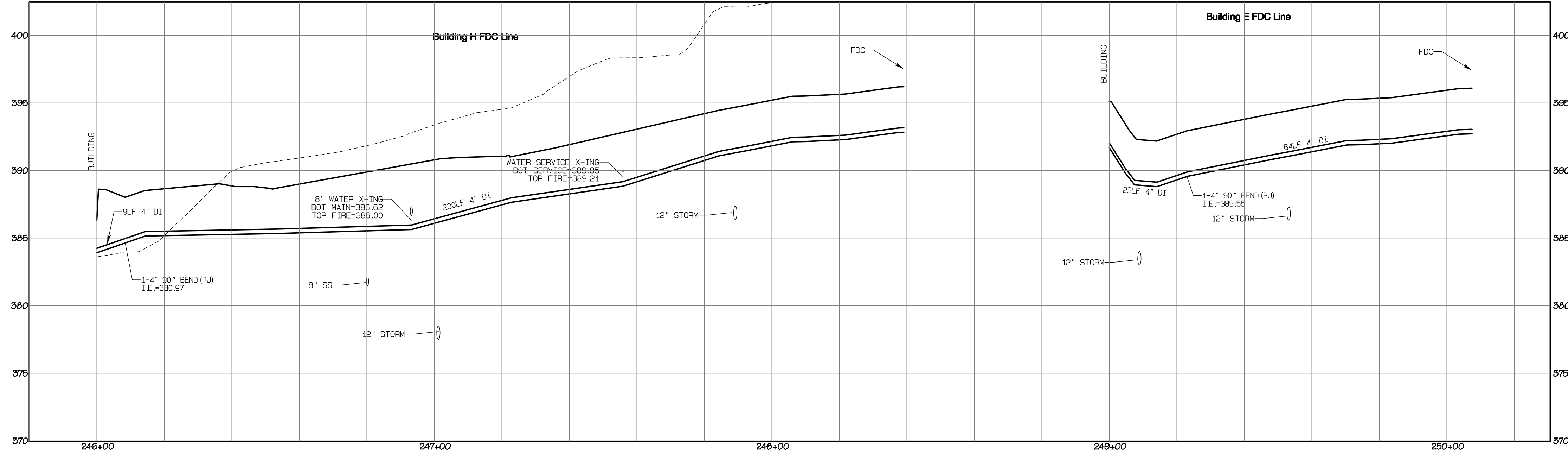
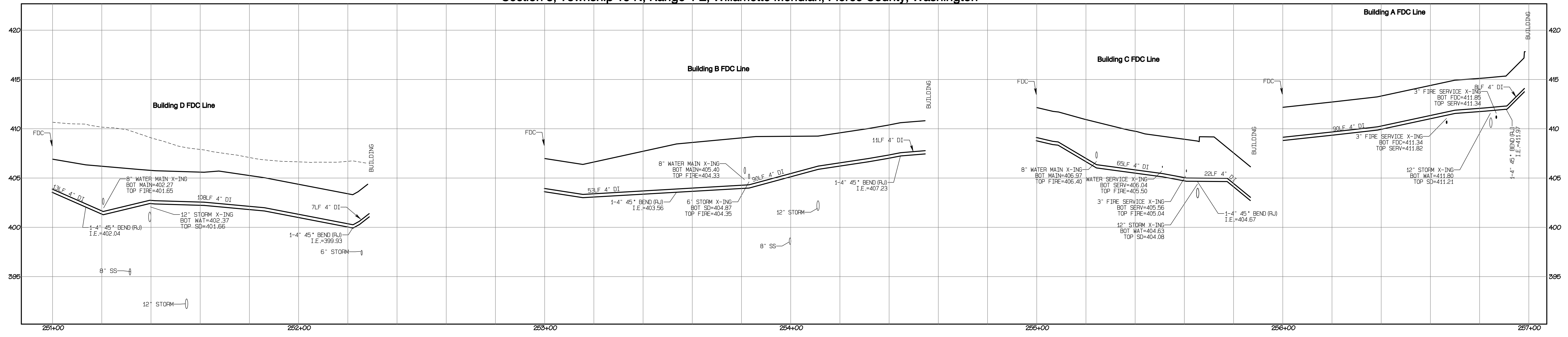
**APPROVED**  
 BY: CITY OF PUYALLUP DEVELOPMENT SERVICES  
 DATE: \_\_\_\_\_

**NOTE:** THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

Project Date: 3/20/24, Project Name: Bradley Heights, File Path: F:\Users\jordan\OneDrive\Documents\20250624\_EWG.dwg, Plot Date/Time: 4/24/2025 9:41:11 PM

# Bradley Heights

Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



REVISION	DATE
1	11/15/24
2	3/1/25
3	4/27/25
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JOB NO. 3227  
 DATE: May 14, 2024  
 DESIGNED BY: Rob Trivitt  
 DRAWN BY: Rob Trivitt  
 CHECKED BY: Rob Green  
 APPROVED BY: Paul Green

**AZURE GREEN**  
 CONSULTANTS  
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 409 East Pioneer, Suite A • Puyallup, WA 98372  
 phone: 253.770.3144 fax: 253.770.3142

**FDC Profiles**  
 Bradley Heights  
 Timberlane Partners  
 1816 11th Ave Unit C  
 Seattle, WA 98122  
 Phone 509.886.0326  
 Fax jordan@timberlanepartners.com

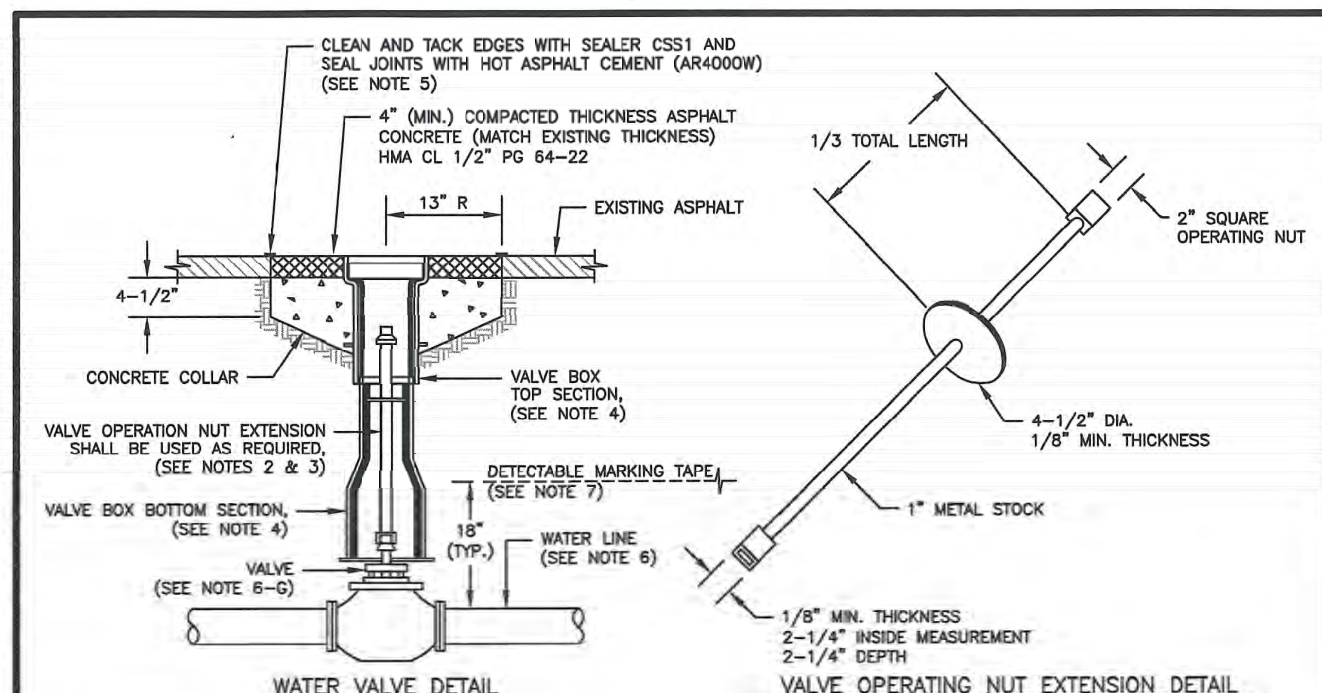
**APPROVED**  
 BY: FRUITLAND MUTUAL WATER  
 DATE: \_\_\_\_\_  
**NOTE:** THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE. WATER PURVEYOR WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE WATER PURVEYOR.

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Project Desc: Bradley Heights Date: E:\sub\3227 - Bradley Heights\Timberlane\Drawings\20250424\_Eng.dwg PLOT Date/Time: 4/24/2025 9:41:36PM

# Bradley Heights

## Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



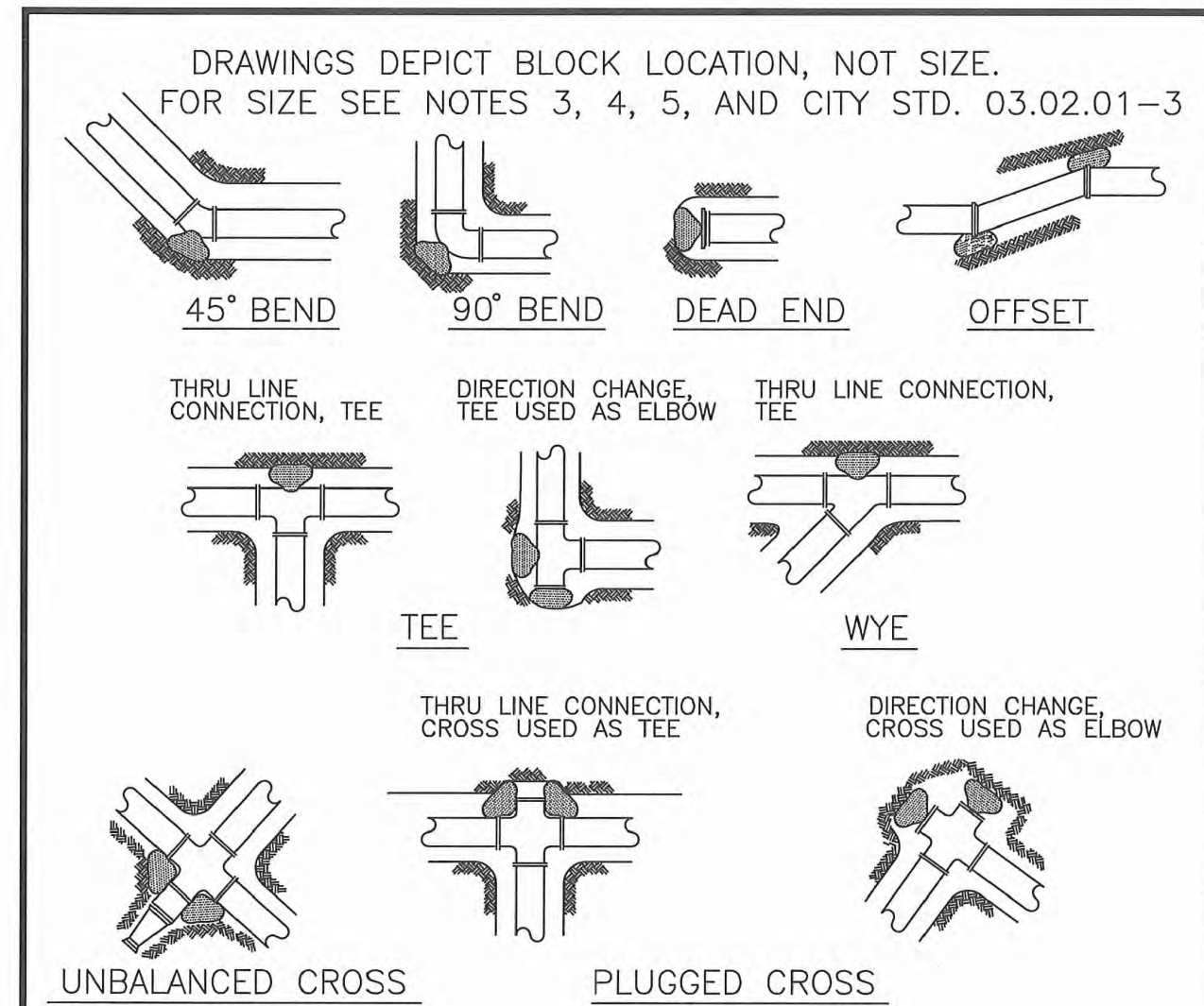
**WATER VALVE AND MAINS**

**NOTES:**

1. WATER MAINS SHALL HAVE A MINIMUM COVER OF 24" FROM FINISHED GRADE IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
2. VALVE OPERATING NUT EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN FIVE (5) FEET BELOW FINISHED GRADE. EXTENSIONS ARE TO BE A MINIMUM OF TWO (2) FEET LONG. ONLY ONE EXTENSION TO BE USED PER VALVE. TOP OF EXTENSION SHALL BE 2 FEET 6 INCHES TO 3 FEET BELOW FINISHED GRADE.
3. ALL VALVE OPERATING NUT EXTENSIONS ARE TO BE MADE OF STEEL, SIZE AS NOTED, AND PAINTED WITH TWO COATS OF METAL PAINT.
4. VALVE BOXES SHALL BE TWO-PHASE, ADJUSTABLE, CAST IRON WITH EXTENSION PIECES (IF NECESSARY), AS MANUFACTURED BY THE MANUFACTURER (E.G. SULLY) OR APPROVED EQUAL. THE BODY WATER VALVE SHALL BE CAST IN RELIEF ON THE VALVE BOX COVER. VALVE BOX TOPS INSTALLED IN ARTERIAL ROADWAYS SHALL BE MANUFACTURED BY EAST JORDAN (EJ) IRONWORKS MODEL 8555 WITH VALVE BOX COVER MODEL 8500 OR APPROVED EQUAL.
5. NEAT LINE CUTS SHALL BE SEALED WITH A HOT PAVING GRADE ASPHALT AND FACE OF CUT TACKED.
6. WATER MAINS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH DIVISION 7 OF THE WSDOT STANDARD SPECIFICATIONS SUPPLEMENTED WITH THE FOLLOWING:
  - A. DUCTILE IRON PIPE SHALL CONFORM TO ANNA C 151, THICKNESS CLASS 52, AND THE EXTERIOR SHALL BE COATED WITH COAL TAR VARNISH. PIPE AND FITTINGS SHALL BE WARD LINE AND SHALL CONFORM TO ANNA C 104. THE THICKNESS OF THE LINE SHALL BE NOT LESS THAN 1/16" THICK FOR 2" TO 12" PIPE, 3/32" THICK FOR 14" TO 24" PIPE, AND 1/8" THICK FOR 30" TO 54" PIPE. THE GROUND LINE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 150.
  - B. JOINTS SHALL BE TYTON PUSH-ON JOINTS, OR APPROVED EQUAL, OR MECHANICAL JOINT TYPE PER ANNA C 111 EXCEPT WHERE FLANGED JOINTS ARE REQUIRED TO CONNECT TO VALVES OR OTHER EQUIPMENT.
  - C. BOLTS AND NUTS FOR BURIED FLANGES LOCATED OUTDOORS, ABOVE GROUND, OR IN OPEN VAULTS IN STRUCTURES SHALL BE TYPE 316 STAINLESS STEEL, CONFORMING TO ASTM A 193, GRADE 80M FOR BOLTS, AND ASTM A 194, GRADE 8M FOR NUTS. BOLTS AND NUTS LARGER THAN ONE AND ONE-EIGHTH (1-1/8) INCHES SHALL BE STEEL, ASTM A 307, GRADE 8, WITH CHROMIUM PLATING, ASTM A 165, TYPE III.
  - D. BOLTS USED IN FLANGE INSTALLATION SETS SHALL CONFORM TO ASTM B 193, GRADE 87. NUTS SHALL COMPLY WITH ASTM A 194, GRADE 2K.
  - E. PROVIDE A WASHER FOR EACH NUT, WHERE NEEDED. WASHERS SHALL BE OF THE SAME MATERIAL AS THE NUTS.
  - F. ALL FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF ANNA C 110 AND ANNA C 111.
  - G. RESILIENT SEATED WEDGE GATE VALVES SHALL BE USED FOR TEN (10) INCH MAINS AND SMALLER. BUTTERFLY VALVES SHALL BE USED FOR MAINS GREATER THAN TEN (10) INCHES.
7. DETECTABLE MARKING TAPE SHALL BE INSTALLED 18" ABOVE PIPE, BE BLUE IN COLOR, AND READ "CAUTION WATER LINE BELOW" MEETING WSDOT SPEC. 9-10.1B.

**CITY OF PUYALLUP**  
OFFICE OF THE CITY ENGINEER  
APPROVED FOR PUBLICATION: 4/15/2018  
CITY STANDARD: 03.01.01

**DRAWINGS DEPICT BLOCK LOCATION, NOT SIZE. FOR SIZE SEE NOTES 3, 4, 5, AND CITY STD. 03.02.01-3**

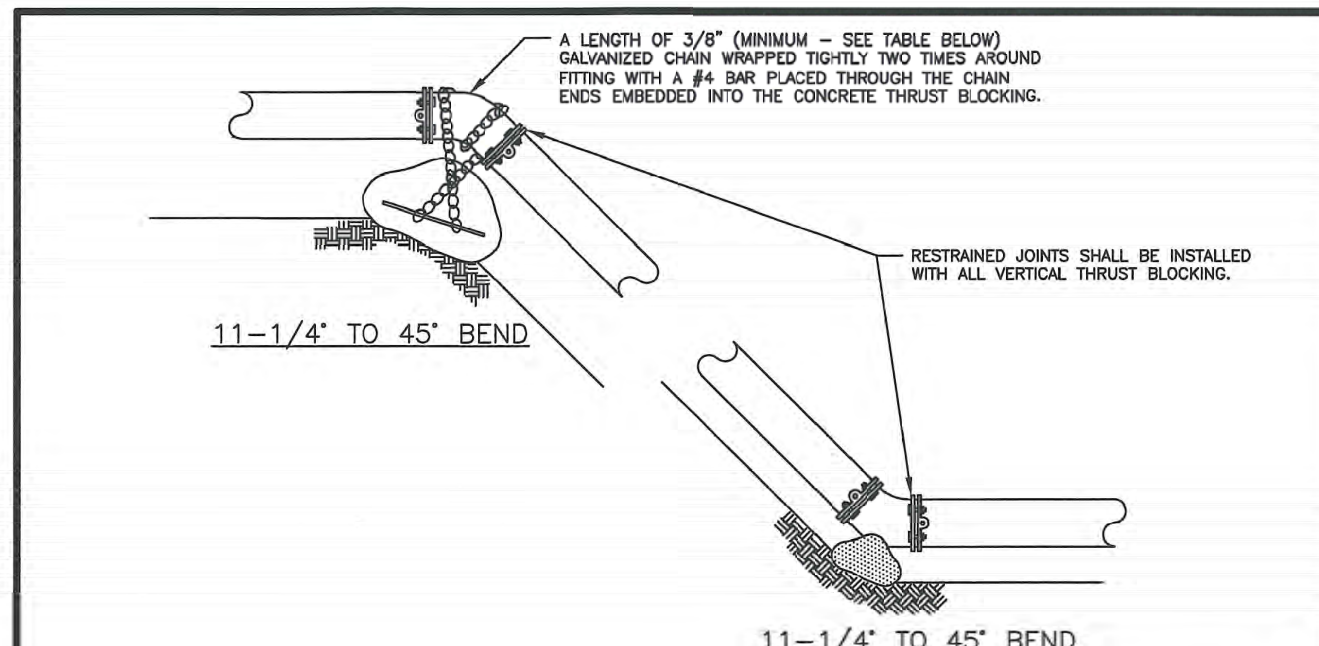


**HORIZONTAL THRUST BLOCKING**

**NOTES:**

1. THE FOLLOWING PRECAUTIONS MUST BE OBSERVED WHEN CONSTRUCTING THRUST BLOCKS:
  - A. BLOCKS MUST BE POURED AGAINST UNDISTURBED SOIL.
  - B. THE PIPE FITTINGS AND BOLTS MUST BE ACCESSIBLE. WRAP IN PLASTIC BEFORE POURING CONCRETE BLOCKING.
  - C. CONCRETE SHOULD BE CURED FOR AT LEAST 5 DAYS AND SHOULD HAVE A MINIMUM COMPRESSION STRENGTH OF 2,000 PSI AT 28 DAYS.
  - D. RESTRAINED JOINTS SHALL BE INSTALLED, IN ADDITION TO CONCRETE THRUST BLOCKING, WHEN THRUST BLOCK CURING TIME IS LIMITED.
  - E. BLOCKS MUST BE POSITIONED TO COUNTERACT THE DIRECTION OF THE RESULTANT THRUST FORCE.
2. ALL PIPE SHALL BE PROPERLY BEDDED, SEE CITY OF PUYALLUP STANDARD BEDDING DETAIL NO. 03.01.01.
3. CONTRACTOR TO PROVIDE BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE.
4. DIVIDE THRUST BY SAFE BEARING LOAD TO DETERMINE REQUIRED AREA (IN SQUARE FEET) OF CONCRETE TO DISTRIBUTE LOAD.
5. BEARING SURFACE AREAS TO BE ADJUSTED BY THE ENGINEER FOR OTHER PRESSURE AND/OR SOIL CONDITIONS.

**CITY OF PUYALLUP**  
OFFICE OF THE CITY ENGINEER  
APPROVED FOR PUBLICATION: 4/15/2018  
CITY STANDARD: 03.02.01-1



**VERTICAL THRUST BLOCKING**

**TABLE 1: CONCRETE BLOCKING FOR VERTICAL BENDS**

PIPE DIAMETER (INCHES)	TEST PRESSURE (PSI)	BEND ANGLE (DEG)	CONCRETE VOLUME (CY)	CURE SIZE (FEET)	CHAIN SIZE (INCHES)	CHAIN EMBEDMENT (INCHES)
4"	200	11.25'	6	1.8	3/8"	17"
		22.5'	12	2.3		
		40'	22	2.8		
6"	200	11.25'	14	2.4	3/8"	17"
		22.5'	27	3.0		
		40'	50	3.7		
8"	200	11.25'	25	2.9	3/8"	17"
		22.5'	48	3.8		
		40'	89	4.5		
10"	200	11.25'	38	3.4	3/8"	17"
		22.5'	75	4.2		
		40'	139	5.2		
12"	200	11.25'	55	3.8	3/8"	17"
		22.5'	108	4.8		
		40'	200	5.8		
14"	200	11.25'	75	4.2	3/8"	17"
		22.5'	147	5.3		
		40'	272	6.5		
16"	200	11.25'	98	4.8	3/8"	17"
		22.5'	192	5.8		
		40'	355	7.1		

**ALL NOTES ON CITY STANDARD 03.02.01-1 SHALL APPLY TO THIS DETAIL. SEE CITY STANDARD 03.02.01-3 FOR ADDITIONAL INFORMATION.**

**CITY OF PUYALLUP**  
OFFICE OF THE CITY ENGINEER  
APPROVED FOR PUBLICATION: 4/15/2018  
CITY STANDARD: 03.02.01-2

**THRUST BLOCKING TABLE**

**TABLE 2: THRUST AT FITTINGS AT 200 PSI**

SIZE	TEST PRESSURE (PSI)	THRUST FITTINGS AT 200 PSI				
		A	B	C	D	E
4"	200	3,140	2,405	1,225	815	
6"	200	7,070	9,395	5,410	2,760	1,385
8"	200	12,565	17,770	9,820	4,905	2,465
10"	200	19,825	27,770	15,030	7,860	3,850
12"	200	28,275	39,885	21,840	11,030	5,545
14"	200	38,485	54,425	29,455	15,015	7,545
16"	200	50,265	71,085	38,470	19,815	9,855

**TABLE 3: BEARING VALUE OF SOIL**

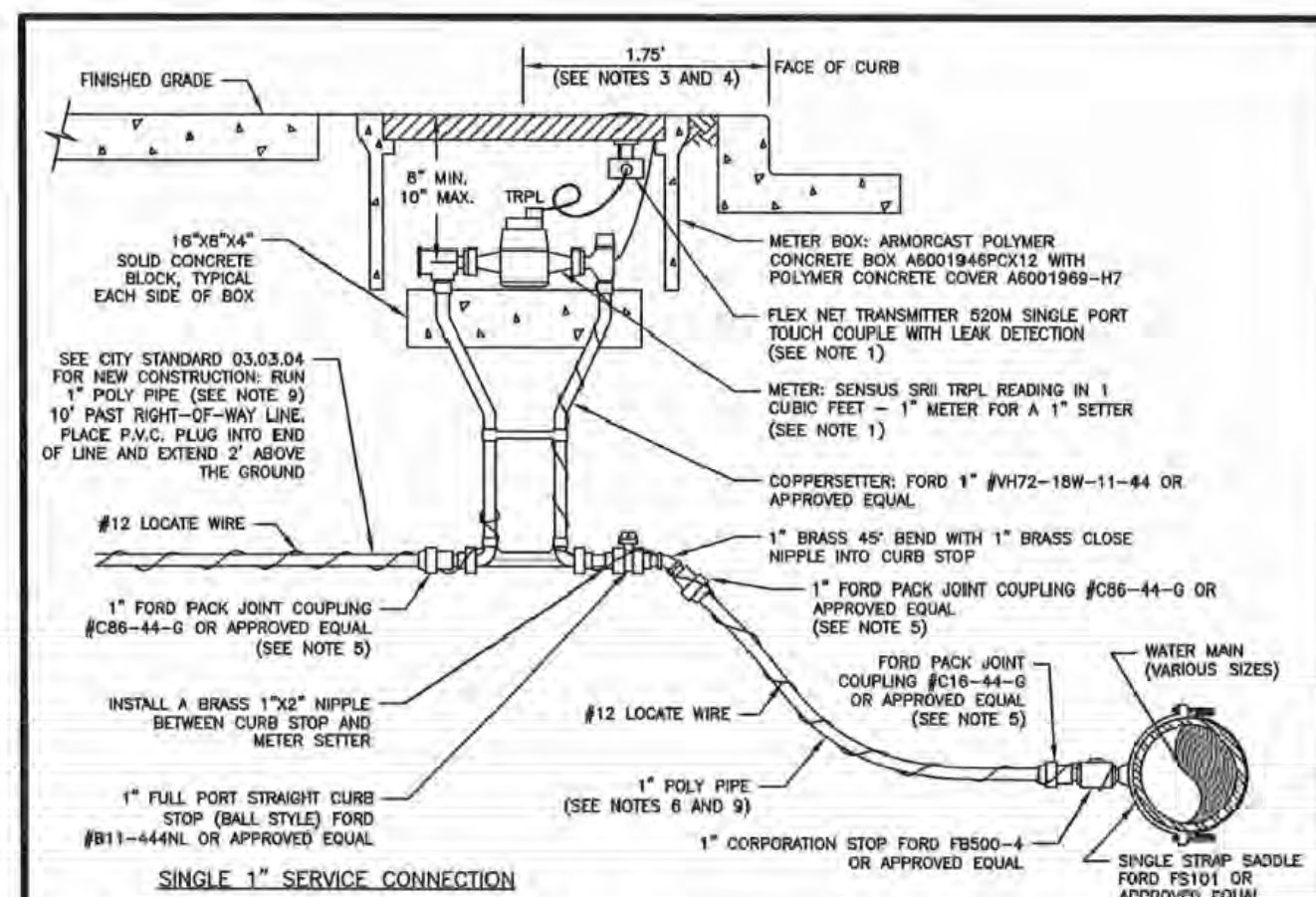
SOIL TYPE	SAFE BEARING LOAD (LBS/SF)
MUCK, PEAT, ETC.	0
SOFT CLAY/ALLUVIAL SOIL	1,000
SAND	2,000
SAND AND GRAVEL	3,000
SAND AND GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

**SEE CITY STANDARDS 03.02.01-1 AND 03.02.01-2 FOR ADDITIONAL INFORMATION.**

**NOTES:**

1. TO DETERMINE THRUST AT PRESSURES OTHER THAN PSI SHOWN, MULTIPLY THE THRUST OBTAINED IN TABLE 2 BY THE RATIO OF THE PRESSURE TO 200 PSI.  
EXAMPLE: THE THRUST ON A 12 INCH, 90° BEND AT 300 PSI.  
39,885 x 300/200 = 59,828 LBS
2. TO DETERMINE THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET (SF):  
EXAMPLE: FOR SAND AND GRAVEL BEARING VALUE FROM TABLE 3 IS 3,000 LBS/SF  
59,828 LBS ÷ 3,000 LBS/SF = 20 SF OF AREA
3. CONTRACTOR TO PROVIDE BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE.
4. AREAS SHALL BE ADJUSTED FOR OTHER PRESSURE CONDITIONS.
5. NO WATER MAIN SHALL DEAD END AGAINST A MAIN LINE VALVE. DEAD END WATER MAINS SHALL BE BLOCKED AGAINST A RESTRAINED MECHANICAL JOINT (M.J.) PLUG OR CAP.

**CITY OF PUYALLUP**  
OFFICE OF THE CITY ENGINEER  
APPROVED FOR PUBLICATION: 4/15/2018  
CITY STANDARD: 03.02.01-3

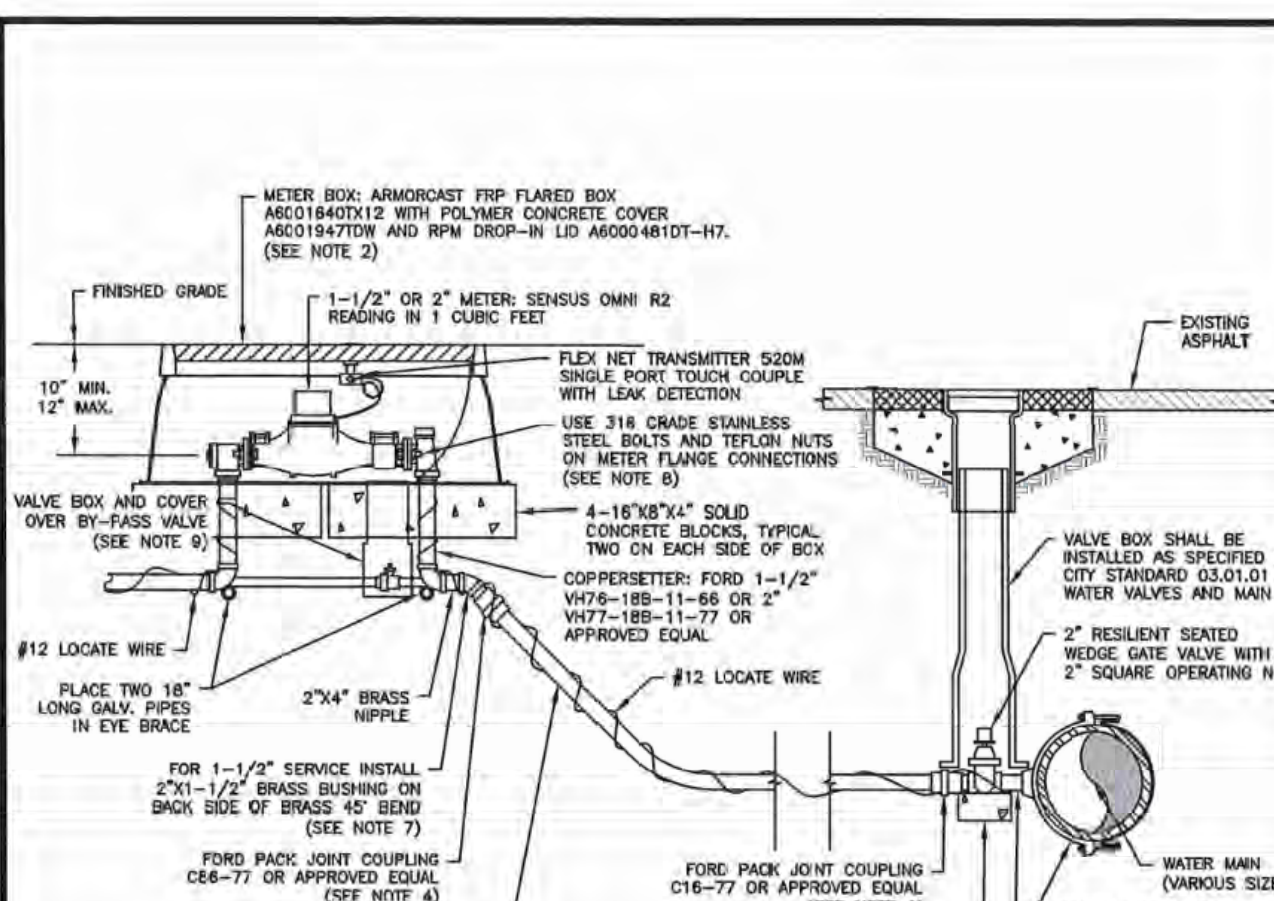


**1" WATER SERVICE CONNECTION**

**NOTES:**

1. FOR SINGLE FAMILY RESIDENTIAL CONSTRUCTION, THE CITY SHALL SUPPLY AND INSTALL THE WATER METER AND TRANSMITTER AT THE TIME OF OCCUPANCY. FOR COMMERCIAL CONSTRUCTION, THE CONTRACTOR SHALL SUPPLY AND INSTALL THE METER AND TRANSMITTER.
2. ALL MATERIAL AND FITTINGS SHALL BE AS SPECIFIED OR AN APPROVED EQUAL.
3. NORMALLY THE WATER METER BOX SHOULD BE LOCATED IN THE PLANTING STRIP. IF SIDEWALK IS AGAINST THE CURB, PLACE METER BOX DIRECTLY BEHIND THE SIDEWALK.
4. THE WATER METER BOX SHALL NOT BE LOCATED IN HARD SURFACES, WHEN UNAVOIDABLE, EXCEPTIONS CAN BE MADE AT END OF CURB-CUTS OR PAH HANGLED LOTS, AND TIE TO 22 INCHING IN.
5. ALL COUPLINGS SHALL USE PIPE INSERT STIFFENERS.
6. THE WATER SERVICE LINE SHALL BE BEDDED IN WASHED SAND WITH 36" OF COVER BELOW FINISHED GRADE WITHIN THE RIGHT-OF-WAY. THE WATER SERVICE LINE SHALL BE ONE CONTINUOUS PIECE WITH NO SPLICES.
7. WATER MAIN SHALL HAVE A MINIMUM COVER OF 24" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM COVER OF 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
8. DUAL SERVICE SHALL BE CONTINUED ON PROPERTY LINE.
9. ALL POLY PIPE SHALL BE HIGH DENSITY POLY (HDN PIPE SIZE) MEETING ASTM D-2239-SDR 7, BLUE IN COLOR, 200 PSI MINIMUM.
10. ALL WATER SERVICE LINES SHALL BE INSTALLED PERPENDICULAR (90 DEGREES) TO THE POINT OF CONNECTION TO THE WATER MAIN.

**CITY OF PUYALLUP**  
PUBLIC WORKS AND DEVELOPMENT ENGINEERING  
APPROVED FOR PUBLICATION: 4/15/2018  
CITY STANDARD: 03.03.01-2

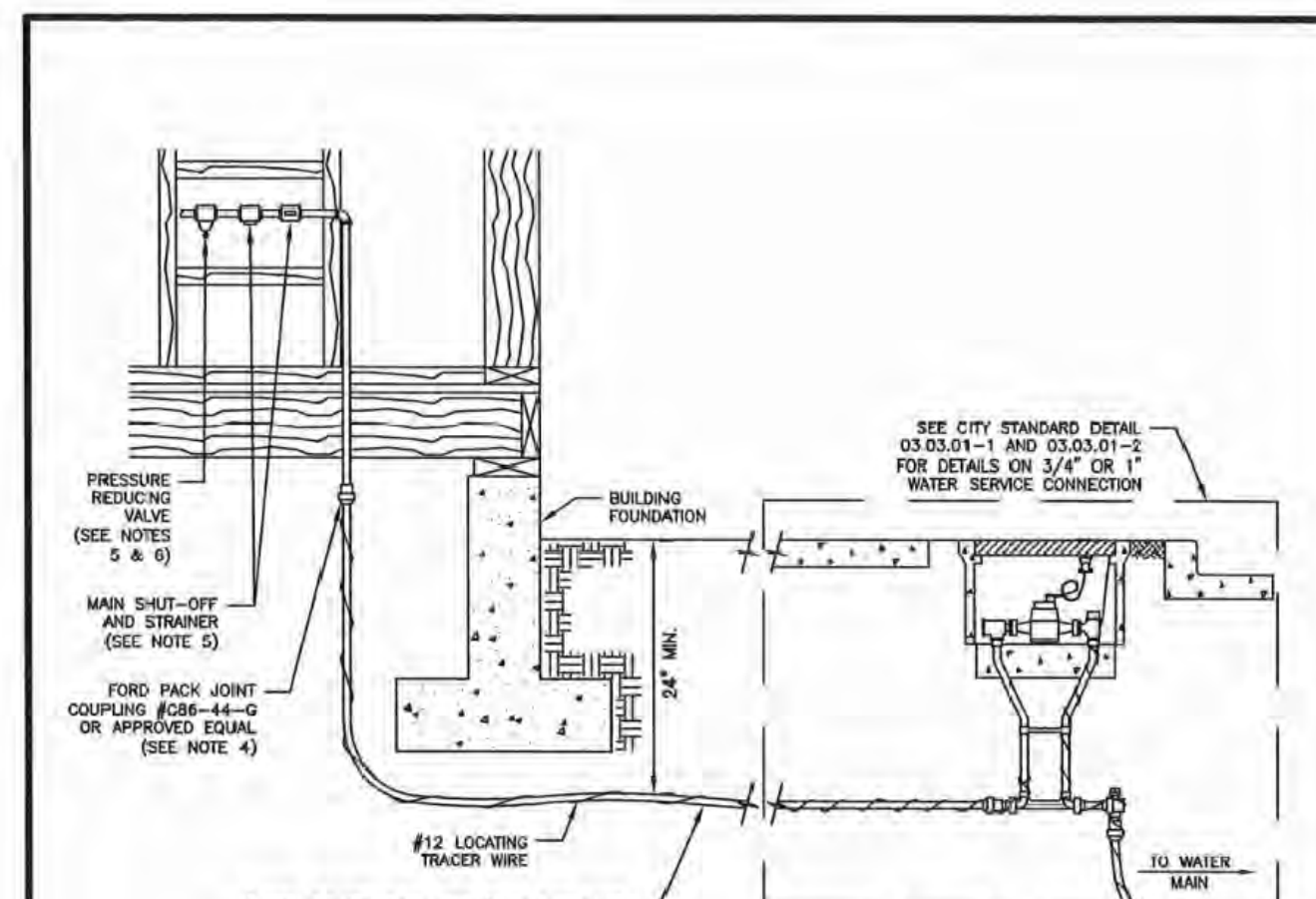


**1-1/2" AND 2" WATER SERVICE CONNECTION**

**NOTES:**

1. ALL MATERIALS AND FITTINGS SHALL BE AS SPECIFIED OR AN APPROVED EQUAL.
2. NORMALLY THE WATER METER BOX SHOULD BE LOCATED IN THE PLANTING STRIP. IF SIDEWALK IS AGAINST THE CURB, PLACE METER BOX DIRECTLY BEHIND THE SIDEWALK. THE WATER METER BOX SHALL NOT BE LOCATED IN HARD SURFACES, WHEN UNAVOIDABLE, EXCEPTIONS CAN BE MADE AT END OF CURB-CUTS OR PAH HANGLED LOTS, AND TIE TO 22 INCHING IN.
3. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
4. ALL POLY PIPE COUPLINGS SHALL USE PIPE INSERT STIFFENERS.
5. THE WATER SERVICE LINE SHALL BE BEDDED IN WASHED SAND WITH 36" OF COVER BELOW FINISHED GRADE WITHIN THE RIGHT-OF-WAY. THE WATER SERVICE LINE SHALL BE ONE CONTINUOUS PIECE WITH NO SPLICES.
6. ALL POLY PIPE SHALL BE HIGH DENSITY POLY (HDN PIPE SIZE) MEETING ASTM D-2239-SDR 7, BLUE IN COLOR, 200 PSI MINIMUM.
7. FOR A 1-1/2" WATER SERVICE, ALL MATERIAL SHALL BE 2" FROM THE WATER MAIN TO THE COPPERSTREET. REDUCE FROM 2" TO 1-1/2" IMMEDIATELY BEFORE COPPERSTREET.
8. THE STAINLESS STEEL METER FLANGE BOLTS SHALL BE 5/8" DIAMETER FOR THE 1-1/2" METER, AND 3/4" DIAMETER FOR THE 2" METER.
9. PROVIDE A 6" CIRCULAR VALVE BOX WITH COVER (APPLIED ENGINEERING PRODUCT MODEL 705 WITH GREEN LID OR AN APPROVED EQUAL) COVER BY-PASS VALVE.
10. ALL WATER SERVICE LINES SHALL BE INSTALLED PERPENDICULAR (90 DEGREES) TO THE POINT OF CONNECTION TO THE WATER MAIN.

**CITY OF PUYALLUP**  
PUBLIC WORKS AND DEVELOPMENT ENGINEERING  
APPROVED FOR PUBLICATION: 4/15/2018  
CITY STANDARD: 03.03.02



**PRIVATE WATER SERVICE LINES**

**NOTES:**

1. SERVICE LINE MAY BE 200 PSI POLY PIPE IN UNCONTAMINATED SOILS. IN SOILS THAT MAY CONTAIN HYDROCARBONS USE 1" x 1" COPPER PIPE.
2. PIPE TO BE BEDDED WITH MATERIAL FREE OF ROCKS.
3. POLY PIPE SHOULD BE PLACED IN THE TRENCH IN A SNAKELIKE FASHION (NOT STRAIGHT WITHOUT SLAG). THIS WILL ACCOMMODATE GROUND MOVEMENT AND KEEP PRESSURE OFF THE FITTINGS.
4. PLASTIC WATER SERVICE PIPING MAY TERMINATE WITHIN A BUILDING, PROVIDED THE CONNECTION TO THE POTABLE WATER DISTRIBUTION SYSTEM SHALL BE ACCESSIBLE. SEE THE CURRENT UNIFORM PLUMBING CODE FOR MORE INFORMATION.
5. THE MAIN SHUT-OFF VALVE, PRESSURE REDUCING VALVE, AND STRAINER SHALL BE LOCATED INSIDE THE BUILDING IN AN ACCESSIBLE LOCATION. THEY SHOULD BE LOCATED BEFORE ANY BRANCH CONNECTIONS AND PROTECTED FROM FREEZING. THE MAIN SHUT-OFF VALVE SHALL BE BRASS.
6. ALL PROPERTIES WITH WATER SERVICE CONNECTIONS LOCATED SOUTH OF 15TH AVE SE AND SOUTH OF 15TH AVE SW SHALL HAVE AN APPROVED PRIVATELY OWNED AND PRIVATELY MAINTAINED PRESSURE REDUCING VALVE (PRV) LOCATED ON THEIR WATER SERVICE LINE.
7. ALL PROPERTIES WITH IRRIGATION BRANCH CONNECTIONS LOCATED SOUTH OF 15TH AVE SE AND SOUTH OF 15TH AVE SW SHOULD HAVE AN APPROVED PRIVATELY OWNED AND PRIVATELY MAINTAINED PRESSURE REDUCING VALVE (PRV) LOCATED ON THEIR IRRIGATION BRANCH LINE.
8. ALL INSTALLATIONS WITHIN TWO (2) FEET OF THE BUILDING SHALL COMPLY WITH THE CURRENT UNIFORM PLUMBING CODE.

**CITY OF PUYALLUP**  
PUBLIC WORKS AND DEVELOPMENT ENGINEERING  
APPROVED FOR PUBLICATION: 4/15/2018  
CITY STANDARD: 03.03.04

**WATER SYSTEM PLAN NOTES:**

1. All work in City right-of-way requires a permit from the City of Puyallup. Prior to any work commencing, the general contractor shall arrange for a preconstruction meeting at the Development Services Center to be attended by all contractors that will perform work shown on the engineering plans, representatives from all applicable utility companies, the project owner and appropriate City staff. Contact Engineering Services to schedule the meeting (253) 841-5568. The contractor is responsible to have their own approved set of plans at the meeting.
2. After completion of all items shown on these plans and before acceptance of the project, the contractor shall obtain a punch list prepared by the City's inspector detailing remaining items of work to be completed. All items of work shown on these plans shall be completed to the satisfaction of the City prior to acceptance of the water system and provision of sanitary sewer service.
3. All materials and workmanship shall conform to the Standard Specifications for Road, Bridge, and Municipal Construction (hereinafter referred to as the Standard Specifications), Washington State Department of Transportation and American Public Works Association, Washington State Chapter, latest edition unless superseded or amended by the City of Puyallup City Standards for Public Works Engineering and Construction (hereinafter referred to as the City Standards), or as directed by Fruitland Mutual Water Company (FMWC), Valley Water (WV), or Tacoma Water (TW) is the purveyor.
4. A copy of these approved plans and applicable city developer specifications and details shall be on site during construction.
5. Any revisions made to these plans must be reviewed and approved by the developer's engineer, the Engineering Services Staff, and the FMWC, WV or TW when served by that purveyor, prior to any implementation in the field. The City shall not be responsible for any errors and/or omissions on these plans.
6. The contractor shall have all utilities verified on the ground prior to any construction. Call (811) at least two working days in advance. The owner and his/her engineer shall be contacted immediately if a conflict exists.
7. Any structure and/or obstruction which requires removal or relocation relating to this project shall be done so at the developer's expense.
8. Bacteriological (Coliform and Iron Bacteria) test samples will be taken by the City (or FMWC, WV or TW when served by that purveyor) and paid for by the contractor, except for Capital Improvement Projects (CIP) which shall be paid for by the City.
9. Water mains shall have a minimum cover of 36 inches from paved final grade in improved right-of-way and improved easements, and a minimum of 48 inches in unimproved right-of-way and unimproved easements.
10. Pipe for water mains shall be ductile iron conforming to Section 7-09 of the Standard Specifications, Class 52 with tyton or approved equal joints. Pipe shall be cement lined in accordance with A.S.A. Specification A 214-1964.

**WATER NOTES CONTINUED ON W-6**

**APPROVED**

BY: FRUITLAND MUTUAL WATER  
DATE: \_\_\_\_\_

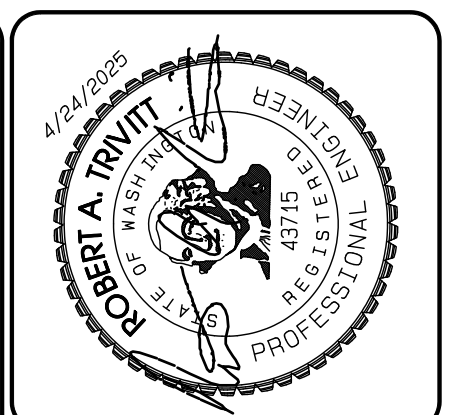
**NOTE:** THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE. WATER PURVEYOR WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE WATER PURVEYOR.

**APPROVED**

BY: CITY OF PUYALLUP DEVELOPMENT SERVICES  
DATE: \_\_\_\_\_

**NOTE:** THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

**DRAWING**  
**W-5**  
SHEET 59 OF 60



REVISION	DATE	DESCRIPTION
1	1/15/24	1. Revised per City review and Mail A adjustment.
2	3/1/25	2. Revised per City review.
3	4/27/25	3. Revised per City & Ashi review.
4		4. Revised per City & Ashi review.
5		5. Revised per City & Ashi review.
6		6. Revised per City & Ashi review.
7		7. Revised per City & Ashi review.
8		8. Revised per City & Ashi review.
9		9. Revised per City & Ashi review.
10		10. Revised per City & Ashi review.

FOR NO. 3257  
DATE: May 14, 2024  
DESIGNED BY: D. Travitt  
DRAWN BY: R. Travitt  
CHECKED BY: R. Travitt  
APPROVED BY: R. Travitt

**Water Details**

**Bradley Heights**

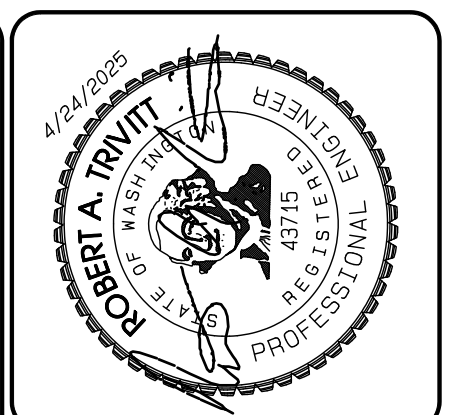
**AZURE GREEN CONSULTANTS**  
+ feasibility + planning + engineering + surveying  
409 East Pioneer, Suite A, Puyallup, WA 98372  
phone: 253.770.3144, fax: 253.770.3142

**Timberline Partners**  
1816 11th Ave Unit C  
Seattle, WA 98122  
Phone: 509.896.0326  
Fax: jordan@timberlinepartners.com

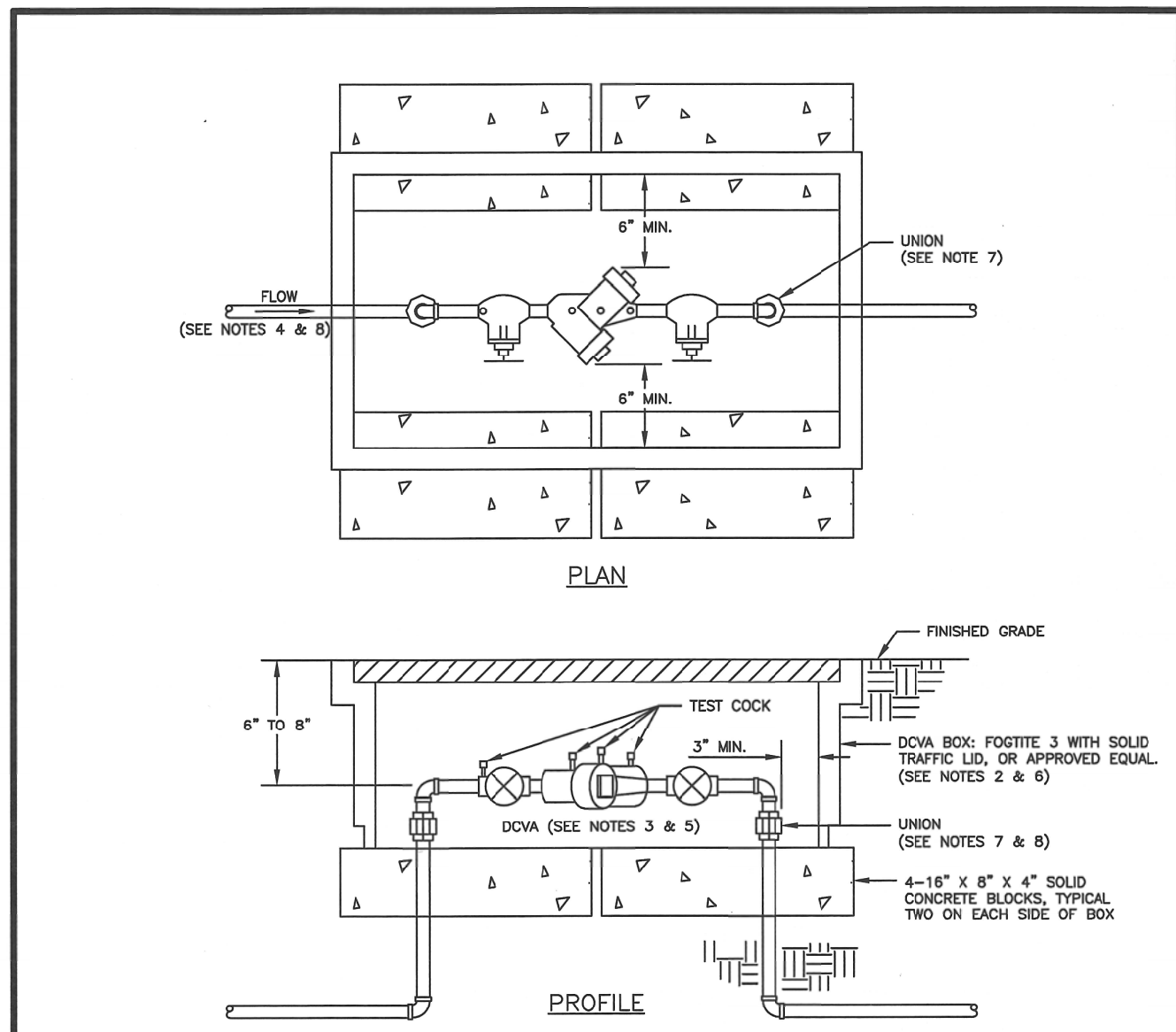
Project Name: Bradley Heights  
Date: E:\Projects\Bradley Heights\Drawings\20250624\_Eng.dwg  
Plot Date: 7/1/25  
4/24/2025 9:42:28 AM

# Bradley Heights

## Section 3, Township 19 N, Range 4 E, Willamette Meridian, Pierce County, Washington



REVISION	DATE
1	11/26/24
2	3/1/25
3	4/27/25
4	
5	
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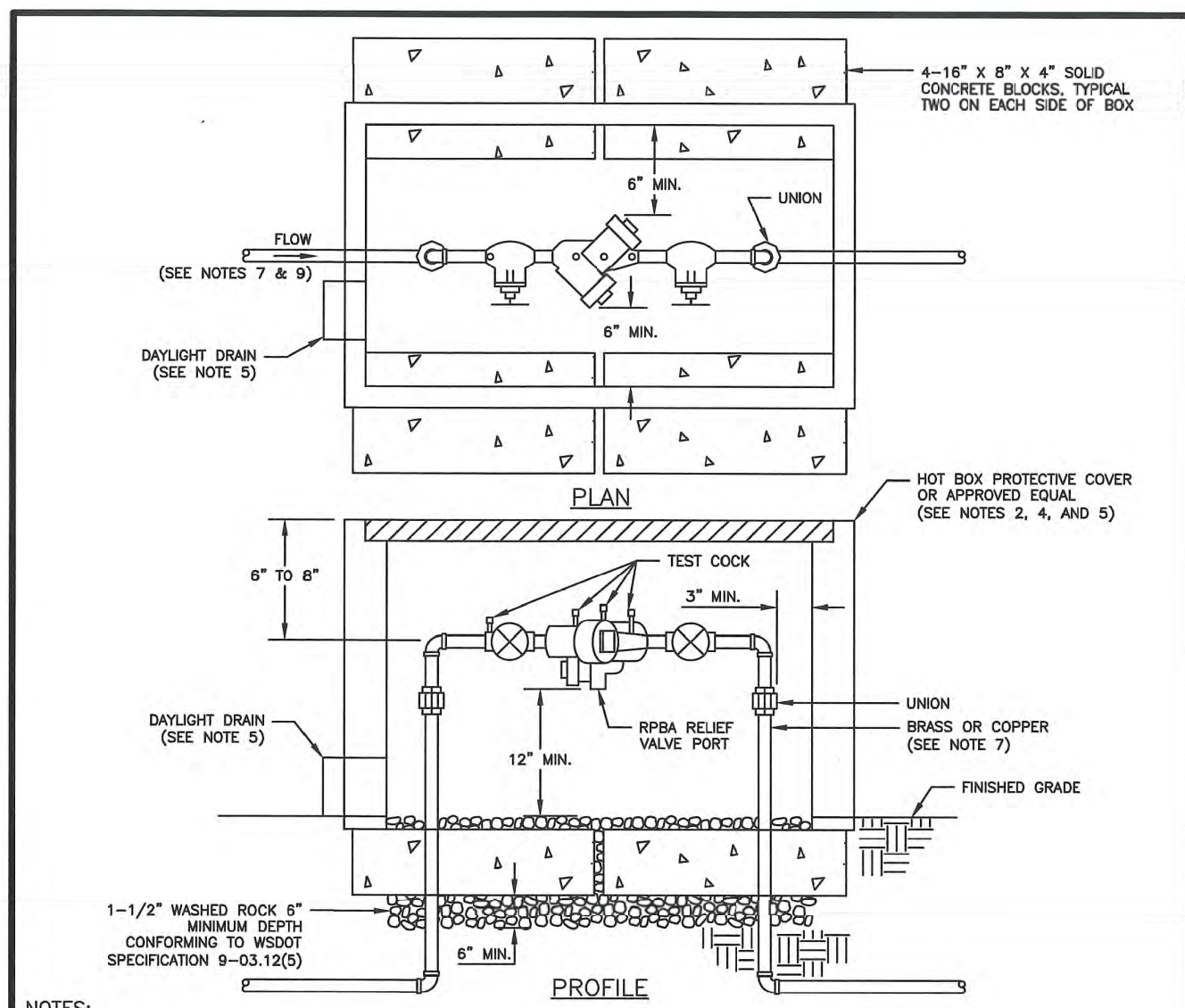


- NOTES:**
- BACKFLOW ASSEMBLY MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH'S LIST OF BACKFLOW PREVENTION ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE, LATEST EDITION.
  - THE DOVA SHALL BE INSTALLED WITH ADEQUATE SPACE TO FACILITATE MAINTENANCE AND TESTING. IT SHALL BE TESTED AFTER INSTALLATION, BY A WASHINGTON STATE CERTIFIED BACK-FLOW ASSEMBLY TESTER, TO INSURE ITS SATISFACTORY OPERATION BEFORE OCCUPANCY, AND ANNUALLY THEREAFTER. SEND TEST RESULTS TO: CITY OF PUYALLUP, WATER QUALITY OPERATIONS, 1100 39TH AVE SE, PUYALLUP, WA 98374.
  - DOVA MUST BE PURCHASED AS A UNIT. NO MODIFICATIONS TO THE ASSEMBLY ARE ALLOWED.
  - DOVA SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF WATER METER. WHEN IRRIGATION SYSTEM IS CONNECTED OFF DOMESTIC WATER LINE, IRRIGATION DOVA SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF THE BRANCH CONNECTION.
  - DOVA SHALL BE SIZED EQUAL TO COMPAREABLE TO METER SIZE.
  - METER BOX SHALL BE LARGE ENOUGH TO ALLOW THE MINIMUM SETBACKS ILLUSTRATED ABOVE. METER BOX LID SHALL BE A TRAFFIC LID WITH A H-20 LOADING.
  - ELECTRIC UNIONS MUST BE USED TO SEPARATE DISSIMILAR MATERIALS.
  - USE ONLY BRASS OR COPPER BETWEEN THE METER AND THE UNION ON THE CUSTOMER'S SIDE OF THE DOVA.

**2" AND SMALLER DOUBLE CHECK VALVE ASSEMBLY INSTALLATION**

CITY OF PUYALLUP  
OFFICE OF THE CITY ENGINEER

CITY STANDARD 03.04.01

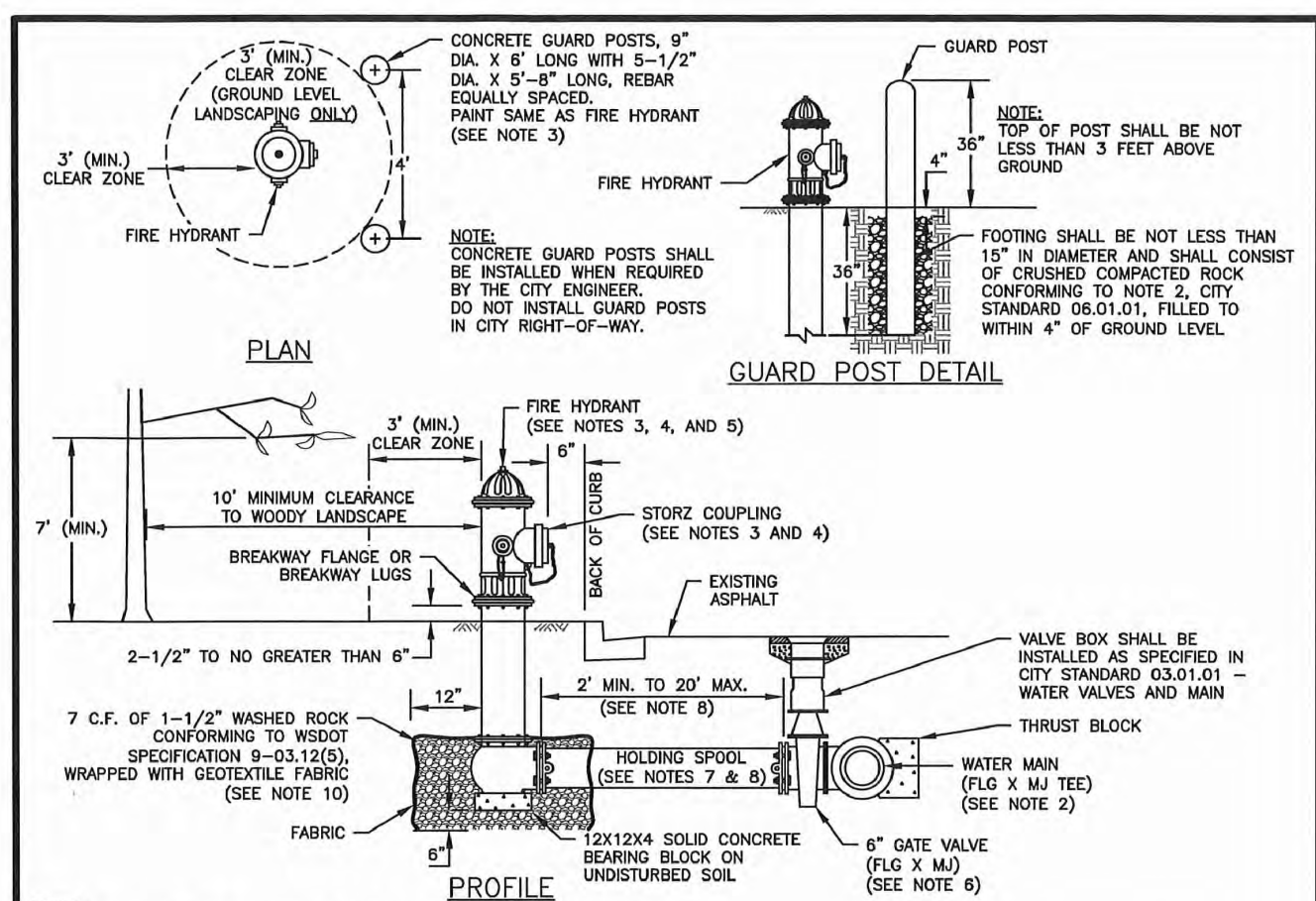


- NOTES:**
- BACKFLOW ASSEMBLY MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH'S LIST OF BACKFLOW PREVENTION ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE, LATEST EDITION.
  - THE RPBA SHALL BE INSTALLED WITH ADEQUATE SPACE TO FACILITATE MAINTENANCE AND TESTING. IT SHALL BE TESTED AFTER INSTALLATION, BY A WASHINGTON STATE CERTIFIED BACK-FLOW ASSEMBLY TESTER, TO INSURE ITS SATISFACTORY OPERATION BEFORE OCCUPANCY, AND ANNUALLY THEREAFTER. SEND TEST RESULTS TO: CITY OF PUYALLUP, WATER QUALITY OPERATIONS, 1100 39TH AVE SE, PUYALLUP, WA 98374.
  - THE RPBA MUST BE PURCHASED AS A UNIT. NO MODIFICATIONS TO THE ASSEMBLY ARE ALLOWED.
  - THE RPBA SHALL NOT BE INSTALLED IN A PIT BELOW GROUND LEVEL.
  - THE PROTECTIVE COVERING FOR THE RPBA, WHICH PROTECTS THE ASSEMBLY FROM FREEZING, MUST INCLUDE A DAYLIGHT DRAIN. THE DRAIN MUST BE INSTALLED ABOVE GROUND OR ABOVE THE MAXIMUM FLOOD LEVEL, WHICHEVER IS HIGHER. THE DRAIN MUST BE A MINIMUM OF TWICE THE SIZE OF THE RPBA, TO BE ABLE TO HANDLE THE VOLUME OF WATER THAT POTENTIALLY COULD BE DISCHARGED FROM THE RELIEF VALVE PORT.
  - THE RPBA SHALL BE SIZED EQUAL TO COMPAREABLE TO METER SIZE.
  - USE ONLY BRASS OR COPPER BETWEEN THE METER AND THE BOTTOM VERTICAL, 90 DEGREE BEND ON THE CUSTOMER'S SIDE OF THE RPBA.
  - ELECTRIC UNIONS MUST BE USED TO SEPARATE DISSIMILAR MATERIALS.
  - THE RPBA SHOULD BE LOCATED IMMEDIATELY DOWN STREAM OF THE METER, AND SHOULD NOT BE INSTALLED INSIDE A BUILDING.
  - AN RPBA INSTALLED MORE THAN FIVE (5) FEET ABOVE FLOOR LEVEL MUST HAVE A PLATFORM UNDER IT FOR THE TESTER OR MAINTENANCE PERSON TO STAND ON. THE PLATFORM MUST BE OSHA APPROVED AND MEET ALL APPLICABLE SAFETY STANDARDS AND CODES.

**2" AND SMALLER REDUCED PRESSURE BACKFLOW ASSEMBLY INSTALLATION**

CITY OF PUYALLUP  
OFFICE OF THE CITY ENGINEER

CITY STANDARD 03.04.02

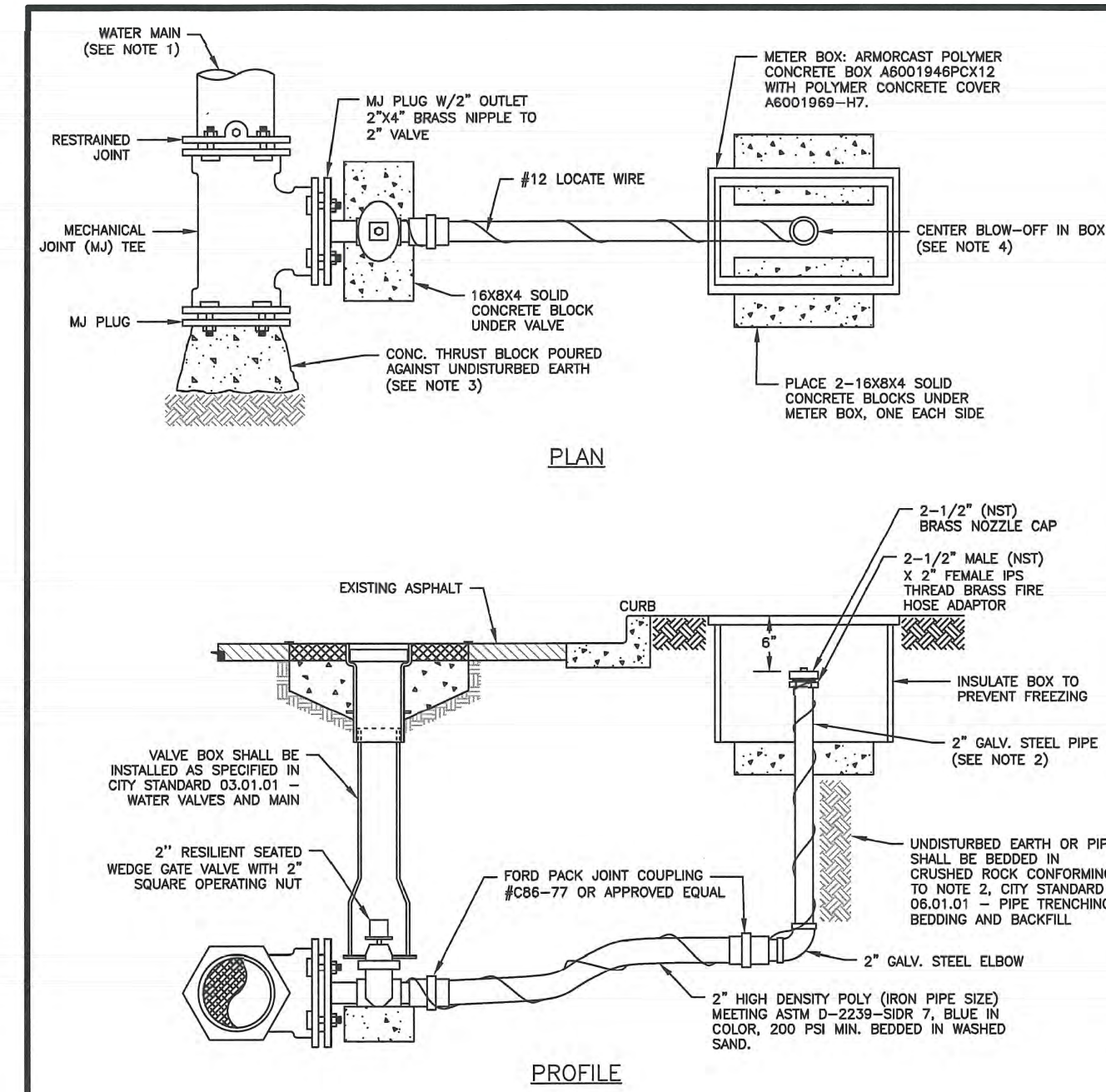


- NOTES:**
- ALL MATERIALS AND FITTINGS SHALL BE AS SPECIFIED OR APPROVED EQUAL.
  - WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
  - FIRE HYDRANTS AND CONCRETE GUARD POSTS SHALL BE PAINTED, RUST-OLEUM SAFETY YELLOW #7543 (TWO COATS) OR AN APPROVED EQUAL. THE STROKE FITTING SHALL NOT BE PAINTED.
  - FIRE HYDRANTS SHALL HAVE TWO 2-1/2" HOSE PORTS (NATIONAL STANDARD THREAD) WITH CAPS AND CHANGS AND ONE 4" PUMPER PORT (8B TACOMA STEAMER PORT THREAD) WITH A 5" STORZ COUPLING AND BLEND CAP INSTALLED ON THE STEAMER PORT. (STEAMER PORT SHALL FACE THE STREET). 1-1/4" PYROCLONIC OPERATING NUT (COUNTER-CLOCKWISE OPENING), G-RING TYPE STUFFING BOX, AUTOMATIC BARREL DRAINS AND 2-1/4" MAIN VALVE OPENING. HYDRANTS SHALL BE DESIGNED IN A MANNER THAT WILL PREVENT BARREL BREAKAGE WHEN STRUCK BY A VEHICLE. HYDRANTS SHALL CONFORM TO THE LATEST REVISION OF ANSA SPECIFICATIONS NO. C-503-73 FOR FIRE HYDRANTS FOR ORDINARY WATER SERVICE. FIRE HYDRANTS SHALL INCLUDE THE ENTIRE ASSEMBLY COMPLETE, INCLUDING HOUSING, GATE VALVE AND BOX, CONNECTING PIPING, FITTINGS AND ACCESSORIES.
  - FIRE HYDRANTS SHALL BE AWC, FLOW MEDIUM, M & H 1200, MUELLER CENTURION, OR WATERLOO.
  - GATE VALVES SHALL CONFORM TO THE LATEST ANSA SPECIFICATIONS FOR COLD WATER, RESILIENT SEATED WEDGE GATE VALVES, 200 PSI WORKING PRESSURE. THEY SHALL BE IRON-BODIED BRONZE-MOUNTED, NON-REISING STEEL, COUNTER-CLOCKWISE OPENING, MECHANICAL JOINT BY FLANGED. VALVE STEMS SHALL BE PROVIDED WITH O-RING SEALS AND SHALL BE AS MANUFACTURED BY THE MUELLER COMPANY OR APPROVED EQUAL.
  - THE HOLDING SPOOL SHALL BE A MECHANICAL-JOINT (M.J.) HOLDING SPOOL, WITH THE USE OF MEGA-LUG CONNECTORS OR APPROVED EQUAL WITH CLASS 52 DUCTILE IRON PIPE.
  - GATE VALVES BETWEEN WATER MAIN AND FIRE HYDRANT IS GREATER THAN 17 FEET, RESTRAINED JOINTS ARE REQUIRED ON ANY ADDITIONAL JOINTS. THE MAXIMUM 6-INCH HYDRANT RUN ALLOWED IS 20 FEET. ANY PROPOSED HYDRANT RUN EXCEEDING 20' IN LENGTH SHALL BE SIZED USING AN ENGINEERED HYDRANT FIRE FLOW MODEL. ANY HYDRANT RUN EXCEEDING 50 FEET IN LENGTH SHALL BE NO LESS THAN 8-INCHES IN DIAMETER.
  - FIRE HYDRANTS SHALL BE LOCATED A MINIMUM OF 50 FEET FROM A BUILDING OR STRUCTURE.
  - THE CONTRACTOR SHALL PLACE A 6 OZ. GEOTEXTILE FABRIC AROUND THE WASHED ROCK AREA, ENDS TO OVERLAP.
  - A FLUORESCENT ORANGE BNC MUST COVER AND BE SECURED TO THE FIRE HYDRANT UNTIL APPROVED FOR USE BY CITY ENGINEER.
  - A MINIMUM THREE FOOT (3') RADII UNRESTRICTED CLEAR ZONE (WORK AREA) SHALL BE PROVIDED AROUND ALL FIRE HYDRANTS. ADDITIONALLY, NO WOODY LANDSCAPE SHALL BE PLANTED WITHIN TEN FEET (10') OF ANY FIRE HYDRANT. OVERHANGING BRANCHES OF TREES ADJACENT TO HYDRANTS SHALL HAVE A MAINTAINED VERTICAL CLEARANCE OF SEVEN (7) FEET ABOVE FINISHED GRADE OF THE FIRE HYDRANT.

**FIRE HYDRANT ASSEMBLY**

CITY OF PUYALLUP  
OFFICE OF THE CITY ENGINEER

CITY STANDARD 03.05.01

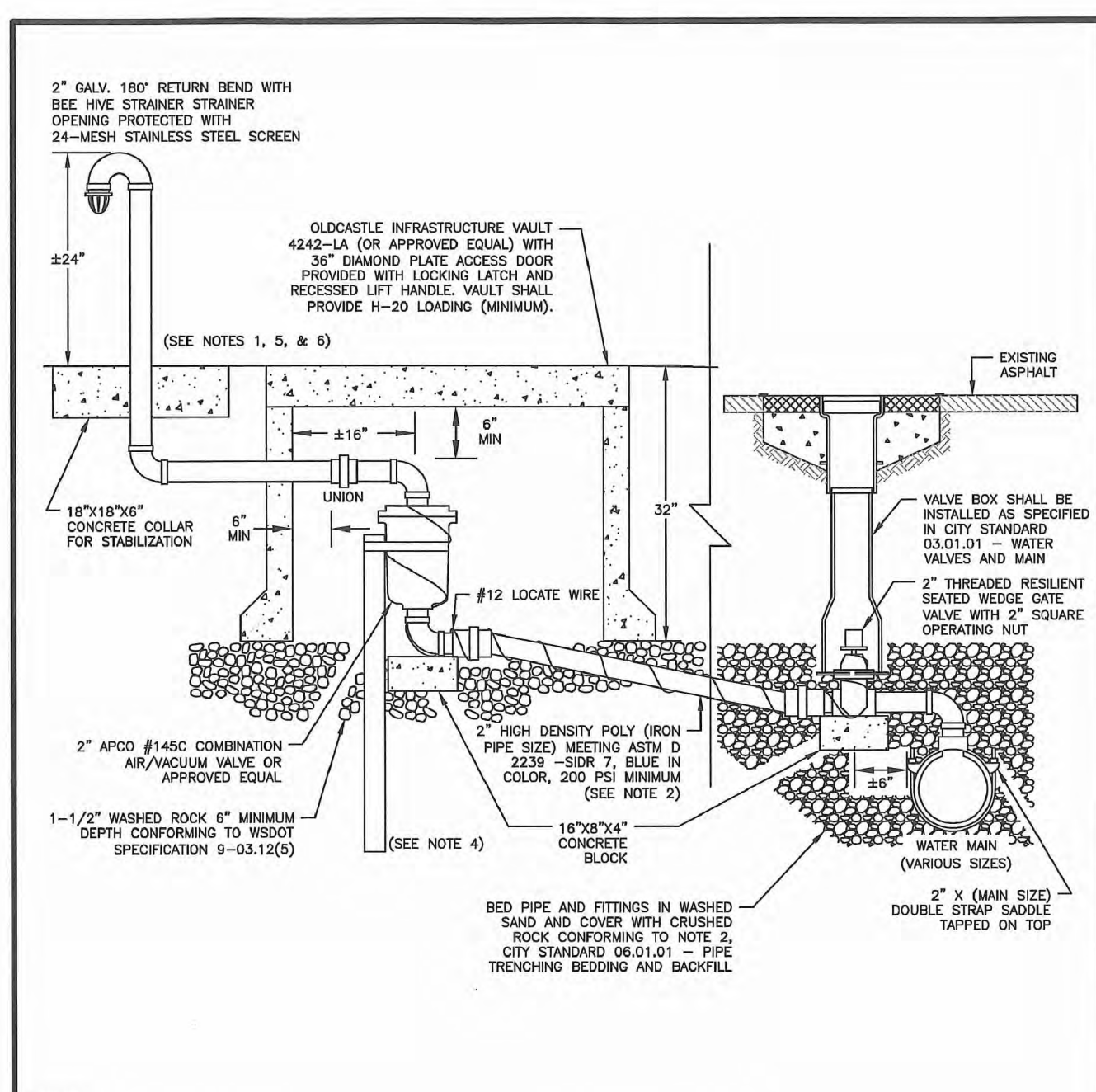


- NOTES:**
- WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
  - OVERALL LENGTH OF RISER IS 6" SHORTER THAN NORMAL DEPTH OF BURIAL.
  - THE PIPE JOINT AND BOLTS MUST BE ACCESSIBLE. WRAP IN PLASTIC BEFORE POURING CONCRETE BLOCKING.
  - PLACE BLOW-OFF ASSEMBLY IN CENTER OF UTILITY STRIP. IF NO UTILITY STRIP, PLACE BLOW-OFF ASSEMBLY 2' OFF EDGE OF ROAD. THE BLOW-OFF BOX SHALL NOT BE LOCATED IN WALK SURFACES.

**2" BLOW-OFF ASSEMBLY**

CITY OF PUYALLUP  
OFFICE OF THE CITY ENGINEER

CITY STANDARD 03.06.01

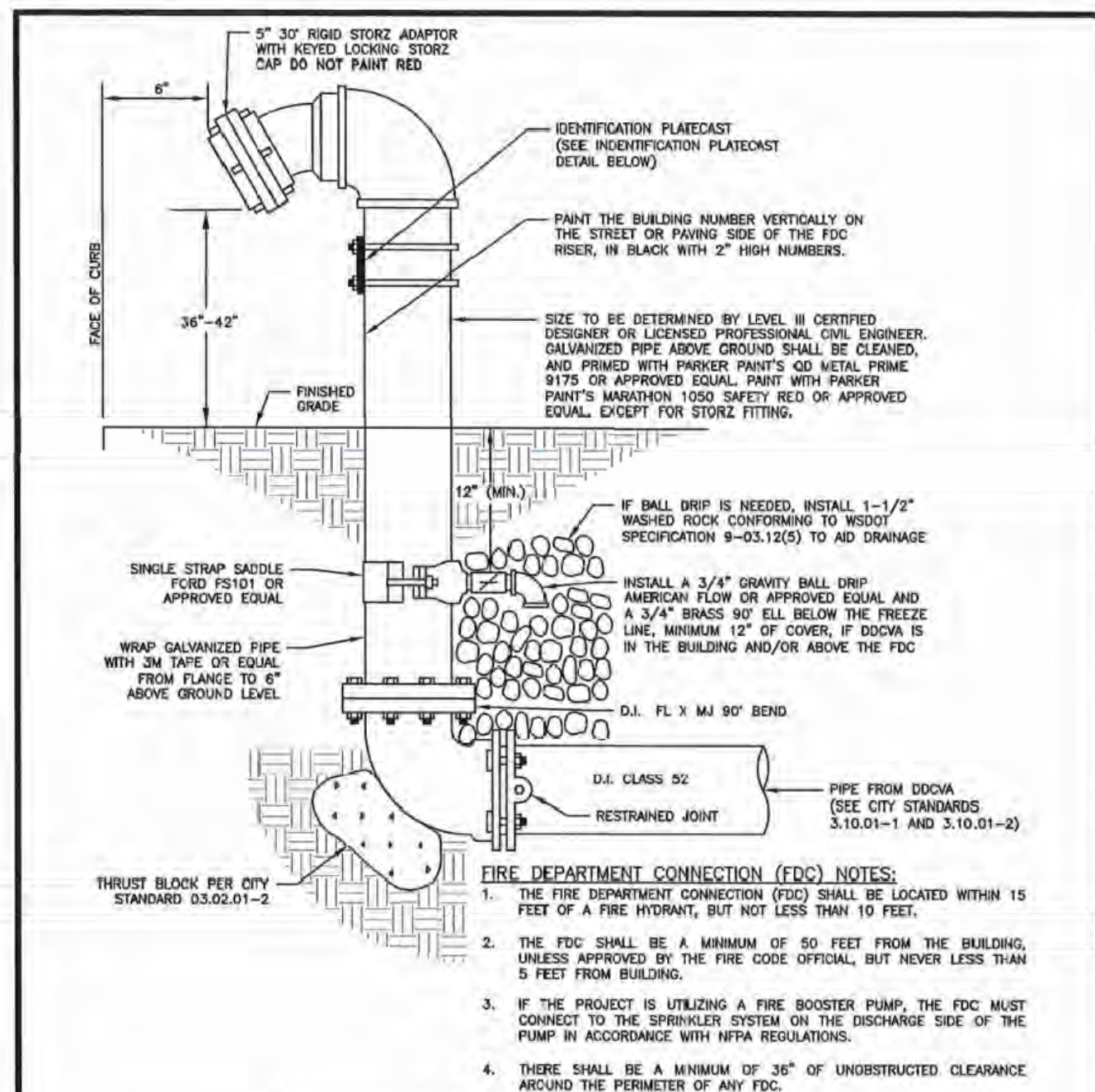


- NOTES:**
- ALL FITTINGS FROM THE WATER MAIN TO THE BOTTOM OF THE AIR/VACUUM VALVE SHALL BE BRASS. ALL FITTINGS ABOVE THE AIR/VACUUM VALVE SHALL BE GALVANIZED STEEL. WRAP GALVANIZED PIPE BELOW GROUND WITH 3M TAP OR EQUAL TO 1" ABOVE GROUND LEVEL.
  - 2" HIGH DENSITY POLY PIPE SHALL MAINTAIN A MINIMUM ONE-DEGREE RISE FROM THE WATER MAIN TO THE AIR/VACUUM VALVE.
  - AIR/VACUUM VALVE VAULT AND VENT RISER TO BE INSTALLED OUT OF THE STREET. EXACT LOCATION TO BE DETERMINED BY THE CITY ENGINEER.
  - TO STABILIZE AIR/VACUUM VALVE, BURY A 4 FOOT LONG 2" GALVANIZED PIPE ALONG SIDE VALVE. SECURE WITH STAINLESS STEEL STRAP. SET TOP OF GALVANIZED PIPE 2" BELOW AIR/VACUUM FLANGE.
  - VENT RISER AND RETURN BEND SHALL BE PAINTED, RUST-OLEUM SAFETY YELLOW #7543 OR APPROVED EQUAL.
  - IF NEW PLAT, INCLUDE EASEMENT BEHIND SIDEWALK FOR VENT RISER. VENT RISER SHALL BE NO MORE THAN 2 FOOT BEHIND SIDEWALK.

**AIR/VACUUM VALVE**

CITY OF PUYALLUP  
OFFICE OF THE CITY ENGINEER

CITY STANDARD 03.07.01

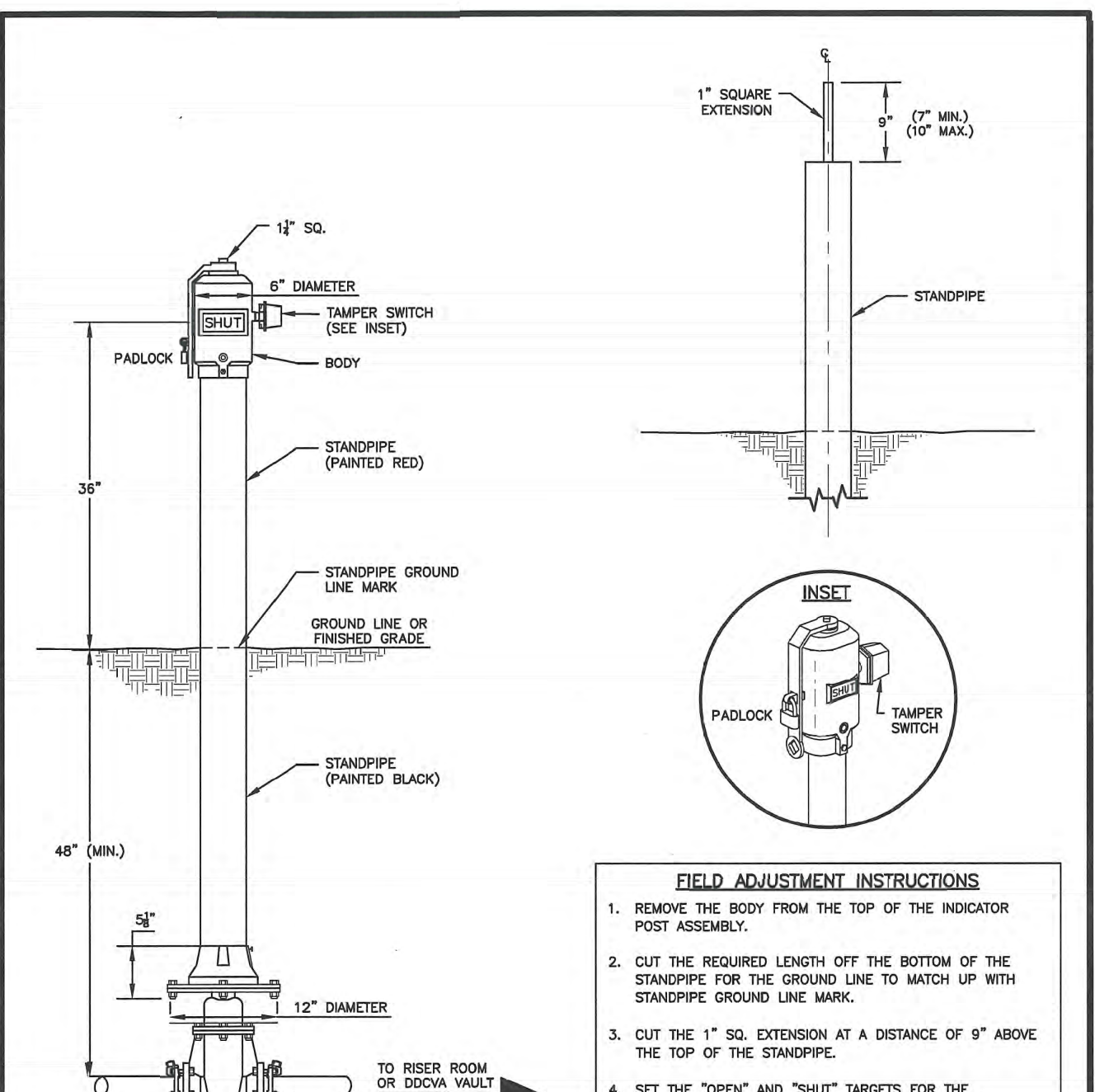


- FIRE DEPARTMENT CONNECTION (FDC) NOTES:**
- THE FDC SHALL BE A MINIMUM OF 50 FEET FROM THE BUILDING, UNLESS APPROVED BY THE FIRE CODE OFFICIAL, BUT NEVER LESS THAN 5 FEET FROM BUILDING.
  - IF THE PROJECT IS UTILIZING A FIRE BOOSTER PUMP, THE FDC MUST CONNECT TO THE SPRINKLER SYSTEM ON THE DISCHARGE SIDE OF THE PUMP IN ACCORDANCE WITH NFPA REGULATIONS.
  - THERE SHALL BE A MINIMUM OF 36" OF UNRESTRICTED CLEARANCE AROUND THE PERIMETER OF ANY FDC.
  - SEE STANDARD DETAIL 03.05.01 FOR GUARD POST DETAIL AND SPACING.
- IDENTIFICATION PLATECAST DETAIL NOTES:**
- IDENTIFICATION PLATECAST WILL BE BRASS.
  - IDENTIFICATION PLATECAST WILL BE 1/4" THICK.
  - LETTERS WILL BE ONE INCH HIGH AND RAISED.
  - USE TWO (2) STAINLESS STEEL U-BOLTS TO AFFIX TO PIPE.

**FIRE DEPARTMENT CONNECTION (FDC)**

CITY OF PUYALLUP  
OFFICE OF THE CITY ENGINEER

CITY STANDARD 03.10.02



- FIELD ADJUSTMENT INSTRUCTIONS**
- REMOVE THE BODY FROM THE TOP OF THE INDICATOR POST ASSEMBLY.
  - CUT THE REQUIRED LENGTH OFF THE BOTTOM OF THE STANDPIPE FOR THE GROUND LINE TO MATCH UP WITH STANDPIPE GROUND LINE MARK.
  - CUT THE 1" SQ. EXTENSION AT A DISTANCE OF 8" ABOVE THE TOP OF THE STANDPIPE.
  - SET THE "OPEN" AND "SHUT" TARGETS FOR THE APPROPRIATE VALVE SIZE.
  - RE-ATTACH THE BODY TO THE TOP OF THE INDICATOR POST ASSEMBLY.
  - ALL POST INDICATOR VALVES SHALL BE INSTALLED WITH AN ELECTRONIC UL LISTED TAMPER SWITCH.
  - THERE SHALL BE 36" OF UNRESTRICTED CLEARANCE AROUND THE PERIMETER OF ALL POST INDICATOR VALVES.
  - POST INDICATOR VALVE SHALL BE LOCATED AT A MINIMUM 5'-0" FROM BUILDING.

**POST INDICATOR VALVE**

CITY OF PUYALLUP  
OFFICE OF THE CITY ENGINEER

CITY STANDARD 03.10.03

- WATER NOTES CONTINUED FROM SHEET W-5
- Connections to existing water mains typically shall be wet taps through a tapping tee and tapping valve and shall be made by a city approved contractor. The tapping sleeve shall be Romac SST all stainless steel tapping sleeve on ductile iron tapping sleeve may be used on ductile iron pipe, when the tap is smaller than the water main size i.e. 6 inch tap on 8 inch pipe. The City (or FMWC, VW or TCW when served by that purveyor) shall approve the time and location for these connections.
  - All water mains and appurtenances shall be hydrostatically tested at 200 psi in accordance with Standard Specification 7-09.3(23). Pressure testing shall not be performed until satisfactory purity samples have been received, except when new water mains are installed independently from the water system piping.
  - Fire hydrants shall be installed in accordance with City Standard Detail 03.05.01 and as directed by the City of Puyallup Fire Code Official.
  - Valve marker posts shall be installed where valve boxes are hidden from view or in unpaved areas. The installation shall be in accordance with City Standard Detail 03.01.02.
  - Resilient seated wedge gate valves shall be used for 10-inch mains and smaller. Butterfly valves shall be used for mains greater than 10 inches.
  - Pipe fitting for water mains shall be ductile iron and shall be mechanical joint conforming to AWWA Specification C111-72.
  - Water main pipe and service connections shall be a minimum of 10 feet away from building foundations and/or roof lines.
  - Where a water main crosses the Northwest Gas pipeline, the water line shall be cased with PVC pipe a minimum of 10 feet beyond each side of the gas line easement. Contact Williams Northwest Pipeline before the crossing is made.
  - Trenching, bedding, and backfill for water mains shall be installed in accordance with City Standard Detail 06.01.01.
  - All commercial and industrial developments, irrigation systems, and multi-family water service connections shall be protected by a double check valve assembly or a reduced pressure backflow assembly as directed by the City (or FMWC, VW or TCW when served by that purveyor) conforming to City Standard Details 03.04.01, 03.04.02, and 03.04.03.
  - Any lead joint fitting disturbed during construction shall be replaced with a mechanical joint fitting at the contractor's expense.
  - When hydraulic fire flow modeling is required for a project, the City will issue a permit. The hydraulic modeling criteria is based on the projected 2030 water demand, while maintaining a minimum system pressure of 20 pounds per square inch and a maximum velocity of 10 feet per second.
  - When filling a new water main for purity with highly concentrated chlorine water, that super chlorinated water cannot sit inside the new water main for greater than 5 days.
  - When using a fire hydrant for non-firefighting purposes, a city hydrant meter will be used. Coordinate the acquisition of the hydrant meter with the City's Utility Billing Division at Puyallup City Hall. A city approved backflow protection assembly shall be installed by the person requesting use of a fire hydrant. The assembly shall be accompanied by a current backflow assembly test report. The test report shall be available at the site for the duration of the hydrant use.

APPROVED	APPROVED
BY: FRUITLAND MUTUAL WATER	BY: CITY OF PUYALLUP DEVELOPMENT SERVICES
DATE: _____	DATE: _____
<b>NOTE:</b> THIS APPROVAL IS VOID AFTER 1 YEAR FROM APPROVAL DATE. WATER PURVEYOR WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE WATER PURVEYOR.	<b>NOTE:</b> THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE ENGINEERING SERVICES MANAGER.

**AZURE GREEN CONSULTANTS**

+ feasibility + planning + engineering + surveying

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**Water Details**

**Bradley Heights**

Timberlane Partners  
1816 11th Ave Unit C  
Seattle, WA, 98122  
Phone 509.896.0326  
Fax for: den@timberlanepartners.com

**DRAWING**

**W-6**

SHEET 60  
OF 60

Project Name: Bradley Heights Date: E:\Jobs\3227 - Bradley Heights\Timberlane\Drawings\Highways 20250424\_EWG.dwg PLOT Date: 7/16/25 4:24:20 PM 45:48 PM