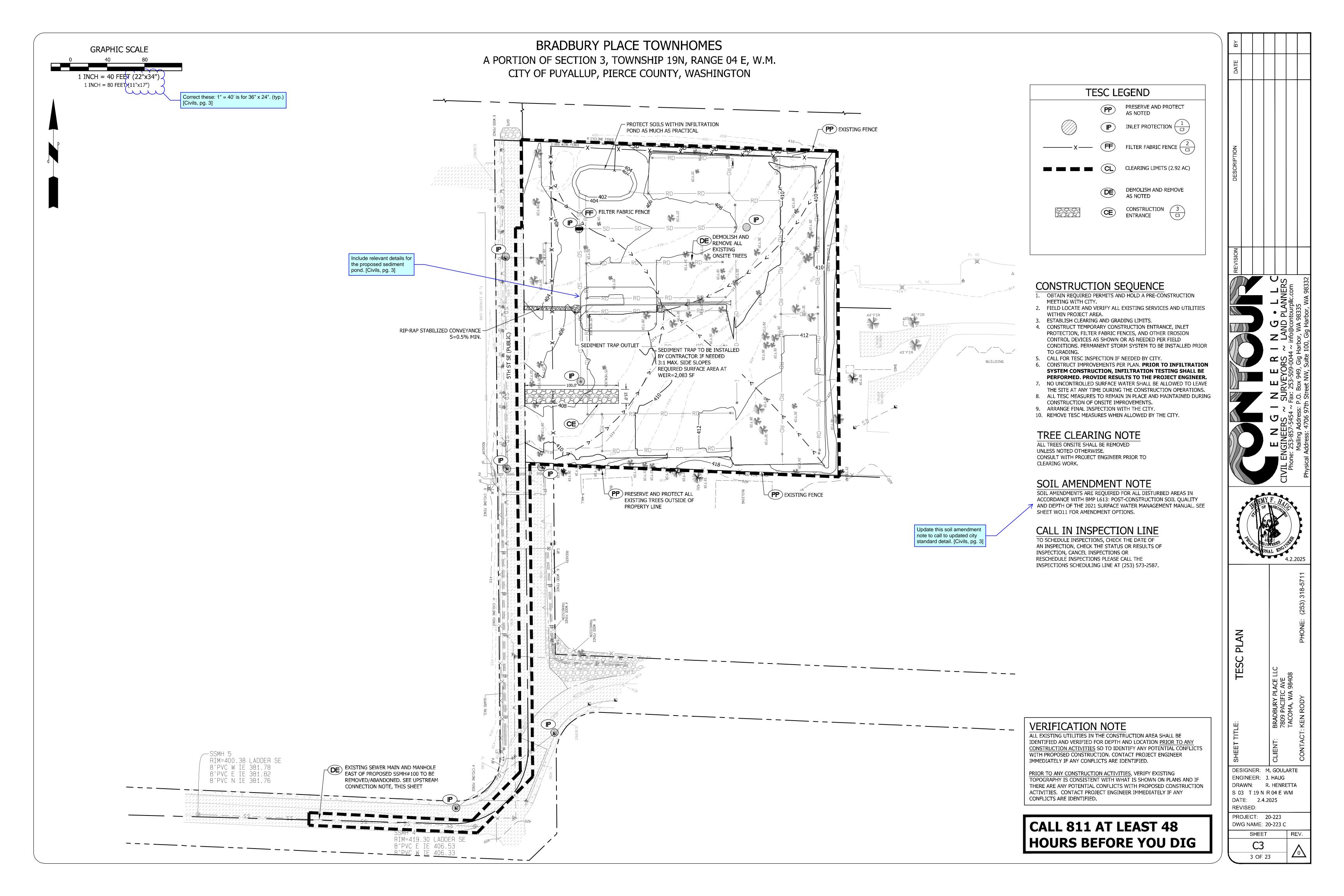
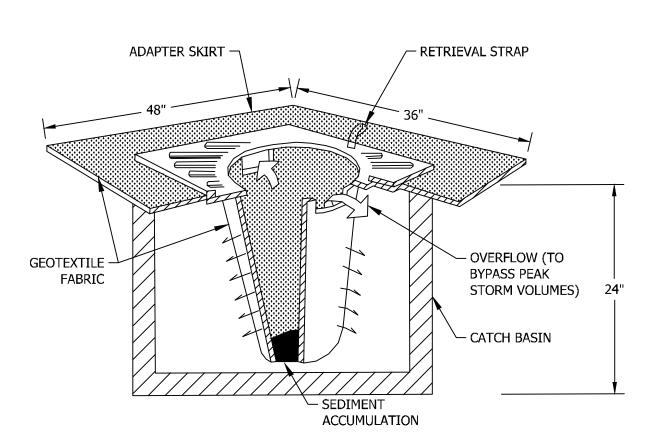


#### BRADBURY PLACE TOWNHOMES A PORTION OF SECTION 3, TOWNSHIP 19N, RANGE 04 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON 1 INCH = 50 FEET (22"x34")1 INCH = 100 FEET (11"x17")FOUND BRASS PIN IN CONCRETE, -SEC. 3, TWP. 19N, RGN. 4E, W.M. INCASED 1.6' DOWN AT THE NORTHWEST SEC. CORNER OF SEC. 3, TWP. 19N, RGN. 4E, W.M. VISITED 12-22-20 CALCULATED FROM ROS 30' ROAD EASEMENT AS SHOWN ON SP REC. NO.8101070262 12"PVC E IE 397.57 12"PVC W IE 397.49 12"PVC S IE 397.51 LEGAL DESCRIPTION SITE BENCH MARK 1— SET HUB AND MAG EL=406.33 (NAVD 88) PARCELS A AND B, PIERCE COUNTY LOT COMBINATION RECORDED UNDER RECORDING NO. 200104110218, RECORDS OF PIERCE COUNTY, WASHINGTON. SITUATE IN THE COUNTY OF PIERCE, STATE OF WASHINGTON. BASIS OF BEARING HELD BEARING OF SOUTH 87°44'39" EAST ALONG THE CENTER LINE OF SOUTH 96TH STREET, BETWEEN CITY OF TACOMA POINT RIM=417.44 6"PVC W/CAP DIRECTED TO CB NEAR PROPERTY LINE NUMBERS 910 AND 720. WASHINGTON STATE PLANE, NAD83/91, SOUTH ZONE CB 2 RIM=410.95 8"PVC E IE 406.55 ₹. 12"PVC N IE 406.49₹ SURVEYOR'S NOTES 1) THE MONUMENT CONTROL SHOWN FOR THIS SITE WAS ACCOMPLISHED BY FIELD TRAVERSE UTILIZING A THREE (3) SECOND THEODOLITE WITH INTEGRAL ELECTRONIC DISTANCE MEASURING METER (TRIMBLE S6) AND REAL TIME KINEMATIC (RTK) GLOBAL POSITIONING SYSTEM (TRIMBLE R8). LINEAR AND ANGULAR CLOSURE OF THE TRAVERSES MEET THE STANDARDS OF WAC 332-130-090 2) UTILITIES OTHER THAN THOSE SHOWN MAY EXIST ON THIS SITE. ONLY THOSE WHICH ARE VISIBLE OR HAVING VISIBLE EVIDENCE OF THEIR INSTALLATION ARE SHOWN HEREON. Remove "Road Narrows" 3) THIS SURVEY REPRESENTS PHYSICAL IMPROVEMENT CONDITIONS AS THEY signage when roadway EXISTED MARCH 11, 2020, THE DATE OF THIS FIELD SURVEY. widening is completed. Civil - C2 4) FULL RELIANCE FOR LEGAL DESCRIPTIONS AND RECORDED EASEMENTS HAVE BEEN PLACED ON THE TITLE REPORT FROM CHICAGO TITLE INSURANCE COMPANY ORDER NUMBER 0198200-16, DATED DECEMBER 8, 2020. NO ADDITIONAL RESEARCH HAS BEEN ATTEMPTED. 5) OFFSET DIMENSIONS SHOWN HEREON ARE MEASURED PERPENDICULAR TO PROPERTY LINES. 27TH AVE SE sanitary sewer manhole **VERTICAL DATUM** ŘÍM=417.34 COT 1468: 2" SURFACE BRASS DISK WITH "X" AT THE STREET INTERSECTION OF SOUTH 92ND STREET AND EAST SOUTH PARK AVENUE. SSMH 5 RIM=400.38 LADDER SE RIM=418.01 12"DI SW IE 413.56 ELEVATION 372.35' (NGVD 29) 8"PVC W IE 381.78 8"PVC E IE 381.82 8"PVC N IE 381.76 CONTROL #501, SET MAG NAIL IN SIDEWALK ON THE EAST SIDE OF SITE, CB 3 RIM=418.00 +/-12"DI E/NE IE 412.75 +/-+/- 53' SOUTH OF THE NE CORNER OF SITE, 3.5' E OF BACK OF WALK. ELEVATION 333.56' (NGVD 29) -SITE BENCH MARK 2 SET MAG NAIL EL=419.03 (NAVD 88) RIM=419.30 LADDER SE 8"PVC E IE 406.53 VERIFICATION NOTE ALL EXISTING UTILITIES IN THE CONSTRUCTION AREA SHALL BE IDENTIFIED AND VERIFIED FOR DEPTH AND LOCATION PRIOR TO ANY CONSTRUCTION ACTIVITIES SO TO IDENTIFY ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE IDENTIFIED. DESIGNER: M. GOULARTE PRIOR TO ANY CONSTRUCTION ACTIVITIES, VERIFY EXISTING ENGINEER: J. HAUG TOPOGRAPHY IS CONSISTENT WITH WHAT IS SHOWN ON PLANS AND IF DRAWN: R. HENRETTA THERE ARE ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION S 03 T 19 N R 04 E WM ACTIVITIES. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY DATE: 2.4.2025 CONFLICTS ARE IDENTIFIED. REVISED: PROJECT: 20-223 CALL 811 AT LEAST 48 DWG NAME: 20-223 C SHEET REV. **HOURS BEFORE YOU DIG** 2 OF 23



### A PORTION OF SECTION 3, TOWNSHIP 19N, RANGE 04 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON



#### INLET PROTECTION NOTES:

- FILTERS SHALL BE INSPECTED AFTER EACH STORM EVENT AND CLEANED OR
- REPLACED WHEN 1/3 FULL
- 2. ALL CATCH BASINS WITHIN 500' DOWNSLOPE OF PROJECT SITE SHALL AS WELL AS ANY OTHER CATCH BASINS THAT COULD POSSIBLE RECEIVE RUNOFF FROM THE CONSTRUCTION SITE SHALL HAVE INLET PROTECTION INSTALLED AND MAINTAINED



#### GRADING, EROSION AND SEDIMENTATION CONTROL NOTES

- S OF CLEARING AND AREAS OF VEGETATION PRESERVATION AS PRESCRIBED ON THE PLANS SHALL BE CLEARLY FLAGGED
- EDIMENTATION AND EROSION CONTROL FACILITIES MUST BE CONSTRUCTED AND IN OPERATION PRIOR TO ANY O/OR OTHER CONSTRUCTION TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE NATURAL CONTRACTOR SHALL SCHEDULE AN INSPECTION OF THE EROSION CONTROL FACILITIES PRIOR TO ANY LAND CLEARING AND/OR OTHER CONSTRUCTION. ALL EROSION AND SEDIMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION AS DETERMINED BY THE CITY, UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL OR ON-SITE EROSION HAS PASSED. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT, AND ADDITIONS TO THE EROSION AND SECTION CONTROL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE PERMITTEE.
- 3. THE EROSION AND SEDIMENTATION CONTROL SYSTEM FACILITIES DEPICTED ON THESE PLANS ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SIN CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, FACILITIES WILL BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE SITE. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBJIGATION AND RESPONSIBILITY OF THE PERMITTEE TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES, OVER AND ABOVE THE MINIMUM REQUIREMENTS, AS MAY BE NEEDED TO P Replace with grading, erosion and AREAS, NATURAL WATER COURSES, AND/OR sedimentation control notes from section 505 STORM DRAINAGE SYSTEMS. of the city's design standards. [Civils, pg. 4]
- 4. APPROVAL OF THESE PLANS IS FOR GRADING, TEMPORARY DIVING SE SEDIMENTATION CONTROL ONLY, IT DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT STORM DRAINAGE DESIGN, SIZE OR LOCATION OF PIPES, RESTRICTORS, CHANNELS, OR RETENTION FACILITIES.
- 5. ANY DISTURBED AREA WHICH HAS BEEN STRIPPED OF VEGETATION AND WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF 30 DAYS OR MORE, MUST BE IMMEDIATELY STABILIZED WITH MULCHING, CASS PLANTING, OR OTHER APPROVED EROSION CONTROL TREATMENT APPLICABLE TO THE TIME OF YEAR IN QUESTION. GRASS SEDING ALONE WILL BE ACCEPTABLE ONLY DURING THE MONTHS OF APRIL THROUGH SEPTEMBER INCLUSIVE. SEEDING MAY PROCED OUTSIDE THE SPECIFIED TIME PERIOD WHENEVER IT IS IN THE INTEREST OF THE PERMITTEE BUT MUST BE AUGMENTED WITH MULCHING, NETTING, OR OTHER
- 6. IN CASE EROSION OR SEDIMENTATION OCCURS TO ADJACENT PROPERTIES, ALL CONSTRUCTION WORK WITHIN THE DEVELOPMENT THAT WILL FURTHER AGGRAVATE THE SITUATION MUST CEASE, AND THE OWNER/CONTRACTOR WILL IMMEDIATELY COMMENCE RESTORATION METHODS. RESTORATION ACTIVITY WILL CONTINUE UNTIL SUCH TIME AS THE AFFECTED PROPERTY OWNER IS SATISFIED.
- 7. NO TEMPORARY OR PERMANENT STOCKPILING OF MATERIALS OR EQUIPMENT SHALL OCCUR WITHIN CRINCAL AREAS OR ASSOCIATED BUFFERS, OR THE CRITICAL ROOT ZONE FOR VEGETATION PROPOSED FOR RETENTION.

#### **SEEDING NOTES**

SEED MIXTURE SHALL BE AS BELOW OR AS APPROVED BY THE CITY OF POULSBO AND SHALL BE APPLIED AT THE RATE

RECOMMENDED BY THE SUPPLIER GERMINATION REDTOP (AGROSTIS ALBA) PERENNIAL RYE (LOLIUM PERENNE) CHEWING FESCUE (FESTUCA RUBRA COMMUTATA) WHITE DUTCH CLOVER (TRIFOLIUM REPENS)

NECESSARY TO FOSTER AND PROTECT THE ROOT STRUCTURE. FOR SEED BEDS PLANTED BETWEEN OCTOBER 31 AND APRIL 30, ARMORING OF THE SEED BED WILL BE NECESSARY. (E.G.,

SEED BEDS PLANTED BETWEEN MAY 1 AND OCTOBER 31 WILL REQUIRE IRRIGATION AND OTHER MAINTENANCE AS

- GEOTEXTILES, JUTE MAT, CLEAR PLASTIC COVERING).
- BEFORE SEEDING, INSTALL NEEDED SURFACE RUNOFF CONTROL MEASURES SUCH AS GRADIENT TERRACES,
- INTERCEPTOR DIKES, SWALES, LEVEL SPREADERS AND SEDIMENT BASINS. THE SEEDBED SHALL BE FIRM WITH A FAIRLY FINE SURFACE, FOLLOWING SURFACE ROUGHENING. PERFORM ALL
- OPERATIONS ACROSS OR AT RIGHT ANGLES TO THE SLOPE
- FERTILIZERS ARE TO BE USED ACCORDING TO SUPPLIER'S RECOMMENDATIONS. AMOUNTS USED SHOULD BE MINIMIZED, ESPECIALLY ADJACENT TO WATER BODIES AND WETLANDS.

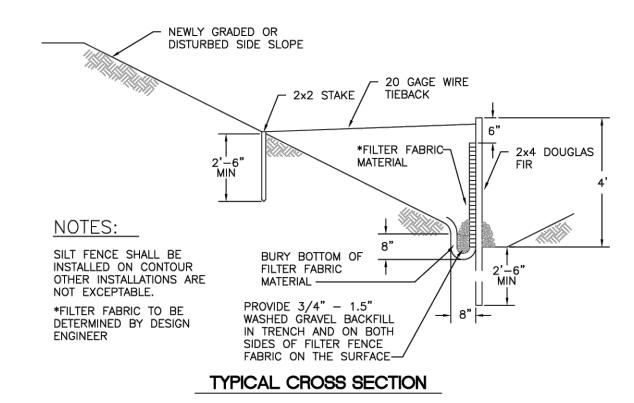
#### TEMPORARY AND PERMANENT HYDROSEEDING

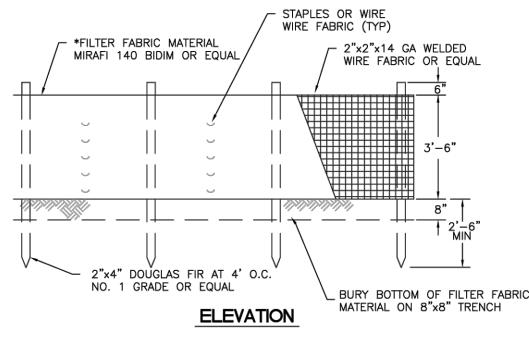
ALL AREAS DISTURBED DURING CONSTRUCTION WHERE PERMANENT LANDSCAPING WILL NOT BE PROVIDED WITHIN 60 DAYS SHALL BE HYDROSEEDED, OR OTHERWISE STABILIZED, AS REQUIRED. STRAW MULCHING OR PLASTIC SHEETING ARE ACCEPTABLE ALTERNATIVES TO TEMPORARY HYDROSEEDING DURING PERIODS OF LOW GROWTH.

1. PERMANENT SEEDING IN ALL DISTURBED AREAS WITHIN THE PROJECT BOUNDARY SHALL ADHERE TO THE FOLLOWING

SPECIFICATIONS: MINIMUM 80 LBS./ACRE MIXTURE OF: 20% ANNUAL, PERENNIAL RYEGRASS FERTILIZER-400 LBS./ACRE OF 10-20-20

40% CREEPING RED FESCUE MULCH-2000 LBS./ACRE 40% WHITE CLOVER





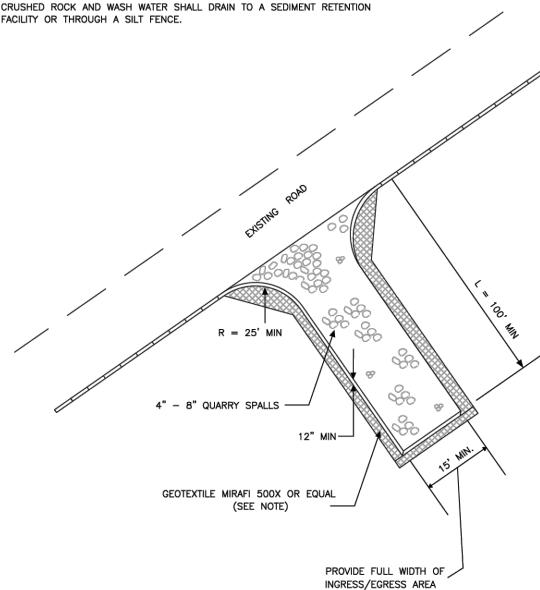


#### Add city standard detail 05.02.01. [Civils, pg. 4]

Add the city's standard roadway notes from section 104 of the design standards. [Civils, pg. 4]

#### NOTE:

- . GEOTEXTILE MIRAFI 500 X OR APPROVED EQUAL SHALL BE PLACED UNDER THE ENTIRETY OF THE TEMPORARY ENTRANCE
- ADDITIONAL ROCK SHALL BE ADDED PERIODICALLY TO MAINTAIN PROPER
- 3. IF THE PAD DOES NOT ADEQUATELY REMOVE THE MUD FROM THE VEHICLE'S WHEELS. THE WHEELS SHALL BE HOSED OFF BEFORE THE VEHICLE ENTERS A PAVED STREET. THE WASHING SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK AND WASH WATER SHALL DRAIN TO A SEDIMENT RETENTION





#### SEDIMENT FENCES

THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, THE FILTER FABRIC SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM SIX-INCH (6") OVERLAP, AND BOTH ENDS SECURELY FASTENED TO

- THE POST. 1. THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE GROUND CONTOURS (WHERE FEASIBLE).
- 2. WHEN STANDARD LENGTH FILTER FABRIC IS USED, A WIRE SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UP-SLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST ONE INCH (1") LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF FOUR INCHES. AT LEAST TWENTY-FOUR (24) INCHES OR MORE OF THE FENCE SHALL BE ABOVE THE GROUND.
- FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
- 4. THE TRENCH SHALL BE BACKFILLED WITH 3/4-INCH MINIMUM DIAMETER WASHED GRAVEL.
- 5. FILTER FABRIC FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- 6. THE FILTER FABRIC FENCE SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UP-SLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- 7. THE FILTER FABRIC SHALL HAVE A MINIMUM VERTICAL BURIAL OF TWELVE INCHES (12"). ALL EXCAVATED MATERIAL FROM THE FILTER FABRIC FENCE INSTALLATION SHALL BE INSTALLED AS BACKFILL AND COMPACTED ALONG THE ENTIRE DISTURBED AREA.
- 8. THE CONTRACTOR SHALL IMMEDIATELY MAKE ANY REPAIRS TO THE FILTER FABRIC.

#### MAINTENANCE OF FILTER FENCES

FILTER FABRIC FENCE SHALL BE INSPECTED IMMEDIATELY AFTER EACH RUNOFF-PRODUCING RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

- 1. SEDIMENT SHALL BE REMOVED WHEN IT REACHES APPROXIMATELY ONE-THIRD THE HEIGHT OF THE FENCE (EIGHT INCH MAXIMUM), ESPECIALLY IF HEAVY RAINS ARE EXPECTED.
- 2. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE FILTER FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

#### SEQUENCE OF CONTROL MEASURES

FILTER FENCE BARRIERS, STAKED STRAW BALES, GRAVEL FILTERS, AND CONSTRUCTION ENTRANCES SHALL BE CONSTRUCTED IN THE LOCATIONS SHOWN ON THE PLANS.

- 1. SILTATION BASINS SHALL BE CONSTRUCTED TO THE SIZE INDICATED ON THE PLANS.
- 2. SITE CLEARING AND GRADING MAY PROCEED FOLLOWING THE INSTALLATION OF THE ABOVE ITEMS.
- 3. ALL SILTATION BARRIERS AND BASINS SHALL BE MAINTAINED TO PROVIDE THE REQUIRED PROTECTION. 4. BARRIERS MAY NOT BE REMOVED UNTIL CONSTRUCTION IS COMPLETED AND FINAL SITE STABILIZATION IS IN PLACE AND FUNCTIONAL.

#### REQUIRED INSPECTIONS FOR TESC FACILITIES

AFTER EVERY RAINFALL OR ONCE A WEEK, THE TESC LEAD SHALL INSPECT ALL OF THE FOLLOWING AND KEEP

- INSPECT ALL INSTALLED CATCH BASINS FOR ACCUMULATION OF SEDIMENT/DEBRIS.
- FILTER FENCE SHALL BE INSPECTED FOR SEDIMENT ACCUMULATION AND TEARS IN FABRIC. INLET PROTECTION ON CATCH BASINS SHOULD BE CLEANED/REPLACED IF FULL OF SEDIMENT.
- INTERCEPTOR DITCHES SHALL BE INSPECTED FOR EROSION. IF EROSION IS OCCURRING CONTRACTOR SHALL INSTALL ROCK CHECK DAMS AS NEEDED TO PREVENT EROSION.
- FILL/CUT SLOPES SHALL BE INSPECTED FOR EROSION. 6. TESC LEAD RESPONSIBLE FOR NOTIFYING ENGINEER IF ADDITIONAL MEASURES ARE WARRANTED.

# EMP T5.13:POST-CONSTRUCTION SOIL QUALITY AND DEPTH

INCORPONATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION DEMONSTRATE THE FOLLOWING:

- 1. A TOPSO, LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANI MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED OIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIN THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
- 2. MULCH PLANTING BEDS WIN 2 INCHES OF ORGANIC MATERIAL. 3. USE COMPOST AND OTHER MAN RIALS THAT MEET THE FOLLOWING ORGANIC CONTENT REQUIREMENTS:
  - a. THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE COMPOST SPECIA CATION FOR BMP T7.30: BIORETENTION, WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% B. OSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65%, AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35.1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO
  - THE PUGET SOUND LOWLANDS REGION. b. CALCULATED AMENDME Replace with City of Puyallup Standard Detail 01.02.08A ATERIAL MEETING (a.) ABOVE; OR OTHER ORG for soil amendment and depth. [Civils, pg. 4] REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220-B, TESTING PARAMETERS, IN WAC 173-350-220.

THE RESULTING SOIL SHOULD BE CONDUCIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.

- THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE ON THE METHODS LISTED BELOW: 1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL, AND PROTECT FROM COMPACTION DURING
- 2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PRE-APPROVED" RATE OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
- 3. STOCKPILE EXISTING TOPSOIL DURING GRADING, AND REPLACE IT PRIOR TO PLANTING. STOCKVILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EXTHER AT A
- DEFAULT "PRE-APPROVED" RATE OR AT A CUSTOM CALCULATED RATE. 4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS.

MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

#### PLASTIC COVERING NOTES

- 1. PLASTIC SHEETING SHALL HAVE A MINIMUM THICKNESS OF 6 MILS AND SHALL MEET THE REQUIREMENTS OF THE STATE STANDARD SPECIFICATIONS SECTION 9-14.5. 2. COVERING SHALL BE INSTALLED AND MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON
- ROPES WITH A MAXIMUM 10-FOOT GRID SPACING IN ALL DIRECTIONS. ALL SEAMS SHALL BE TAPED OR WEIGHTED DOWN FULL LENGTH AND THERE SHALL BE A LEAST A 12 INCH OVERLAP OF ALL SEAMS. 3. CLEAR PLASTIC COVERING SHALL BE INSTALLED IMMEDIATELY ON AREAS SEEDED BETWEEN NOVEMBER 1 AND
- MARCH 31 AND REMAIN UNTIL VEGETATION IS FIRMLY ESTABLISHED. 4. WHEN THE COVERING IS USED ON UN-SEEDED SLOPES, IT SHALL BE KEPT IN PLACE UNTIL THE NEXT SEEDING
- 5. PLASTIC COVERING SHEETS SHALL BE BURIED TWO FEET AT THE TOP OF SLOPES IN ORDER TO PREVENT SURFACE WATER FLOW BENEATH SHEETS
- PROPER MAINTENANCE INCLUDES REGULAR CHECKS FOR RIPS AND DISLODGED ENDS.

## **GENERAL STORM CONSTRUCTION NOTES**

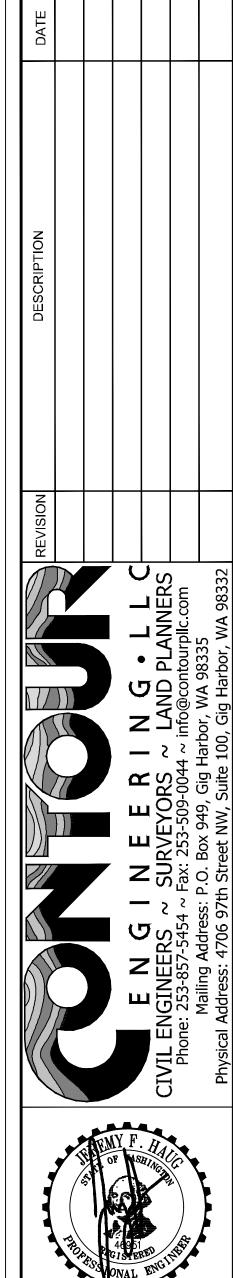
- ORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY STANDARDS AND ST CURRENT COPY OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR NOGE AND MUNICIPAL CONSTRUCTION (WSDOT).
- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE REQUIRED IN ACCORDANCE WITH THE APPROVED PLANS AND ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- COMPLY WITH ALL THER PERMITS AND OTHER REQUIREMENTS BY THE CITY OR OTHER GOVERNING AUTHORIX OR AGENCY AS MAY BE APPLICABLE.
- 4. A PRE-CONSTRUCTION MENTING SHALL BE SCHEDULED WITH THE CITY PRIOR TO THE START OF CONSTRUCTION.
- 5. ALL STORM DRAINAGE AND UTILATY MAINS SHALL BE STAKED FOR GRADE AND ALIGNMENT BY AN ENGINEERING OR SURVEYING FINM CAPABLE OF PERFORMING SUCH WORK, AND CURRENTLY LICENSED IN THE STATE ON WASHINGTON TO DO SO.
- 6. STORM DRAIN PIPE SHALL M Replace with stormwater notes from section 207 CIFIED ON PLANS OR BY REQUIREMENTS OF The of the city's design standards. [Civils, pg. 4]
  - CORRUGATED ALUMINUM FIFE (12-GAUGE OK THICKEK)
- ALUMINUM SPIRAL RIB PIPE (12-GAUGE OR NUCKER)
- ALUMINIZED TYPE 2 CORRUGATED STEEL (MEETING AASHTO TREATMENT M274 AND M 56, 12-GAUGE OR THICKER)
- POLYVINYL CHLORIDE (PVC) SEWER PIPE (SDR 35, MEL ING REQUIREMENTS OF ASTM E. CORRUGATED HIGH DENSITY POLYETHYLENE PIPE (CPEP) - SN'GLE WALL, FULLY
- CORRUGATED MEETING AASHTO STANDARD M-252 (PERMITTED VLY OUTSIDE PUBLIC RIGHT-OF-WAY AND FOR USE IN TEMPORARY STORM SEWER SYSTEMS AND AS DOWNSPOUT/FOOTING/YARD DRAIN COLLECTORS ON PRIVATE PROPERTY
- SPECIAL STRUCTURES, OIL/WATER SEPARATORS, AND OUTLET CONTROLS SHALL B INSTALLED PER THE APPROVED PLANS AND MANUFACTURERS' RECOMMENDATIONS
- 8. PROVIDE TRAFFIC CONTROL PLAN(S) AS REQUIRED IN ACCORDANCE WITH MUTCD. CALL UNDERGROUND LOCATE LINE AT 1-800-424-5555 AND AT 1-360-425-2506 A MINIMUM
- 48 HOURS PRIOR TO ANY EXCAVATIONS.

#### **CONTRACTOR'S NOTES**

- CONTRACTOR SHALL VERIFY EXACT VERTICAL AND HORIZONTAL LOCATIONS OF ALL EXISTING UTILITIES AND STUBS AT ALL PROPOSED CONNECTION POINTS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION ACTIVITIES. IF VERTICAL AND/OR HORIZONTAL LOCATIONS DIFFER FROM WHAT IS SHOWN ON PLANS, CONTACT PROJECT ENGINEER IMMEDIATELY FOR POSSIBLE DESIGN
- A MINIMUM OF 10' HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN ALL WATER AND SEWER MAINS. MINIMUM VERTICAL SEPARATION CAN BE REDUCED TO 1.5' BY MEANS OF CONCRETE ENCASEMENT OF SEWER OR THE USE OF DUCTILE IRON PIPE PER CITY STANDARDS.

A MINIMUM OF 5' HORIZONTAL AND 1.0' VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN STORM AND WATER, AND STORM AND SEWER.

- THE FINISH GRADE RIM ELEVATION MAY NEED TO BE ADJUSTED FROM WHAT IS SHOWN ON PLANS DUE TO SUCH THINGS AS FIELD CONDITIONS, VARIATIONS IN PAVING SURFACE, ETC. FINAL RIM
- ELEVATION SHALL MATCH FINISH GRADE ELEVATIONS. 4. ALL SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) PER CITY OF POULSBO
- STANDARDS. DUCTILE IRON PIPE SHALL BE USED IF ADEQUATE COVER CAN NOT BE PROVIDED. ALL SANITARY SEWER LATERALS SHALL BE 6"Ø AT A MINIMUM SLOPE OF 2.0%. CLEANOUTS SHALL BE PLACED PER THE STANDARDS SET FORTH BY THE CITY OF POULSBO. CLEANOUTS IN AREAS SUBJECT TO ANY VEHICULAR TRAFFIC SHALL HAVE TRAFFIC BEARING LIDS AND FRAMES.
- 6. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ALL DISTURBED AREAS AS NEEDED SO TO RESTORE TO PRE-CONSTRUCTION CONDITION.
- 7. BARE GALVANIZED METAL SHALL NOT BE USED FOR MATERIALS THAT CONVEY STORMWATER, SUCH AS SEDIMENT RISERS, ROOFS, CANOPIES, SIDING, GUTTERS, DOWNSPOUTS, ROOF DRAINS, AND PIPES. ANY GALVANIZED MATERIALS SHALL HAVE AN INERT, NON-LEACHABLE FINISH, SUCH AS A BAKED ENAMEL, FLUOROCARBON PAINT (SUCH AS KYNAR OR HYLAR), FACTORY-APPLIED EPOXY, PURE ALUMINUM, OR ASPHALT COATING. ACRYLIC PAINT, POLYESTER PAINT, FIELD-APPLIED, AND ZINC-ALUMINUM ALLOY (SUCH AS GALVALUME OR ZINCALUME) COATINGS ARE NOT ACCEPTABLE. HIGH CONCENTRATIONS OF ZINC CAN BE TOXIC TO AQUATIC LIFE. (ADDITIONAL BACKGROUND INFORMATION ABOUT ISSUES REGARDING UNCOATED GALVANIZED METAL ROOFS IS AVAILABLE AT <a href="http://www.sitesolutionsmag.com/pdf/v2i2/focusonbmp.pdf">http://www.sitesolutionsmag.com/pdf/v2i2/focusonbmp.pdf</a>)



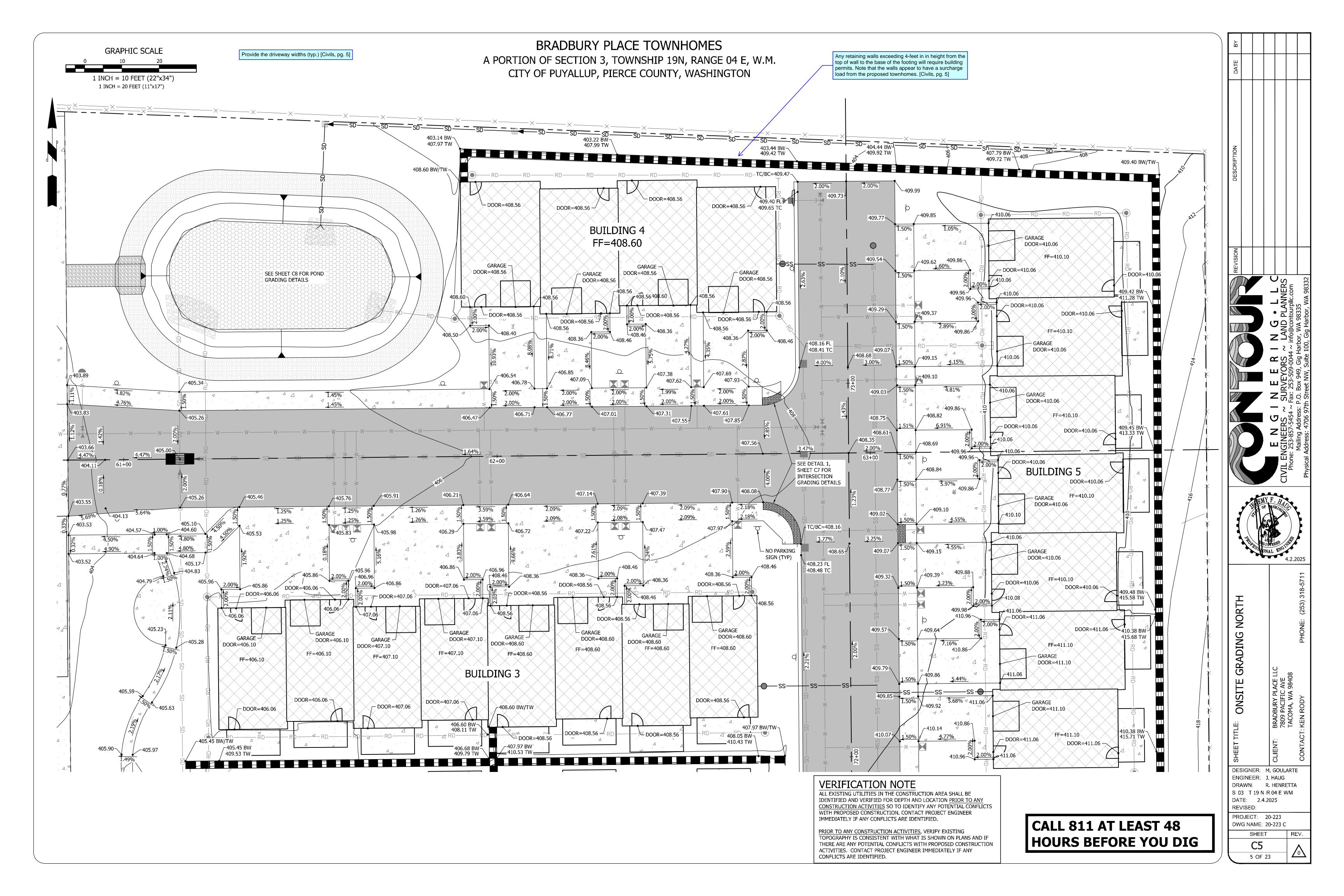


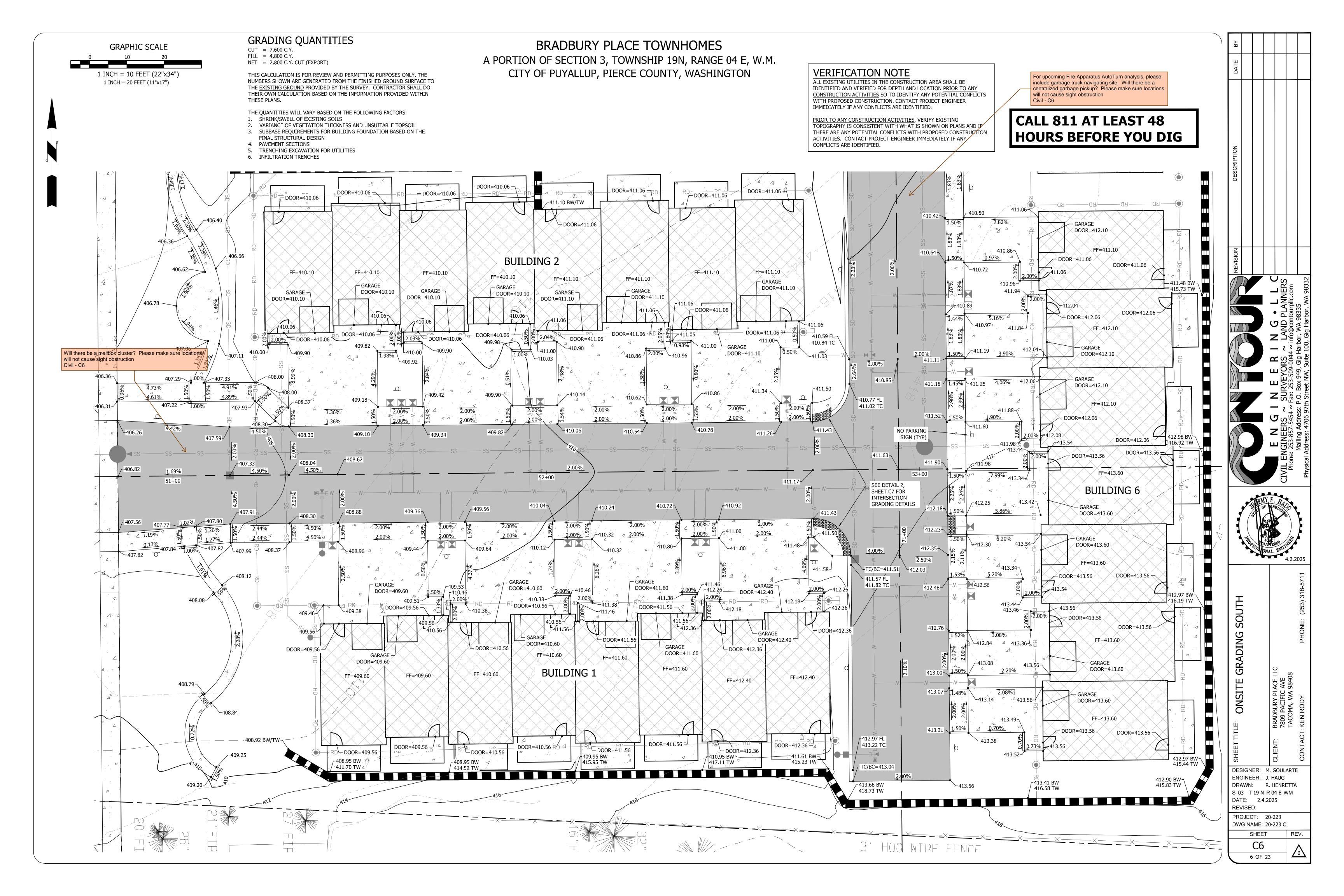
DESIGNER: M. GOULARTE ENGINEER: J. HAUG DRAWN: R. HENRETTA S 03 T 19 N R 04 E WM

DATE: 2.4.2025 REVISED: PROJECT: 20-223 DWG NAME: 20-223 C

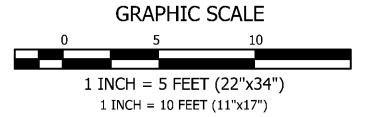
> SHEET REV.

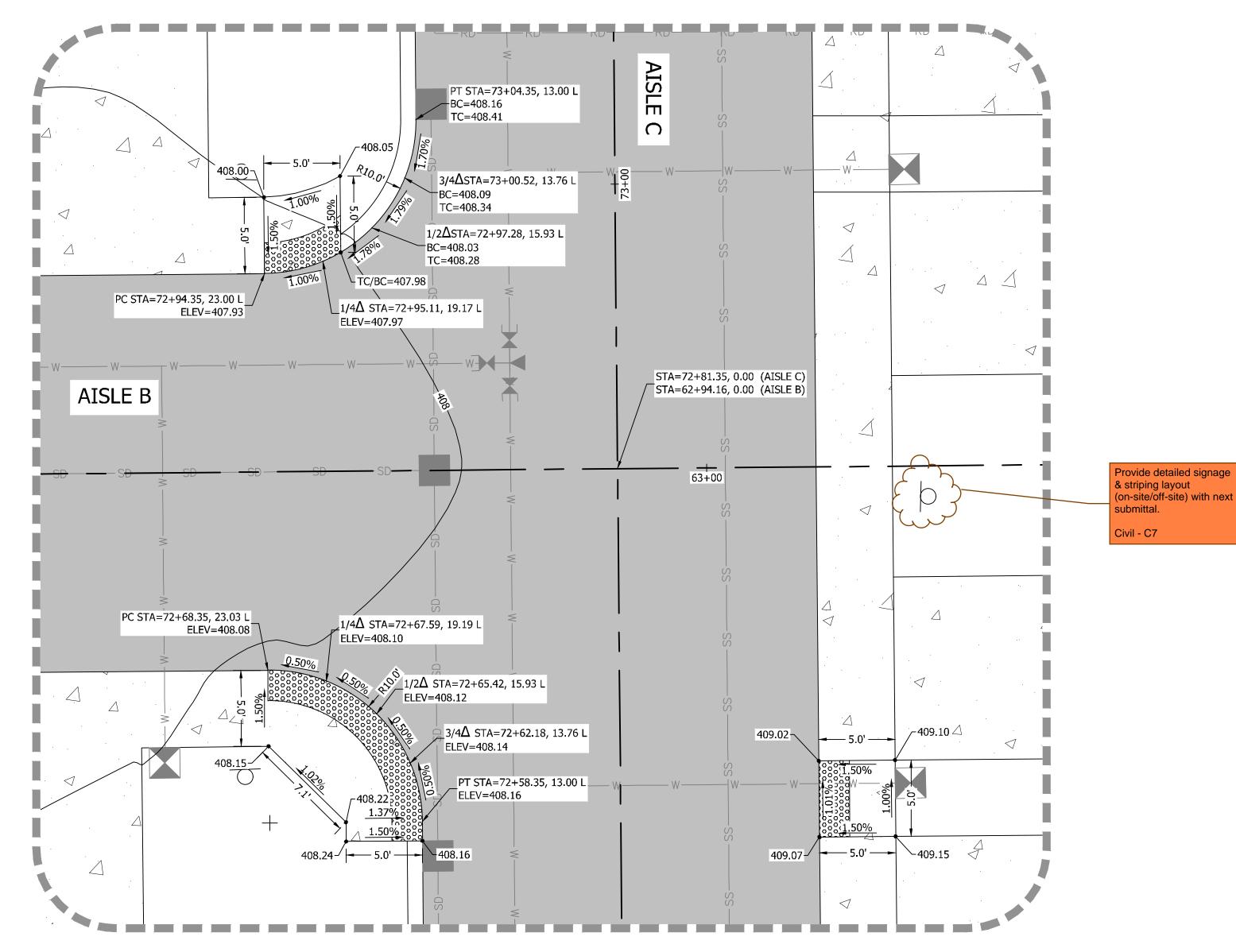
4 OF 23





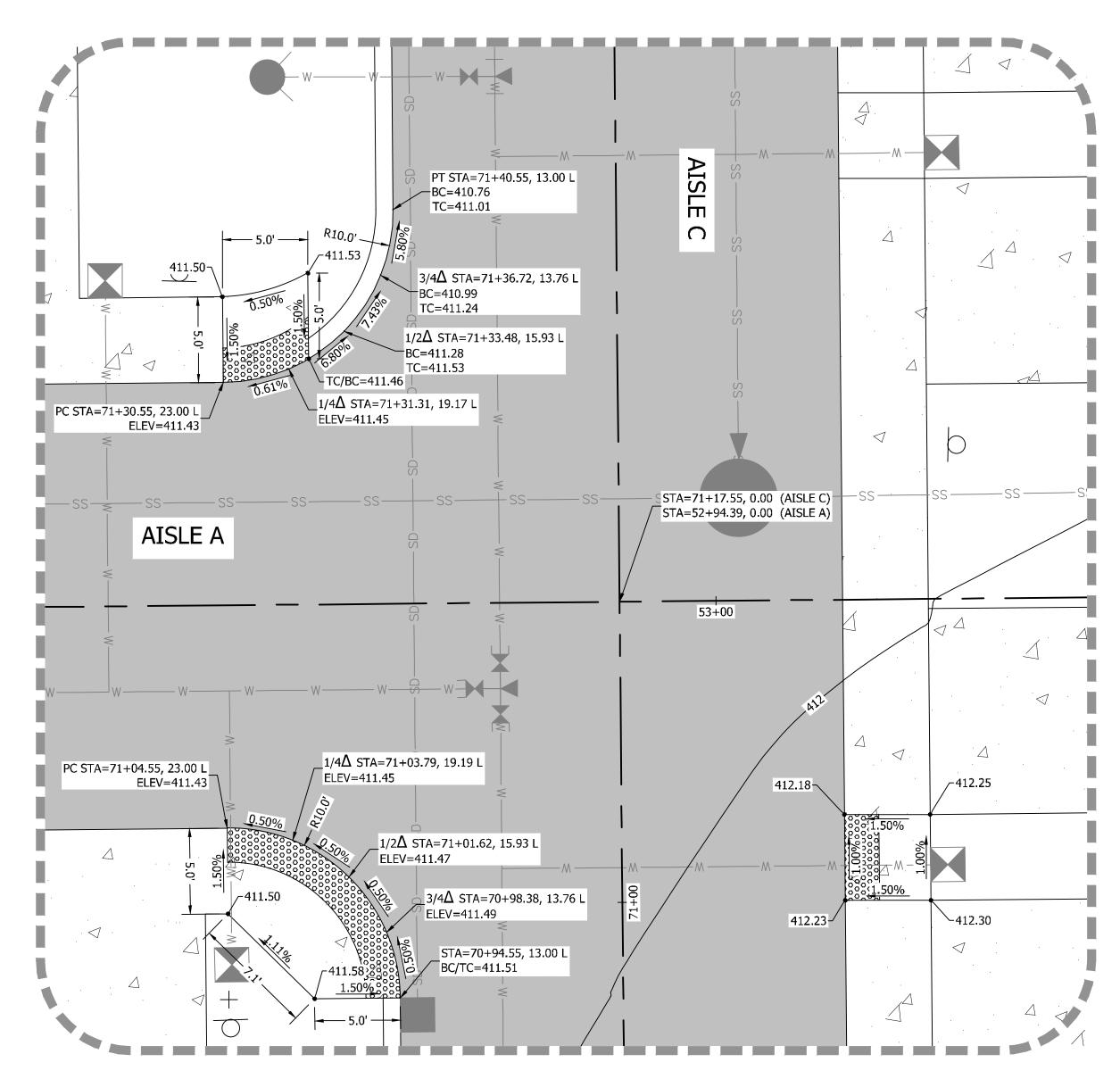
A PORTION OF SECTION 3, TOWNSHIP 19N, RANGE 04 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON





AISLE B & AISLE C INTERSECTION

NOT TO SCALE



AISLE A & AISLE C INTERSECTION

NOT TO SCALE

#### **VERIFICATION NOTE**

ALL EXISTING UTILITIES IN THE CONSTRUCTION AREA SHALL BE IDENTIFIED AND VERIFIED FOR DEPTH AND LOCATION PRIOR TO ANY CONSTRUCTION ACTIVITIES SO TO IDENTIFY ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE IDENTIFIED.

PRIOR TO ANY CONSTRUCTION ACTIVITIES, VERIFY EXISTING TOPOGRAPHY IS CONSISTENT WITH WHAT IS SHOWN ON PLANS AND IF THERE ARE ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION ACTIVITIES. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE IDENTIFIED.

CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG

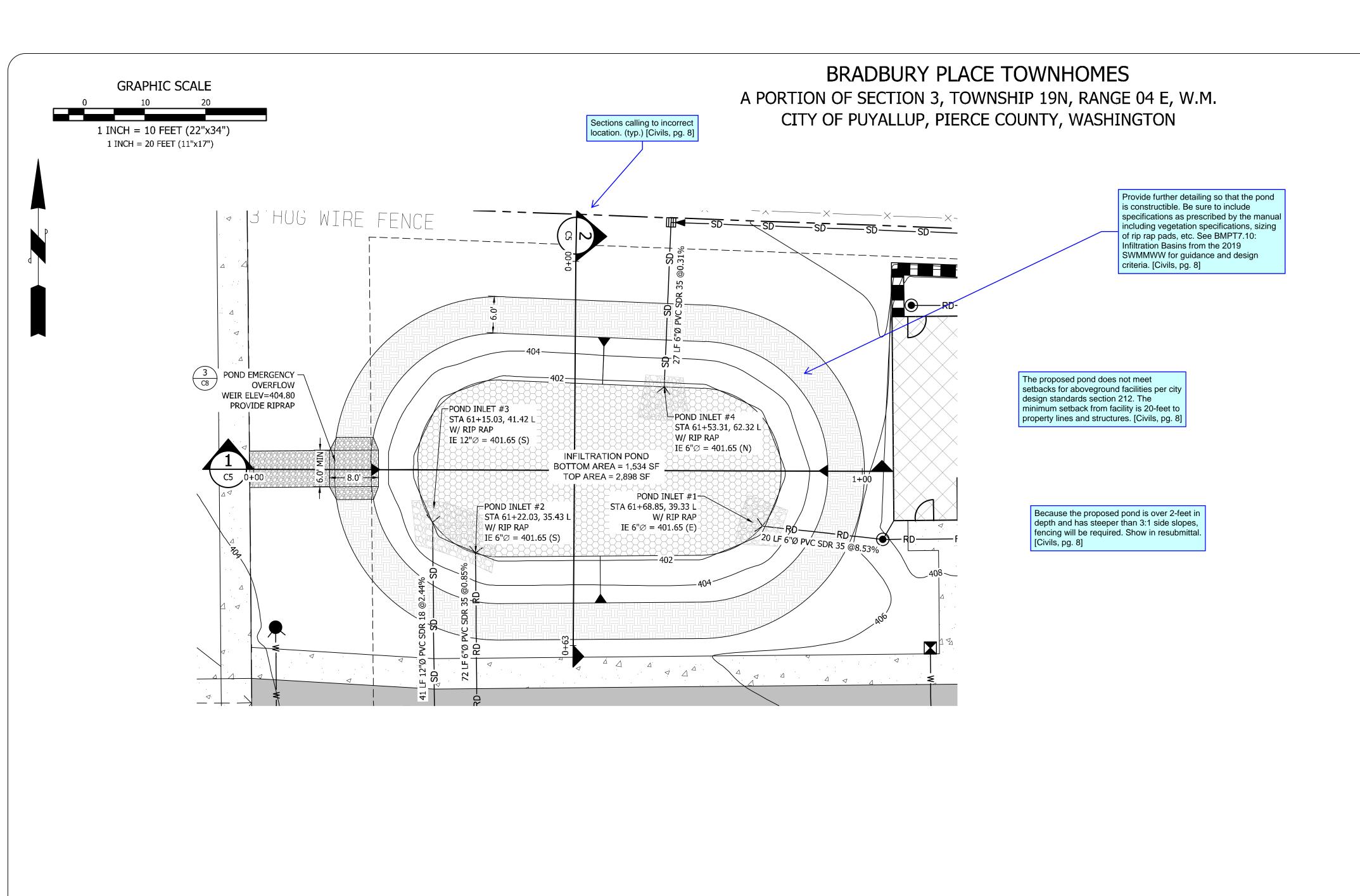
DESIGNER: M. GOULARTE ENGINEER: J. HAUG DRAWN: R. HENRETTA S 03 T 19 N R 04 E WM DATE: 2.4.2025

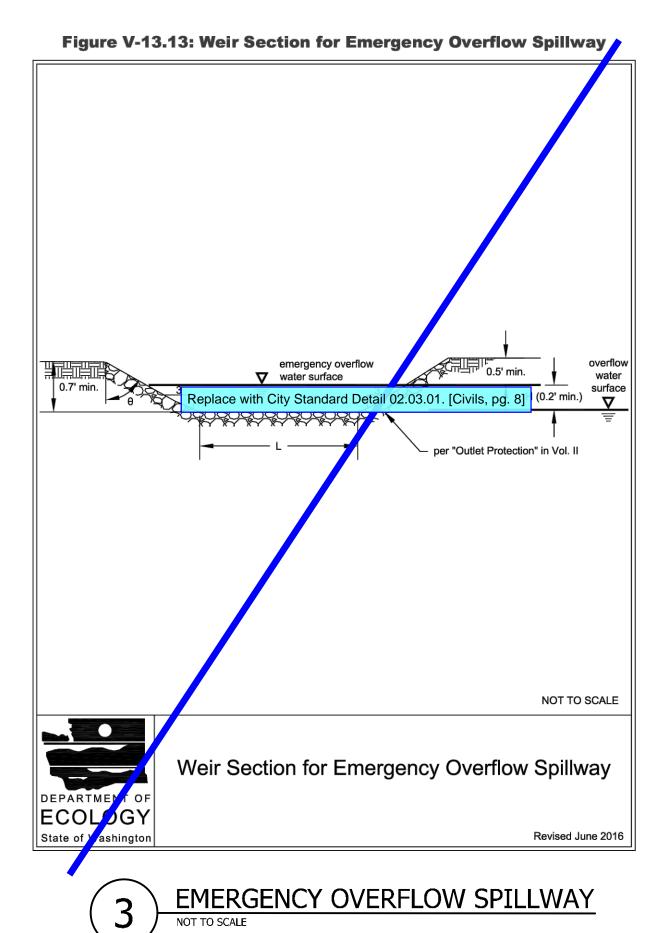
REVISED:

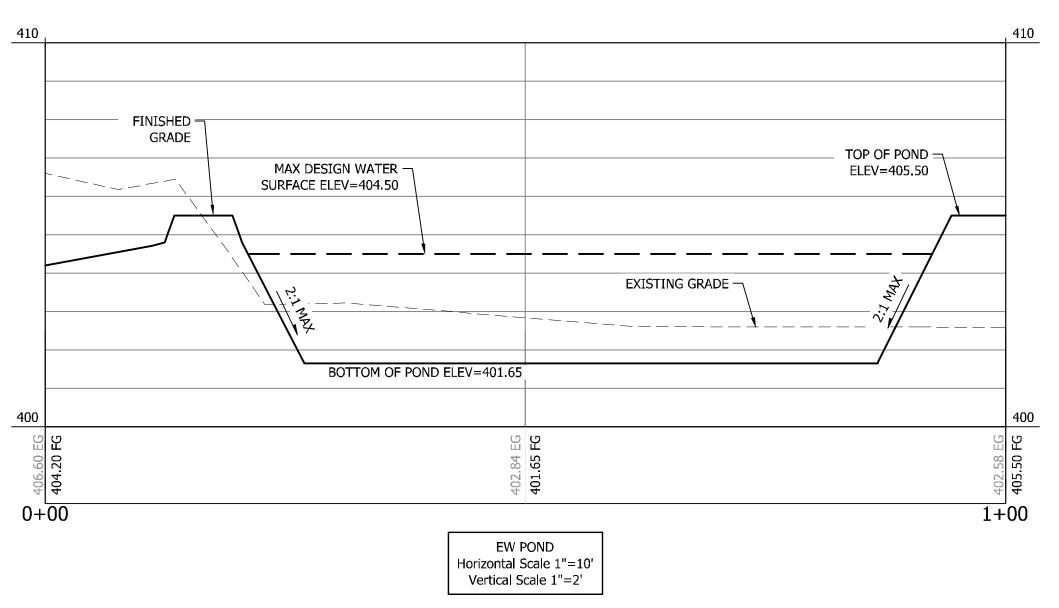
PROJECT: 20-223 DWG NAME: 20-223 C

SHEET

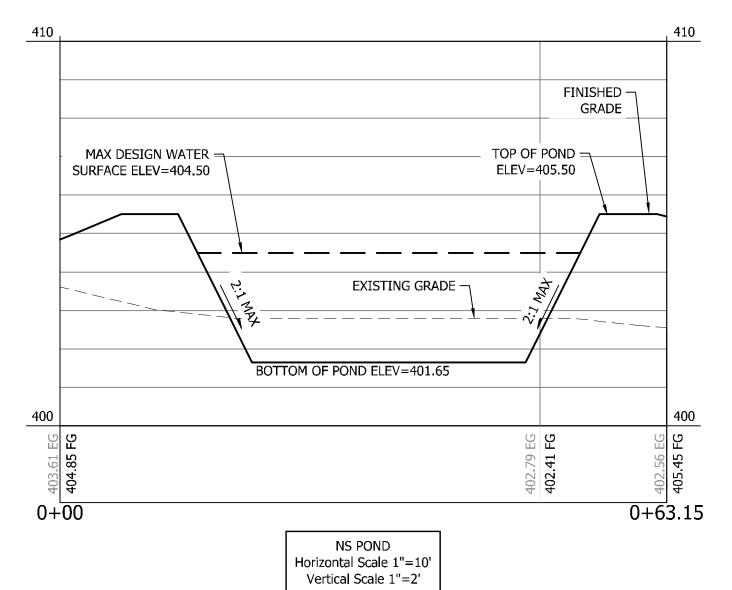
7 OF 23







POND X-SECTION EAST/WEST



POND X-SECTION NORTH/SOUTH

INFILTRATION VERIFICATION NOTE
CONTRACTOR SHALL COORDINATE WITH GEOTECHNICAL ENGINEER
FOR INSPECTION OF NATIVE SOILS AT POND BOTTOM ONCE FULLY
EXCAVATED.

GEOTECHNICAL ENGINEER SHALL VERIFY THAT SOILS AT BOTTOM OF POND MEET OR EXCEED THE RECOMMENDED DESIGN INFILTRATION RATE PROVIDED. ADDITIONAL INFILTRATION TESTING OR DEEPER EXPORATIONS SHOULD BE DONE IF DETERMINED TO BE REQUIRED BY GEOTECHNICAL ENGINEER TO MEET REQUIREMENTS OF THE CURRENT STORMWATER MANUAL.

IF SOILS AT BOTTOM OF POND DO NOT MEET RECOMMENDED DESIGN INFILTRATION RATE, CONTACT PROJECT ENGINEER FOR POSSIBLE DESIGN CHANGES.

#### **VERIFICATION NOTE**

ALL EXISTING UTILITIES IN THE CONSTRUCTION AREA SHALL BE IDENTIFIED AND VERIFIED FOR DEPTH AND LOCATION PRIOR TO ANY CONSTRUCTION ACTIVITIES SO TO IDENTIFY ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE IDENTIFIED.

PRIOR TO ANY CONSTRUCTION ACTIVITIES, VERIFY EXISTING TOPOGRAPHY IS CONSISTENT WITH WHAT IS SHOWN ON PLANS AND IF THERE ARE ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION ACTIVITIES. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE IDENTIFIED.

CALL 811 AT LEAST 48
HOURS BEFORE YOU DIG

DATE BY					
DESCRIPTION					
REVISION REVISION	V F	CIVIL ENGINEERS ~ SURVEYORS ~ LAND PLANNERS		Mailing Address: P.O. Box 949, Gig Harbor, WA 98335  Physical Address: 4706 97th Street NW, Suite 100, Gig Harbor, WA 98332	
	 44951 FISHER ONAL	ENGI	4.2.2	PHONE: (253) 318-5711   🛱	
TITLE: POND PLAN AND PROFILE	T. TO I I VOI I ACE I T.	II. BRADBORT PLACE LLC 7809 PACIFIC AVE	TACOMA, WA 98408		

DRAWN: R. HENRETTA
S 03 T 19 N R 04 E WM

DATE: 2.4.2025

REVISED:

PROJECT: 20-223

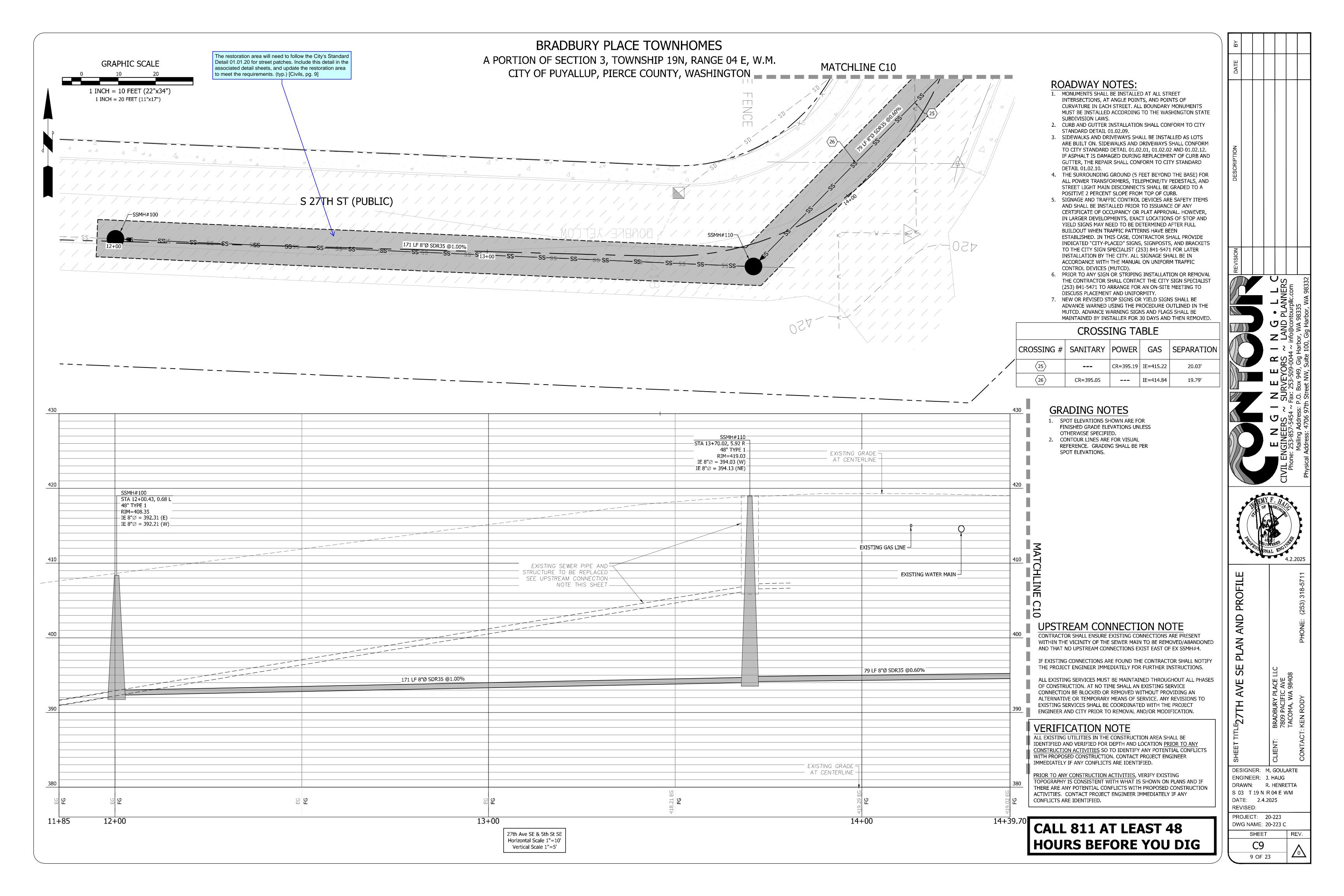
DWG NAME: 20-223 C

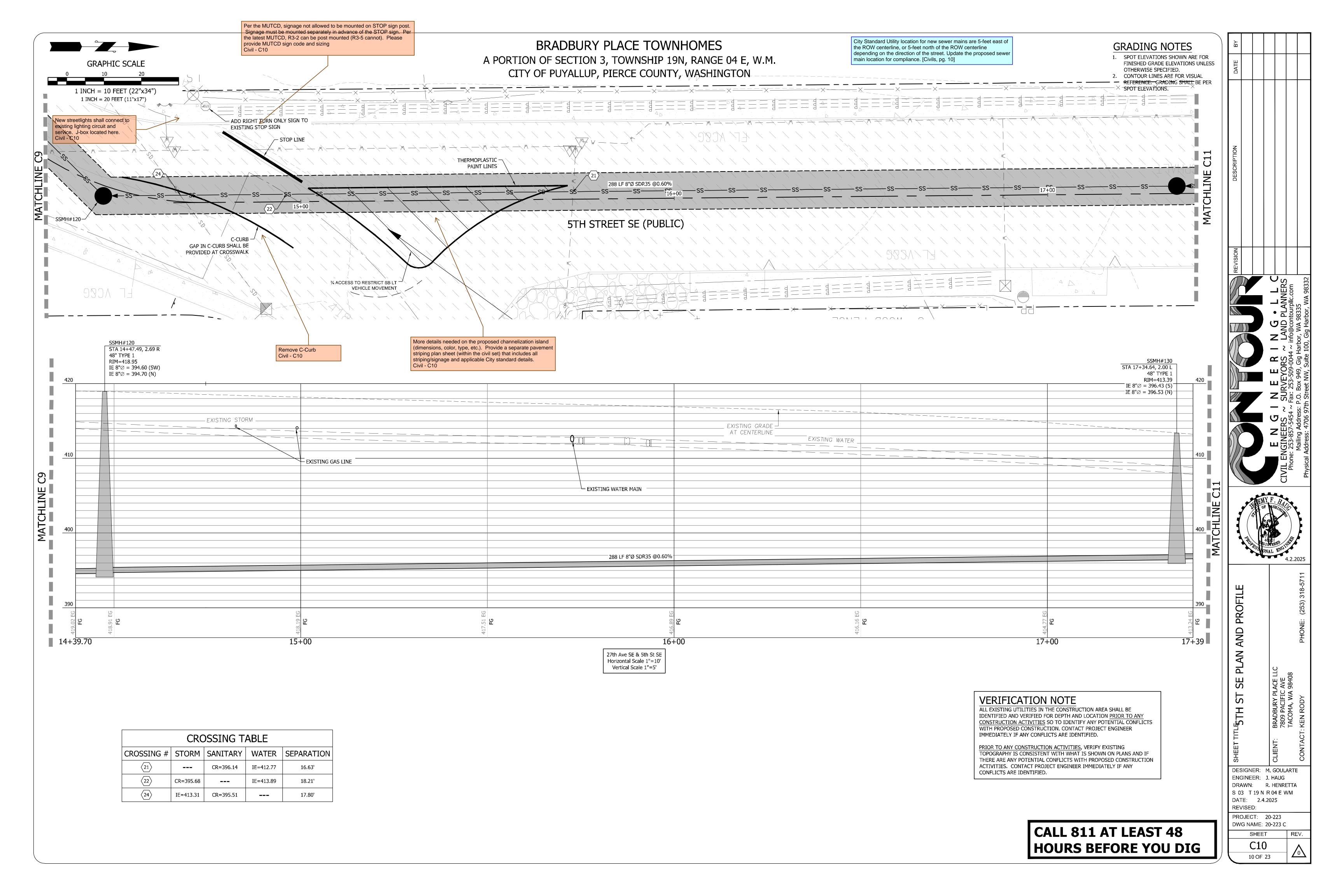
ENGINEER: J. HAUG

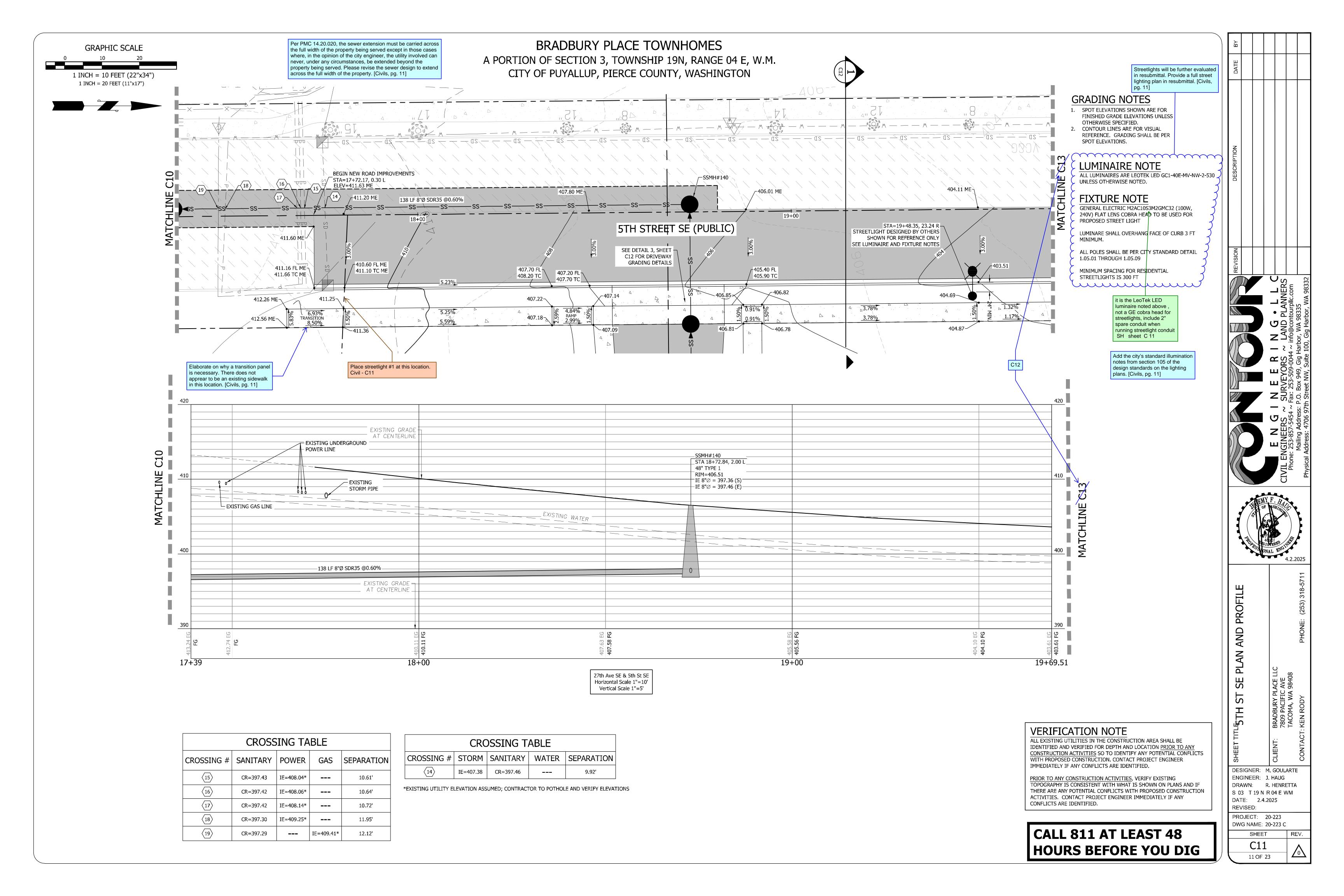
DESIGNER: M. GOULARTE

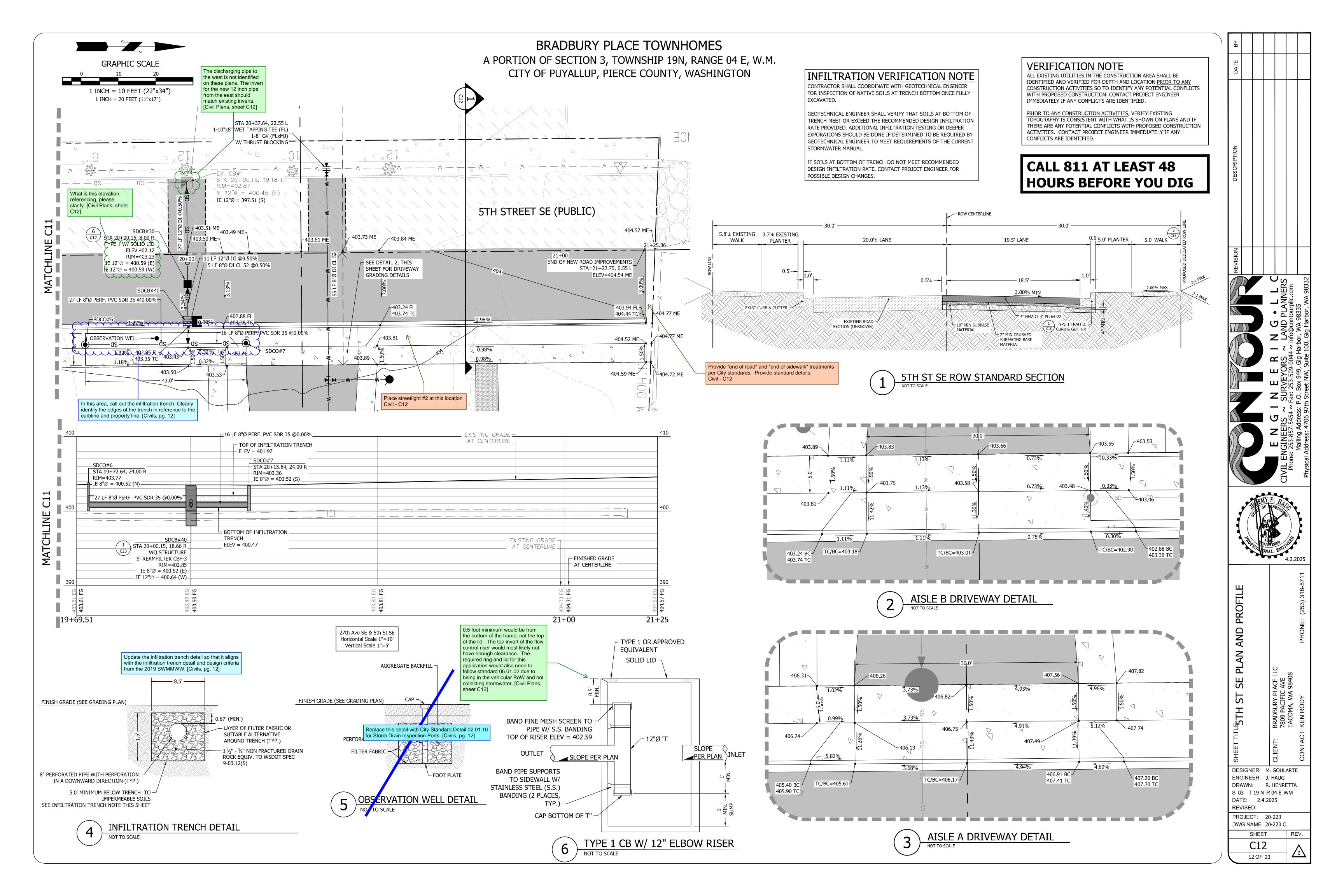
SHEET REV.

C8
8 OF 23







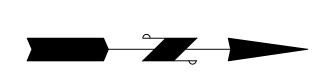


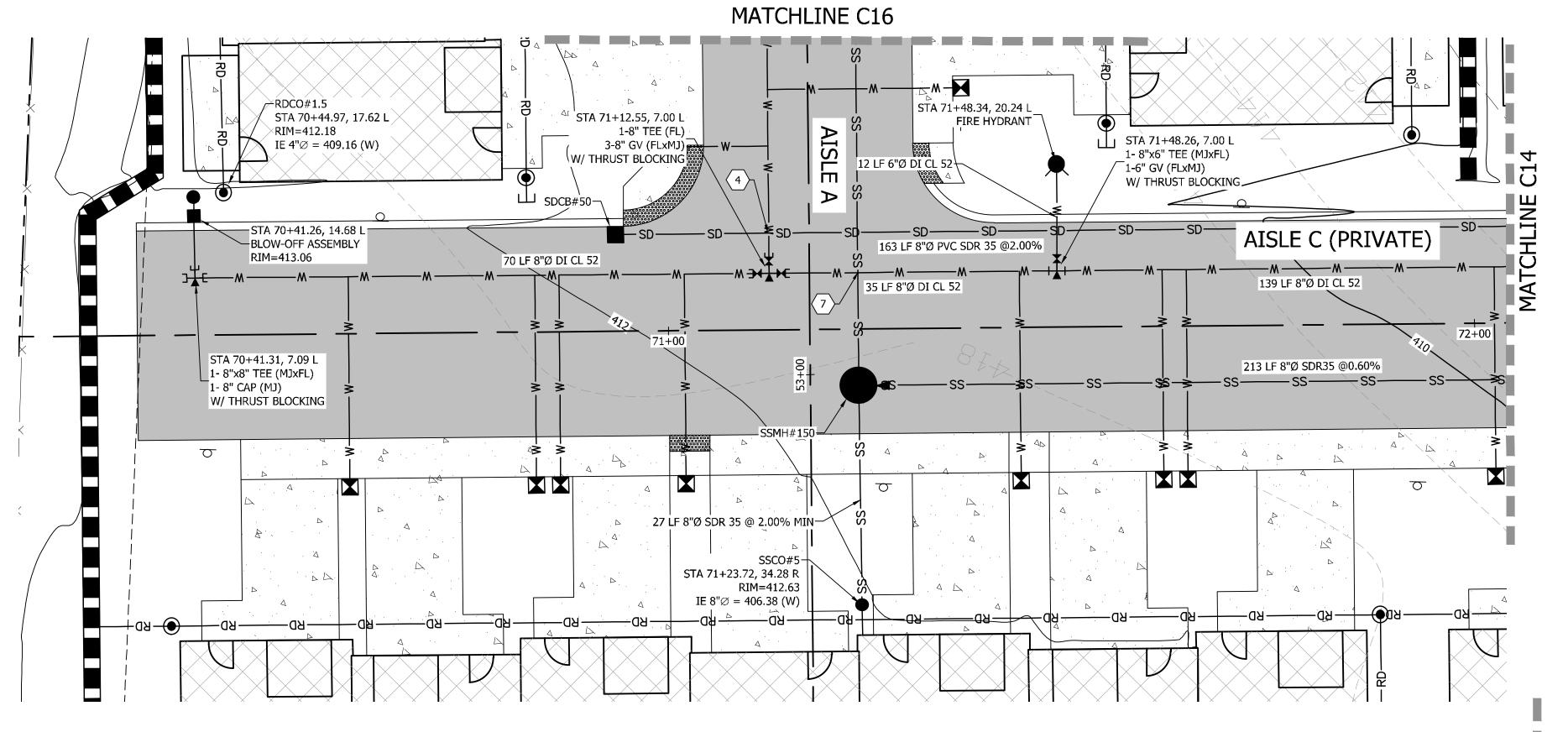
# **GRAPHIC SCALE** 1 INCH = 10 FEET (22"x34")1 INCH = 20 FEET (11"x17")

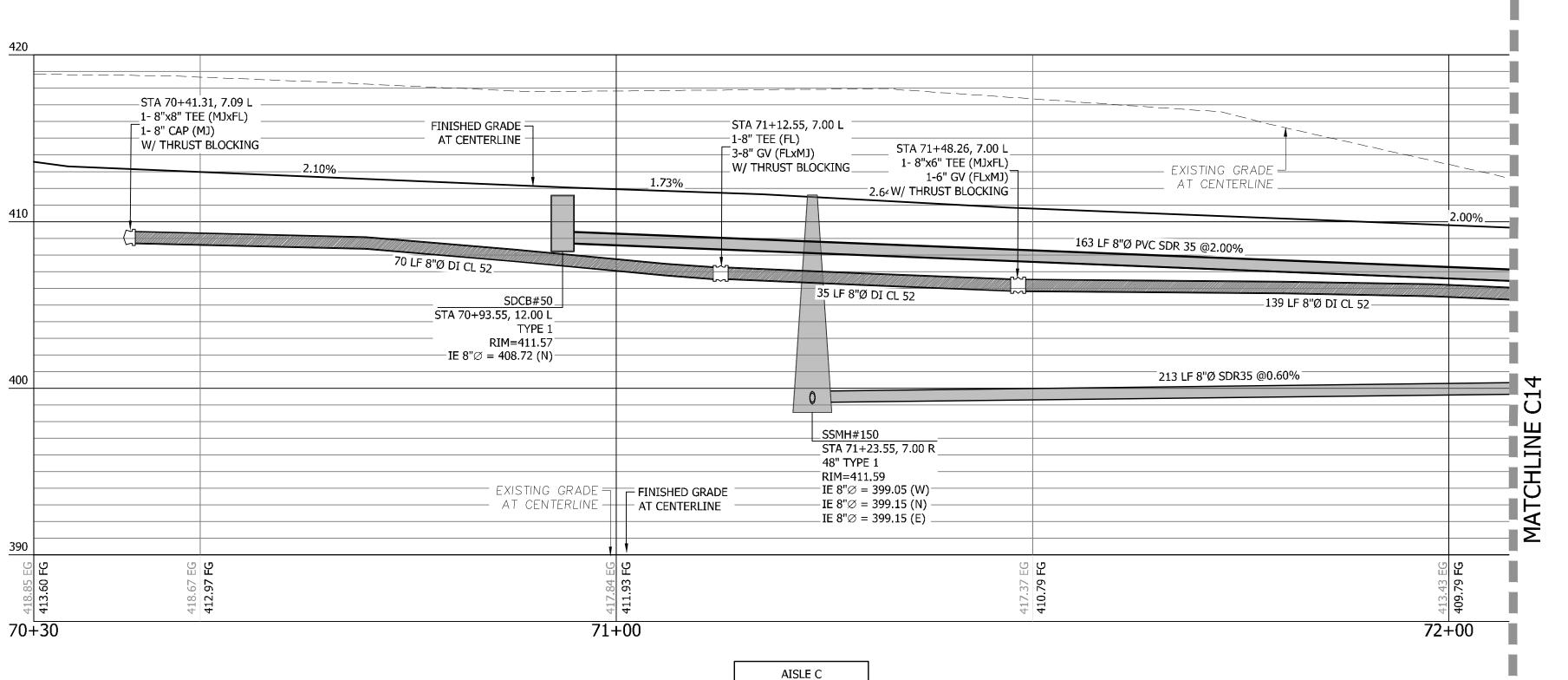
# BRADBURY PLACE TOWNHOMES

A PORTION OF SECTION 3, TOWNSHIP 19N, RANGE 04 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON

Ensure that minimum cover requirements are being met. (typ.) The minimum allowed cover for PVC is 3-feet. Alternatively, ductile iron is an allowed pipe material that only requires 1-foot of cover. [Civils, pg. 13]







Horizontal Scale 1"=10' Vertical Scale 1"=5'

	CRC	SSING T	ABLE	
CROSSING #	STORM	SANITARY	WATER	SEPARATION
4	IE=408.32		CR=407.28	1.04'
7		CR=399.65	IE=407.69	8.04'

# **VERIFICATION NOTE**

ALL EXISTING UTILITIES IN THE CONSTRUCTION AREA SHALL BE IDENTIFIED AND VERIFIED FOR DEPTH AND LOCATION PRIOR TO ANY CONSTRUCTION ACTIVITIES SO TO IDENTIFY ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE IDENTIFIED.

PRIOR TO ANY CONSTRUCTION ACTIVITIES, VERIFY EXISTING TOPOGRAPHY IS CONSISTENT WITH WHAT IS SHOWN ON PLANS AND IF THERE ARE ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION ACTIVITIES. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE IDENTIFIED.

CALL 811 AT LEAST 48 **HOURS BEFORE YOU DIG** 

	DATE					
	DESCRIPTION					
	REVISION					
	1		C	ي ر	) _	332

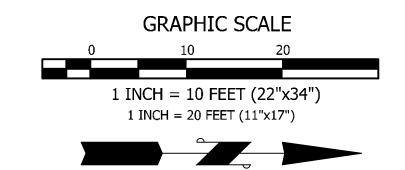


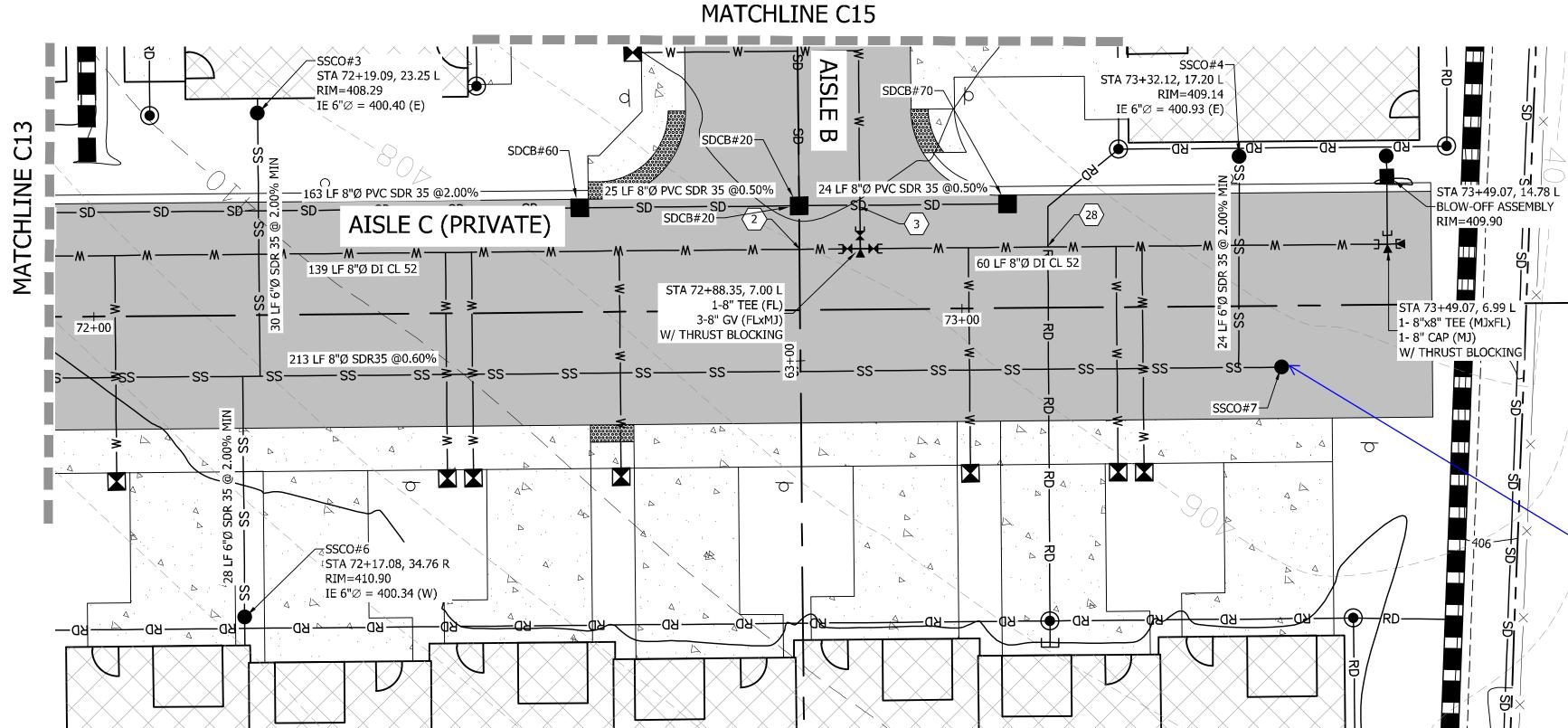
DESIGNER: M. GOULARTE ENGINEER: J. HAUG DRAWN: R. HENRETTA S 03 T 19 N R 04 E WM DATE: 2.4.2025

REVISED: PROJECT: 20-223 DWG NAME: 20-223 C SHEET

13 OF 23

A PORTION OF SECTION 3, TOWNSHIP 19N, RANGE 04 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON





		D#60						
		B#60 .00 L			DCB#70			
	EXISTING GRADE RIM=4	/PE 1 08.22		STA 73+05.35,	12.00 L TYPE 1			_
	AT CENTERLINE IE 8" $\varnothing$ = 405.4  IE 8" $\varnothing$ = 405.4			RIM= ————————————————————————————————————	=408.23 5.47 (\$)	FINISHED GRADE		
		0 (0)				AT CENTERLINE		
2	2.00%					2.109/-		
			1.23%	1.43%		2.10%		
	163 LF 8"Ø PVC SDR 35 @2.00%							
		25 LF 8	8"Ø PVC SDR 35 @0.50%	24 LF 8"Ø PVC SDR 35 @0	0.50%			_
	139 LF 8"Ø DI CL 52					60 LF 8"Ø DI CL 52		-
	255 Et 0 Ø DI CE 52					OUT OF DICE 32		
	242 15 080 CDD25 60 C00/			1				-
	213 LF 8"Ø SDR35 @0.60%							
							STA 73+49.07, 6.99 L 1- 8"x8" TEE (MJxFL)	
			SDCB#20			SSCO#7	1- 8" CAP (MJ)	1
			STA 72+81.35, 12.00 L TYPE 1 W/VANED GRATE			STA 73+36.80, 7.08 R	W/ THRUST BLOCKING	G
			RIM=407.94 IE 8"∅ = 405.35 (W)	STA 72+88.35, 7	7.00 L ——	RIM=409.54 IE 8" $\emptyset$ = 400.43 (S)		_
		FINISHED GRADE AT CENTERLINE	IE $8''\emptyset = 405.35$ (N)	1-8" TEE (FL) 3-8" GV (FLxMJ)				
		ATCENTEREINE	IE 8"∅ = 405.35 (S)	W/ THRUST BLC				_
	↓ ↓							
	2 2			C LL	Σ.		<u> </u>	EG
413.43	409.79			07	408.62		403.89 EG 409.64 FG	3.74
								400
72+	-00			73-	+00		73	3+

Horizontal Scale 1"=10'

Vertical Scale 1"=5'

_	CROSSING TABLE							
	CROSSING #	STORM	SANITARY	WATER	SEPARATION			
	2	IE=405.23		CR=404.22	1.01'			
	3	IE=405.36		CR=403.91	1.45'			
/	28	IE=404.82		CR=403.72	1.10'			
/								

Sewer runs need to terminate with a manhole rather than a cleanout. [Civils, pg. 14]

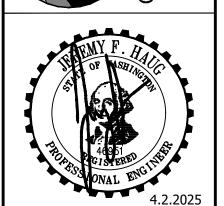
# **VERIFICATION NOTE**

ALL EXISTING UTILITIES IN THE CONSTRUCTION AREA SHALL BE IDENTIFIED AND VERIFIED FOR DEPTH AND LOCATION PRIOR TO ANY CONSTRUCTION ACTIVITIES SO TO IDENTIFY ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE IDENTIFIED.

PRIOR TO ANY CONSTRUCTION ACTIVITIES, VERIFY EXISTING TOPOGRAPHY IS CONSISTENT WITH WHAT IS SHOWN ON PLANS AND IF THERE ARE ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION ACTIVITIES. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE IDENTIFIED.

CALL 811 AT LEAST 48 **HOURS BEFORE YOU DIG** 

)	ВУ						
	DATE						
	DESCRIPTION						
	REVISION						
			_ _	PLANNERS (	tourplic.com	8335 bor, WA 98332	

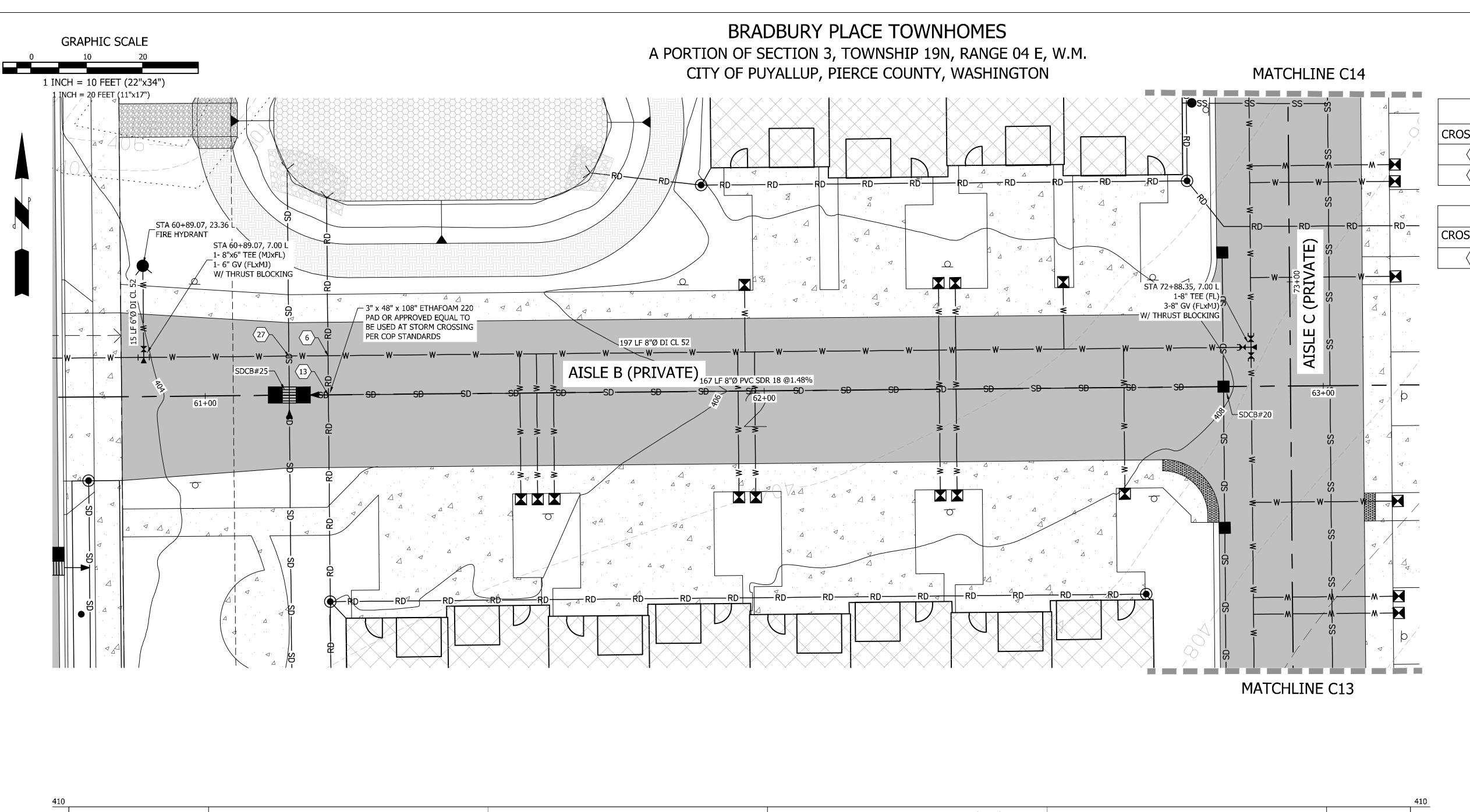


DESIGNER: M. GOULARTE ENGINEER: J. HAUG DRAWN: R. HENRETTA S 03 T 19 N R 04 E WM DATE: 2.4.2025

REVISED: PROJECT: 20-223 DWG NAME: 20-223 C

> SHEET REV.

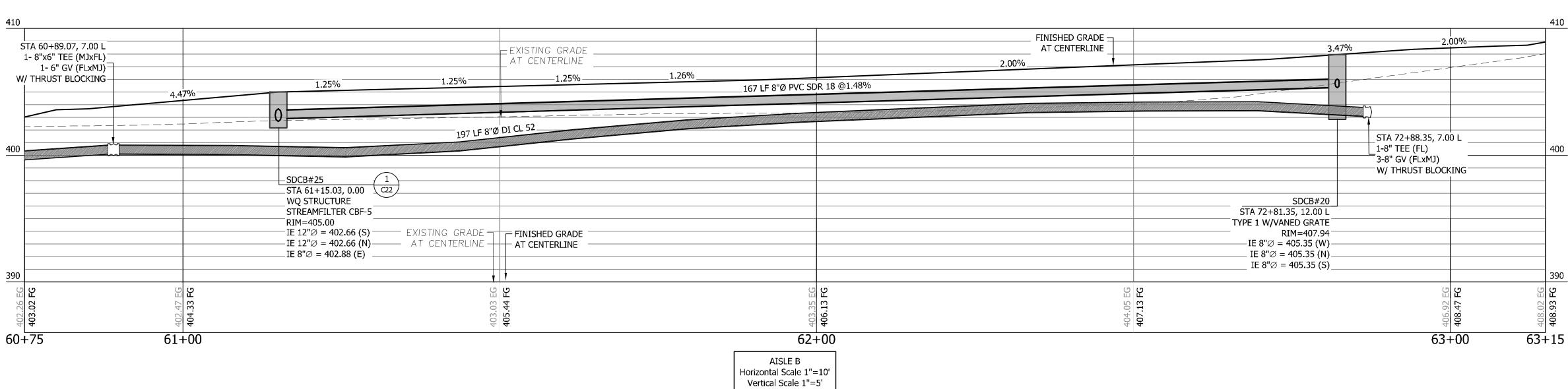
14 OF 23



_					
		CRC	SSING T	ABLE	
	CROSSING #	STORM	SANITARY	WATER	SEPARATIO
	6	IE=401.88		CR=400.67	1.21'
	27	IE=402.47		CR=400.77	1.70'

CROSSING TABLE					
CROSSING #	STORM	STORM	SEPARATION		
(13)	IE=402.98	CR=402.48	0.50'		

The matchlines provided do not line up with matchlines from other sheets. Revise the matchlines for consistency and accuracy in resubmittal (typ.). [Civils, pg. 15]



#### **VERIFICATION NOTE**

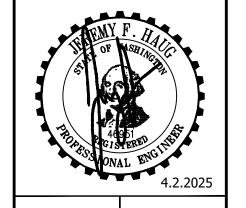
ALL EXISTING UTILITIES IN THE CONSTRUCTION AREA SHALL BE IDENTIFIED AND VERIFIED FOR DEPTH AND LOCATION PRIOR TO ANY CONSTRUCTION ACTIVITIES SO TO IDENTIFY ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE IDENTIFIED.

PRIOR TO ANY CONSTRUCTION ACTIVITIES, VERIFY EXISTING TOPOGRAPHY IS CONSISTENT WITH WHAT IS SHOWN ON PLANS AND IF THERE ARE ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION ACTIVITIES. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE IDENTIFIED.

CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG

V	B					
	DATE					
ATION 21' 70'	DESCRIPTION					
	REVISION					
			_	FRS C	mo	98332

ENGINEERS ~ SURVEYORS ~ LAND PLANN Phone: 253-857-5454 ~ Fax: 253-509-0044 ~ info@contourplic.



SHEET TITLE: AISLE B PLAN AND PROFILE
CLIENT: BRADBURY PLACE LLC
7809 PACIFIC AVE
TACOMA, WA 98408

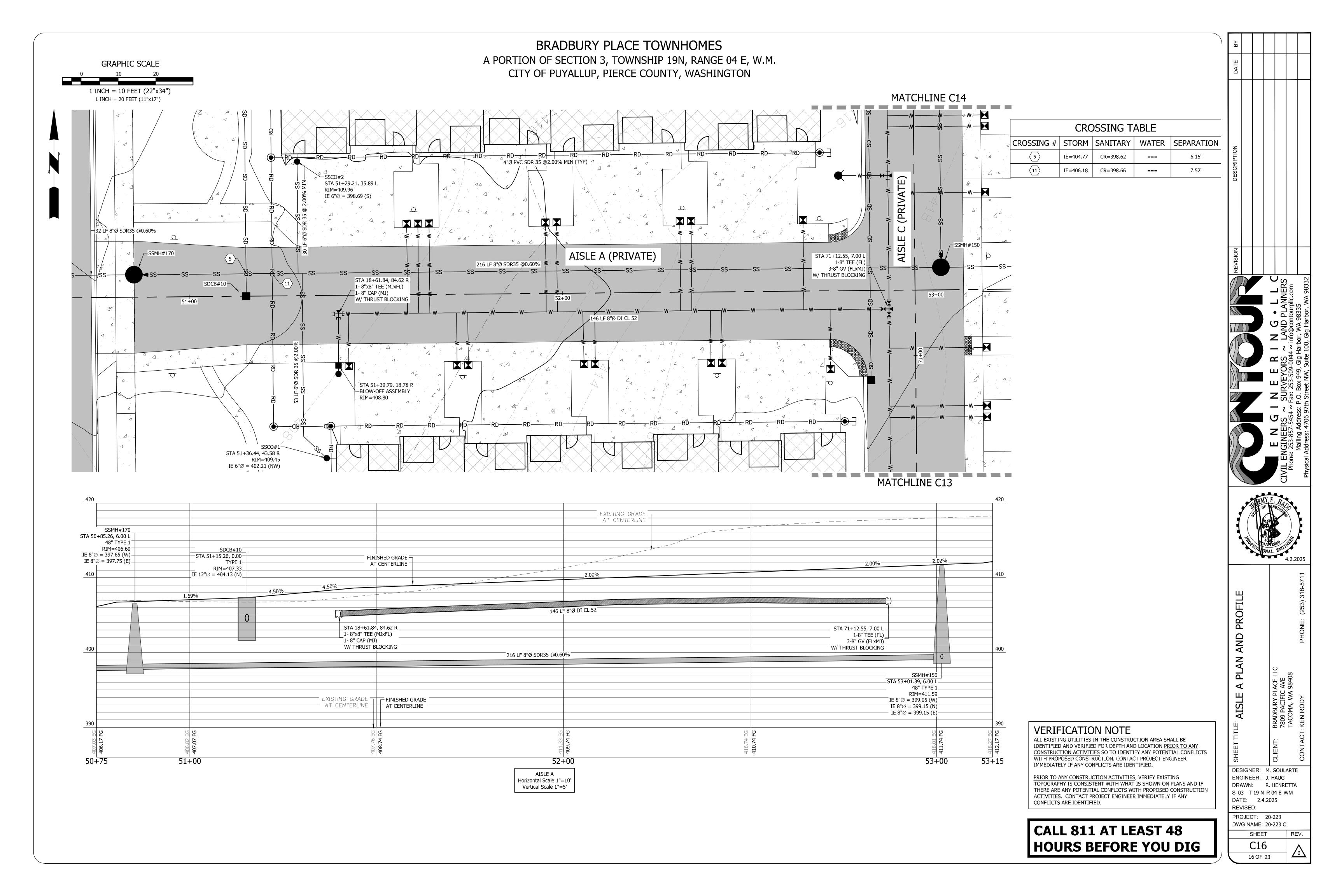
DESIGNER: M. GOULARTE
ENGINEER: J. HAUG
DRAWN: R. HENRETTA
S 03 T 19 N R 04 E WM
DATE: 2.4.2025
REVISED:

PROJECT: 20-223 DWG NAME: 20-223 C

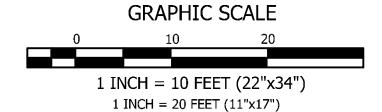
SHEET REV.

C15

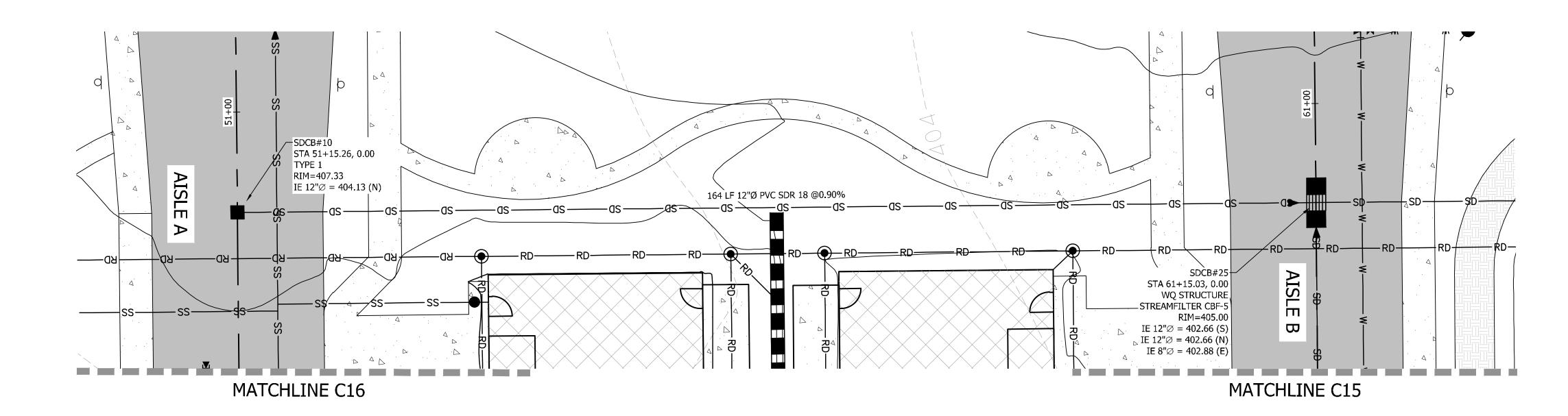
15 OF 23



## A PORTION OF SECTION 3, TOWNSHIP 19N, RANGE 04 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON







#### STORMWATER NOTES

- 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. 02.01.06 AND 02.01.07
- 3. 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.
- 5. 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.

#### SANITARY SEWER NOTES

- MINIMUM GRADE ON ALL 4 INCH RESIDENTIAL SIDE SEWERS SHALL BE 2 PERCENT AND 6 INCH COMMERCIAL SIDE SEWERS SHALL BE 1 PERCENT; MAXIMUM SHALL BE 8 PERCENT. ALL SIDE SEWERS SHALL BE 6 INCHES WITHIN CITY RIGHT-OF-WAY
- 2. SIDE SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD NOS. 04.03.01, 04.03.02
- 04.03.03 AND 04.03.04. SIDE SEWER INSTALLATION WORK SHALL BE DONE IN ACCORDANCE WITH THE WASHINGTON INDUSTRIAL SAFETY AND HEALTH ACT (WISHA).
- ALL SEWER PIPE SHALL BE PVC, POLYPROPYLENE, OR DUCTILE IRON. PVC SEWER PIPE SHALL CONFORM TO ASTM D-3034, SDR35 FOR PIPE SIZES 15-INCH AND SMALLER AND ASTM F679 FOR PIPE SIZES 18- TO 27-INCH, DUCTILE IRON PIPE SHALL BE CLASS 51 OR GREATER, LINED WITH PROTECTO 401TM EPOXY LINING OR EQUIVALENT, UNLESS OTHERWISE NOTED. 12-INCH THROUGH 30-INCH POLYPROPYLENE PIPE (PP) SHALL BE DUAL WALLED, HAVE A SMOOTH INTERIOR AND EXTERIOR CORRUGATIONS AND MEET WSDOT 9-05.24(2). IT SHALL MEET OR EXCEED ASTM F2764. 36-INCH THROUGH 60-INCH PP PIPE SHALL BE TRIPLE WALLED AND MEET WSDOT 9-05.24(2). IT SHALL MEET OR EXCEED ASTM F2764. PP SHALL HAVE A MINIMUM PIPE STIFFNESS OF 46 PII WHEN TESTED IN ACCORDANCE WITH ASTM D2412. TESTING SHALL BE PER ASTM F1417. TRENCHING, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY STANDARD NO. 06.01.01. MINIMUM COVER ON PVC AND PP PIPE SHALL BE 3.0 FEET. MINIMUM COVER ON DUCTILE IRON PIPE SHALL BE 1.0 FOOT.
- 3. SANITARY SEWER MANHOLE FRAMES AND COVERS SHALL CONFORM TO CITY STANDARD NO. 06.01.02.
- 4. SANITARY SEWER MANHOLES SHALL CONFORM TO CITY STANDARD NOS. 04.01.01, 04.01.02, 04.01.03 AND 04.01.04. ALL MANHOLES SHALL BE CHANNELED FOR FUTURE LINES AS SPECIFIED ON THESE PLANS. MANHOLE STEPS AND LADDER SHALL CONFORM TO STANDARD NO. 06.01.03.
- 5. SANITARY SEWER PIPE AND SIDE SEWERS SHALL BE 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES WITH THE EXCEPTION OF SIDE SEWERS THAT PROVIDE SERVICE TO A SINGLE-FAMILY RESIDENCE. AT THE DISCRETION OF THE REVIEW ENGINEER, A LICENSED PROFESSIONAL ENGINEER WILL BE REQUIRED TO STAMP THE DESIGN TO ACCOUNT FOR DEPTH OR
- PROXIMITY TO FOUNDATION, STEEP SLOPES, OR OTHER FACTORS. 6. NO SIDE SEWERS SHALL BE CONNECTED TO ANY HOUSE OR BUILDING UNTIL ALL MANHOLES ARE ADJUSTED TO THE FINISHED GRADE OF THE COMPLETED ASPHALT ROADWAY AND THE ASPHALT
- PATCH AND SEAL AROUND THE RING ARE ACCEPTED. 7. FOR COMMERCIAL DEVELOPMENTS IN WHICH SOURCES OF GREASE AND/OR OILS MAY BE INTRODUCED TO THE CITY SANITARY SEWER SYSTEM, A CITY APPROVED GREASE INTERCEPTOR SHALL BE
- INSTALLED DOWNSTREAM FROM THE SOURCE. 8. ONCE SEWER AND ALL OTHER UTILITY CONSTRUCTION IS COMPLETED, ALL SANITARY SEWER MAINS AND SIDE SEWERS SHALL BE TESTED PER SECTION 406 OF THE CITY STANDARDS.

#### WATER SYSTEM NOTES

- 1. BACTERIOLOGICAL (COLIFORM AND IRON BACTERIA) TEST SAMPLES WILL BE TAKEN BY THE CITY (OR FMWC, VW OR TCW 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. 2. 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-OFWAY AND UNIMPROVED EASEMENTS.
- 3. 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 21.4-1964.
- 4. 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 OR APPROVED EQUAL. A TWO-PIECE EPOXY COATED OR 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.
- 5. ALL WATER MAINS AND APPURTENANCES SHALL BE HYDROSTATICALLY TESTED AT 200 PSI IN ACCORDANCE WITH STANDARD SPECIFICATION 7-09.3(23). PRESSURE TESTING SHAL NOT BE PERFORMED UNTIL SATISFACTORY PURITY SAMPLES HAVE BEEN RECEIVED, EXCEPT WHEN NEW WATER MAINS ARE INSTALLED INDEPENDENTLY FROM THE WATER SYSTEM PIPING.
- 6. FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD DETAIL 03.05.01 AND AS DIRECTED BY THE CITY OF PUYALLUP FIRE CODE
- 7. 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.
- 8. RESILIENT SEATED WEDGE GATE VALVES SHALL BE USED FOR 10-INCH MAINS AND SMALLER. BUTTERFLY VALVES SHALL BE USED FOR MAINS GREATER THAN 10
- 9. PIPE FITTING FOR WATER MAINS SHALL BE DUCTILE IRON AND SHALL BE
- MECHANICAL JOINT CONFORMING TO AWWA SPECIFICATION C111-72. 10. WATER MAIN PIPE AND SERVICE CONNECTIONS SHALL BE A MINIMUM OF 10
- FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES. 11. 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. 12. TRENCHING, BEDDING, AND BACKFILL FOR WATER MAINS SHALL BE INSTALLED
- IN ACCORDANCE WITH CITY STANDARD DETAIL 06.01.01.
- 13. 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.
- 14. ANY LEAD JOINT FITTING DISTURBED DURING CONSTRUCTION SHALL BE REPLACED WITH A MECHANICAL JOINT FITTING AT THE CONTRACTOR'S EXPENSE.
- 15. HYDRAULIC FIRE FLOW MODELING SHALL BE REQUIRED FOR FORMAL PLATS WITHIN OR TO BE ANNEXED INTO THE CITY OF PUYALLUP'S WATER SERVICE AREA. THE DEVELOPER SHALL BE RESPONSIBLE TO APPLY FOR A HYDRAULIC MODEL PERMIT PRIOR TO PLAT REVIEW. THE HYDRAULIC MODELING CRITERIA IS BASED ON THE PROJECTED WATER DEMAND WHILE MAINTAINING A MINIMUM SYSTEM PRESSURE OF 20 POUNDS PER SQUARE INCH (PSI) AND A MAXIMUM VELOCITY OF 10 FEET PER SECOND.
- 16. WHEN USING A FIRE HYDRANT FOR NON-FIREFIGHTING PURPOSES, A CITY HYDRANT METER MUST 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.

17. SHOULD A BREAK OCCUR ON ANY CITY WATER MAIN, THE CONTRACTOR SHALL FOLLOW THE CITY'S ADOPTED "WATER MAIN BREAK PROCEDURE" ISSUED TO THEM AT THE PRE-CONSTRUCTION MEETING AND NOTIFY THOSE CONNECTED TO THE SYSTEM IN THE IMPACTED AREA AS OUTLINED IN THE PROCEDURE. 18. WATER MAIN REPAIRS (REFERENCES: AWWA C651-14 AND WSDOT STANDARD SPECIFICATION SECTION 7-09)

(NOTE: A PLANNED WATER MAIN REPAIR SHALL BE APPROVED BY THE CITY INSPECTOR AND/OR WATER DIVISION SUPERVISOR PRIOR TO COMMENCING

- a. REPAIR WITHOUT DEPRESSURIZATION SMALL LEAKS SHALL BE REPAIRED USING REPAIR BANDS WHILE MAINTAINING POSITIVE PRESSURE IN THE WATER MAIN. VALVES SURROUNDING THE LEAK WILL BE PARTIALLY SHUT BY THE CITY WATER DEPARTMENT TO REDUCE THE FLOW AND PRESSURE TO THE AREA. BLOWOFFS AND HYDRANTS IN THE REDUCED PRESSURE AREA MAY BE OPENED AS NEEDED TO FURTHER REDUCE THE PRESSURE. THE WATER MAIN TRENCH SHALL BE OVER-EXCAVATED TO ALLOW WATER IN THE TRENCH TO BE PUMPED OUT AND MAINTAINED BELOW THE LEVEL OF THE WATER MAIN. THE REPAIR SHALL BE COMPLETED WITH THE WATER MAIN PRESSURE REMAINING POSITIVE. AFTER THE REPAIR IS MADE, THE SYSTEM SHALL BE FULLY PRESSURIZED AND A VISUAL LEAK INSPECTION WILL BE COMPLETED. THE WATER MAIN IN THE AFFECTED AREA SHALL BE FLUSHED TO ACHIEVE THREE PIPE VOLUMES PULLED FROM THE PIPE (DISTANCE MEASURED FROM VALVE OPENED FOR FLUSHING TO THE EXIT HYDRANT OR BLOWOFF).
- b. REPAIR/CUT-IN WITH DEPRESSURIZATION TRENCH SHALL BE OVER EXCAVATED AND DEWATERED BELOW THE WATER MAIN. FLUSH WATER FROM PIPE FROM EACH DIRECTION UNTIL IT RUNS CLEAR. IMMEDIATELY PRIOR TO INSTALLATION OF A NEW PIPE SECTION FOR REPAIR OR CUT IN TEE, ALL NEW FITTINGS AND PIPE SPOOLS SHALL BE SWABBED WITH A FIVE PERCENT (5%) CHLORINE SOLUTION (MINIMUM). THE INTERIOR OF THE EXISTING PIPE SHALL BE SWABBED WITH A FIVE PERCENT (5%) CHLORINE SOLUTION AT LEAST 6 FEET IN EACH DIRECTION FROM EXPOSED CUT ENDS. THE WATER MAIN IN THE AFFECTED AREA SHALL BE FLUSHED TO ACHIEVE THREE PIPE VOLUMES PULLED FROM THE PIPE (DISTANCE MEASURED FROM THE VALVE OPENED FOR FLUSHING TO THE EXIT HYDRANT OR BLOWOFF). CUSTOMERS SHALL BE NOTIFIED AFTER THE WATER MAIN IS FLUSHED AND REPAIRS HAVE BEEN COMPLETED, AS OUTLINED IN THE "WATER MAIN BREAK PROCEDURE."
- 26.NEW WATER MAIN INSTALLATION: a. EACH NEW WATER MAIN SECTION SHALL BE DELIVERED, STACKED AND STORED ONSITE WITH ENDS PLUGGED. THE PLUGS SHALL REMAIN IN THE PIPE UNTIL EACH PARTICULAR SECTION IS INSTALLED. NATIONAL SANITATION FOUNDATION (NSF) APPROVED SIXTY-FIVE PERCENT (65%) CALCIUM HYPOCHLORITE SHALL BE ADDED TO THE UPSTREAM END OF EACH PIPE SECTION, AND AT EACH HYDRANT TEE IN THE AMOUNT GIVEN IN THE TABLE BELOW (OR PER APPROVED MANUFACTURER SPECIFICATIONS). THE MINIMUM AMOUNT OF CALCIUM HYPOCHLORITE ADDED SHOULD BE SUFFICIENT TO ACHIEVE A 50 MG/L CONCENTRATION WITHIN THE IMPACTED

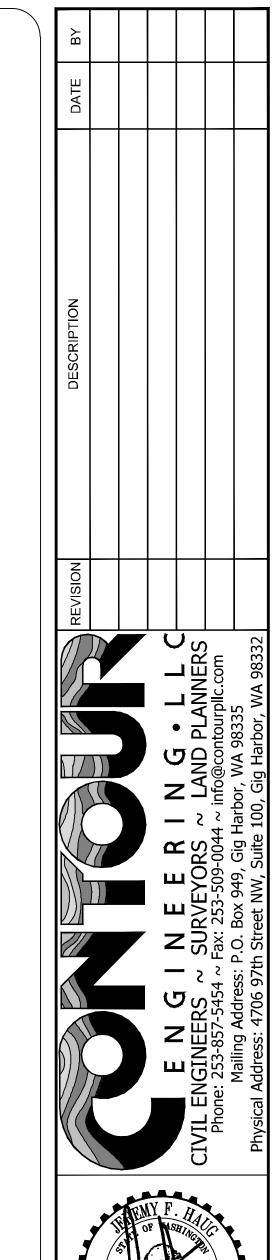
#### 65% Calcium Hypochlorite Addition per Pipe Section

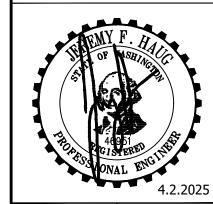
.1	Pipe Volume	5-gram	Hypochlori	te Granules	Maximum
e Diameter (Inches)	per 18 feet (gal)	tablets per pipe section	Ounces per 500 feet	Teaspoons per 18 feet	Fill Rate (gpm)_
4	35	<b>1</b> <sub>v</sub>	1.7	0.2	40
6	53	1	3.8	0.4	90
8	70	2	6.7	0.7	150
12	106	4	15.1	1.4	350
16	1/11	6	27	7.5	600

- b. NEW WATER MAINS SHALL BE FILLED USING AN APPROVED BACKFLOW PREVENTION ASSEMBLY, THE WATER MAIN SHALL BE FILLED FROM THE LOWER ELEVATION END SO THAT AS THE WATER MAIN IS FILLED, THE THROUGH THE LENGTH OF THE NEW WATER MAIN. THE FILL RATE SHALL BE MINIMIZED SO THAT THE VELOCITY OF THE WATER IS LESS THAN 1 FT/SEC (SEE TABLE ABOVE). SUCCESSFUL PRESSURE TEST AND BACTERIOLOGICAL TESTS SHALL BE COMPLETED AND PROVIDED TO THE CITY PRIOR TO ANY
- NEW MATER MAIN CONNECTION TO THE EXISTING WATER SYSTEM. c. THE CHLORINATED WATER WILL BE ALLOWED TO REMAIN IN CONTACT WITH THE NEW WATER MAIN SYSTEM FOR 24 TO 72 HOURS. AFTER 24 HOURS, WATER MAY BE ADDED TO THE WATER MAIN FOR THE PURPOSES OF PRESSURE TESTING. THE WATER IN THE MAIN USED FOR PRESSURE TESTING MUST REMAIN IN THE WATER MAIN UNTIL PRESSURE TEST IS COMPLETED. IF NECESSARY, LIQUID CHLORINE SHALL BE INJECTED INTO THE WATER MAIN WITH FILL WATER TO MAINTAIN CONCENTRATION IN THE WATER MAIN ABOVE 50 MG/L. UNDER NO CIRCUMSTANCE SHALL "SUPER" CHLORINATED WATER BE ALLOWED TO SIT WITHIN A NEW WATER MAIN FOR MORE THAN 5
- d. PRESSURE TESTING INCLUDES TESTING AGAINST NEW VALVES AND HYDRANTS. EACH VALVE SHALL BE TESTED BY CLOSING EACH IN TURN AND REDUCING THE PRESSURE BEYOND THE VALVE. THE PRESSURE ON THE BACK SIDE OF THE VALVE SHOULD NOT BE ELIMINATED. CARE MUST BE TAKEN THAT, DURING THIS PROCESS, POSITIVE PRESSURE REMAINS THROUGHOUT THE SYSTEM BEING TESTED AT ALL TIMES. ALL HYDRANT FOOT VALVES SHALL BE OPEN DURING PRESSURE TESTING SO THAT THE PRESSURE TEST IS AGAINST THE HYDRANT VALVE. PRESSURE TESTING WILL NOT BE ALLOWED AGAINST ANY EXISTING VALVES.
- e. AFTER SUCCESSFUL PRESSURE TESTING, THE WATER MAIN SHALL BE THOROUGHLY FLUSHED TO REMOVE ALL "SUPER" CHLORINATED WATER FROM THE NEW WATER MAIN. FLUSHING OF NEW OR EXTENDED WATER MAINS SHALL BE CONDUCTED PER WSDOT SPECIFICATION 7-09.3(24)A WITH A MINIMUM VELOCITY DEVELOPED WITHIN THE PIPE WHILE FLUSHING OF 2.5 FEET PER SECOND (FPS). ALL FLUSHED WATER SHALL BE DECHLORINATED PRIOR TO DISPOSAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL CHLORINATED WATER FLUSHED FROM MAINS. THE CITY SHALL APPROVE THE DISPOSAL METHOD PRIOR TO IMPLEMENTATION IN THE FIELD. THE CONTRACTOR SHALL UTILIZE ONSITE DISPOSAL METHODS, IF AVAILABLE. DISPOSAL OF FLUSH WATER TO THE SANITARY SEWER SYSTEM SHALL NOT BE ALLOWED WITHOUT WRITTEN PERMISSION FROM THE WATER POLLUTION CONTROL PLANT (WPCP) SUPERVISOR. ANY PLANNED DISCHARGE TO A STORMWATER SYSTEM SHALL BE DECHLORINATED TO A CONCENTRATION OF 0.1 PPM OR LESS, PH ADJUSTED (IF NECESSARY) TO BE BETWEEN 6.5 AND 8.5, AND VOLUMETRICALLY AND VELOCITY CONTROLLED TO PREVENT ANY RESUSPENSION OF SEDIMENTS. THE CITY WILL REQUIRE
- INDEPENDENT TESTING THROUGHOUT THE WATER DISCHARGE PROCESS TO ENSURE COMPLIANCE OF THESE STANDARDS ARE MET. f. SAMPLES FOR BACTERIOLOGICAL ANALYSIS SHALL BE COLLECTED AFTER

FLUSHING AND AGAIN 24 HOURS AFTER THE FIRST SET OF SAMPLES.

g. ALL CLOSURE/FINAL CONNECTION FITTINGS SHALL BE SPRAYED CLEAN AND THEN SWABBED WITH A FIVE PERCENT (5%) CHLORINE SOLUTION IMMEDIATELY PRIOR TO INSTALLATION PER AWWA STANDARD C651. ADDITIONAL SAMPLES FOR BACTERIOLOGICAL ANALYSIS SHALL BE COLLECTED FROM THE IMMEDIATE VICINITY OF THE NEW OR REPLACED WATER MAIN AND ANALYZED AFTER THE FINAL CONNECTIONS ARE MADE. IF NECESSARY, ADDITIONAL FLUSHING SHALL BE CONDUCTED AND ADDITIONAL SAMPLES SHALL BE COLLECTED UNTIL SATISFACTORY RESULTS ARE OBTAINED.



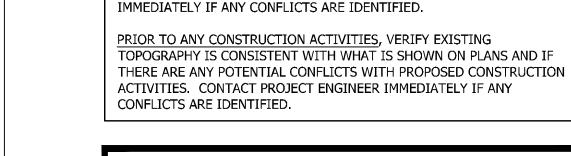


DESIGNER: M. GOULARTE ENGINEER: J. HAUG DRAWN: R. HENRETTA S 03 T 19 N R 04 E WM DATE: 2.4.2025 REVISED:

DWG NAME: 20-223 C SHEET

PROJECT: 20-223

REV. 17 OF 23



**VERIFICATION NOTE** 

CALL 811 AT LEAST 48 **HOURS BEFORE YOU DIG** 

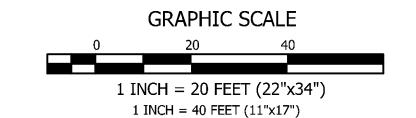
ALL EXISTING UTILITIES IN THE CONSTRUCTION AREA SHALL BE

WITH PROPOSED CONSTRUCTION. CONTACT PROJECT ENGINEER

IDENTIFIED AND VERIFIED FOR DEPTH AND LOCATION PRIOR TO ANY

CONSTRUCTION ACTIVITIES SO TO IDENTIFY ANY POTENTIAL CONFLICTS

A PORTION OF SECTION 3, TOWNSHIP 19N, RANGE 04 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON



Per section 204.3 of the city's design standards, the minimum private stormwater pipe diameter for laterals is 8-inches. Update accordingly. [Civils, pg. 18]

Ensure that minimum cover requirements are being met. The minimum allowed cover for PVC is 3-feet. Alternatively, ductile iron is an allowed pipe material that only requires 1-foot of cover. [Civils, pg. 18]

\_\_RDCO#4.4 YARD DRAIN #2 STA 62+05.52, 86.99 L YARD DRAIN #3-YARD DRAIN #1-STA 73+55.98, 18.16 L STA 63+57.71, 79.96 L STA 61+54.68, 89.36 L RIM=402.84 RIM=408.76 RIM=407.87 RIM=404.11  $-IE 6''\emptyset = 401.99 (E)$  $-IE 4''\emptyset = 405.06 (W)$ IE  $6''\emptyset = 401.73$  (E) IE  $6''\emptyset = 402.75 \text{ (W)}$ IE  $6''\emptyset = 401.99$  (W)  $_{1}$  IE 4"Ø = 405.06 (S) IE  $6''\emptyset = 401.73$  (S) 51 LF 6"Ø PVC SDR 35 @0.50% STA 73+44.92, 74.98 27 LF 6"Ø PVC SDR 35 @0.31%-IE 4"∅ = 406.01 (W) - 82 LF 4"Ø PVC SDR 35 @1.00% -IE  $4''\emptyset = 406.01$  (S) 39 LF 4"Ø PVC SDR 35 @1.00% <38 LF 4"Ø PVC SDR 35 @1.00%- $\stackrel{\sim}{\sim}$ RDCO#4.3 -RDCO#4.1  $^{ imes}$ STA 73+56.67, 100.10 L RDCO#5.1 STA 62+75.98, 36.87 L RDCO#4.2  $\times$  RIM=408.10 STA 73+44.75, 36.03 R RIM=408.61 STA 61+89.05, 36.90 L Show the wall footing drain, and  $^{ imes}$ IE 4"arnothing = 405,88 (E) ERIM=410.08 RIM=407.68 IE 4"∅ = 404.69 (SE) show where it will ultimately  $\bigvee_{i=1}^{\infty}$  IE 4" $\varnothing$  = 405.62 (S) IE 6"∅ = 404.52 (W) IE  $6''\emptyset = 403.38$  (W) drain to. [Civils, pg. 18]  $^{\times}$  IE 4" $\varnothing$  = 407.65 (N) IE  $4''\emptyset = 404.69$  (N) IE  $4''\emptyset = 403.55$  (NE) \*IE 4" $\varnothing$  = 405.62 (E) IE 6" $\emptyset$  = 403.38 (E) 35 LF 4"Ø PVC SDR 35 @1.00%= 87 LF 6"Ø PVC SDR 35 @1.31% \_20 LF 6"Ø PVC SDR 35 @8.53%≠ 10 LF 4"Ø PVC SDR 35 @1.02% → 48 LF 4"Ø PVC SDR 35 @1.00% >RDCO#5.2 RIM=409.90  $\Rightarrow$  IE 4"Ø = 405.27 (S) IE 4" $\emptyset$  = 405.27 (N) / IE 4" $\varnothing$  = 405.27 (W) AISLE B 63+00 61+00 ... 146 LF 4"Ø PVC SDR 35 @2.67% RDCO#3.1: RDCO#3.2 38 LF 4"Ø PVC SDR 35 @1.00% STA 62+68.03, 36.99 R STA 61+22.01, 36.98 R RIM=408.55 RIM=405.95 RDCO#3.3 IE 4" $\emptyset$  = 407.17 (NE) STA 72+06.67, 172.12 L IE  $4''\emptyset = 403.27$  (E) IE  $4''\emptyset = 407.17 (W)$ IE  $6"\emptyset = 402.27$  (N) RIM=405.95 RDCO#5.3 IE  $4"\emptyset = 403.24$  (S) IE  $4''\emptyset = 403.62$  (S) STA 72+06.67, 23.04 L> IE  $4''\emptyset = 403.27$  (SE) IE  $4''\emptyset = 403.62$  (N) RIM=410.50<sup>×</sup> IE 4" $\emptyset$  = 403.62 (E) IE 4" $\varnothing$  = 409.17 (N) IE 4" $\varnothing$  = 405.63 (W) +RD+RD-RD-RD-14 LF 4"Ø PVC SDR 35 @4.35% \_\_\_149 LF 4"Ø PVC SDR 35 @1.35% 40 LF 4"Ø PVC SDR 35 @1.00% RDCO#2.4> STA 71+92.43, 23.45 L  $\leftarrow$ RDCO#2.2 STA 51+22.26, 74.88 L RDCO#6.2 RIM=410.48 STA 71+88.01, 36.07 R .4 <STA 51+22.26, 37.00 L> RIM=408.51 STA 71+88.02, 75.71 R IE  $4''\emptyset = 408.71 \text{ (W)}$ RIM=409.34 RIM=411.04 RIM=410.50 IE 4" $\emptyset$  = 404.92 (S) IE  $4''\emptyset = 408.22$  (S) IE 4" $\varnothing$  = 408.61 (S)  $\langle$  IE 4" $\varnothing$  = 405.75 (E) (IE 4" $\emptyset$  = 404.24 (N)  $\times$  IE 4" $\varnothing$  = 405.75 (N) IE  $4''\emptyset = 408.22$  (N) IE 4" $\emptyset$  = 408.61 (W)  $\bigcirc \text{IE 6"} \varnothing = 404.55 \text{ (NE)}$ IE 4" $\varnothing$  = 408.22 (E)\_ < IE 4"Ø = 405.75 (S)  $\langle \text{ IE 4"} \varnothing = 405.74 (E) \rangle$ 147 LF 4"Ø PVC SDR 35 @3.06% STA 52+69.16, 37.00 L RIM=411.06 IE 4"Ø = 410.25 (W) AISLE A  $\leq \leq \leq$ 51+00 .. 」 以 / 15 LF 4"Ø PVC SDR 35 @1.00% 138 LF 4"Ø PVC SDR 35 @1.99% RDCO#1.1 STA 52+75.26, 35.00 R  $\stackrel{\sim}{\sim}$ RDCO#1.3 RDCO#1.2-<STA 51+37.61, 35.00 R IE  $4''\emptyset = 410.11 \text{ (W)}$ STA 51+22.26, 35.00 R RIM=408.42  $\times$  IE 4" $\varnothing$  = 407.37 (E) ≤STA 70+38.02, 36.10 R IE 4" $\varnothing$  = 406.56 (E)  $\times$  IE 4" $\varnothing$  = 406.72 (W) ×RIM=413.59 IE  $4''\emptyset = 406.56$  (N) > IE 4" $\varnothing$  = 407.37 (S)  $\times$  IE 4"Ø = 412.09 (N)  $\times$  IE 4"Ø = 406.72 (S)  $\times$  IE 4" $\varnothing$  = 412.26 (S) 39 LF 4"Ø PVC SDR 35 @1.00%= 139 LF 4"Ø PVC SDR 35 @1.47%— RDCO#6.4<sup>□</sup> ∕RIM=409.60 STA 70+38.50, 75.50 R IE 4" $\varnothing$  = 407.11 (E) RIM=413.09 IE 4" $\varnothing$  = 407.11 (N) IE 4" $\emptyset$  = 411.76 (N)

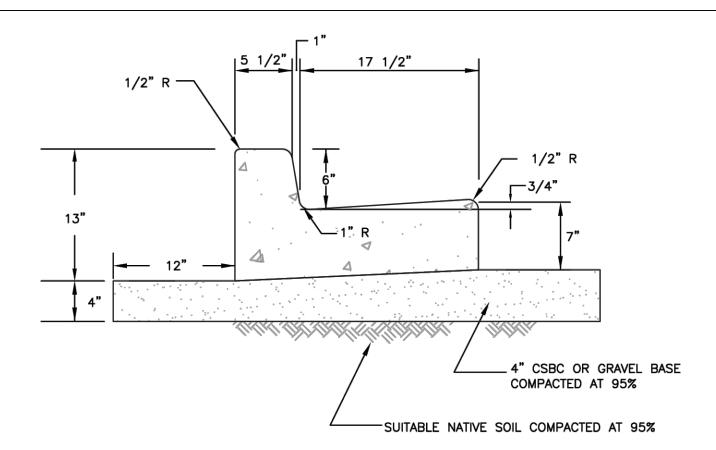
#### VERIFICATION NOTE

ALL EXISTING UTILITIES IN THE CONSTRUCTION AREA SHALL BE IDENTIFIED AND VERIFIED FOR DEPTH AND LOCATION PRIOR TO ANY CONSTRUCTION ACTIVITIES SO TO IDENTIFY ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE IDENTIFIED.

PRIOR TO ANY CONSTRUCTION ACTIVITIES, VERIFY EXISTING TOPOGRAPHY IS CONSISTENT WITH WHAT IS SHOWN ON PLANS AND IF THERE ARE ANY POTENTIAL CONFLICTS WITH PROPOSED CONSTRUCTION ACTIVITIES. CONTACT PROJECT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE IDENTIFIED.

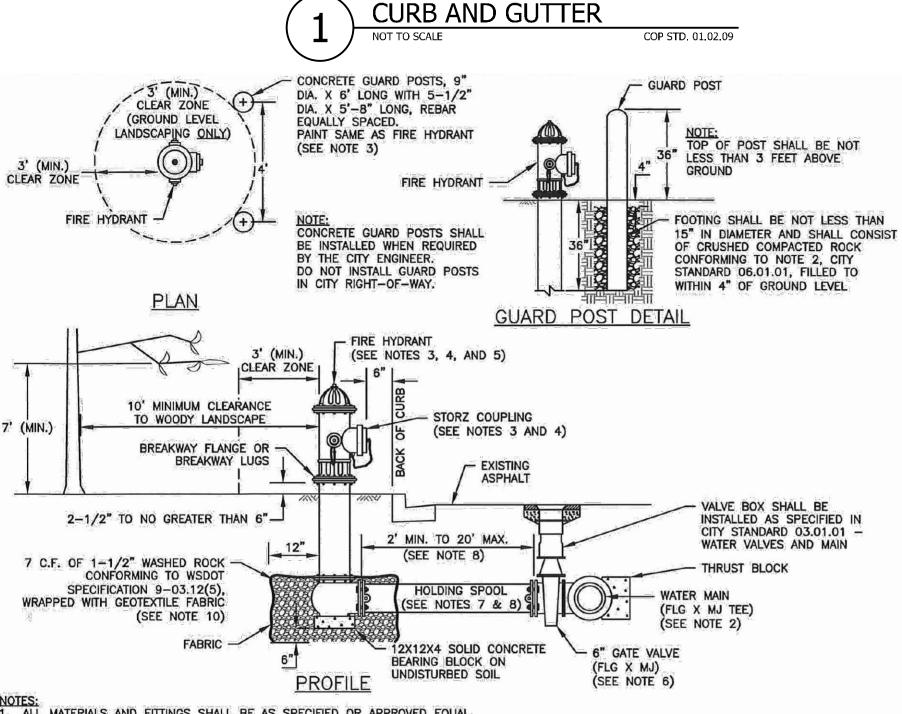
CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG

ВУ					
DATE					
DESCRIPTION					
ISION					
REV REV	Property of the state of the st		Y F WALL STATE OF THE STATE OF	CIVII FNGINFERS ~ SHRVEYORS ~ I AND PI ANNERS	Phone: 253-857-5454 ~ Fax: 253-509-0044 ~ ir
Z					
ENC DRA S 0 DAT RE\	SIGN SINE AWN: 3 T FE: /ISEI DJEC G NA	19 N 2.4 D: CT: AME:	M. G J. H R. H R. O J. 202 20-2 T	AUG ENRI 4 E V 5	AR` ETTI VM
DES DAT REV PRO	SIGN SINE AWN: 3 T TE: /ISEI OJEO G NA	ER: : 19 N 2.4 D: CT: AME:	M. G J. H. R. H R. 202 20-2 20-2	GOUL AUG ENRI 4 E V	ARTETTI



#### NOTES:

- CONTRACTION JOINTS SHALL BE 3/8" x 2 1/4" 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 TANGENCY 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, AASHTO 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.
- 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.

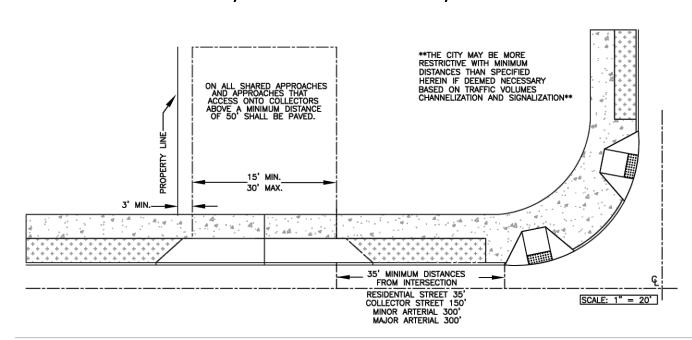


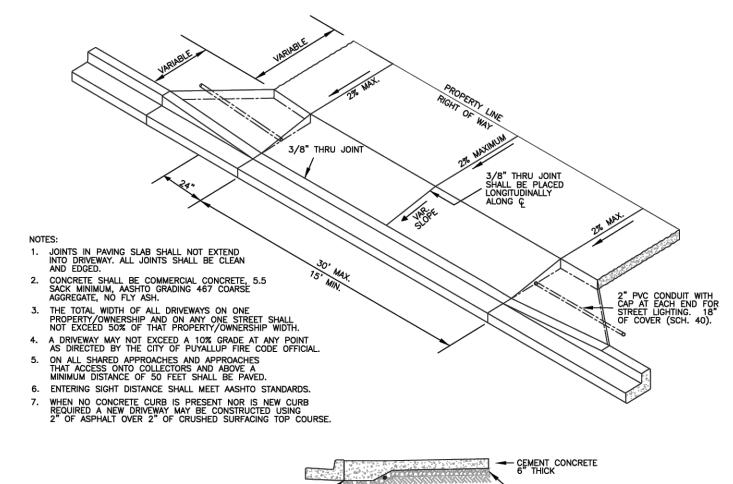
ALL MATERIALS AND FITTINGS SHALL BE AS SPECIFIED OR APPROVED EQUAL

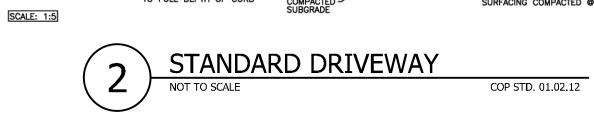
- 2. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
- 3. THE FIRE HYDRANT AND CONCRETE GUARD POSTS SHALL BE PAINTED, RUST-OLEUM SAFETY YELLOW #7543 (TWO COATS) OR AN APPROVED EQUAL. THE STORZ FITTING SHALL NOT BE PAINTED.
- 4. FIRE HYDRANTS SHALL HAVE TWO 2-1/2" HOSE PORTS (NATIONAL STANDARD THREAD) WITH CAPS AND CHAINS AND ONE 4" PUMPER PORT (#8 TACOMA STEAMER PORT THREAD) WITH A 5" 'STORZ' COUPLING AND BLIND CAP INSTALLED ON THE STEAMER PORT, (STEAMER PORT SHALL FACE THE STREET), 1-1/4" PENTAGONAL OPERATING NUT (COUNTER-CLOCKWISE OPENING), O-RING TYPE STUFFING BOX, AUTOMATIC BARREL DRAINS AND 5-1/4" 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 AWWA SPECIFICATIONS NO. C 502-73 FOR FIRE HYDRANTS FOR ORDINARY WATER SERVICE, FIRE HYDRANTS SHALL INCLUDE THE ENTIRE ASSEMBLY COMPLETE, INCLUDING HYDRANT, GATE VALVE AND BOX, CONNECTING PIPING, FITTINGS, AND ACCESSORIES.
- 5. FIRE HYDRANTS SHALL BE AVK, CLOW MEDALLION, M & H 129S, MUELLER CENTURION, OR WATEROUS.
- 6. GATE VALVES SHALL CONFORM TO THE LATEST AWWA SPECIFICATIONS FOR COLD WATER, RESILIENT SEATED WEDGE GATE VALVES, 200 PSI WORKING PRESSURE. THEY SHALL BE IRON-BODIED BRONZE-MOUNTED, NON-RISING STEM, 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
- 7. 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.
- 8. IF DISTANCE 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 HYDRAULIC FIRE FLOW MODEL. ANY HYDRANT RUN EXCEEDING 50 FEET IN LENGTH SHALL BE NO LESS THAN 8-INCHES IN DIAMETER.
- 9. FIRE HYDRANTS SHALL BE LOCATED A MINIMUM OF 50 FEET FROM A BUILDING OR STRUCTURE.
- 10. THE CONTRACTOR SHALL PLACE A 6 OZ. GEOTEXTILE FABRIC AROUND THE WASHED ROCK AREA, ENDS TO OVERLAP.
- 11. A FLUORESCENT ORANGE BAG MUST COVER AND BE SECURED TO THE FIRE HYDRANT UNTIL APPROVED FOR USE BY CITY ENGINEER.
- 12. A MINIMUM THREE FOOT (3') RADIUS UNOBSTRUCTED 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. OVERREACHING BRANCHES OF TREES ADJACENT TO HYDRANTS SHALL HAVE A MAINTAINED VERTICAL CLEARANCE OF SEVEN (7') FEET ABOVE FINISHED GRADE OF THE FIRE HYDRANT.

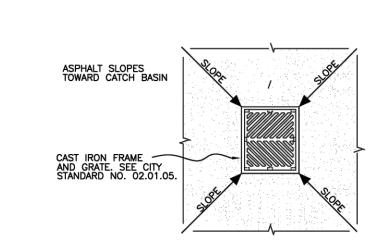
#### **BRADBURY PLACE TOWNHOMES**

# A PORTION OF SECTION 3, TOWNSHIP 19N, RANGE 04 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON









EXISTING ROAD—

SUB-GRADE

SECTION VIEW

ASPHALT PATCH -

SET GRATE FLUSH

WITH ASPHALT

PLAN VIEW

MANHOLE

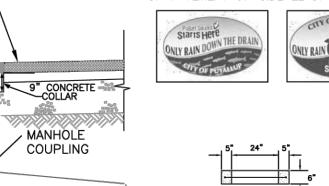
COUPLING

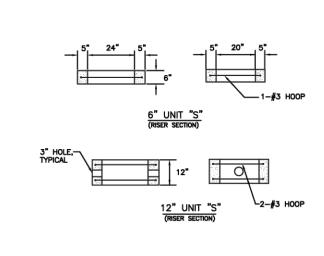
— GROUT, TYP.

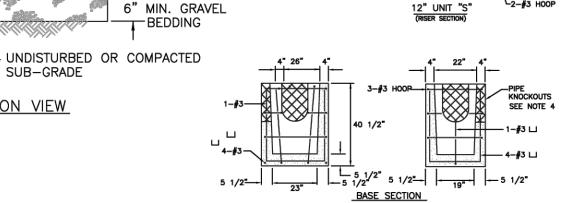
■ BASE SECTION

1. MAXIMUM LENGTH OF PIPE BETWEEN CATCH BASINS SHALL BE 400'.

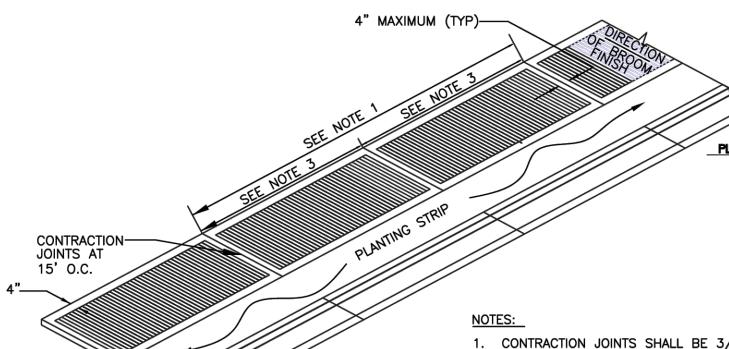
- 2. TYPE I CATCH BASIN IS USED FOR DEPTHS LESS THAN 5'-0" FROM TOP OF GRATE TO .E.(PIPE INVERT).
- 3. PRECAST BASE SECTION SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. KNOCKOUTS SHALL BE ON 4 SIDES WITH A MAXIMUM DIAMETER OF 20" TO PROVIDE FOR A MINIMUM SUMP DEPTH OF 18".
- 4. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION SHALL NOT EXCEEED 1/2" PER
- 5. CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) AND ASTM C 890 UNLESS OTHERWISE NOTED. 6. 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







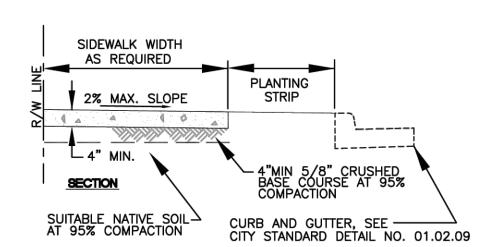




MINIMUM SIDEWALK WIDTHS

5'(RS ZONES) SINGLE FAMILY RESIDENTIAL AREAS (DETACHED DWELLINGS) 8'(RS ZONES) COMMERCIAL USES, WHEN REQUIRED

- BY DEVELOPMENT SERVICES MANAGER 8'(RM ZONES) MEDIUM AND HIGH DENSITY MULTI-FAMILY RESIDENTIAL AREAS
- 8'(ML ZONES) INDUSTRIAL AREAS
- 8'(CG, CBD ZONES) COMMERCIAL AREAS
- 8'(PF ZONES) PUBLIC FACILITIES AREAS 8'(F ZONES) FAIR AREAS
- \* MATCH GREATEST WIDTH FOR ANY ADJACENT ZONE



SIDEWALK WITH PLANTING STRIP

1. CONTRACTION JOINTS SHALL BE 3/8" x 1 1/2" ASPHALT SATURATED FELT PLACED

2. THRU JOINTS SHALL BE 3/8" x 4" ASPHALT SATURATED FELT PLACED AT DRIVEWAYS, ALLEY RETURNS AND WHEELCHAIR RAMPS

3. V-GROOVEMARKS SHALL BE 1/8" DEEP AND 1/4" WIDE PLACED AT 5' O.C. FOR 5' SIDEWALKS AND 7.5' O.C. FOR 8' SIDEWALKS.

4. ALL JOINTS SHALL BE CLEAN AND EDGED TO A 1/4" RADIUS. JOINTS SHALL BE FLUSH WITH THE FINISHED SURFACE.

5. ALL UTILITY POLES AND STREET SIGN POSTS IN SIDEWALK AREA NOT REQUIRED TO BE RELOCATED SHALL HAVE A SQUARE SECTION OF CONCRETE SURROUNDED BY 3/8" EXPANSION JOINT MATERIAL AROUND THE POLE. THE JOINT SHALL BE NO CLOSER THAN 6" TO ANY SIDE OF THE POLE SIDE OF THE POLE.

6. FORMS SHALL BE EITHER WOOD OR STEEL AND SHALL MEET ALL REQUIREMENTS OF THESE SPECIFICATIONS.

7. CONCRETE SHALL BE CLASS 3000 COMMERCIAL CONCRETE, 5.5 SACK MINIMUM, AASHTO GRADING 467 COARSE AGGREGATE. NO FLY ASH.

8. SIDEWALK MINIMUM UNOBSTRUCTED CLEAR WIDTH SHALL BE 4', EXCLUSIVE OF THE WIDTH OF THE CURB.

9. GRATINGS, ACCESS COVERS, JUNCTION BOXES, CABLE VAULTS, PULL BOXES AND OTHER APPURTENANCES WITHIN THE SIDEWALK (RIGHT OF WAY) MUST HAVE SLIP RESISTANT SURFACES AND MATCH THE GRADE OF THE SIDEWALK.

10. CURB RAMPS SHALL BE CONSTRUCTED AT INTERSECTIONS USING A DESIGN PREPARED BY A LICENSED PROFESSIONAL ENGINEER. WHEN A RAMP DESIGN FAILS TO MEET ALL APPLICABLE DESIGN STANDARDS, THE ENGINEER SHALL DOCUMENT WHY THE PROPOSED RAMP ACHIEVES DESIGN STANDARDS TO THE MAXIMUM EXTENT FEASIBLE.

Add city standard detail 01.01.19 for half street improvements. Verify that the street section detail from sheet C12 doesn't have conflicting information from detail 01.01.19. [Civils, pg. 19]

Provide paving details for the on-site paving work (drive aisle, pathways, driveways). [Civils, pg. 19]

Add city standard detail 06.01.01 for pipe trench bedding and backfill. [Civils, pg. 19]

Add city standard detail 06.01.02 for manhole frame and cover. [Civils, pg. 19]

DESIGNER: M. GOULARTE ENGINEER: J. HAUG DRAWN: R. HENRETTA S 03 T 19 N R 04 E WM DATE: 2.4.2025 REVISED:

PROJECT: 20-223 DWG NAME: 20-223 C

SHEET REV.

19 OF 23



## A PORTION OF SECTION 3, TOWNSHIP 19N, RANGE 04 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON

1/6" x 1 1/6" LONG HEX BOLT, ZINC PLATED (2 PLACES)

- GRAVEL BACKFILL (SEE NOTE 5)

- PIPE INVETS PER PLAN

4" Ø MIN. SDR 35 PVC PIPE

18" Ø PVC DRAIN BASIN

AS MANUFACTURE BY NYLOPLAST OR APPROVED

> 3000 PSI CONCRETE ANTI-FLOTATION FOOTING

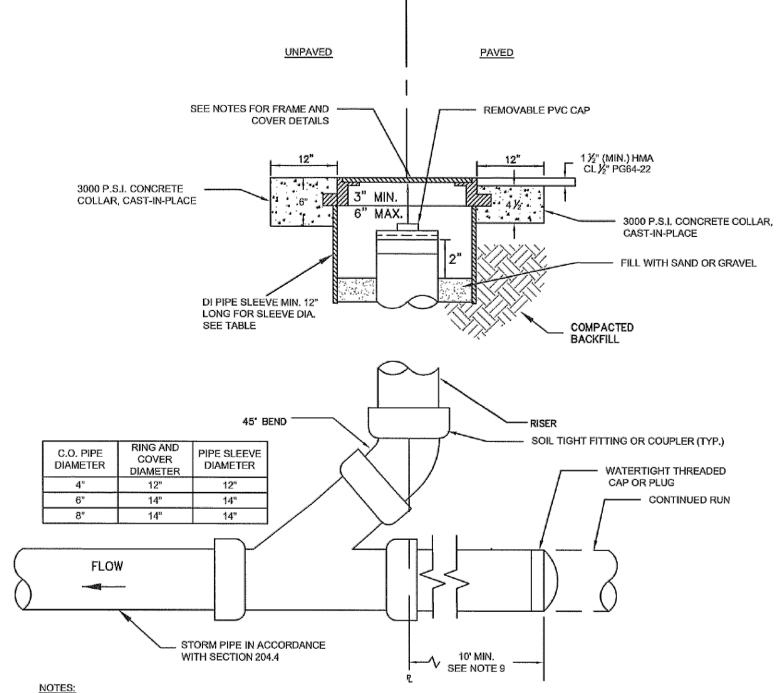
> > (SEE NOTE 5)

- 18" DUCTILE IRON SOLID COVER

(SEE NOTE 1-4) 18" DUCTILE IRON FRAME

(SEE NOTE 1-4)

── ¾" HEX BOLT & NUT (3 SPACED EQUALLY)

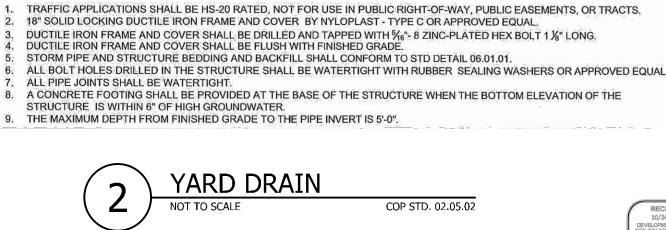


NOTES:

1. CAST IRON COVER MARKED "FDCO" FOR FOOTING DRAINS OR "SDCO" FOR STORM LINES.

- 2. CAST IRON FRAME AND COVER SHALL BE DRILLED AND TAPPED WITH \$\frac{1}{2}"-11 NC STAINLESS STEEL TYPE 304 ALLEN HEAD BOLTS, 2" LONG,
- 3. BOLT-LOCKING CAST IRON FRAME AND COVER SHALL BE HS-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 # M1060.
- CAST IRON FRAME AND COVER SHALL BE FLUSH WITH FINISHED GRADE.
- CLEANOUTS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90 DEGREE BEND.
- 7. STORM PIPE BEDDING AND BACKFILL SHALL CONFORM TO STD DETAIL 06.01.01.
- 8. FINAL JOINTS SHALL BE SAW CUT, FACE OF CUT TACKED AND ALL JOINTS SEALED WITH SEALANT (AR4000W).
- 10. EACH CLEANOUT ASSEMBLY SHALL CONSIST OF: ONE CLEANOUT ADAPTOR, (HUB x FEMALE INSIDE PIPE THREAD, PVC SLIP IN), AND ONE CLEANOUT PLUG (MALE OUTSIDE THREAD WITH RAISED NUT, PVC).
- 11. FOR LANDSCAPED AREAS (OUTSIDE OF CITY ROW, EASEMENTS AND FACILITIES) A GREEN "CARSON" MODEL 910 YARD BOX MAY BE USED FOR C.O. PIPE DIA. LESS THAN OR EQUAL TO 6". YARD BOX SHALL BE FASTENED WITH ¾" HEX BOLTS, THE COVER MARKED "STORM" AND

STORM DRAIN CLEANOUT



STRUCTURE PROFILE VIEW

#3 BAR (6) 2' LONG TIED AT ALL JOINTS

OF STRUCTURE (4 PLACES)

FLOW

REBAR PENETRATION 3" ABOVE BASE

#### NOTES FOR CONNECTING TAPS ON EXISTING SEWER MAINS

1. THE TEE FITTING SHALL BE A ROMAC INDUSTRIES STYLE "CB" SEWER SADDLE (OR APPROVED EQUAL). ONLY NEW SADDLE AND PARTS SHALL BE INSTALLED. DUE TO PIPE SIZE MATERIALS OR PIPE CONDITION, THE CITY ENGINEER MAY REQUIRE AN ALTERNATE METHOD/MATERIAL BE USED.

2. THE SEWER MAIN TAP SHALL BE CUT WITH A SEWER PIPE TAPPING MACHINE (HOLE SAW) CAPABLE OF RETAINING THE COUPON. 3. THE ROUND HOLE CUT INTO THE SEWER MAIN SHALL BE NO LARGER THAN THE INSIDE DIAMETER OF THE SADDLE GASKET. THE HOLE SAW CUT EDGES SHALL BE SMOOTH.

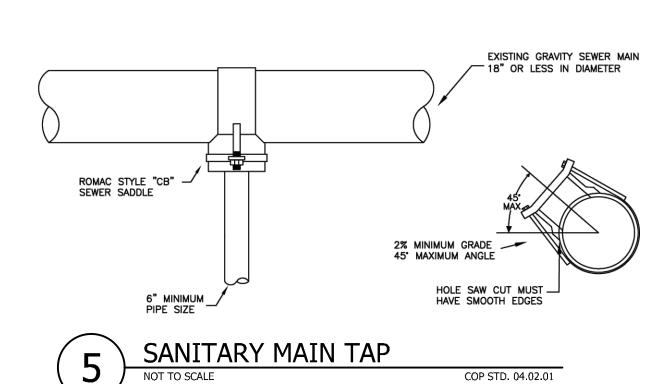
4. THE COUPON SHALL BE RETAINED AND SURRENDERED TO THE INSPECTOR. THE PERMIT HOLDER WILL PAY ALL COSTS ASSOCIATED WITH THE LOCATION AND RETRIEVAL OF A LOST COUPON. ADDITIONALLY THE PERMIT HOLDER WILL BE HELD LIABLE FOR ANY SUBSEQUENT DAMAGES CAUSED BY A LOST COUPON.

5. BOLTS SHALL BE TORQUED TO MANUFACTURE SPECIFICATIONS, THEN RETORQUED AFTER 10 MINUTES.

6. NO TAPS SHALL BE ALLOWED ON EXISTING SEWER MAINS OVER 18" IN DIAMETER. CONNECTIONS INTO SEWER MAINS OVER 18" IN DIAMETER SHALL INTERSECT THE SEWER MAIN IN A MANHOLE. IN SOME CASES THE CITY ENGINEER MAY ALLOW A VARIANCE TO THIS REQUIREMENT.

7. ALL TRENCHING, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY STANDARD DETAIL NO. 06.01.01. ALL ASPHALT REPAIR SHALL BE IN ACCORDANCE WITH CITY STANDARD NO. 01.01.20. ALL ADDITIONAL UTILITY AND RIGHT OF WAY REPAIRS SHALL BE INACCORDANCE WITH THE "CITY STANDARDS" MANUAL.

8. THE CITY OF PUYALLUP WILL CONDUCT A "SEWER MAIN VIDEO INSPECTION" OF THE SEWER TAP. THE PERMIT HOLDER WILL BE REQUIRED TO REPAIR ANY SEWER TAP CONSTRUCTION DEFECTS FOUND BY THE CITY INSPECTORS. THE COST OF ALL REPAIRS AND SUBSEQUENT "SEWER MAIN VIDEO INSPECTIONS" WILL BE THE RESPONSIBILITY OF THE PERMIT HOLDER. THE DAMAGE DEPOSIT POSTED BY THE BUILDER WILL BE HELD UNTIL PROBLEMS ARE CORRECTED. DUE TO PUBLIC HEALTH AND SAFETY, BUILDING OCCUPANCY WILL NOT BE ALLOWED UNTIL REPAIRS ARE COMPLETED AND ACCEPTED BY THE CITY ENGINEER.



#### RESIDENTIAL SIDE SEWER CONNECTION

- 1. PRIOR TO CONNECTING A NEW LATERAL TO AN EXISTING SEWER STUB, THE STUB MUST BE INSPECTED AND APPROVED BY THE CITY
- 2. WHEN THE SEWER MAIN IS IN A RIGHT-OF-WAY, A 6" CLEAN OUT IS REQUIRED AT THE EDGE OF THE RIGHT-OF-WAY,
- 3. WHEN THE SEWER MAIN IS IN AN EASEMENT, A 6" CLEAN OUT IS REQUIRED AT THE EDGE OF THE EASEMENT.

STRUCTURE PLAN VIEW

PVC TEE TO MATCH -

(2 PLACES)

**OUTLET PIPE DIAMETER** 

4" Ø MIN. SDR 35 PVC PIPE

STAINLESS STEEL PIPE CLAMP

½" FINE MESH SCREEN ATTACHED WITH STAINLESS

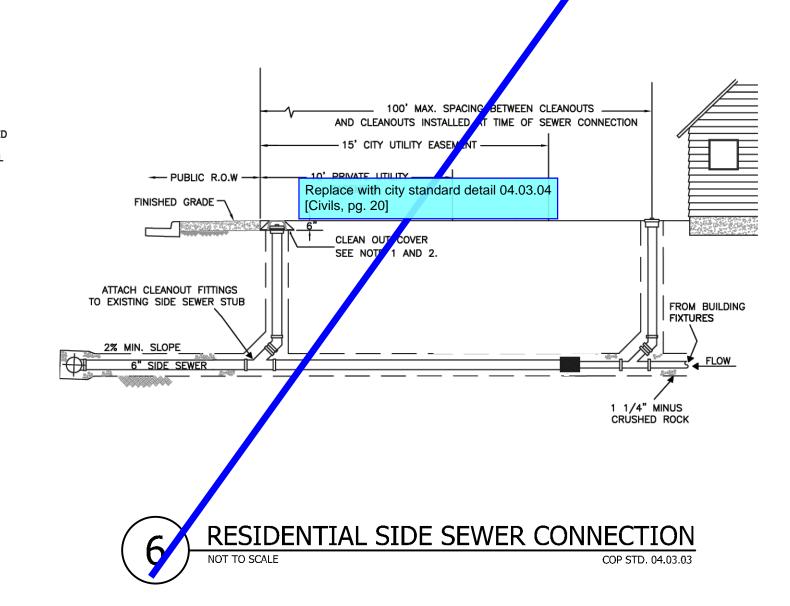
STEEL HOSE CLAMP

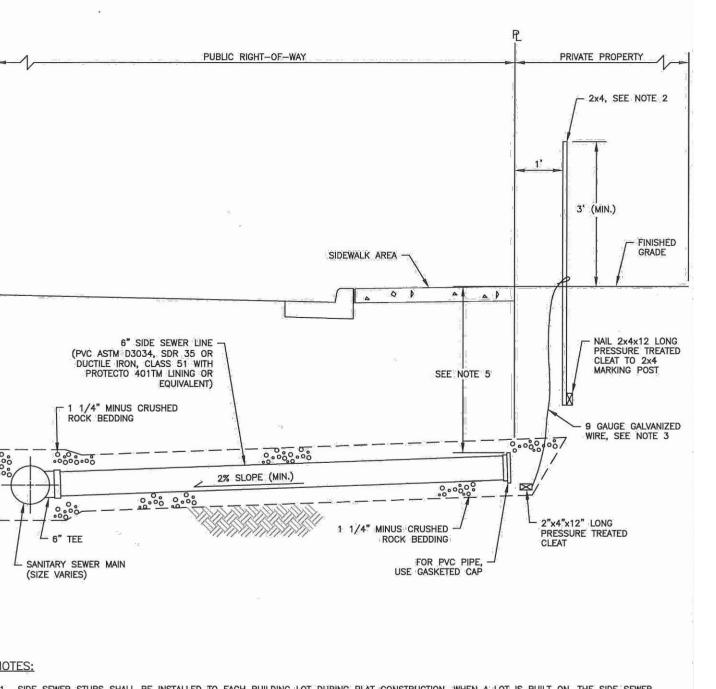
6" MIN.

(SEE PLAN VIEW THIS DETAIL)

SECURELY FASTENED TO STRUCTURE WALL

- 4. EACH CLEAN OUT ASSEMBLY SHALL CONSIST OF: ONE CLEAN OUT ADAPTOR, (HUB x FEMALE INSIDE PIPE THREAT, P.V.C. SLIP IN), AND ONE CLEAN OUT PLUG (MALE OUTSIDE THREAD WITH RAISED NUT, P.V.C. SDR 35).
- 5. FOR NON-VEHICULAR TRAFFIC INSTALLATIONS USE "CARSON" MODEL 910 GREEN YARD BOX WITH BOLT DE NON LID MARKED SEWER OR APPROVED EQUAL.
- 6. FOR ASPHALT, GRAVEL, OR TRAFFIC INSTALLATIONS SEE CITY STANDARD DETAIL NO. 04.03.05 FRAME AND COVER SECTION. 7. SEWER PIPE, TRENCHING, BEDDING AND BACKFILL SHALL CONFORM TO CITY STANDARD NO. 06





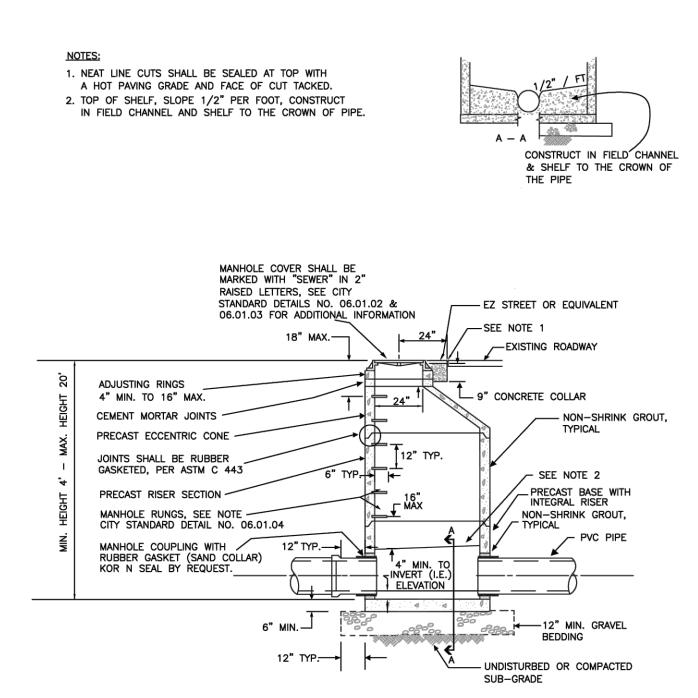
SIDE SEWER STUBS SHALL BE INSTALLED TO EACH BUILDING LOT DURING PLAT CONSTRUCTION. WHEN A LOT IS BUILT ON, THE SIDE SEWER

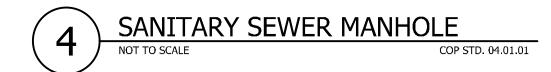
3. NINE (9) GAUGE GALVANIZED WIRE TO BE ATTACHED TO THE 2X4X12 CLEAT AND ATTACHED TO THE MARKER POST ABOVE FINISHED GRADE.

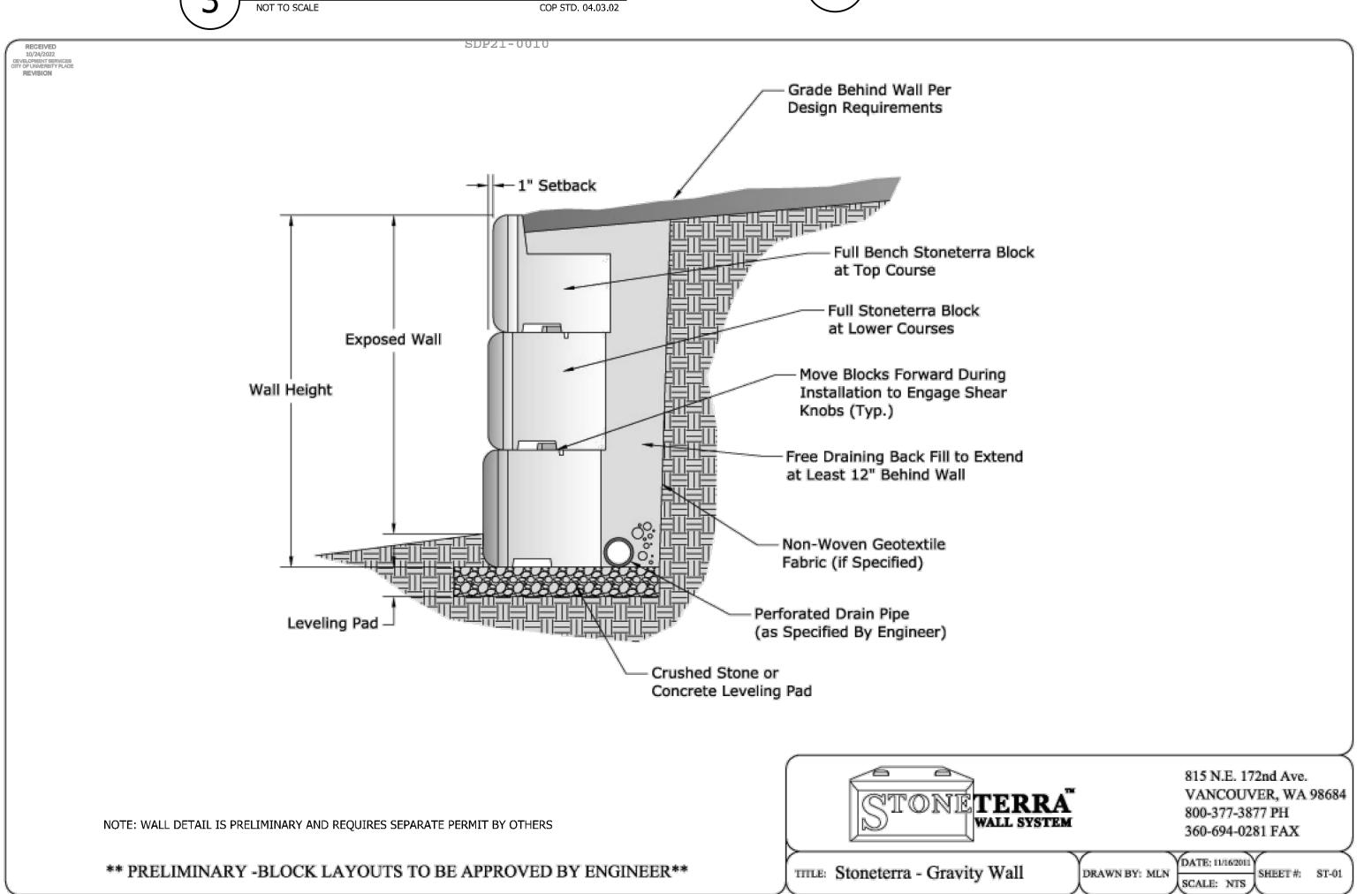
4. IN LOCATION WHERE SIDEWALKS ARE NOT PRESENT NOR REQUIRED THE CONTRACTOR SHALL POUR A CONCRETE COLLAR AS DIRECTED BY THE

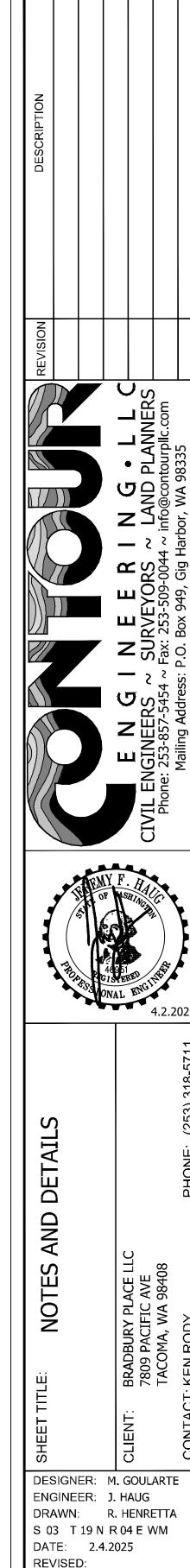
5. END OF SIDE SEWER SHALL HAVE A FIVE (5) FOOT MINIMUM COVER AT THE PROPERTY LINE. 6. SEWER PIPE TRENCHING, BEDDING AND BACKFILL SHALL CONFORM TO CITY STANDARD 06.01.01.

WALL DETAIL









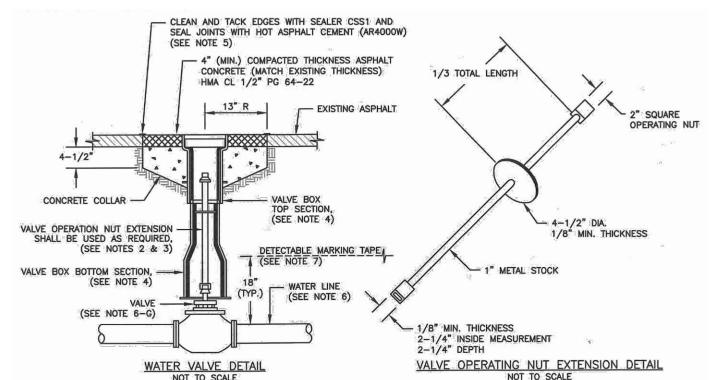
PROJECT: 20-223

DWG NAME: 20-223 C

SHEET

20 OF 23

#### A PORTION OF SECTION 3, TOWNSHIP 19N, RANGE 04 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON



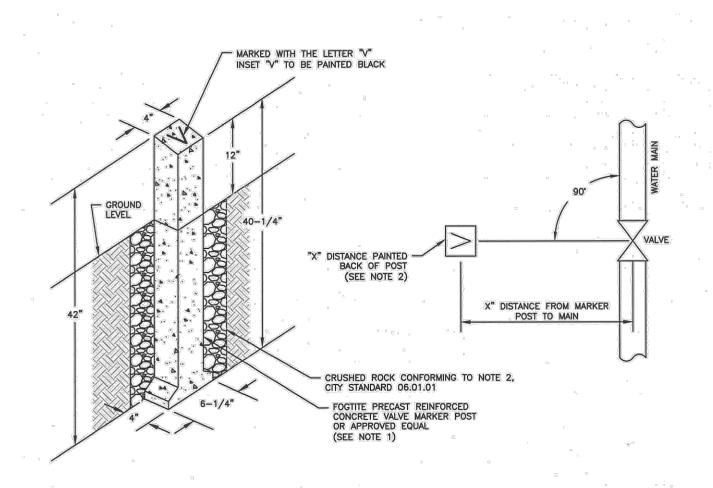
I. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" FROM PAVED FINAL GRADE IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF

- 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, SIZED AS NOTED, AND PAINTED WITH TWO COATS OF METAL PAINT.
- 4. VALVE BOXES SHALL BE TWO-PIECE, ADJUSTABLE, CAST IRON WITH EXTENSION PIECES (IF NECESSARY), AS MANUFACTURED BY THE VANRICH #940 SEATTLE OR APPROVED EQUAL. THE WORD "WATER" 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 LOCKING VALVE BOX COVER MODEL 6800 (PART# 06800025U) OR APPROVED EQUAL.
- 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 WISDOT STANDARD SPECIFICATIONS SUPPLEMENTED WITH THE
- FITTINGS SHALL BE MORTOR LINED AND SHALL CONFORM TO AWWA C 104. THE THICKNESS OF THE LINING SHALL BE NOT LESS THAN 1/16" THICK FOR
- JOINTS SHALL BE TYTON PUSH-ON JOINTS, OR APPROVED EQUAL, OR MECHANICAL JOINT TYPE PER AWWA C 111 EXCEPT WHERE FLANGED JOINTS ARE
- BOLTS AND NUTS FOR BURIED FLANGES LOCATED OUTDOORS. ABOVE GROUND, OR IN OPEN VALUETS IN STRUCTURES SHALL BE TYPE 316 STAINLESS ONE-QUARTER (1-1/4) INCHES SHALL BE STEEL, ASTM A 307, GRADE B, WITH CADMIUM PLATING, ASTM A 165, TYPE NS.
- D. BOLTS USED IN FLANGE INSTALLATION SETS SHALL CONFORM TO ASTM B 193, GRADE B7. NUTS SHALL COMPLY WITH ASTM A 194, GRADE 2H.
- 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 AWWA C 110 AND AWWA 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
- 1) RESILIENT SEATED WEDGE GATE VALVE: GATE VALVES SHALL CONFORM TO THE LATEST AWWA SPECIFICATIONS FOR COLD WATER, DOUBLE-DISK GATE VALVES, 200 PSI WORKING PRESSURE. THEY SHALL BE IRON-BODIED, BRONZE MOUNTED, NON-RISING STEM, WITH TWO (2) INCH SQUARE NUT. COUNTER-CLOCKWISE OPENING, MECHANICAL JOINT AND / OR FLANGED ENDS (6" VALVES ON FIRE HYDRANT LINES WHICH SHALL BE MECHANICAL

JOINTS BY FLANGED). VALVE STEMS SHALL BE PROVIDED WITH O-RING SEALS AND SHALL BE AS MANUFACTURED BY THE MUELLER COMPANY OR

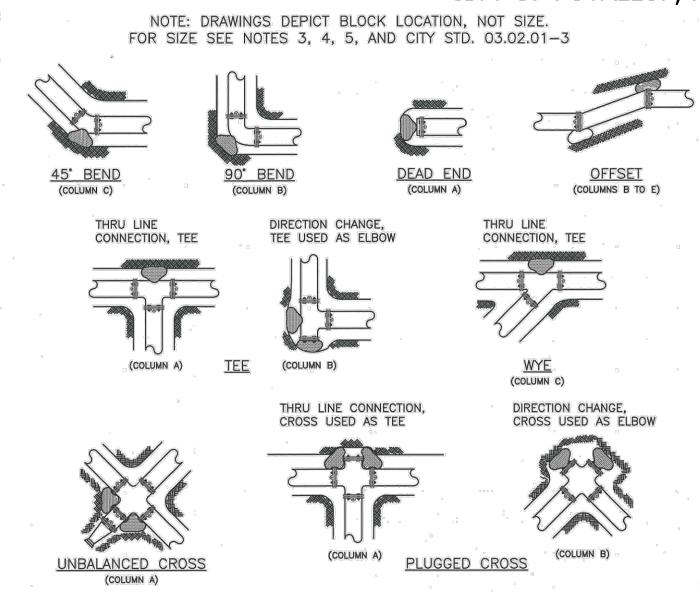
2) BUTTERFLY VALVES: BUTTERFLY VALVES CONFORMING WITH AWWA C 504, CLASS 150 AND SHALL HAVE STANDARD AWWA TWO (2) INCH SQUARE NUT. DETECTABLE MARKING TAPE SHALL BE INSTALLED 18" ABOVE PIPE, BE BLUE IN COLOR, AND READ "CAUTION WATER LINE BELOW" MEETING WSDOT SPEC. 9-15.18.





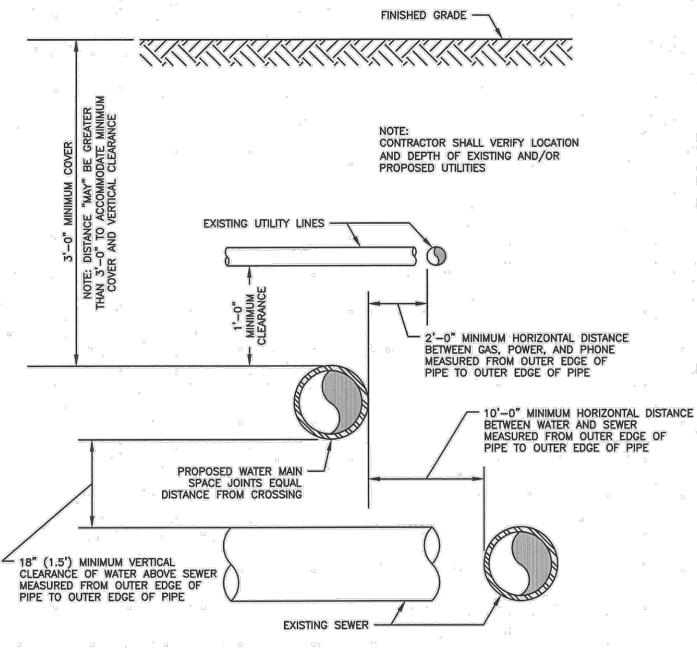
- PAINT MARKER POST WITH RUST-OLEUM SAFETY YELLOW #7543 OR APPROVED EQUAL.
- 2. THE DISTANCE FROM THE MARKER POST TO THE WATER MAIN SHALL BE PAINTED ON THE BACKSIDE OF THE MARKER POST, IN BLACK WITH A 2"
- 3. VALVE MARKER POST SHALL BE REQUIRED WHEN EVER THE WATER VALVE IS LOCATED IN AN UNPAVED AREA.
- 4. THE POST WILL ALSO BE REQUIRED FOR BLOW-OFF ASSEMBLIES IN THE SAME CONDITION AS WATER VALVES.
- 5. LOCATION OF VALVE MARKER POSTS SHALL BE OFFSET AT RIGHT ANGLES TO EACH LINE VALVE.

COP STD. 03.01.02



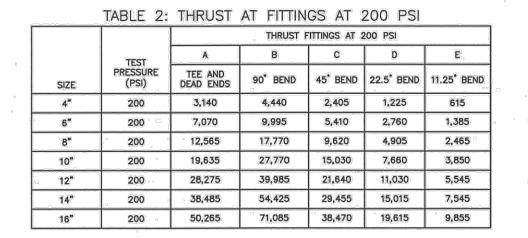
- 1. THE FOLLOWING PRECAUTIONS MUST BE OBSERVED WHEN CONSTRUCTING THRUST BLOCKS:
- A. BLOCKS MUST BE POURED OR PLACED AGAINST UNDISTURBED SOIL.
- B. THE PIPE FITTING(S) AND BOLTS MUST BE ACCESSIBLE. WRAP IN PLASTIC BEFORE POURING CONCRETE BLOCKING
- C. CONCRETE SHOULD BE CURED FOR AT LEAST 5 DAYS AND SHOULD HAVE A MINIMUM COMPRESSION STRENGTH OF 3,000 PSI AT 28
- D. RESTRAINED JOINTS SHALL BE INSTALLED, IN ADDITION TO CONCRETE THRUST BLOCKING.
- E. BLOCKS MUST BE POSITIONED TO COUNTERACT THE DIRECTION OF THE RESULTANT THRUST FORCE.
- ALL PIPE SHALL BE PROPERLY BEDDED, SEE CITY OF PUYALLUP STANDARD BEDDING DETAIL NO. 06.01.01
- 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.

# HORIZONTAL THRUST BLOCKING



SEE CITY STANDARD 03.01.03-2 FOR ADDITIONAL NOTES FOR THIS DETAIL





#### TABLE 3: BEARING VALUE OF SOIL

SOIL TYPE	SAFE BEARING LOAD LBS/SF
JCK, PEAT, ETĈ.	0
OFT CLAY/ALLUVIAL SOIL	1,000
AND	2,000
AND AND GRAVEL	3,000
AND AND GRAVEL CEMENTED WITH CLAY	4,000
ARD SHALE	10,000

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

10 DETERMINE THRUST AT PRESSURES OTHER THAN PSI SHOWN, MULTIPLY THE THRUST OBTAINED IN TABLE 2 BY THE RATIO OF THE PRESSURE

#### EXAMPLE: THE THRUST ON A 12 INCH, 90° BEND AT 300 PSI.

 $39,985 \times \frac{300 \text{ PS}}{200 \text{ PS}} = 59,978 \text{ LBS}$ 

② TO DETERMINE THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET (SF):

#### SEE TABLE 3, BEARING VALUE OF SOIL

FOR SAND AND GRAVEL BEARING VALUE FROM TABLE 3 IS 3,000 LBS/SF

- 59,978 LBS + 3000 LB/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



#### NOTES FOR WATER MAIN CROSSING OTHER UTILITIES

WHEN LOCAL CONDITIONS PREVENT THE SEPARATIONS DESCRIBED ON CITY STANDARD 03.01.03-1, A SEWER MAY BE LAID CLOSER THAN 10-FEET HORIZONTALLY OR 18-INCHES VERTICALLY TO A WATER LINE, PROVIDED THE GUIDELINES BELOW ARE FOLLOWED: UNUSUAL CONDITIONS (PARALLEL SYSTEMS)

- 1. SEWER LINE IS LAID IN A SEPARATE TRENCH FROM THE WATER LINE.
- 2. WHEN 18-INCHES VERTICAL SEPARATION CANNOT BE OBTAINED, THE SEWER SHALL BE CONSTRUCTED OF MATERIALS AND JOINTS THAT ARE
- 3. THE WATER LINE SHALL BE PLACED ON A BENCH OF UNDISTURBED EARTH WITH THE BOTTOM OF THE WATER PIPE AT LEAST 18-INCHES ABOVE THE CROWN OF THE SEWER, AND SHALL HAVE AT LEAST 5-FEET OF HORIZONTAL SEPARATION AT ALL TIMES. THE CITY RESERVES THE RIGHT TO REQUIRE SUPPLEMENTAL MITIGATION EFFORTS, SUCH AS IMPERMEABLE BARRIERS OR OTHER MEANS, FOR ADDITIONAL
- 4. THE SEWER SHALL NOT BE INSTALLED IN THE SAME DITCH AS A POTABLE WATER LINE WITHOUT PRIOR WRITTEN APPROVAL BY THE CITY OF

#### UNUSUAL CONDITIONS (PERPENDICULAR SYSTEMS)

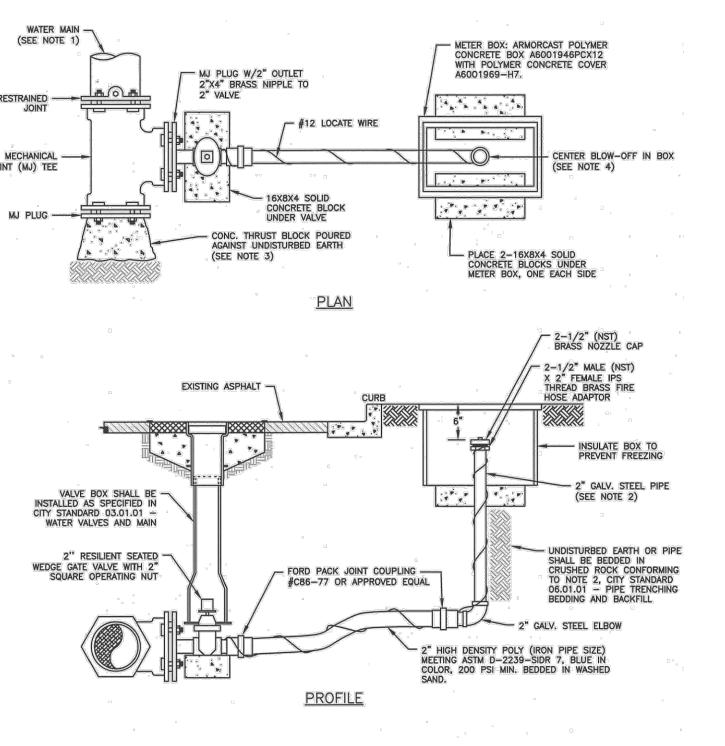
CONDITION A - GRAVITY SEWERS PASSING UNDER WATER LINES (ALL OF THE FOLLOWING APPLY)

- ENGTH AVAILABLE FROM THE MANUFACTURER SHALL BE USED WITH THE PIPES CENTERED TO MAXIMIZE JOINT SEPARATION. STANDARD GRAVITY-SEWER MATERIAL ENCASED IN CONCRETE OR IN A ONE-QUARTER-INCH THICK CONTINUOUS STEEL, DUCTILE IRON, OR
- PRESSURE RATED PVC PIPE WITH A DIMENSION RATIO (THE RATIO OF THE OUTSIDE DIAMETER TO THE PIPE WALL THICKNESS) OF 18 OR LESS, WITH ALL VOIDS PRESSURE-GROUTED WITH SAND-CEMENT GROUT OR BENTONITE. EXAMPLE OF DIMENSION RATIO (DR): OUTSIDE PIPE DIAMETER DIVIDED BY THE WALL THICKNESS OR OD/T. FOR 8-INCH SCH. 80 PVC PIPE (T=0.5 INCHES), THE DR IS 8.625/0.5=17.25

#### CONDITION B - GRAVITY SEWER PASSING OVER WATER LINES

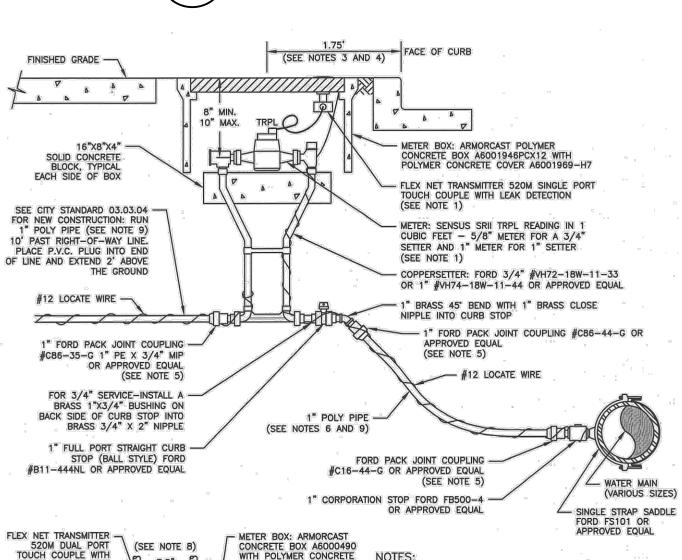
- WATER LINES SHALL BE PROTECTED BY PROVIDING:
- 1. A VERTICAL SEPARATION OF AT LEAST 18-INCHES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATER LINE.
- 3. THE SEWER PIPE SHALL BE THE LONGEST STANDARD SEWER PIPE LENGTH AVAILABLE FROM THE MANUFACTURER WITH THE WATER AND SEWER PIPES CENTERED TO MAXIMIZE JOINT SEPARATION.
- 4. THE SEWER LINE CASING EQUIVALENT TO THAT SPECIFIED IN A(2) ABOVE.

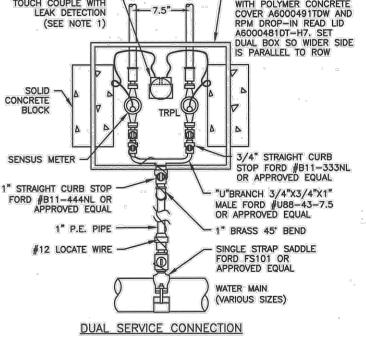




- WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
- OVERALL LENGTH OF RISER IS 6" SHORTER THAN NORMAL DEPTH OF BURY.
- PLACE BLOW-OFF ASSEMBLY IN CENTER OF UTILITY STRIP, IF NO UTILITY STRIP, PLACE BLOW-OFF ASSEMBLY 2' OFF EDGE OF ROAD, THE







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 ALL MATERIAL AND FITTINGS SHALL BE AS SPECIFIED OR AN

- NORMALLY THE WATER METER BOX SHOULD BE LOCATED IN THE PLANTING STRIP, IF SIDEWALK IS AGAINST THE CURB, PLACE METER
- 4. THE WATER METER BOX SHALL NOT BE LOCATED IN HARD SURFACES. WHEN UNAVOIDABLE, EXCEPTIONS CAN BE MADE AT END OF CUL-DE-SACS OR PAN HANDLED LOTS.
- 5. ALL COUPLINGS SHALL USE PIPE INSERT STIFFENERS. THE WATER SERVICE LINE SHALL BE BEDDED IN WASHED SAND WITH
- THE WATER SERVICE LINE SHALL BE ONE CONTINUOUS PIECE WITH WATER MAIN SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED
- RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM COVER OF 48" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED
- DUAL SERVICE SHALL BE CENTERED ON PROPERTY LINE. ALL POLY PIPE SHALL BE HIGH DENSITY POLY (IRON PIPE SIZE) MEETING ASTM D-2239-SIDR 7, BLUE IN COLOR, 200 PSI MINIMUM.

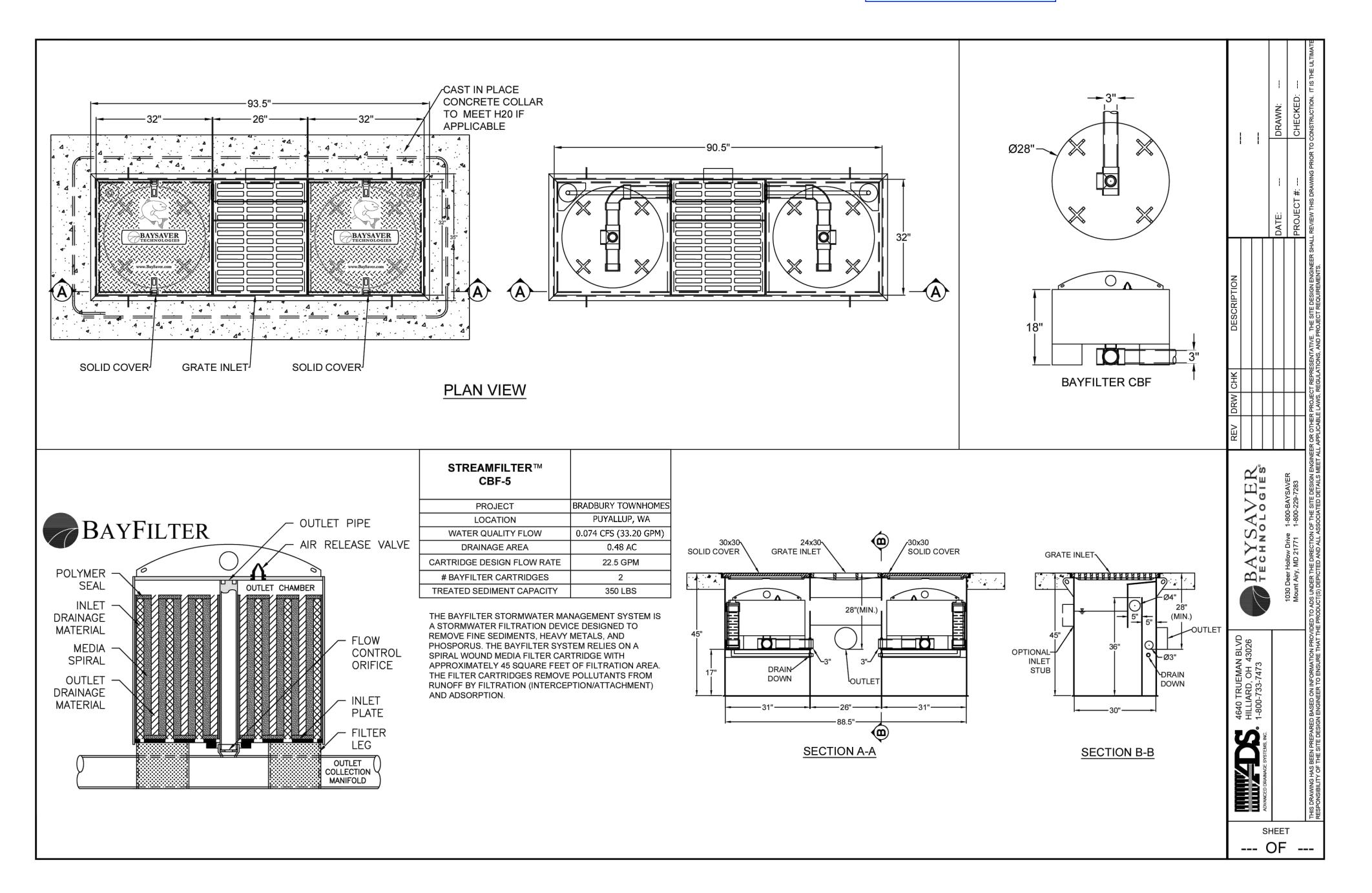


DESIGNER: M. GOULARTE ENGINEER: J. HAUG DRAWN: R. HENRETTA S 03 T 19 N R 04 E WM DATE: 2.4.2025 REVISED: PROJECT: 20-223 DWG NAME: 20-223 C

> SHEET REV. 21 OF 23

A PORTION OF SECTION 3, TOWNSHIP 19N, RANGE 04 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON

Provide confirmation from manufacturer that the water quality device is sized correctly for the runoff intake. [Civils, pg. 22]





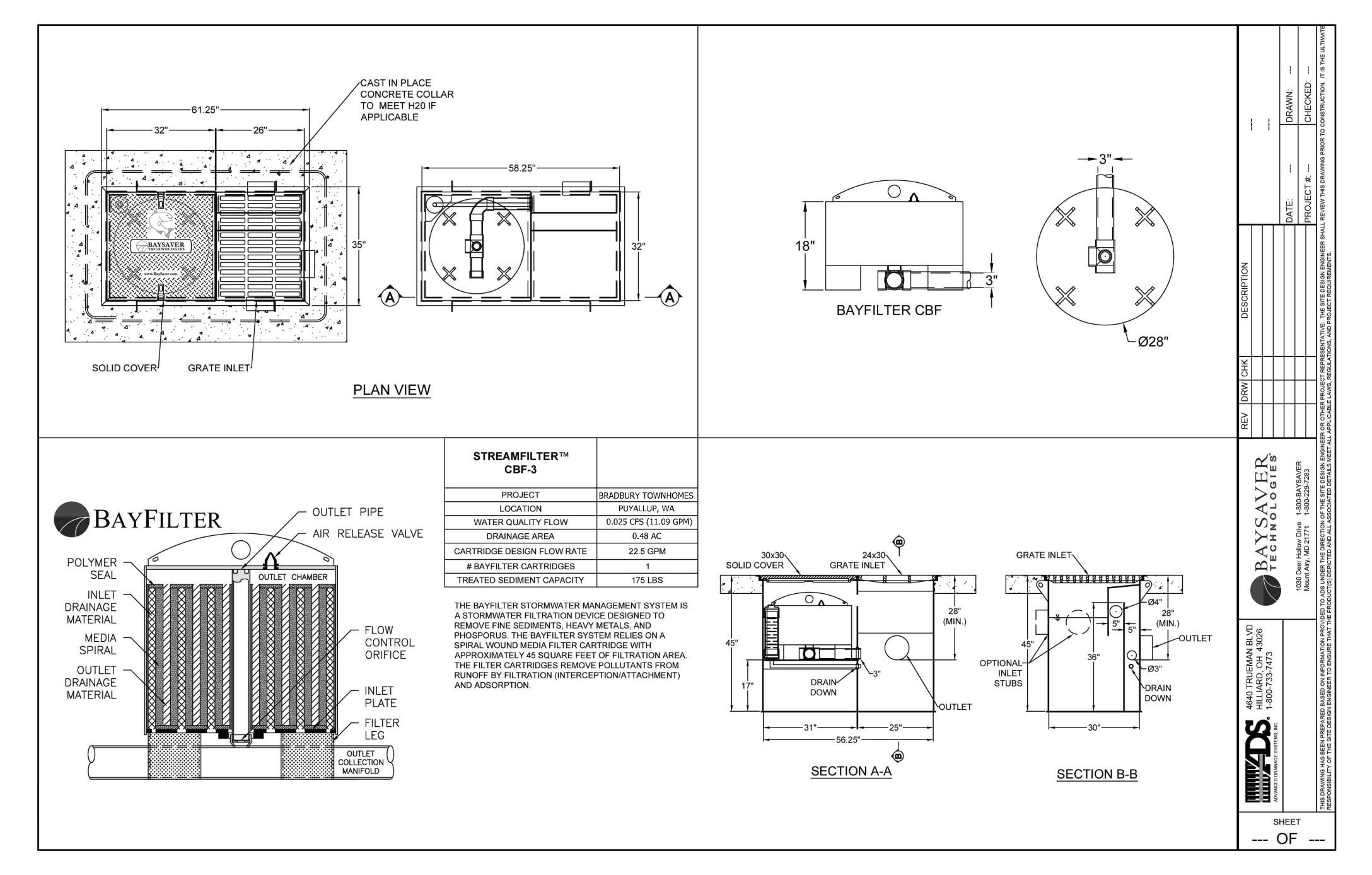
SHEETTITLE: NOTES AND DETAILS  SHEETTITLE: NOTES AND DETAILS  SHEETTITLE: NOTES AND DETAILS  SHEETTITLE: NOTES AND DETAILS  FREVISION  ENGINEERS - SURVEYORS - LAND PLANNERS  TACOMA, WA 98408  Phone: 253-857-5454 ~ Fax: 253-509-0044 ~ info@contourpill.com  Mailing Address: P.O. Box 949, Gig Harbor, WA 98335
---

DWG NAME: 20-223 C SHEET

22 OF 23

A PORTION OF SECTION 3, TOWNSHIP 19N, RANGE 04 E, W.M. CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON

Provide confirmation from manufacturer that the water quality device is sized correctly for the runoff intake. [Civils, pg. 23]





DATE BY							  -  -
DESCRIPTION							
REVISION				) ( u	NEKS ——————		
					CIVIL ENGINEERS ~ SURVEYORS ~ LAND PLANNERS	Phone: 253-857-5454 ~ Fax: 253-509-0044 ~ info@contourpllc.com	Mailing Address: P.O. Box 949, Gig Harbor, WA 98335
					CIVIL ENGINEERS ~ 3	Phone: 253-857-5454 ~ F	Mailing Address: P.
	PROP	EN CONTRACTOR OF THE PARTY OF T	Y F MS 44051 7151EI  ONAL	田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田	i IM	.2.2	202
NOTES AND DETAILS	ל היים ביים ביים ביים ביים ביים ביים ביים						
NO ZETON				BRAUBURT PLACE LLC	/oug PACIFIC AVE	I ACOMA, WA 98408	
SHEET TITLE:					Ø/i	<b>∀</b> I	H 400
ENG DRA S 0 DAT RE\	SIGN SINE AWN: 3 T FE: /ISEI	ER: : 19 N 2.4 D:	J. H R. H R 0 I.202	AU( IEN) 4 E 5	G RE	TTA	
PR(	DJEC	/I:	20-2		С		

23 OF 23