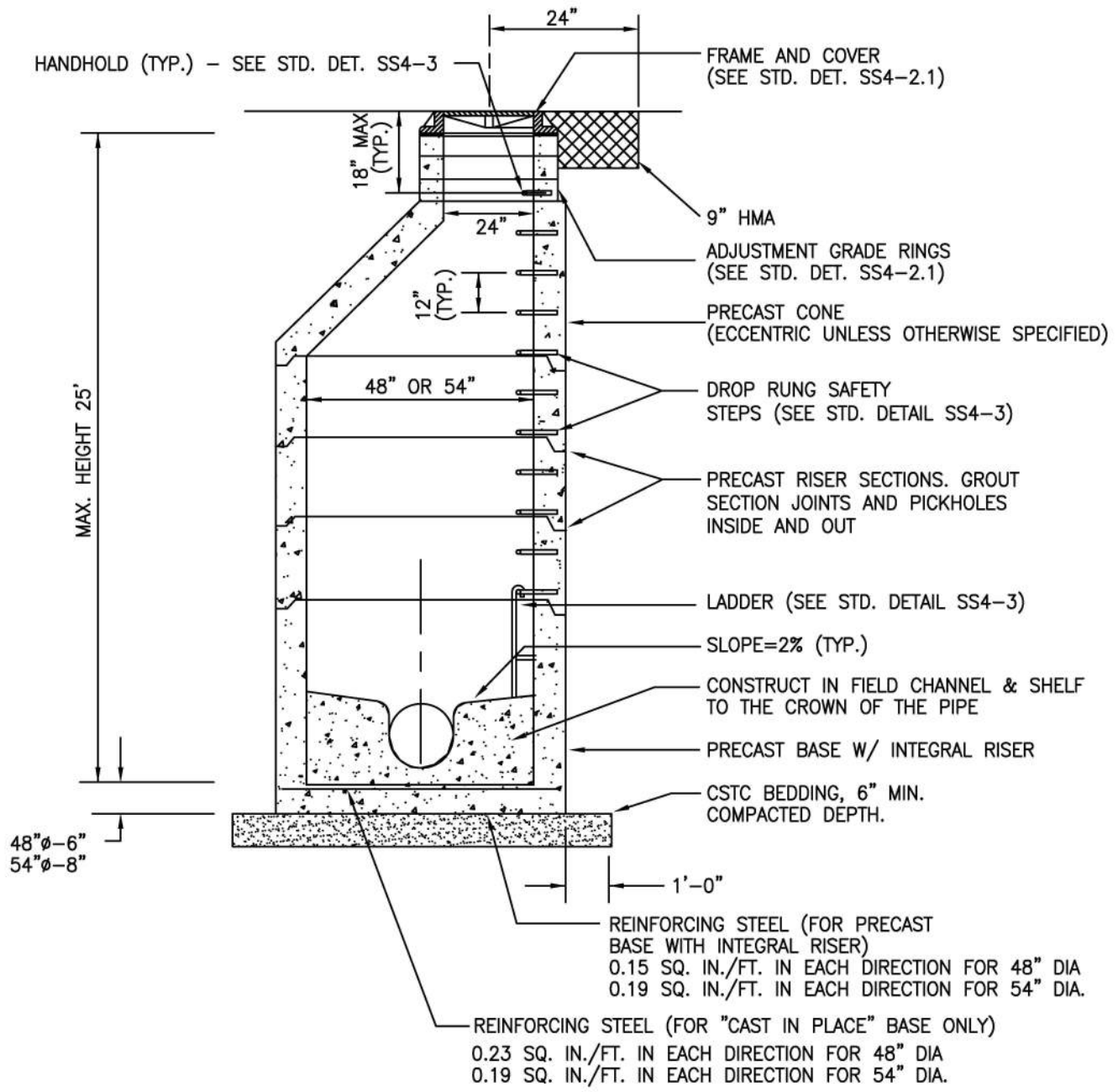


City of Sumner
Public Works Department

SANITARY SEWER



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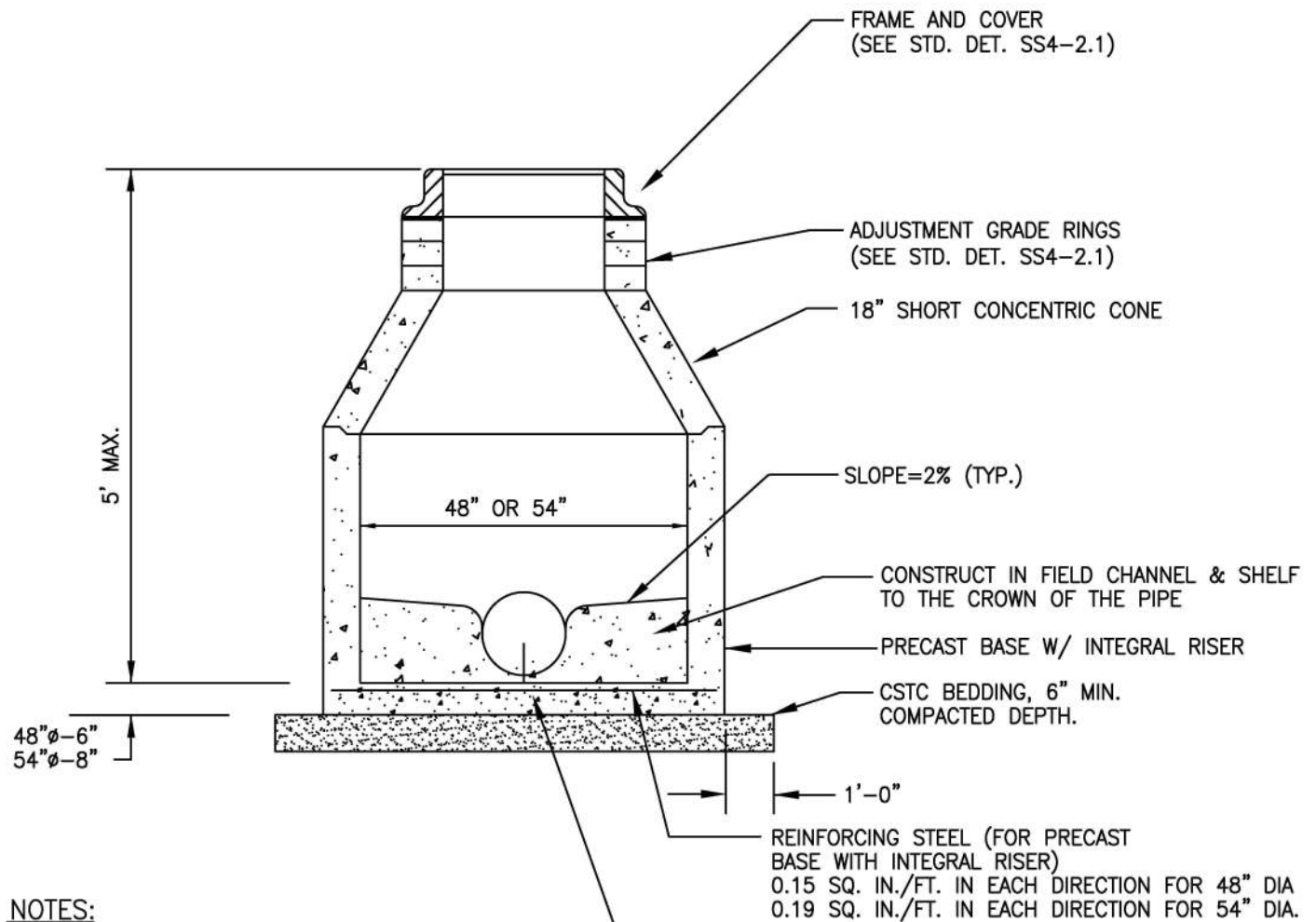
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NOTES:

1. MANHOLES TO BE CONSTRUCTED IN ACCORDANCE W/ AASHTO M-199 & (ASTM C 478) UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STD. SPECS.
2. ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS A. NON-REINFORCED CONC. IN CHANNEL & SHELF SHALL BE COMMERCIAL CONCRETE MIX.
3. ALL MANHOLES SHALL BE PROVIDED WITH KOR-N-SEAL TYPE FLEX JOINT OR APPROVED EQUAL. MINIMUM DISTANCE BETWEEN HOLES IS 8".
4. THERE SHALL BE NO PIPE JOINTS WITHIN 10' OF STRUCTURE.
5. MORTAR A 3/8" LINNING OUTSIDE AND INSIDE OF THE ADJUSTMENT SECTION TO FORM A SMOOTH WATERTIGHT FINISH.
6. GROUT SHALL BE PLACED BETWEEN EACH ADJUSTMENT SECTION AND AT THE TOP OF STRUCTURE WITH 100% COVERAGE.
7. MANHOLE RINGS & COVERS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS & MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
8. ALL BASE REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60,000 PSI & BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MIN. CLEARANCE.
9. NO JET-SET. BASELITE FAST PATCH OR APPROVED EQUAL.

| | | |
|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| APPROVED BY CITY ENGINEER  |  MANHOLE TYPE II | CITY OF SUMNER WASHINGTON |
| LAST REVISION: 04/01/26 | | SEWER STANDARD DETAIL SS4-01.1 |
| SHEET 1 of 1 | | N.T.S. |



NOTES:

- 1.) FLAT TOPS ARE NOT ALLOWED.
- 2.) GROUT FILL ALL MANHOLE SECTION JOINTS AND PICKHOLES OUTSIDE AND INSIDE TO A SMOOTH FINISH.
- 3.) RUBBER ADJUSTMENT GRADE RINGS MAX. 3", MIN. 1/2" USE TAPERED RINGS TO MATCH SLOPE. USE SEALANT BETWEEN RINGS AND TO ATTACH RUBBER RINGS TO RISERS AND CASTINGS.
- 4.) MORTAR A 3/8" LINING OUTSIDE AND INSIDE OF THE ADJUSTMENT SECTION TO FORM A SMOOTH WATERTIGHT FINISH.
- 5.) NO JET-SET. USE BASELITE FAST PATCH OR APPROVED EQUAL. NO CALCIUM ALLOWED IN ROW.
- 6.) ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS A. NON-REINFORCED CONC. IN CHANNEL & SHELF SHALL BE COMMERCIAL CONCRETE MIX.
- 7.) GROUT SHALL BE PLACED BETWEEN EACH ADJUSTMENT SECTION AND AT THE TOP OF STRUCTURE WITH 100% COVERAGE.
- 8.) THERE SHALL BE NO PIPE JOINTS WITHIN 10 FEET OF THE STRUCTURE.

APPROVED BY CITY ENGINEER



**SPECIAL SHALLOW
MANHOLE**

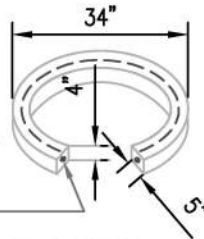
LAST REVISION: 04/01/26

SEWER
STANDARD DETAIL
SS4-01.2

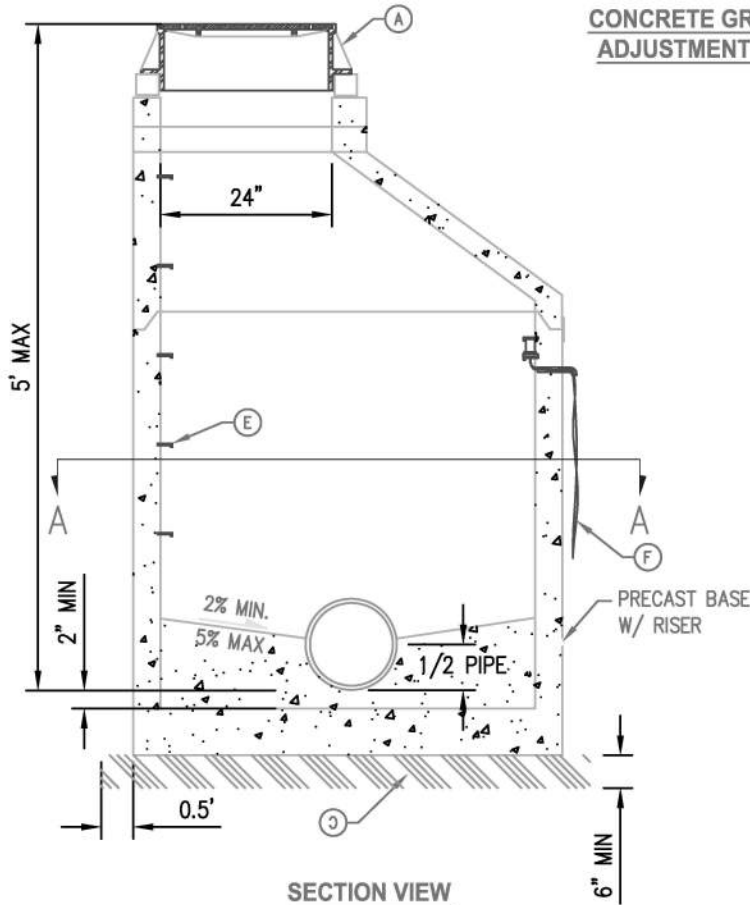
SHEET 1 of 1

N.T.S.

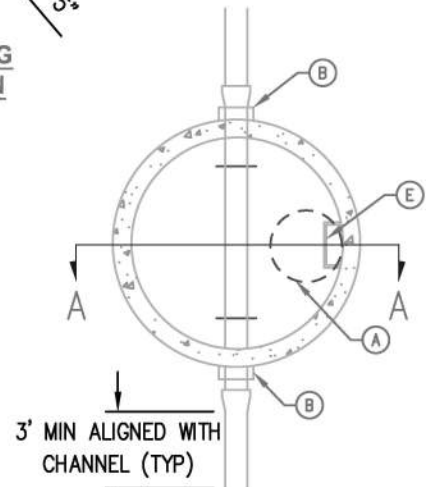
NOTE:
METAL GRADE RING ADJUSTERS
NOT ALLOWED. ONE LOOP OF #4
REBAR CENTERED IN CONCRETE
GRADE RING. CONCRETE SHALL
BE CLASS 400



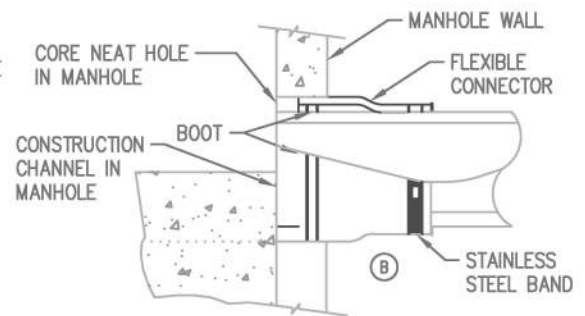
**CONCRETE GRADE RING
ADJUSTMENT SECTION**



SECTION VIEW



PLAN VIEW



BOOT PROFILE

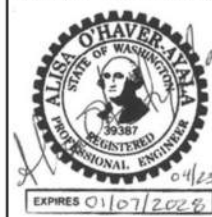
GENERAL NOTES

- A STANDARD 24"x6" ERGO MANHOLE FRAME, COVER, LID AND GRADE RING PER STANDARD DETAIL SS4-02. MANHOLES LOCATED IN NON-TRAVELWAYS SHALL EXTEND A MINIMUM OF 12" ABOVE FINISHED GRADE OR HAVE A 4'X4' CONCRETE PAD.
- B PREFERRED METHOD: KOR-N-SEAL BOOTS.
- C CRUSHED SURFACING BASE COURSE PER WSDOT STD SPEC 9-03.0(3) COMPACTED TO 95% MAX DENSITY.
- D ALL MANHOLES SHALL MEET THE REQUIREMENTS DETAILED IN SECTION 4.4.1.2 OF THE CITY OF SUMNER DEVELOPMENT SPECIFICATIONS AND STANDARD DETAILS.
- E MANHOLE RING PER DETAIL SS4-02 AND STEPS PER DETAIL SS4-03.
- F TONING WIRE.
- G THERE SHALL BE NO PIPE JOINTS WITHIN 10 FEET OF THE STRUCTURE.

MANHOLE DIMENSION TABLE

| DIA. | WALL THICKNESS | BASE THICKNESS | MAXIMUM CORE SIZE | MINIMUM DISTANCE BETWEEN CORE |
|------|----------------|----------------|-------------------|-------------------------------|
| 48" | 4" | 6" | 36" | 8" |

APPROVED BY CITY ENGINEER

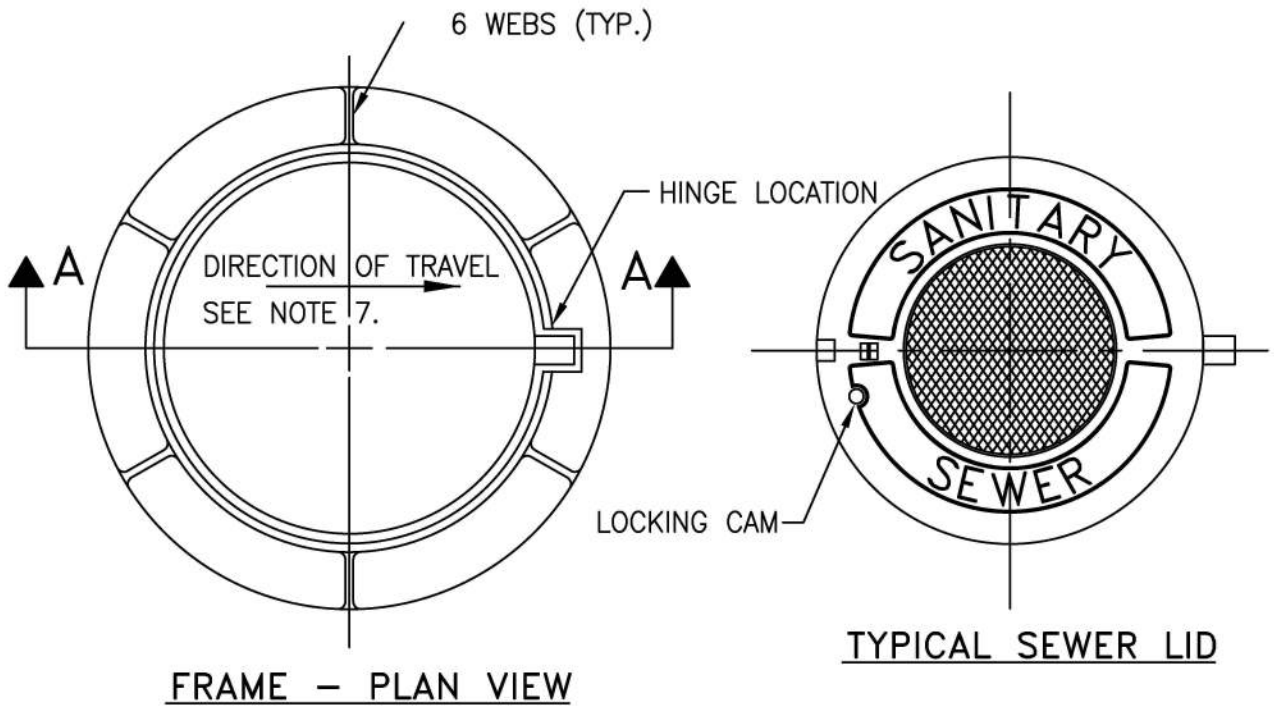


MONITORING MANHOLE

LAST REVISION: 04/01/26

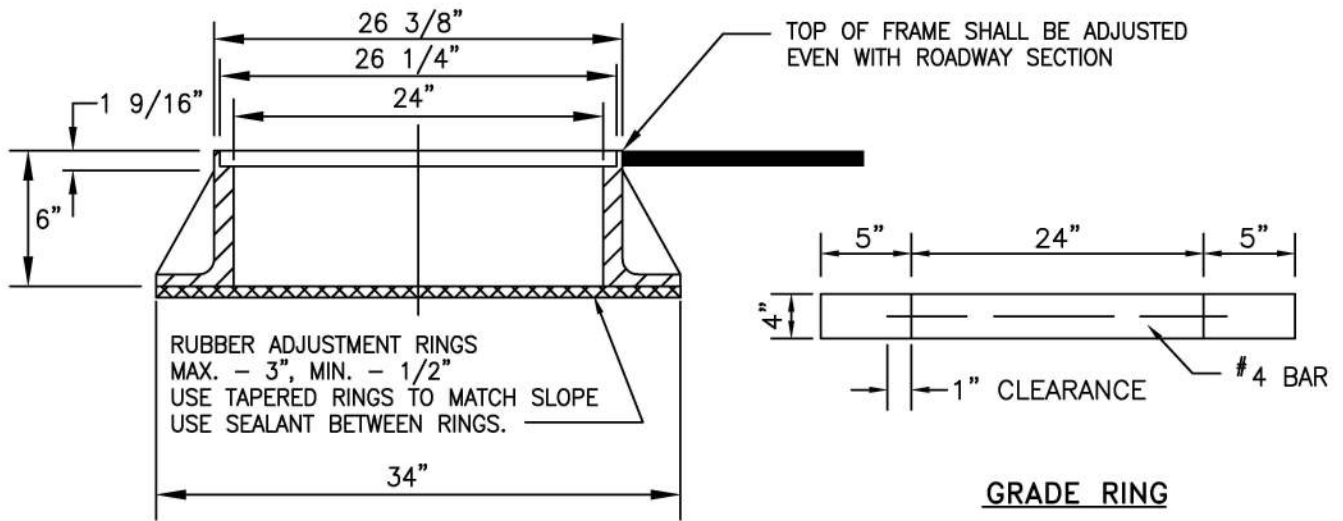
SHEET 1 of 1 N.T.S.

**SEWER
STANDARD DETAIL
SS4-01.3**



FRAME - PLAN VIEW

TYPICAL SEWER LID



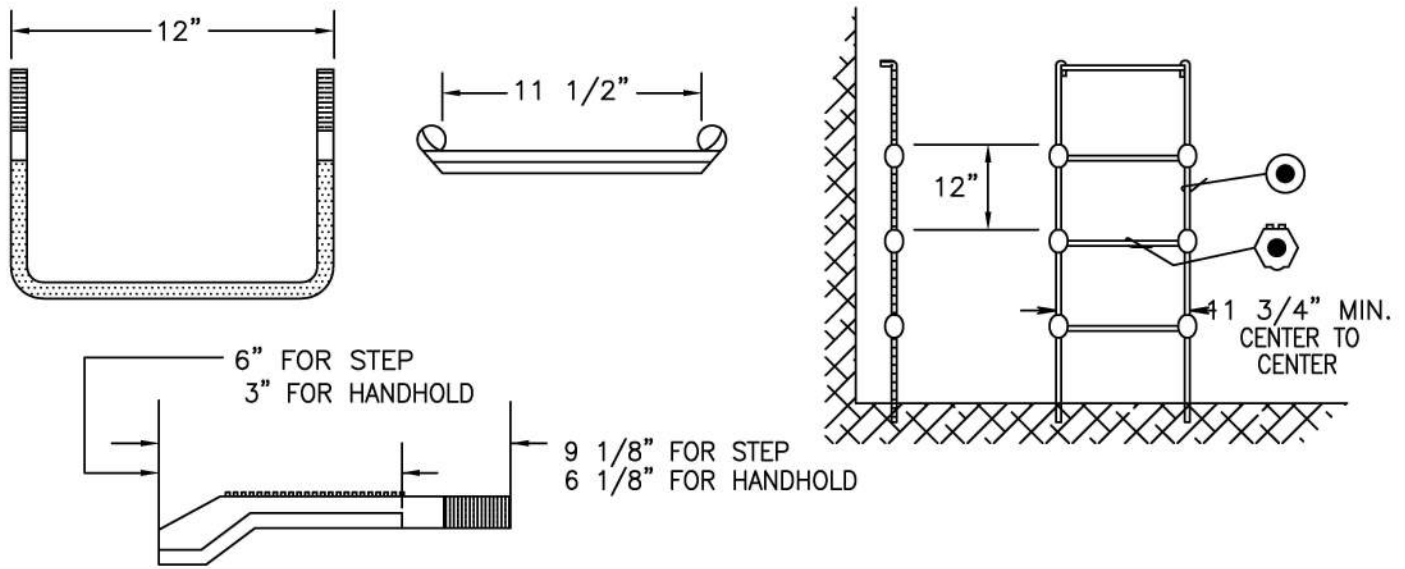
SECTION A-A

GRADE RING

NOTES:

1. EAST JORDAN IRON WORKS 24" "ERGO" FRAME & COVER IS THE PRE-APPROVED PRODUCT. ALL OTHERS REQUIRE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO INSTALLATION.
2. NON-ROCKING FIT FOR MANHOLE COVERS.
3. CASTING TO BE SHOT BLASTED AND FREE FROM SURFACE SAND AND SCALE.
4. CASTING TO BE SMOOTH, TRUE TO PATTERN, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINK HOLES, WARP, OR ANY OTHER DEFECTS WHICH COULD IMPAIR SERVICEABILITY.
5. CASTINGS SHALL BE UNCOATED.
6. FOR STORM SEWER APPLICATIONS CAST LETTERS SHALL READ "STORM".
7. INSTALL FRAME AND COVER SO THAT HINGE IS FURTHEST AWAY FROM ONCOMING TRAFFIC.
8. OUTSIDE OF PAVED AREAS, LIDS TO BE BOLTED DOWN.



| | | |
|-------------------------------|-----------------------------------------|--|
| APPROVED BY CITY ENGINEER | | |
| | 24" X 6" MANHOLE FRAME AND COVER | |
| LAST REVISION: 04/01/26 | SEWER STANDARD DETAIL SS4-02 | |
| SHEET 1 of 1 | N.T.S. | |

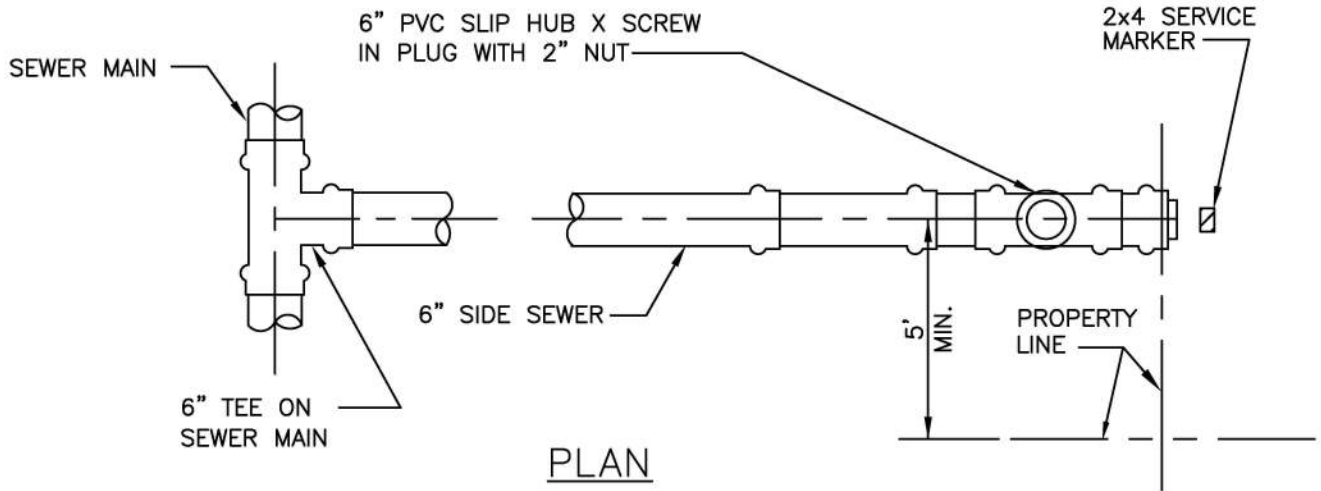


POLYPROPYLENE DROP RUNG MANHOLE STEP AND PREFABRICATED LADDER

NOTES:

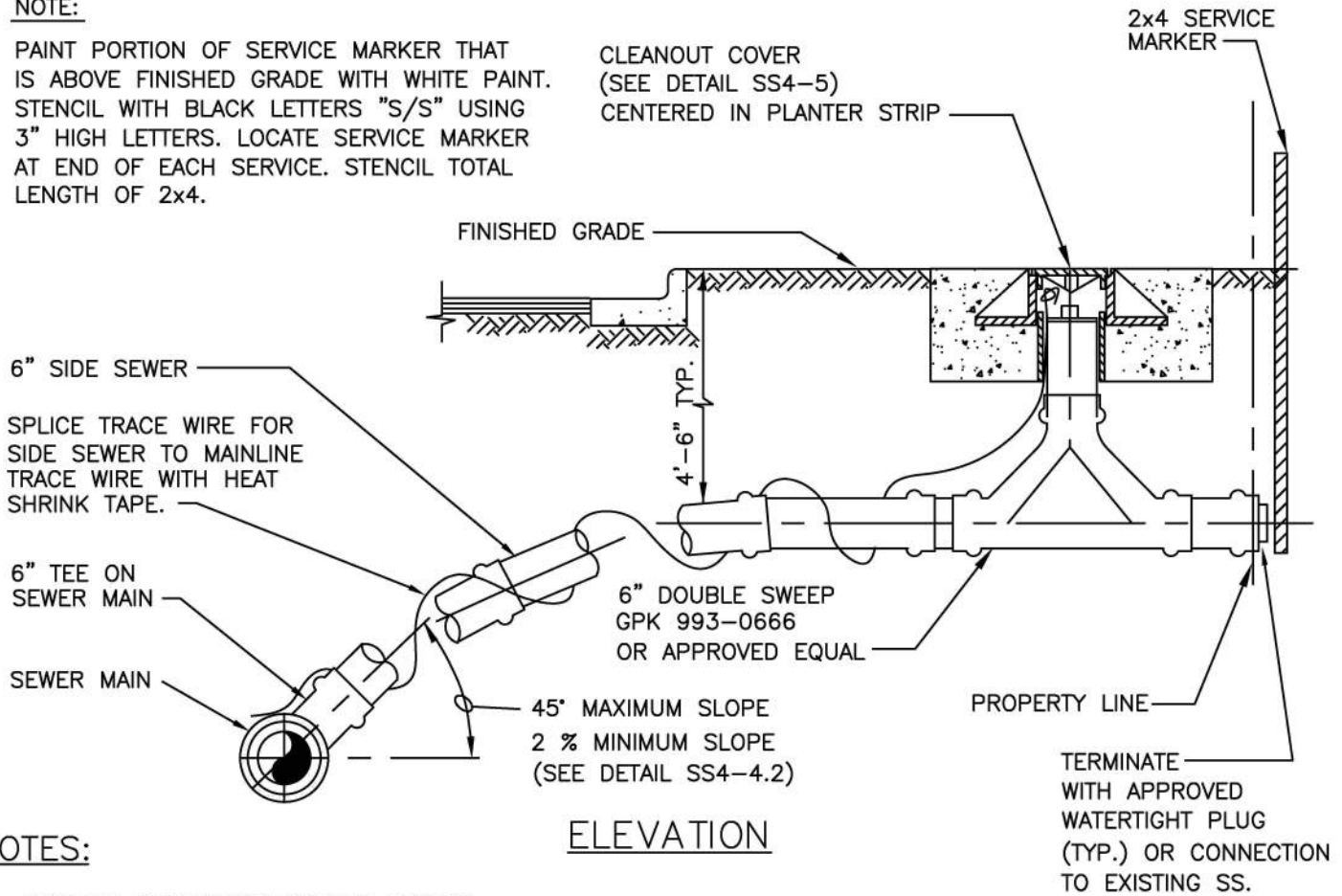
- ① MANHOLE STEPS SHALL CONFORM TO SECTION R, ASTM C-478. AASHTO M-199 REQUIREMENTS AND REQUIREMENTS OF ASTM D-4101 FOR POLYPROPYLENE STEPS, AND ALL WISHA AND OSHA SPECIFICATIONS.
- ② PENETRATION OF OUTER WALL BY A STEP LADDER OR LADDER LEG IS PROHIBITED.

| | | |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------|
| APPROVED BY CITY ENGINEER |  | |
|  | MANHOLE SAFETY STEPS | |
| EXPIRES 01/07/2028 | LAST REVISION: 04/01/26 | SEWER STANDARD DETAIL |
| SHEET 1 of 1 | N.T.S. | SS4-03 |



NOTE:

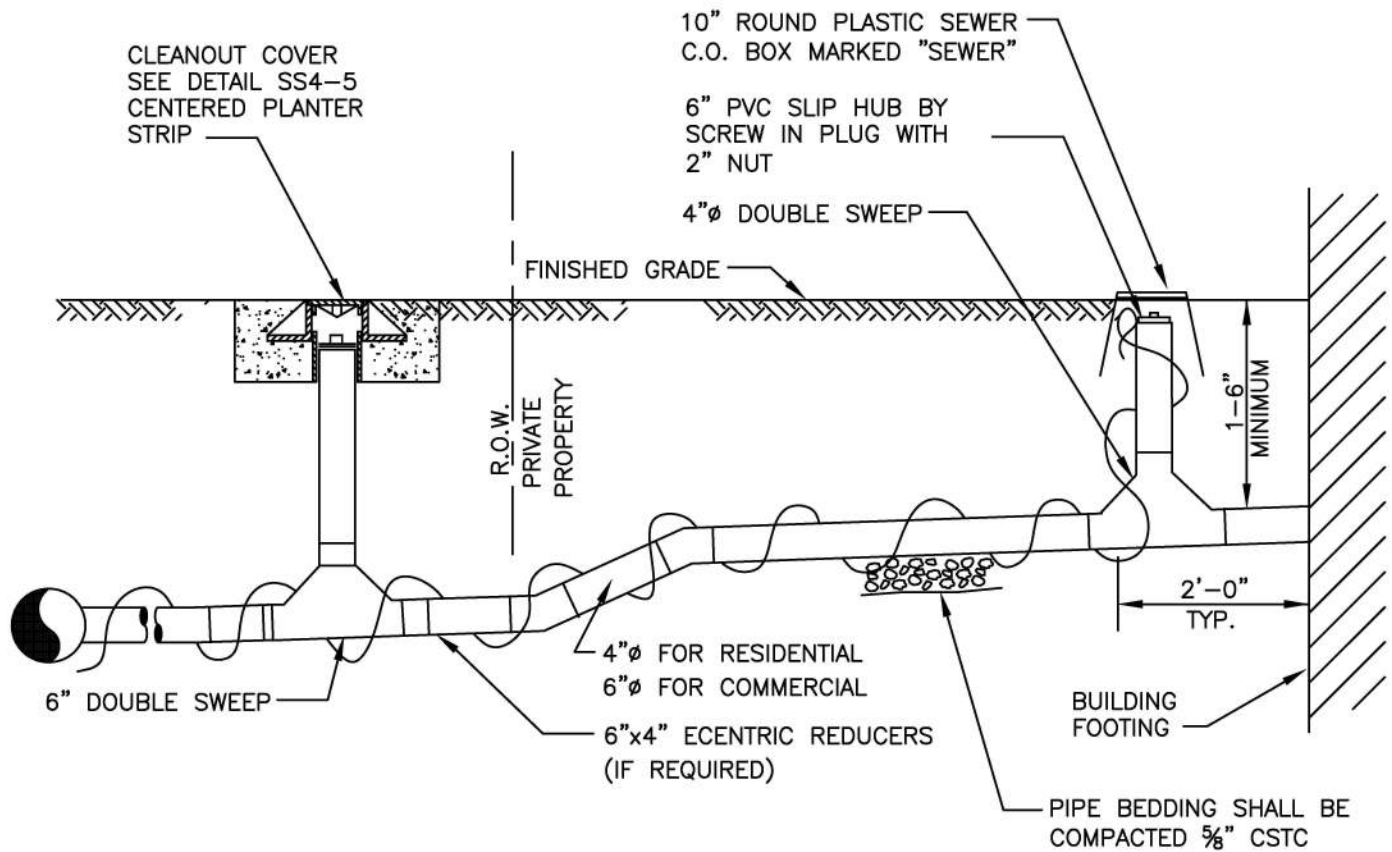
PAINT PORTION OF SERVICE MARKER THAT IS ABOVE FINISHED GRADE WITH WHITE PAINT. STENCIL WITH BLACK LETTERS "S/S" USING 3" HIGH LETTERS. LOCATE SERVICE MARKER AT END OF EACH SERVICE. STENCIL TOTAL LENGTH OF 2x4.



NOTES:

1. MAXIMUM DEFLECTION NOT TO EXCEED PIPE MANUFACTURER RECOMMENDATIONS.
2. PIPE BEDDING 5/8- CSTC IN CONFORMANCE WITH WSDOT 9-03.9(3).
3. LOAD-BEARING CASTING & COVER SHALL BE USED. (SEE DETAIL SS4-5)
4. MINIMUM SS DIAM. W/IN THE ROW SHALL BE 6". THE CITY RESERVES THE RIGHT TO REQUIRE INCREASED SS DIAM. AS NEEDED TO ACCOMMODATE INCREASED FLOWS.
5. SEWER PIPE SHALL BE SDR35 OR DI CLASS 50.
6. SEWER TAPS TO EXISTING SS MAIN SHALL BE CORE DRILLED. ROMAC SS SADDLE WITH STAINLESS STEEL STRAP OR APPROVED EQUAL SHALL BE USED.

| | | |
|---------------------------|-----------------------------------|--|
| APPROVED BY CITY ENGINEER | | |
| | SIDE SEWER | |
| LAST REVISION: 04/01/26 | SEWER STANDARD DETAIL SS4-04.1 | |
| SHEET 1 of 1 | N.T.S. | |

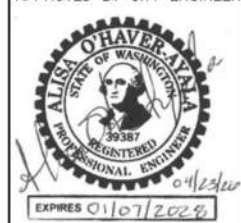


ELEVATION

NOTES:

1. ELBOWS SHALL NOT BE GREATER THAN 45°
2. A CLEAN OUT IS REQUIRED FOR PIPE RUNS GREATER THAN 100' AND FOR EACH 90° ACCUMULATED BEND/100' OF LENGTH
3. RIGHT-OF-WAY RESTORATION SHALL MATCH OR EXCEED ORIGINAL CONDITIONS.
4. TRENCH BACKFILL BENEATH PAVED SURFACE SHALL BE 5/8" MINUS CRUSHED SURFACING TOP COURSE, COMPACTED IN 12" LIFTS
5. ALL PLUMBING OUTLETS SHALL BE CONNECTED TO THE SEWER. NO DOWNSPOUTS OR STORM DRAINAGE SHALL BE CONNECTED TO THE SANITARY SYSTEM.
6. 4'-6" TYPICAL PIPE COVER AT PROPERTY LINE.
7. LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH AN ELBOW OR WYE.
8. 6" SEWER PIPE MINIMUM SIZE IN RIGHT-OF-WAY. LAY AT 2% MINIMUM GRADE, 45% MAXIMUM GRADE.
9. 4" SEWER PIPE MINIMUM SIZE ON PRIVATE RESIDENTIAL PROPERTY. 2% SLOPE MINIMUM. 6" SEWER PIPE MINIMUM SIZE ON COMMERCIAL PROPERTIES. 1% MINIMUM SLOPE, 45° MAXIMUM. THE CITY RESERVES THE RIGHT TO REQUIRE INCREASED SS DIAM. AS NEEDED TO ACCOMMODATE INCREASED FLOWS.
10. CONSTRUCTION IN RIGHT-OF-WAY SHALL BE PERFORMED BY A REGISTERED LICENSED CONTRACTOR. ACQUIRE CITY PERMIT.
11. ALL CONSTRUCTION REQUIRES A PERMIT AND PAYMENT OF FEE.
12. AS-BUILT DRAWING SHOWING LOCATION OF SIDE SEWER IN RELATION TO THE HOUSE AND EXISTING UTILITIES IS REQUIRED AFTER INSTALLATION.
13. SEWER PIPE SHALL BE SDR 35 PVC MEETING ASTM 3034 FOR PIPES UP TO 15-INCH DIAMETER AND ASTM F 679, TYPE 1, FOR PIPES 18 THROUGH 27 INCHES IN DIAMETER PER WSDOT SECTION 9-05.12 OR DUCTILE IRON PIPE, THICKNESS CLASS 50, WITH EPOXY LINING.

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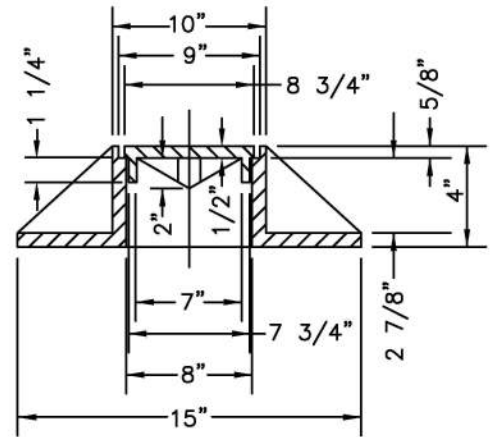
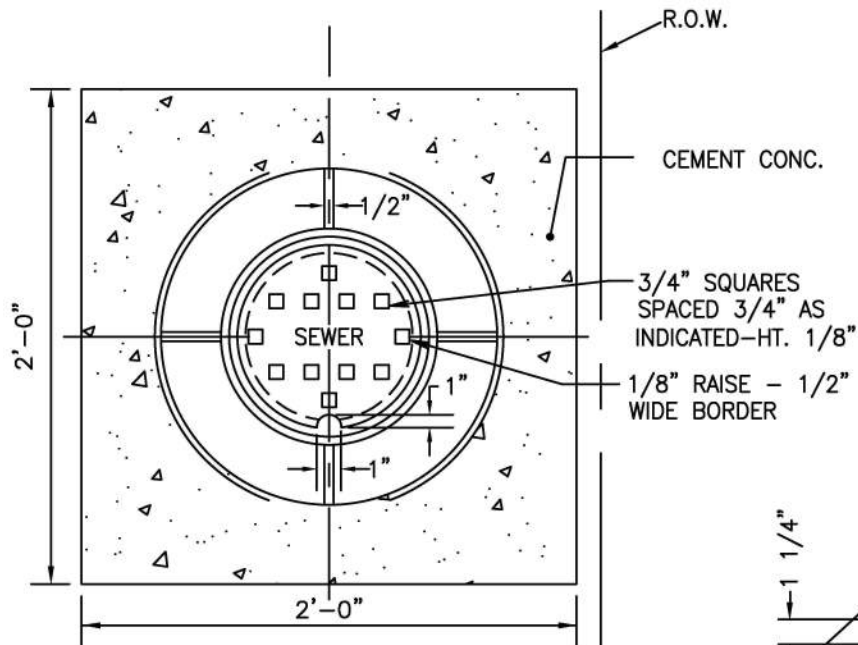


PRIVATE SIDE SEWER

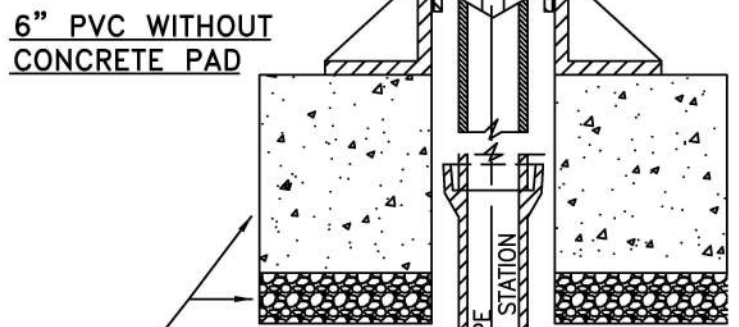
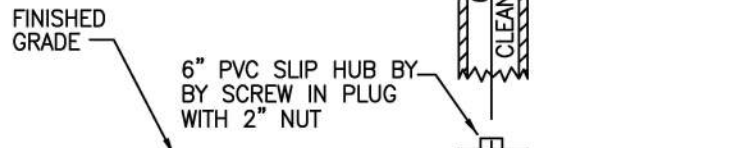
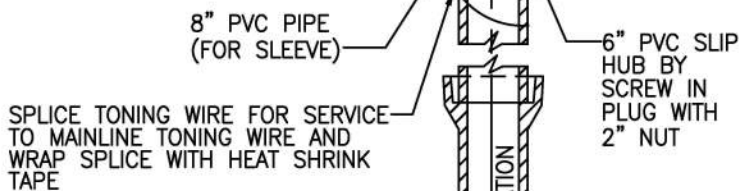
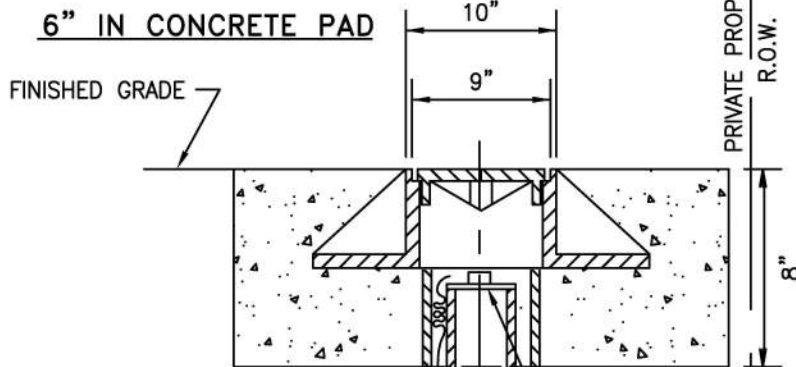
LAST REVISION: 04/01/26

SHEET 1 of 1 N.T.S.

SEWER
STANDARD DETAIL
SS4-04.2



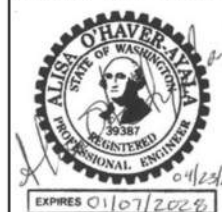
**CAST IRON
CLEANOUT RING & COVER**



NOTES:

1. CAST IRON TO CONFORM TO A.S.T.M. A48-56 CLASS 30.
2. COVER SHALL BE OLYMPIC FOUNDRY M 1007 OR EQUIVALENT MARKED "SEWER".
3. CONCRETE PAD IS REQUIRED, ESPECIALLY IN GRAVEL AND UNDEVELOPED CONDITIONS. CONCRETE PAD MAY BE REMOVED AT THE SOLE DISCRETION OF CITY ENGINEER OR DESIGNEE.

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**SEWER CLEANOUT
RING AND COVER**

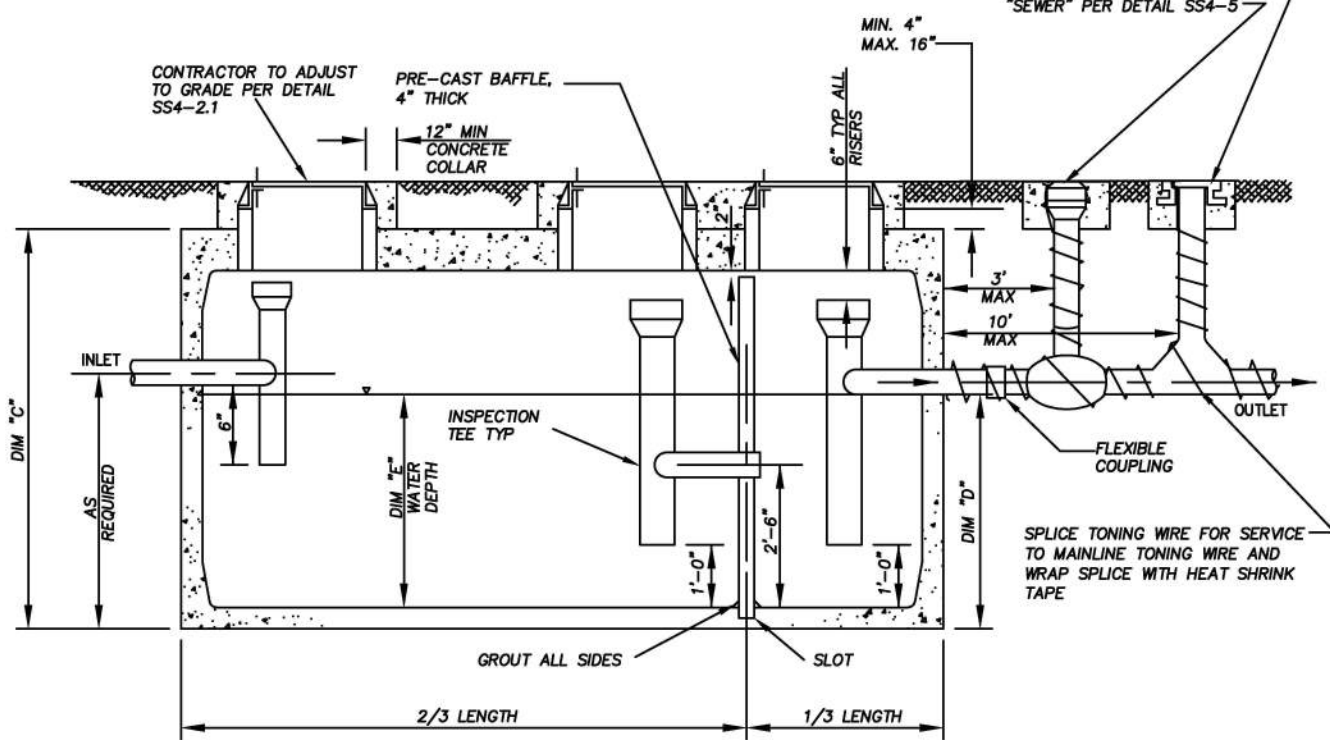
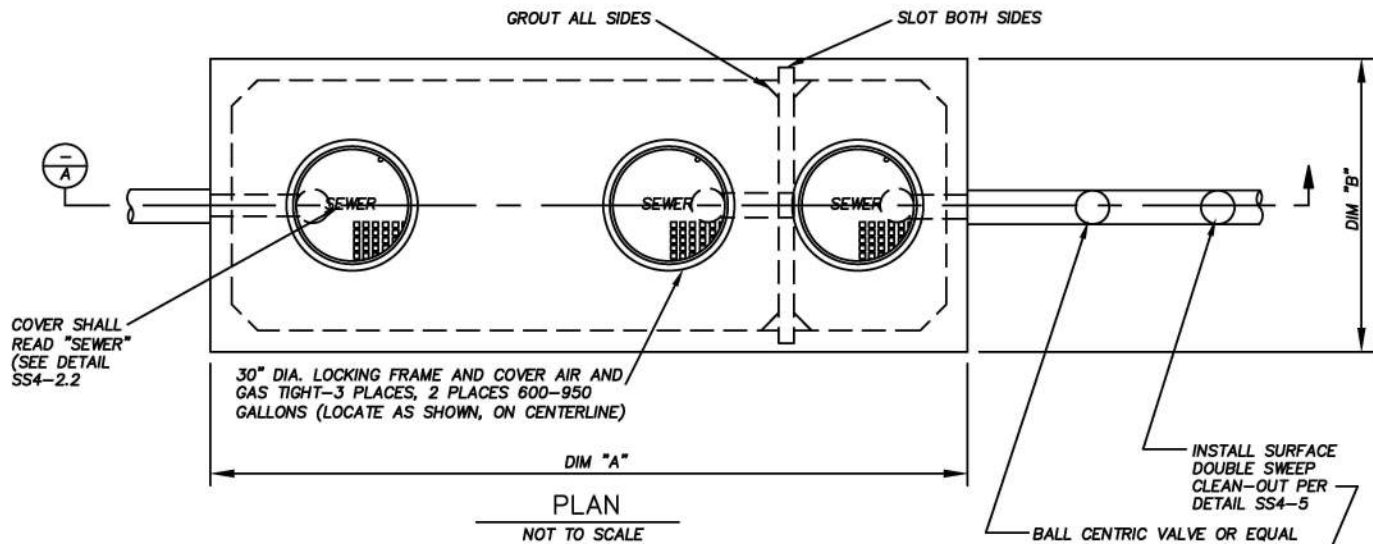
LAST REVISION: 04/01/26

SEWER
STANDARD DETAIL

SHEET 1 of 1

N.T.S.

SS4-05



| GALLON CAPACITY | 1000 | 1250 | 1500 | 1750 | 2000 | 2500 | 2750 | 3000 | 4000 | 5000 | 6000 |
|---------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| DIM "A" | 9'-0" | 9'-0" | 11'-2" | 11'-2" | 12'-8" | 12'-8" | 12'-8" | 15'-7" | 15'-7" | 19'-11" | 19'-11" |
| DIM "B" | 5'-0" | 5'-0" | 5'-8" | 5'-8" | 6'-8" | 6'-8" | 6'-8" | 9'-7" | 9'-7" | 9'-11" | 9'-11" |
| DIM "C" | 7'-2" | 7'-2" | 7'-2" | 7'-2" | 8'-0" | 8'-0" | 8'-0" | 8'-6.5" | 8'-6.5" | 8'-11" | 8'-11" |
| DIM "D" | 4'-2" | 5'-2" | 4'-4" | 4'-11" | 4'-7" | 5'-6" | 6'-0" | 5'-0" | 6'-3" | 6'-2" | 7'-2" |
| WATER DEPTH DIM "E" | 3'-10" | 4'-10" | 4'-0" | 4'-7" | 3'-10" | 4'-9" | 5'-3" | 3'-9" | 5'-0" | 4'-9" | 5'-9" |

APPROVED BY CITY ENGINEER

ALISA O'HAYER
STATE OF WASHINGTON
39387
REGISTERED PROFESSIONAL ENGINEER
EXPIRES 01/07/2028

CITY OF
SUMNER
WASHINGTON

EXTERIOR GREASE INTERCEPTOR

LAST REVISION: 04/01/26

SEWER STANDARD DETAIL
SS4-07



SHEET 1 of 2 N.T.S.

EXTERIOR GREASE INTERCEPTOR NOTES:

1. LOCATE STRUCTURE ADJACENT TO DRIVE FOR ACCESS BY MAINTENANCE VEHICLE.
2. FILL WITH CLEAN WATER PRIOR TO START UP OF SYSTEM.
3. INTERCEPTOR AND APPURTENANCES TO CLEANOUT SHALL BE MAINTAINED BY PRIVATE OWNER AND AN ANNUAL MAINTENANCE REPORT SHALL BE SUBMITTED TO THE CITY OF SUMNER PUBLIC WORKS DEPARTMENT.
4. CONNECTIONS TO VAULT WALLS WITH PVC PIPE SHALL BE MADE USING KOR-N-SEAL BOOT OR EQUAL. SEAL ALL PIPE CONNECTIONS WITH NON-SHRINK GROUT.
5. 6" PVC SHALL BE USED THROUGHOUT. TOP OF "TEES" TO BE KEPT OPEN.
6. A BALLCENTRIC VALVE SHALL BE LOCATED IN THE DISCHARGE PIPING, A MAXIMUM OF 3 FEET FROM THE GREASE INTERCEPTOR UPSTREAM OF THE CLEANOUT. THIS VALVE SHALL BE CLOSED WHEN CLEANING OR SERVICING THE DEVICE.
7. GRAY WATER ONLY. BLACK WATER SHALL BE CARRIED BY SEPARATE SIDE SEWER.
8. A DOUBLE SWEEP CLEAN-OUT SHALL BE INSTALLED DOWNSTREAM OF BALLCENTRIC VALVE.
9. THE PLANS SHALL ILLUSTRATE PROPERTY BOUNDARIES, PIPING/DRAINAGE DETAILS AND CONNECTIONS TO THE SANITARY SEWER. DETAIL AND ELEVATION DRAWINGS OF THE GREASE INTERCEPTOR SHALL INCLUDE UPC APPENDIX 'H' DESIGN CALCULATIONS TO SHOW CAPACITY, DETENTION TIME AND REMOVAL EFFICIENCIES.

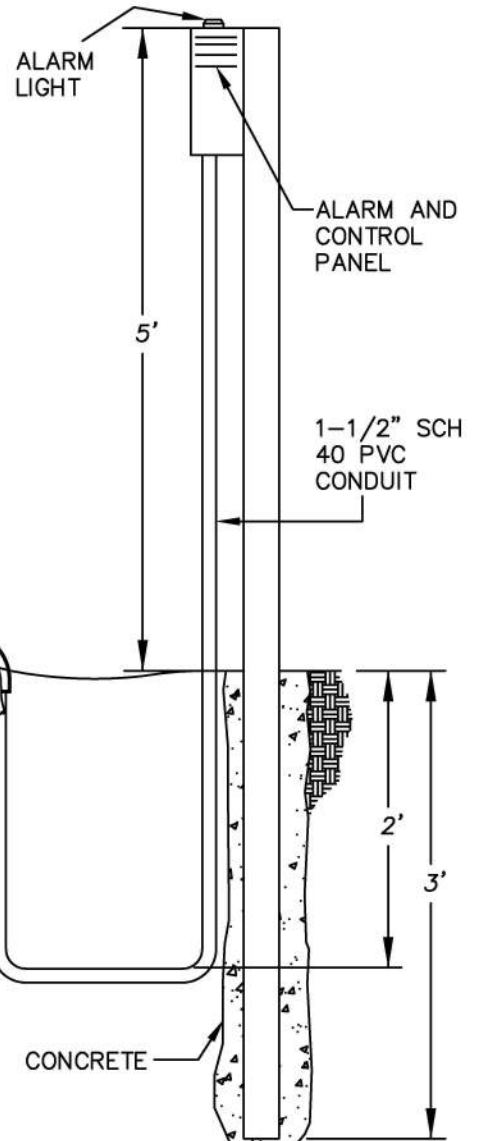
$$\text{NO. OF MEALS/PEAK HOUR} \times \text{WASTE FLOW RATE} \times \text{RETENTION TIME} \times \text{STORAGE FACTOR} = \text{CAPACITY IN GALLONS}$$

10. EFFLUENT FROM GREASE INTERCEPTORS SHALL NOT EXCEED 100 mg/l FAT, OIL AND GREASE DISCHARGED TO THE SANITARY SEWER.
11. GREASE INTERCEPTORS INSTALLED IN PAVED AREAS SHALL COMPLY WITH H-20 LOADING.
12. PLUMBING/PIPING SHALL BE CONSTRUCTED TO ESTABLISH "PARALLEL FLOW" (90 TO THE TANK BAFFLE) THROUGH THE GREASE INTERCEPTOR. NO RADIUS, BEND OR ELBOW SHALL BE ALLOWED IN THE INLET PIPE, FOR A MINIMUM OF 10 FEET OR 20 PIPE DIAMETERS, WHICHEVER IS GREATER, UPSTREAM OF THE INTERCEPTOR.
13. OPTIONAL VENTING OF THE INTERCEPTOR SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE UNIFORM PLUMBING CODE.
14. FINAL INSPECTION IS REQUIRED BY THE CITY ENGINEER OR HIS REPRESENTATIVE PRIOR TO CONNECTION TO THE SANITARY SEWER.
15. CONCRETE: 28 DAY COMPRESSIVE STRENGTH
fc = 4500 psi
16. REBAR: ASTM A-615 GRADE 60
17. MESH: ASTM A-185 GRADE 65
18. DESIGN: ACI-318-83 BUILDING CODE
ASTM C-857 "MINIMUM STRUCTURAL DESIGN
LOADING FOR UNDERGROUND PRECAST CONCRETE
UTILITY STRUCTURES"

| | | |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------|
| APPROVED BY CITY ENGINEER |  | |
|  | EXTERIOR GREASE INTERCEPTOR – NOTES | |
| EXPIRES 01/07/2028 | LAST REVISION: 04/01/26 | SEWER STANDARD DETAIL |
| | SHEET 2 of 2 | N.T.S. |
| | | SS4-07 |

PRESSURE DISCHARGE LINE:

1. FORD PACK JOINT COUPLER WITH INSERT STIFFENERS
2. 250 PSI POLY
3. ALL POLY PIPE SPLICES SHALL BE MADE WITH A FORD PACK JOINT COUPLER OR PUBLIC WORKS DEPARTMENT APPROVED EQUIVALENTS
4. A TRACER WIRE SHALL BE INSTALLED FROM PUMP TO GRAVITY CLEAN-OUT OR CONNECTION TO FORCEMAIN
5. THE DISCHARGE PIPE SHALL BE INSTALLED AT A MINIMUM DEPTH OF 18"



GRADE TO MATCH TOP RING

12 GAGE TRACE WIRE EXPOSED INSIDE EXTEND 18" (TYP.)

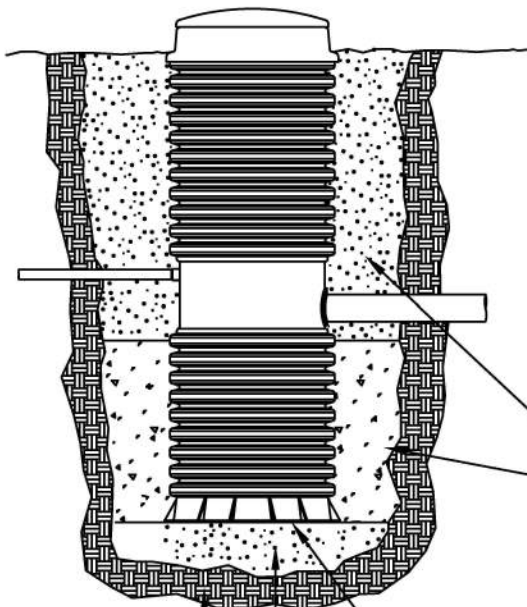
FLOW

CONCRETE

FLOW

GRAVITY SIDE SEWER INLET:

1. 2% MINIMUM GRADE
2. 4" MINIMUM SDR-35 SEWER PIPE
3. 4" BUILDING CLEAN-OUT REQUIRED PER STANDARD DETAIL SS4-4.2



FILL TO GRADE WITH 5/8 GRAVEL
POURED IN PLACE CONCRETE ANCHOR TO PREVENT TANK FROM FLOATING

UNIT TO BE INSTALLED LEVEL
6" MINIMUM GRAVEL BEDDING
UNDISTURBED EARTH

APPROVED BY CITY ENGINEER



GRINDER PUMP



LAST REVISION: 04/01/26

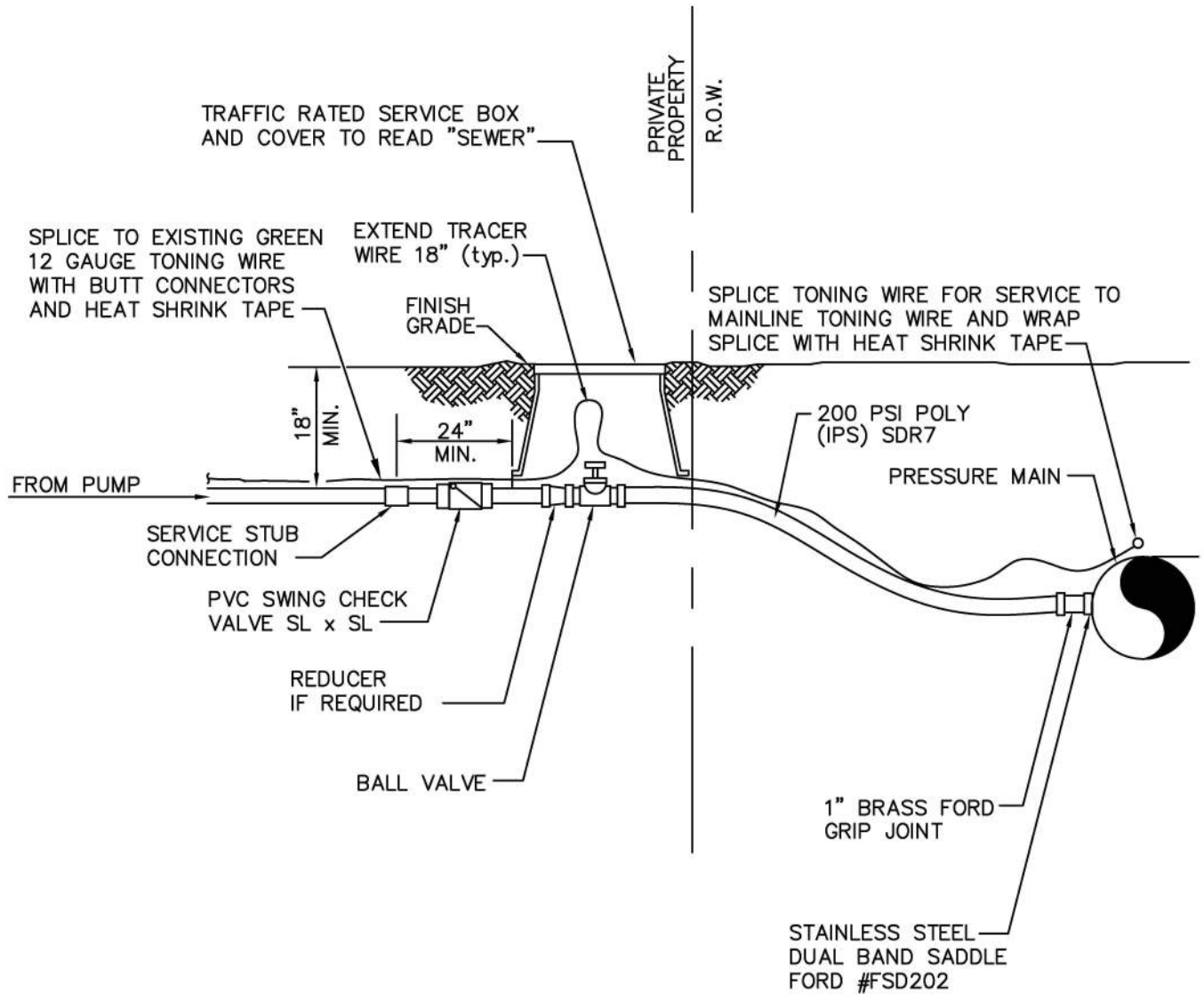
SHEET 1 of 2 N.T.S.

SEWER
STANDARD DETAIL
SS4-08

GRINDER PUMP NOTES:

1. THE PACKAGED GRINDER PUMP LIFT STATION SHALL BE "ENVIRONMENT ONE" MODEL DH071 (www.eone.com) OR A PUBLIC WORKS DEPARTMENT APPROVED EQUIVALENT.
2. THE PUMP STATION SHALL BE ACCESSIBLE FOR MAINTENANCE AND REPAIR. FINISHED GRADE SHALL SLOPE AWAY FROM THE PUMP STATION. THE PUMP STATION IS NOT TO BE LOCATED WITHIN LOW AREA THAT MIGHT POND. FENCES, PLANTS OR ANY OTHER OBJECT SHALL NOT HINDER IN THE MAINTENANCE OR REPAIR OF THE PUMP STATION. NO PLANTS SHALL BE PLANTED WITHIN 5' OF THE PUMP STATION.
3. THE CONTROL/ALARM PANEL SHALL BE ATTACHED TO THE BUILDING. WITH CITY APPROVAL, THE CONTROL PANEL MAY BE ATTACHED TO EITHER A 3"Ø GALVANIZED PIPE W/CAP OR A 4"x8" PRESSURE TREATED POST AND SET IN CONCRETE.
4. THE CONTROL/ALARM PANEL SHALL BE:
 - A) ACCESSIBLE FOR MAINTENANCE AND REPAIR
 - B) IN SIGHT OF THE PUMP STATION
 - C) THE ALARM LIGHT SHALL BE VISIBLE FROM A 180° RADIUS
 - D) NO FENCES, PLANTS OR OTHER OBJECTS SHALL HIDE THE ALARM LIGHT FROM VIEW
5. ALL ELECTRICAL WORK SHALL CONFORM TO NEC STANDARDS AND SHALL BE INSPECTED BY A WASHINGTON STATE ELECTRICAL INSPECTOR.
6. EACH BUILDING SITE SHALL HAVE ITS OWN GRINDER PUMP STATION.
7. THE PROPERTY OWNER SHALL RETAIN OWNERSHIP AND MAINTENANCE OF THE GRINDER PUMP STATION AND ASSOCIATED LINES TO THE PROPERTY LINE GRAVITY SIDE SEWER CLEAN-OUT OR TO WHERE THE PRESSURE LINE DISCHARGES TO A CITY OF SUMNER OWNED GRAVITY SEWER CLEAN-OUT, STRUCTURE OR FORCEMAIN.
8. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY BACKUPS OR SPILLS DUE TO POWER FAILURE AND ASSOCIATED EQUIPEMENT FAILURE.
9. FOLLOW MANUFACTURER'S INSTRUCTION AND INSTALLATION PROCEEDURES.

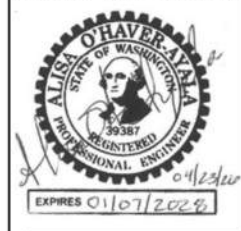
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| APPROVED BY CITY ENGINEER |  | |
|  | GRINDER PUMP – NOTES | |
| | LAST REVISION: 04/01/26 | SEWER STANDARD DETAIL |
| | SHEET 2 of 2 | N.T.S. SS4-08 |



NOTES:

1. INSTALL "SEWER" METAL-DETECTABLE TAPE ABOVE POLY SEWER LINE IN R.O.W.
2. SEE METER BOX INSTALLATION REQUIREMENTS.

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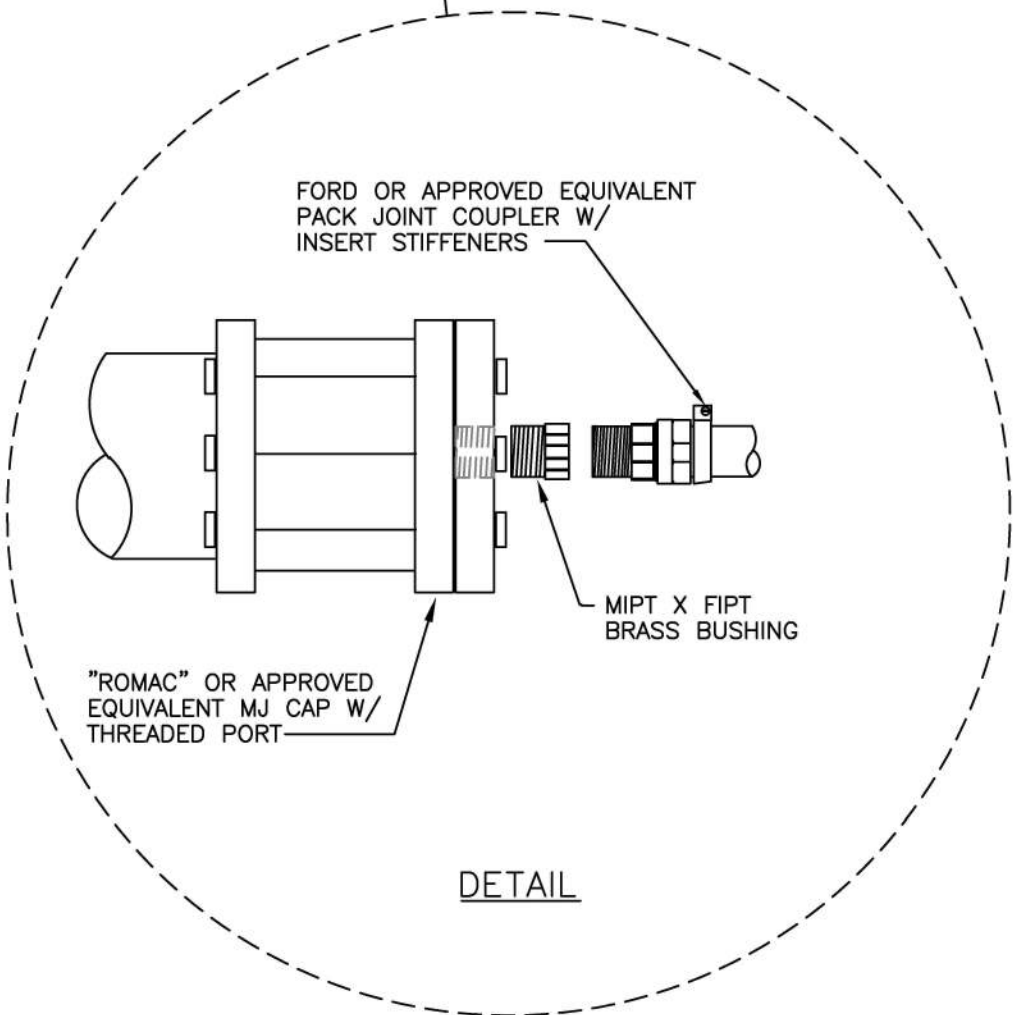
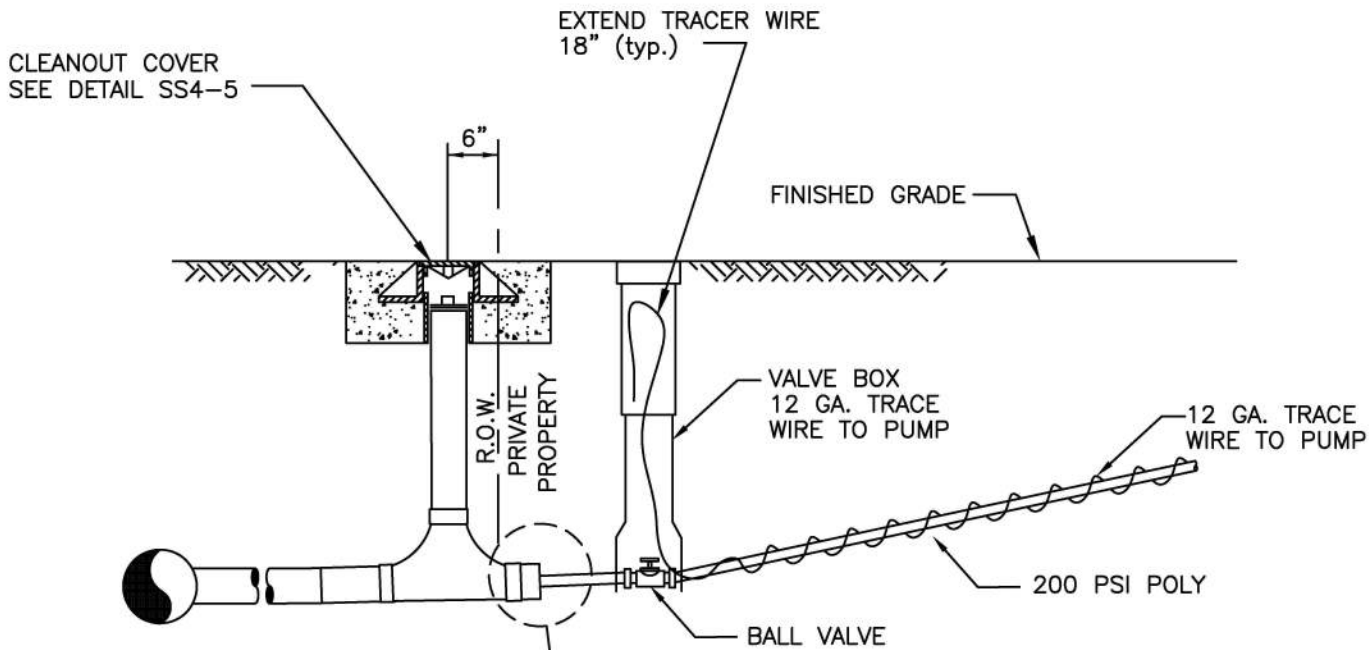


**PRESSURE
SERVICE CONNECTION**

LAST REVISION: 04/01/26

SHEET 1 of 1 N.T.S.

SEWER
STANDARD DETAIL
SS4-09.1



DETAIL

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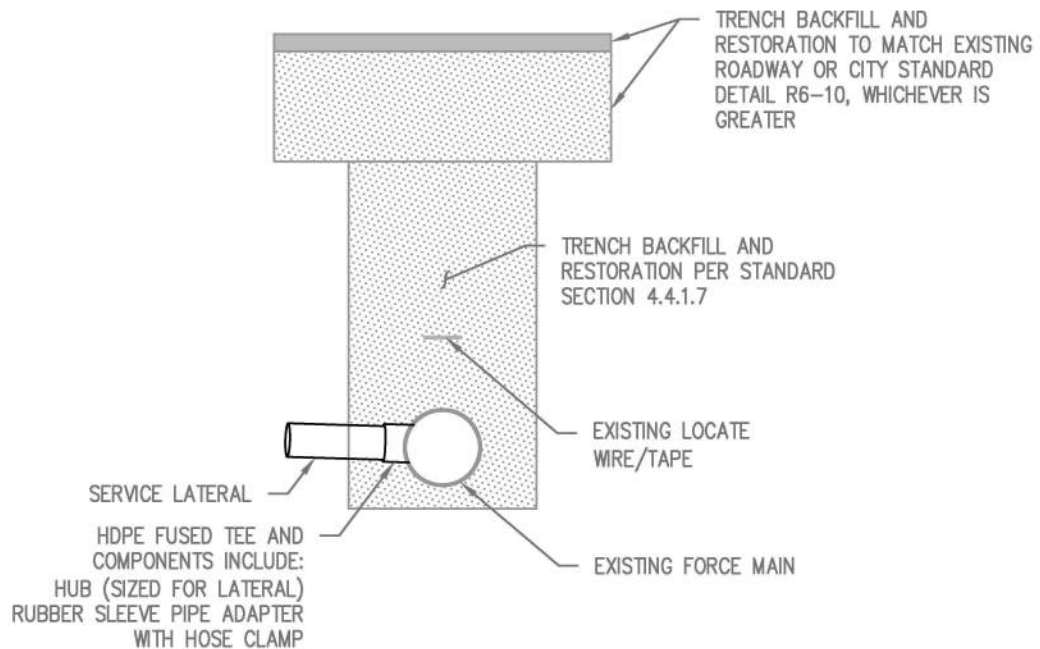
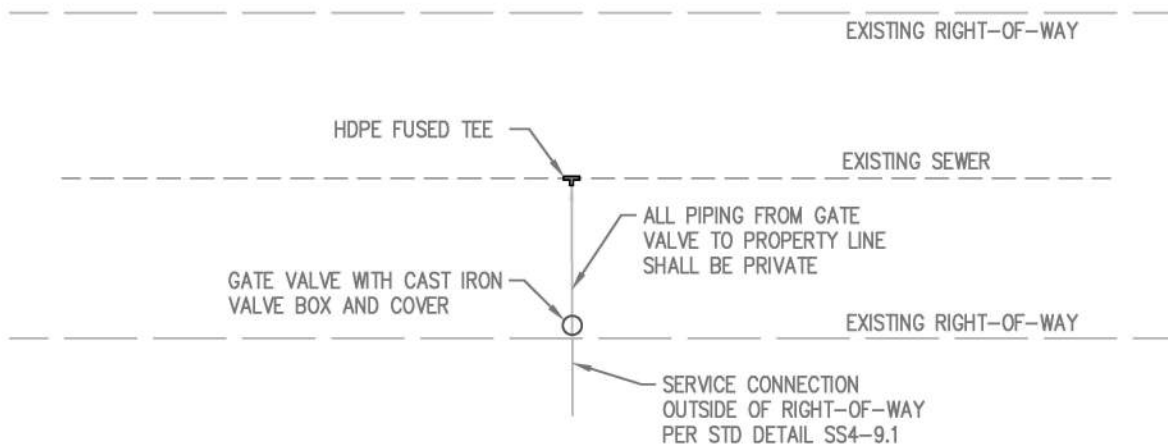
CITY OF
SUMNER
WASHINGTON

**GRINDER SERVICE TO GRAVITY
MAIN SEWER CONNECTION**

LAST REVISION: 04/01/26

SHEET 1 of 1 N.T.S.

SEWER
STANDARD DETAIL
SS4-09.2

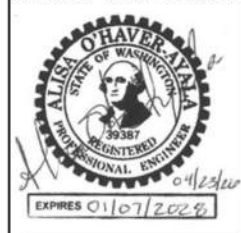


BUTT FUSED HDPE TEE

GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE AND IMPLEMENT FULL BYPASS PUMPING PLAN PRIOR TO SHUTDOWN.
2. ALL HDPE PIPE AND FITTINGS SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) CONFORMING TO AWWA C906.
3. ALL FITTINGS SHALL BE BUTT-FUSED HDPE, SAME MATERIAL AND DR AS MAINLINE PIPE.
4. BUTT FUSION SHALL BE PER ASTM F2620 BY CERTIFIED TECHNICIAN.
5. TEES SHALL BE RESTRAINED, FULLY FUSED SYSTEM. NO THRUST BLOCKING WILL BE REQUIRED.
6. ALL PIPE SHALL BE PRESSURE TESTED AND LEAK TESTED PER PROJECT SPECIFICATIONS.

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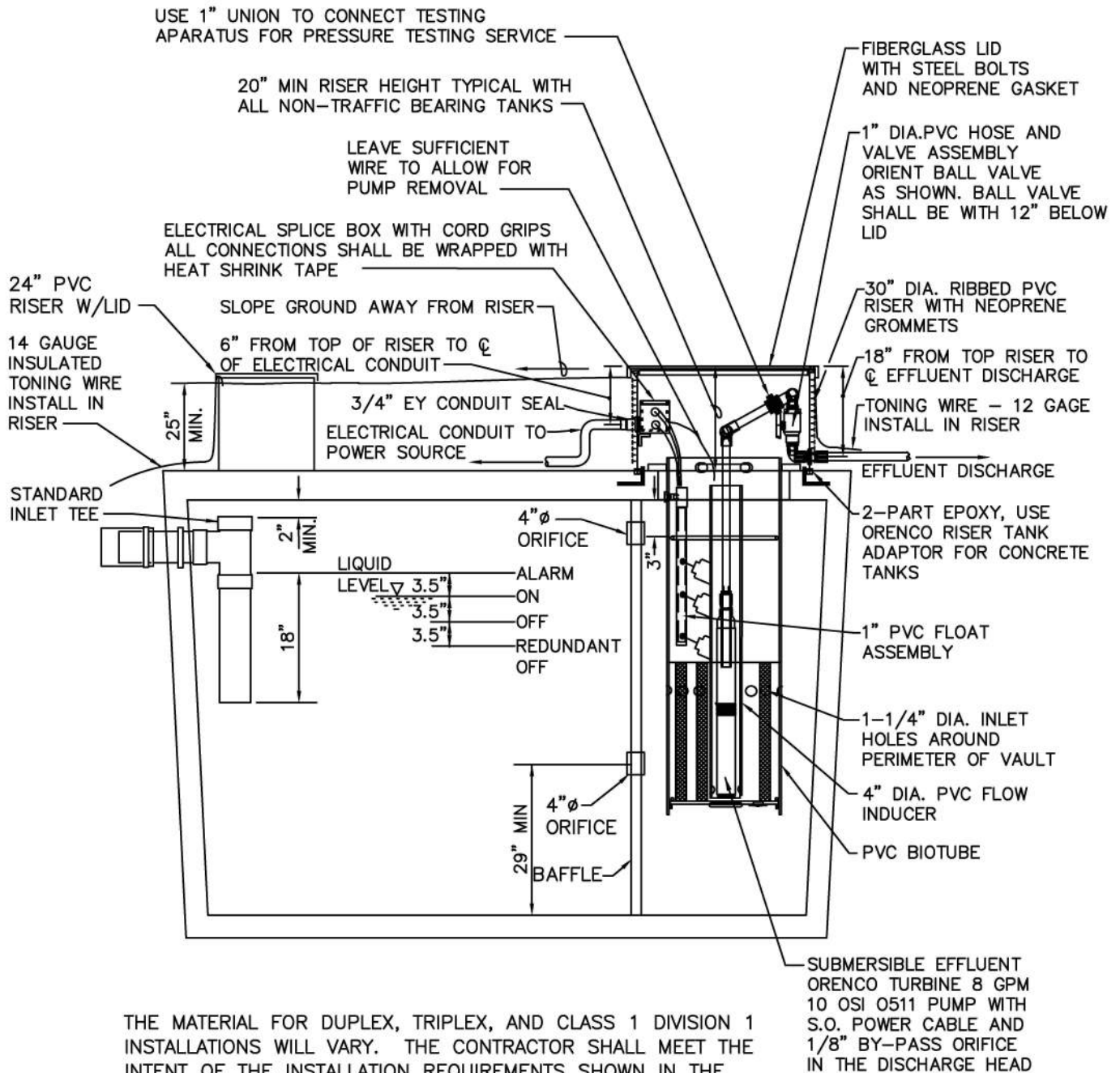


BUTT-FUSED HDPE TEE

LAST REVISION: 04/01/26

SHEET 1 of 1 N.T.S.



**SEWER
STANDARD DETAIL
SS4-09.3**

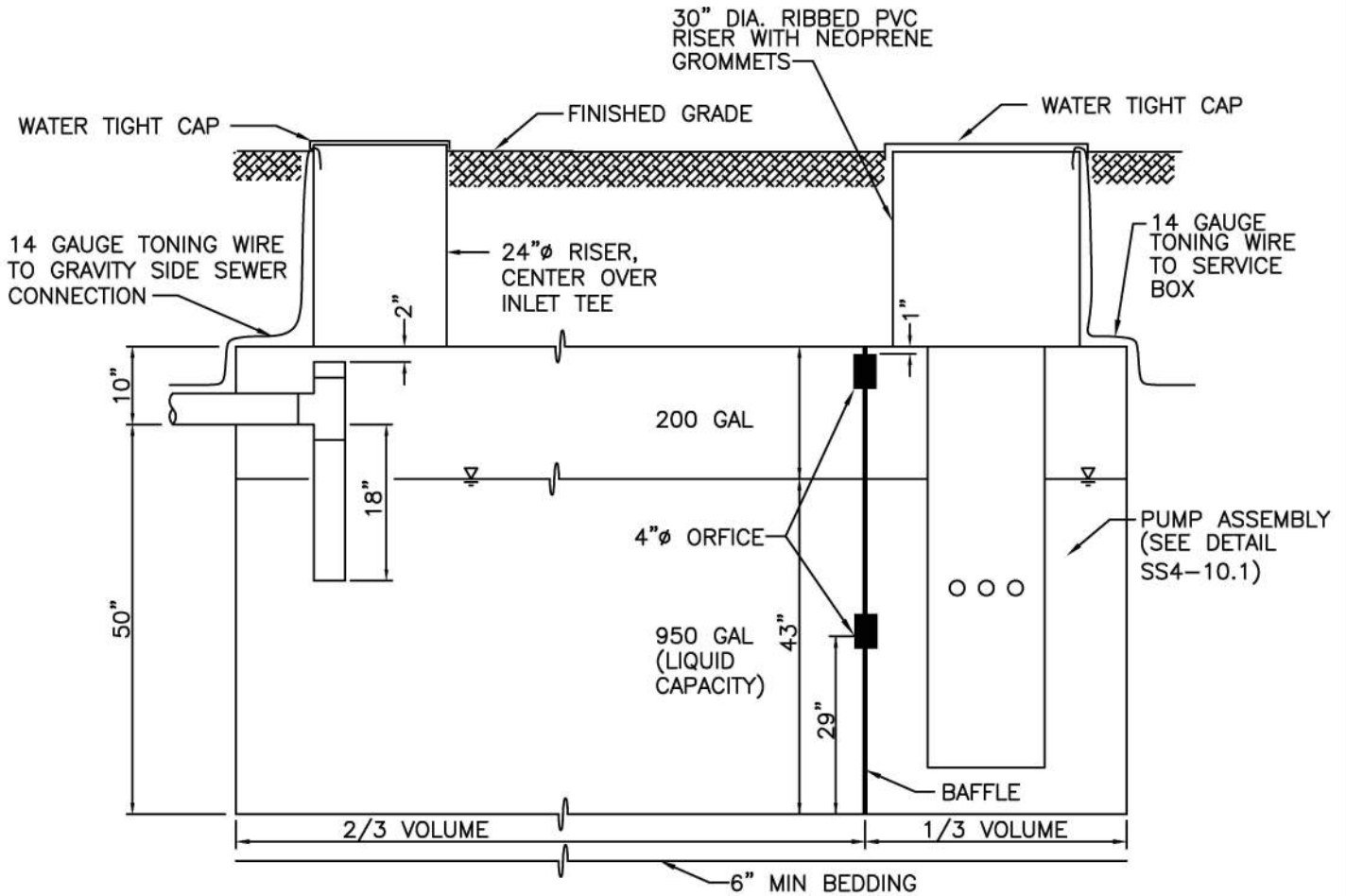


THE MATERIAL FOR DUPLEX, TRIPLEX, AND CLASS 1 DIVISION 1 INSTALLATIONS WILL VARY. THE CONTRACTOR SHALL MEET THE INTENT OF THE INSTALLATION REQUIREMENTS SHOWN IN THE TYPICAL STEP INSTALLATION.

NOTE:



1. STEP TANKS SHALL BE BEDDED PER WSDOT 9-03.9(4) AND BACKFILLED WITH MATERIAL CONFORMING TO WSDOT 9-03.15. BEDDING/BACKFILL MATERIAL SHALL BE INSTALLED A MINIMUM OF 6" ABOVE AND BELOW THE TANK.

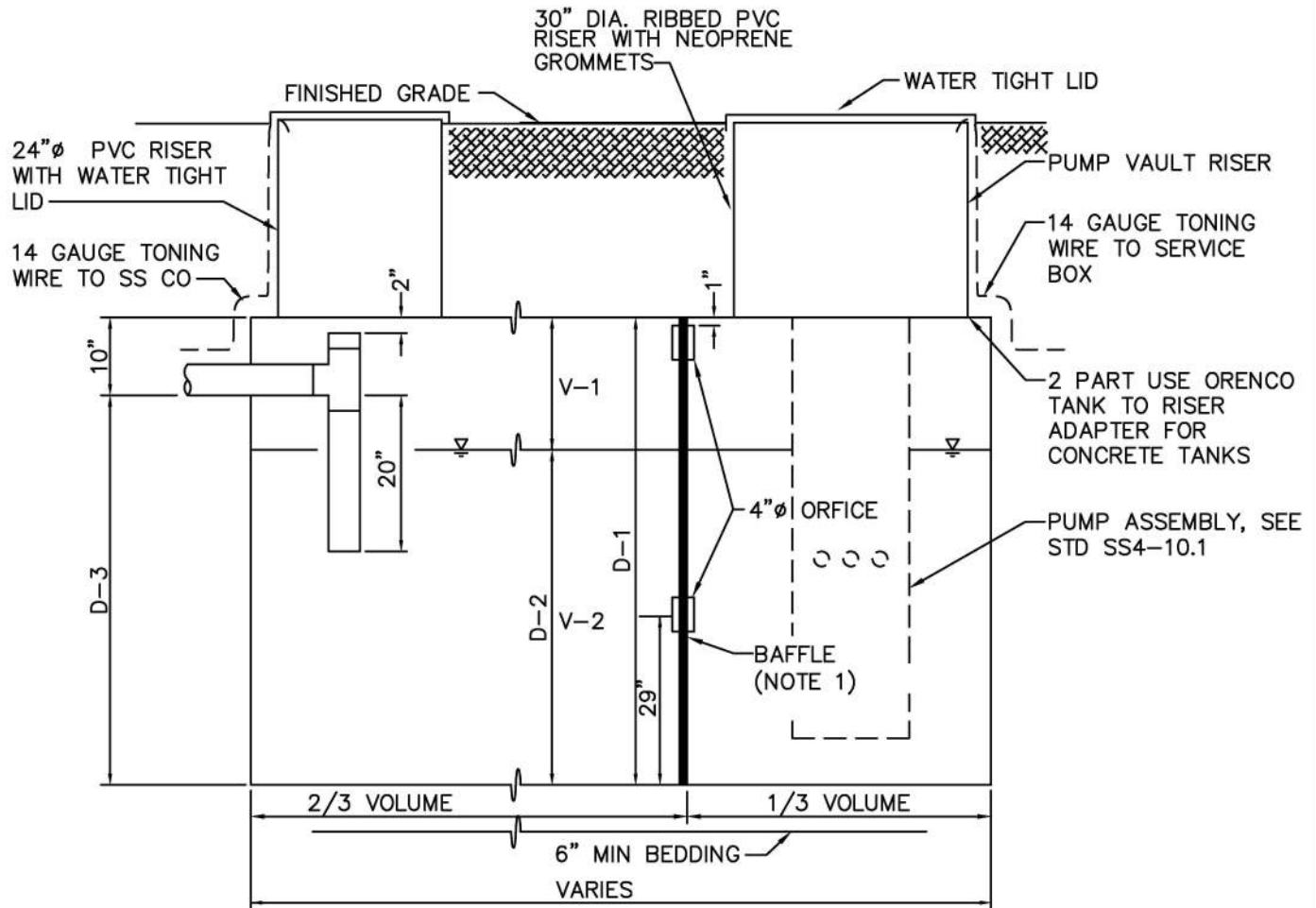
| | | |
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| APPROVED BY CITY ENGINEER |  | |
|  | TYPICAL SIMPLEX STEP TANK INSTALLATION | |
| LAST REVISION: 04/01/26 | SEWER STANDARD DETAIL | |
| SHEET 1 of 1 | N.T.S. | SS4-10.1 |



NOTE:

- STEP TANK INSTALLATION SHALL BE IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS.



| | | |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------|
| APPROVED BY CITY ENGINEER |  | |
|  | 1000 GALLON STEP TANK | |
| | LAST REVISION: 04/01/26 | SEWER STANDARD DETAIL SS4-10.2 |
| EXPIRES 01/07/2028 | SHEET 1 of 1 | N.T.S. |

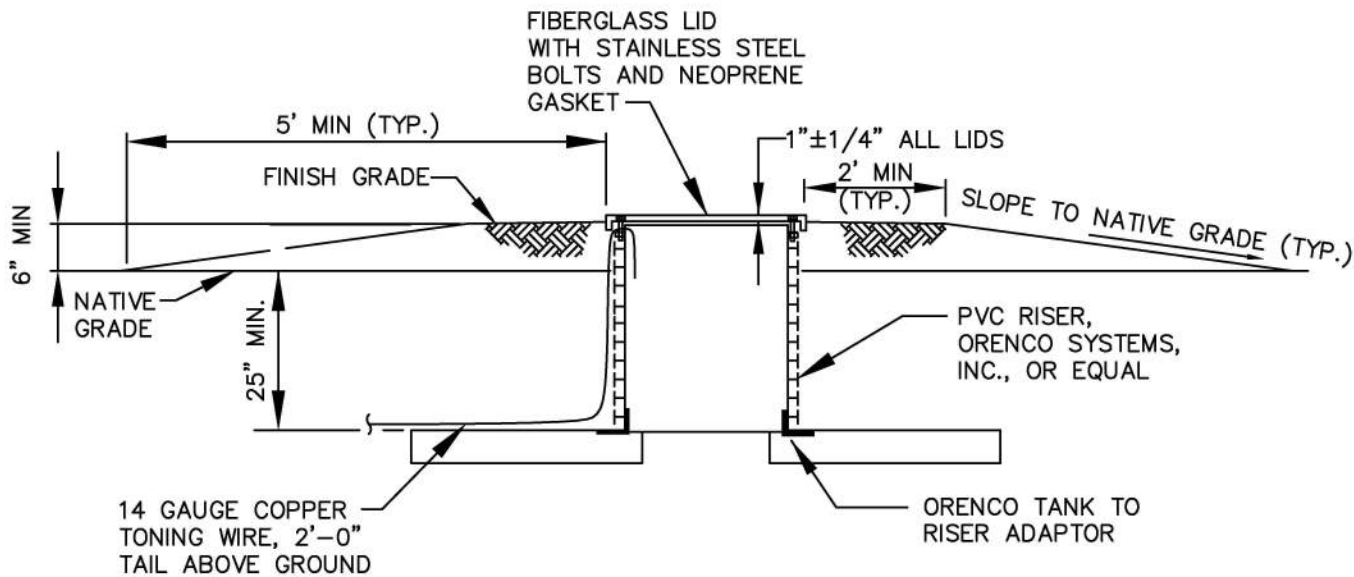


| | 1500 GAL | 3000 GAL | 4500 GAL |
|---------|----------|----------|----------|
| D-1 (2) | 60" | 72" | 72" |
| D-2 (2) | 43" | 55" | 55" |
| D-3 (2) | 50" | 62" | 62" |
| V-1 | 400 GAL | 600 GAL | |
| V-2 | 1100 GAL | 2400 GAL | |

NOTES:

1. DELETE BAFFLE FOR A 3000 GALLON TANK UTILIZED AS A TRIPLEX PUMP VAULT.
2. THE OWNER WILL REVIEW TOLERANCES IN EXCESS OF DIMENSIONS SHOWN.
3. THE TRIPLEX PUMP VAULT REQUIRES TWO VAULTS AND TWO COMPLETE RISERS. ONE VAULT CONTAINS FLOATS AND ONE PUMP. THE SECOND VAULT CONTAINS TWO PUMPS.
4. 4500 GALLON TANKS OR LARGER SHALL HAVE THREE RISERS AND LIDS.

| | | |
|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--|
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| | 1500, 3000, 4500 GALLON STEP TANK/PUMP | |
| LAST REVISION: 04/01/26 | SEWER STANDARD DETAIL SS4-10.3 | |
| SHEET 1 of 1 | N.T.S. | |



(FOR USE WITH NON-TRAFFIC BEARING TANKS)

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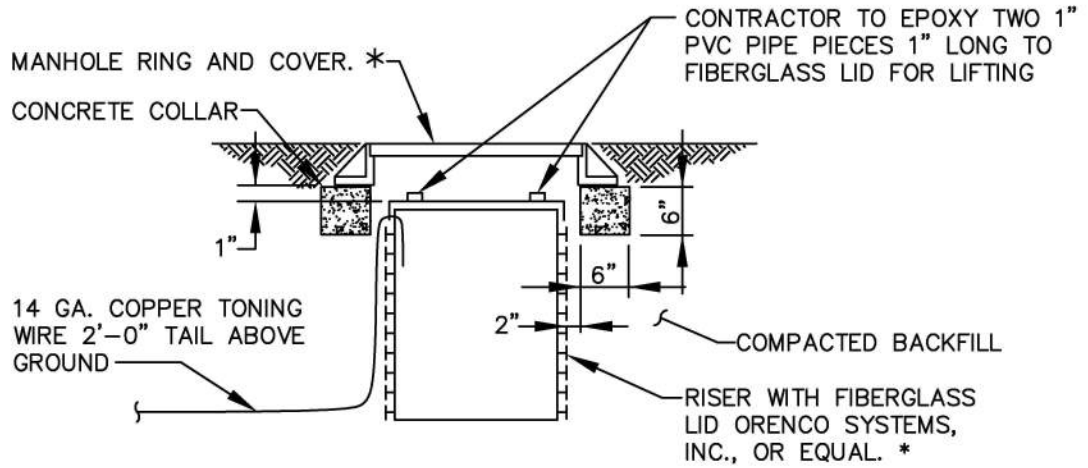


TYPICAL STEP
TANK RISER

LAST REVISION: 04/01/26

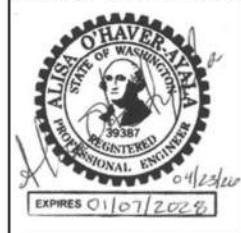
SHEET 1 of 1 N.T.S.

SEWER
STANDARD DETAIL
SS4-11.1



- * 24" PVC RISER REQUIRES 30" RING & TRAFFIC RATED COVER
- 30" PVC RISER REQUIRES 36" RING & TRAFFIC RATED COVER

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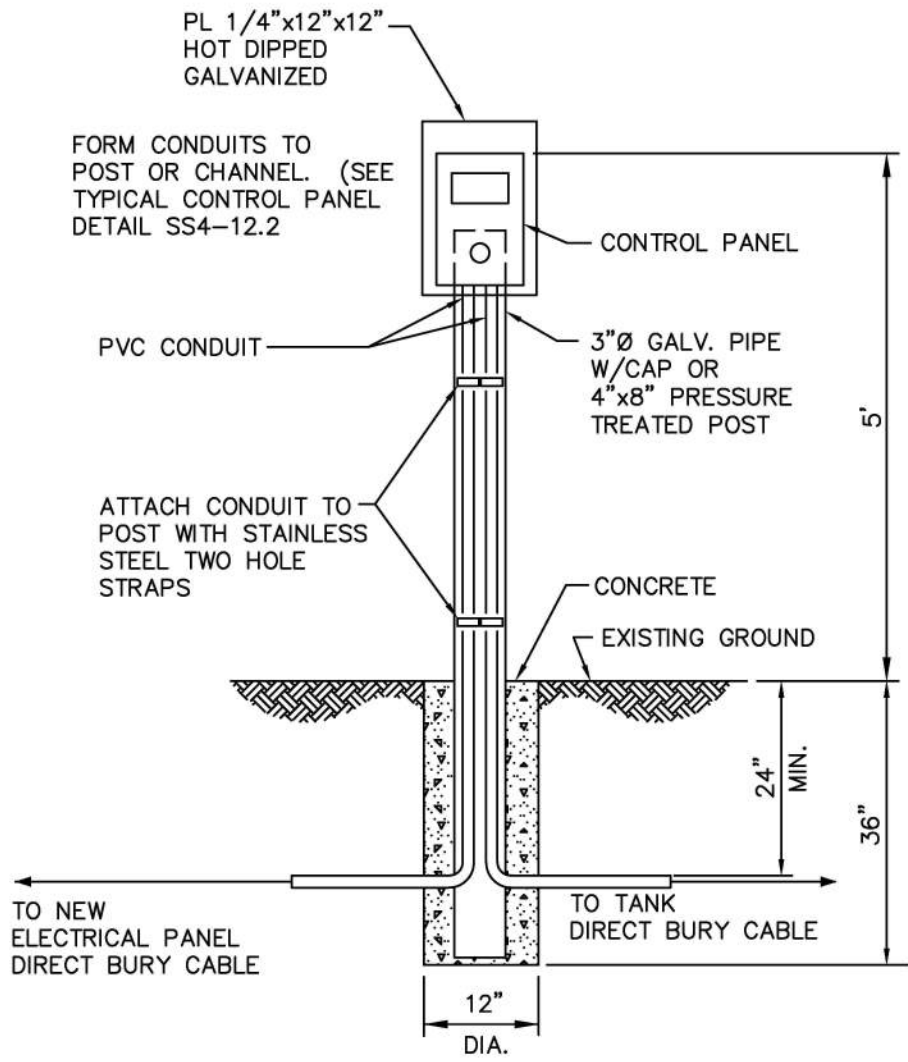


TYPICAL TRAFFIC BEARING
STEP TANK LID

LAST REVISION: 04/01/26

SHEET 1 of 1 N.T.S.

SEWER
STANDARD DETAIL
SS4-11.2



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ALISA O'HAVER-ALAN
STATE OF WASHINGTON
39387
REGISTERED
PROFESSIONAL ENGINEER

EXPIRES 01/07/2028

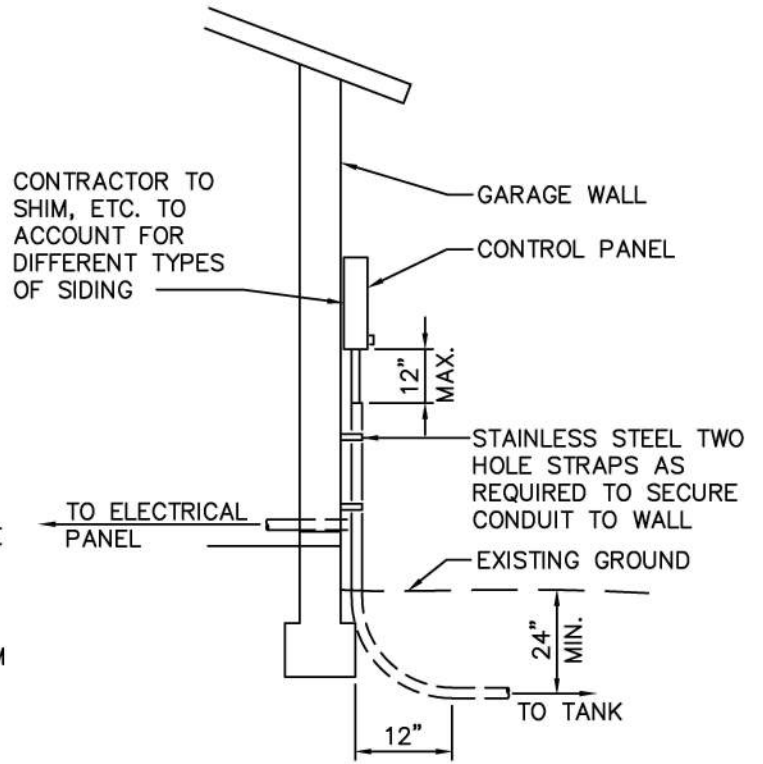
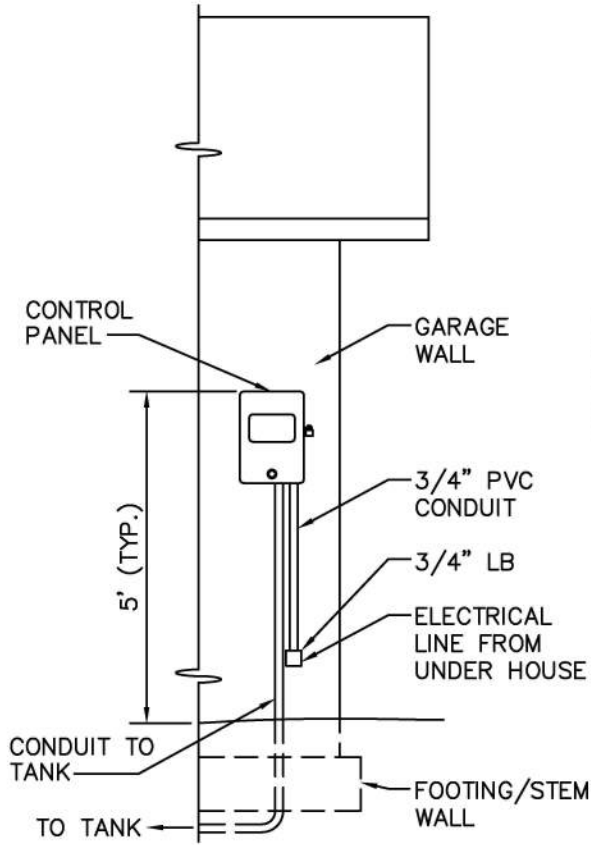


REMOTE POST – RESIDENTIAL
CONTROL PANEL

LAST REVISION: 04/01/26

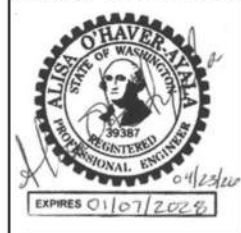
SHEET 1 of 1 N.T.S.

SEWER
STANDARD DETAIL
SS4-12.1



*LOCATION OTHER THAN GARAGE WALL OR REMOTE POST WILL BE CONSIDERED ON A CASE BY CASE BASIS.

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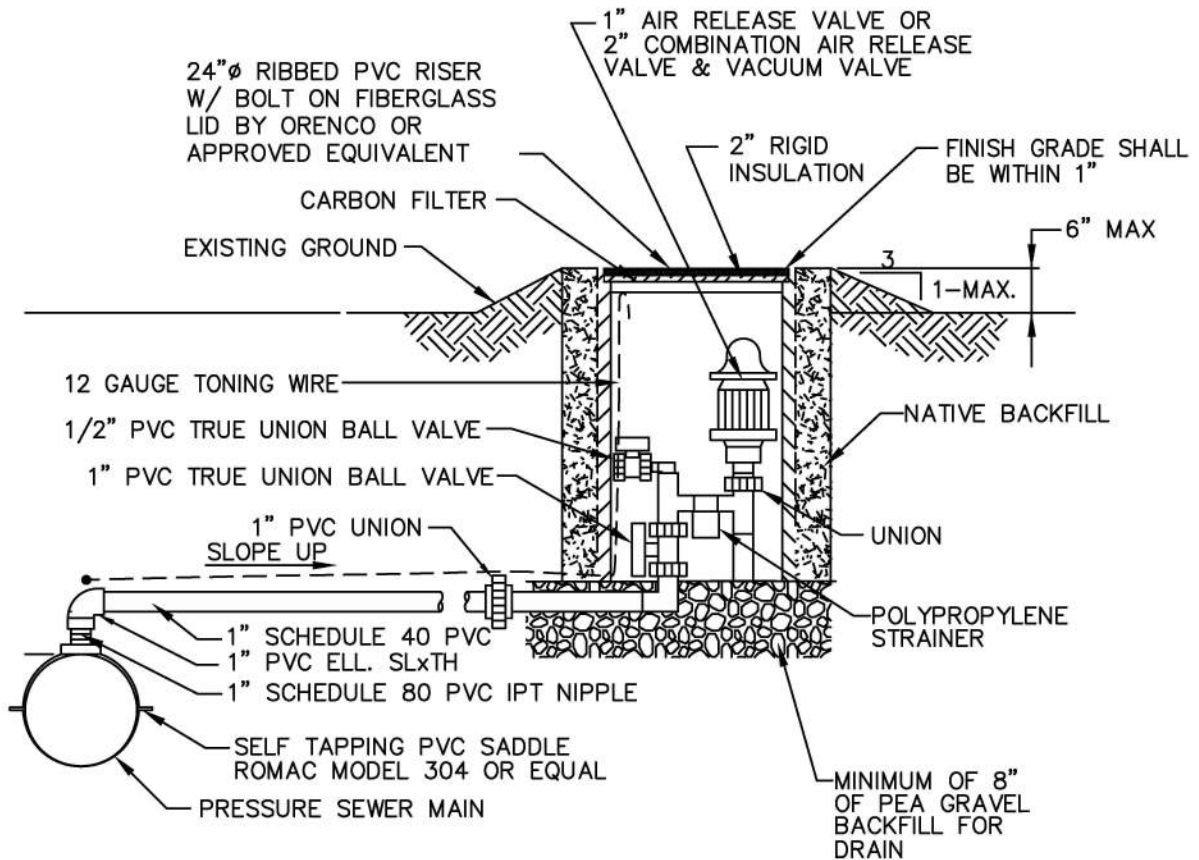


TYPICAL CONTROL PANEL

LAST REVISION: 04/01/26

SEWER STANDARD DETAIL SS4-12.2

SHEET 1 of 1 N.T.S.



NOTE:

PLACE IN A NON-TRAFFIC AREA,
UNION JOINTS SHALL BE SOLVENT
WELDED. CITY TO FIELD LOCATE.

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**TYPICAL STEP SEWER
AIR RELEASE VALVE**

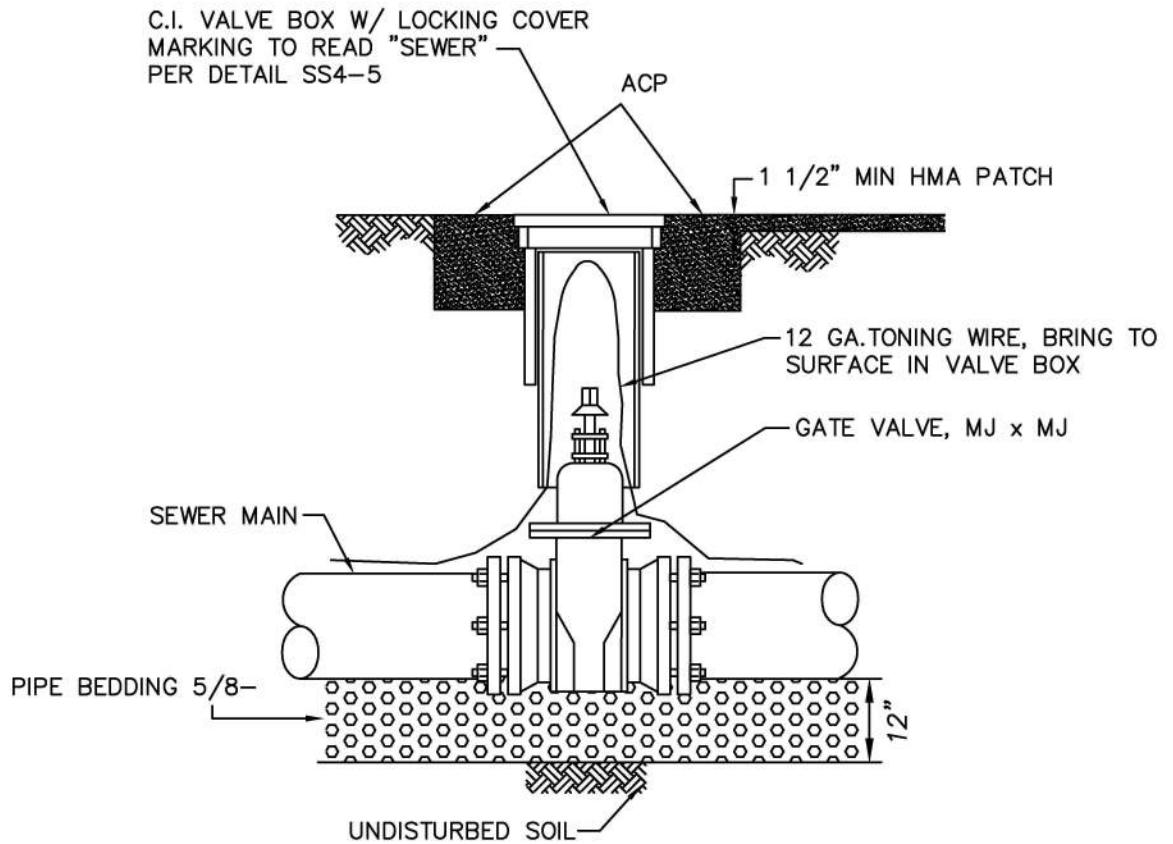
LAST REVISION: 04/01/26

SEWER
STANDARD DETAIL

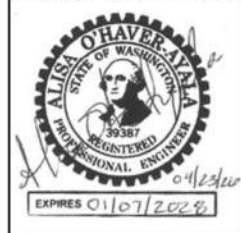
SHEET 1 of 1

N.T.S.

SS4-13



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TYPICAL FORCE MAIN
LINE GATE VALVE

LAST REVISION: 04/01/26

SHEET 1 of 1 N.T.S.

SEWER
STANDARD DETAIL
SS4-14



MAINLINE CLEAN OUT

30"Ø RIBBED PVC RISER WITH FIBERGLASS BOLT ON INSULATED LID

SCH 80 PVC & GLUED JOINTS (TYP)

REDUCER (GASKET x GASKET)

GATE VALVE (FLxFL) DIAMETER SHALL MATCH PIPE SIZE

C.I. GATE VALVE (MJxMJ) DIAMETER SHALL MATCH UPSTREAM PIPE SIZE



MAINLINE PIPE IPS PVC W/ GASKET TYPE JOINTS

PVC TEE (GASKETxGASKETxSL)

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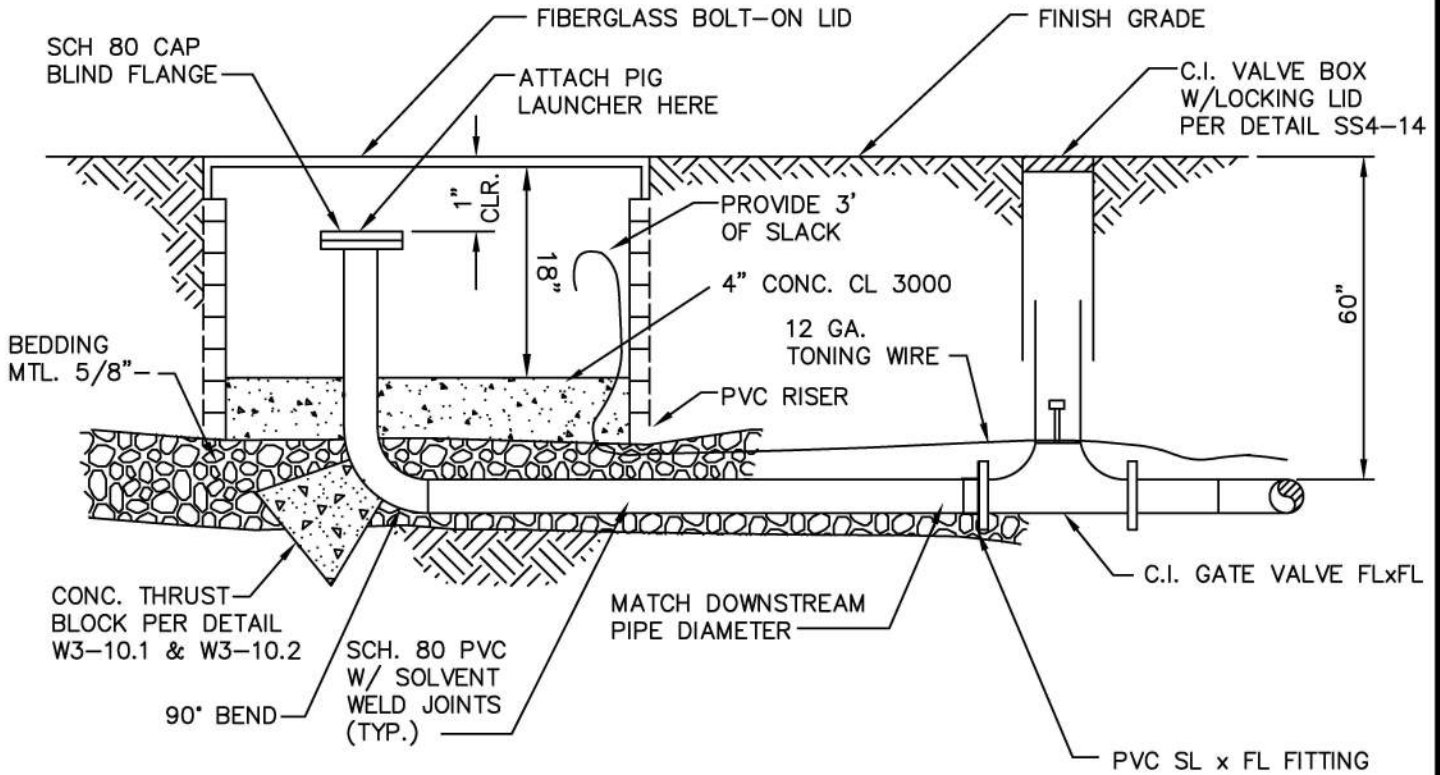


PRESSURE SEWER MAIN (6" DIA. AND ABOVE)

LAST REVISION: 04/01/26



SEWER STANDARD DETAIL SS4-15.1

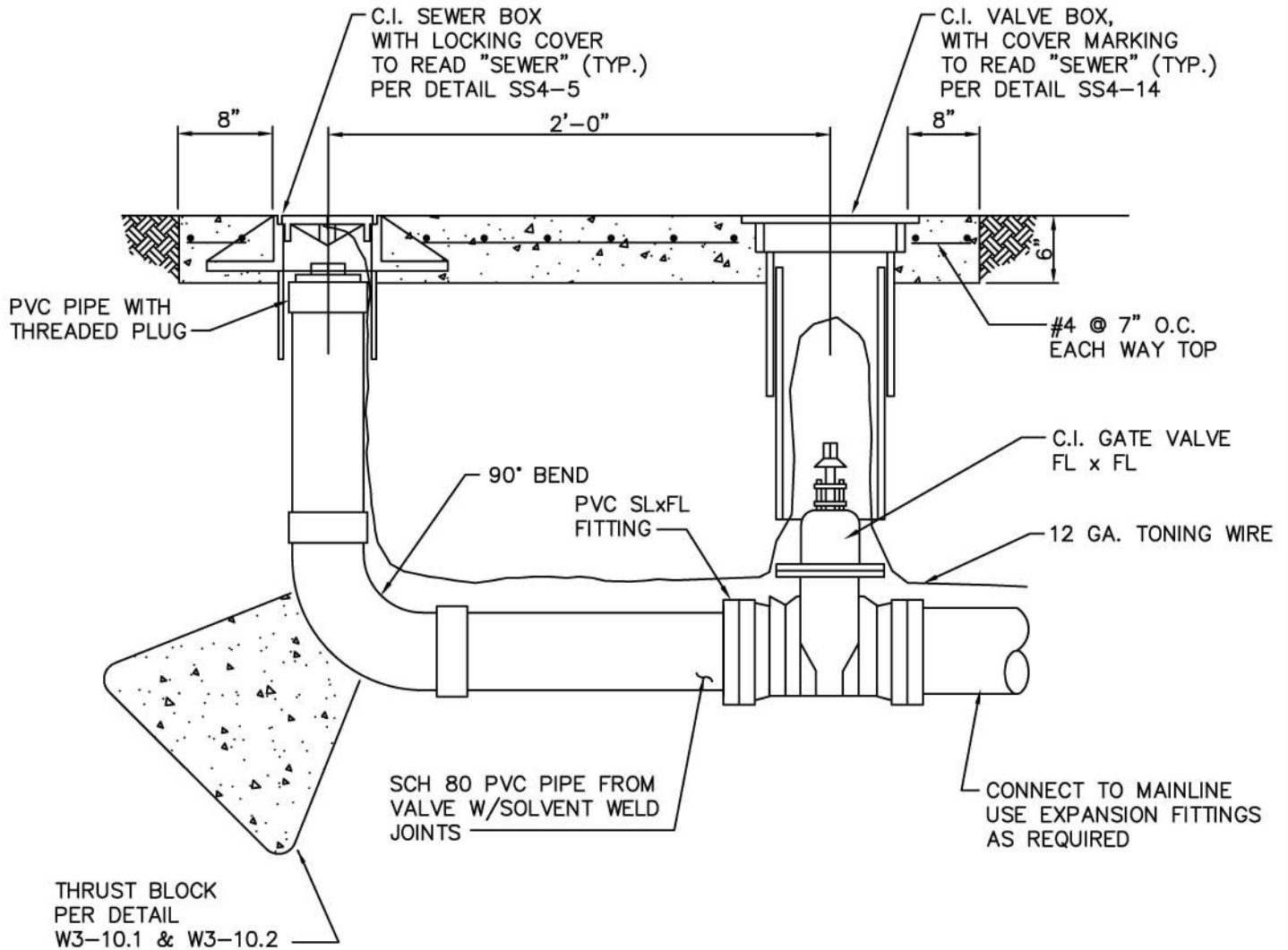
SHEET 1 of 1 N.T.S.



ELEVATION



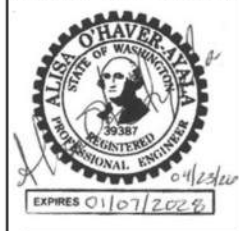
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| | PRESSURE SEWER PIG PORT | |
| LAST REVISION: 04/01/26 | SEWER STANDARD DETAIL SS4-15.2 | |
| SHEET 1 of 1 | N.T.S. | |



NOTE:

THE VALVE MAY BE BELL x BELL AT THE CONTRACTORS OPTION

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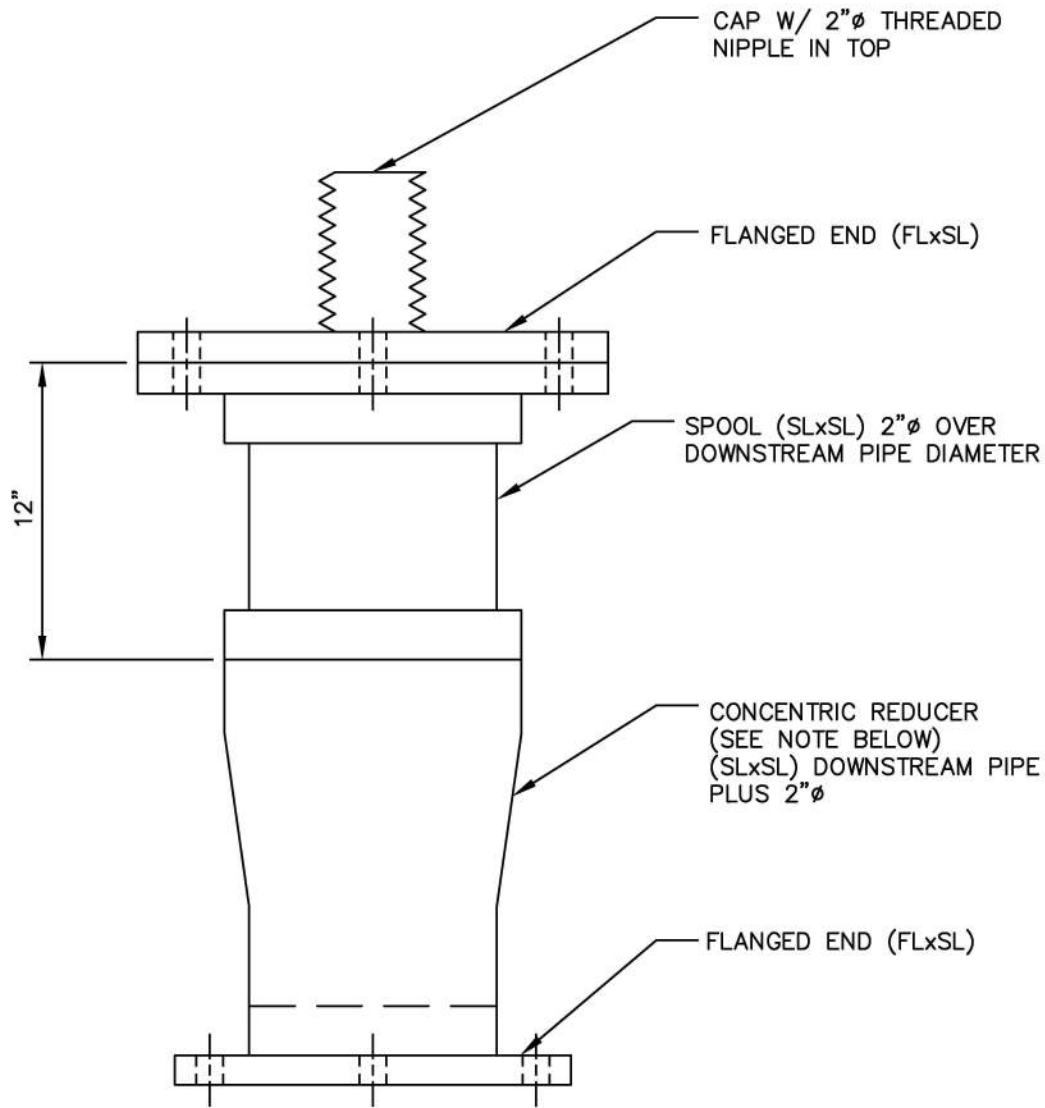


**PRESSURE SEWER CO/
2"-4" PIG LAUNCHER**

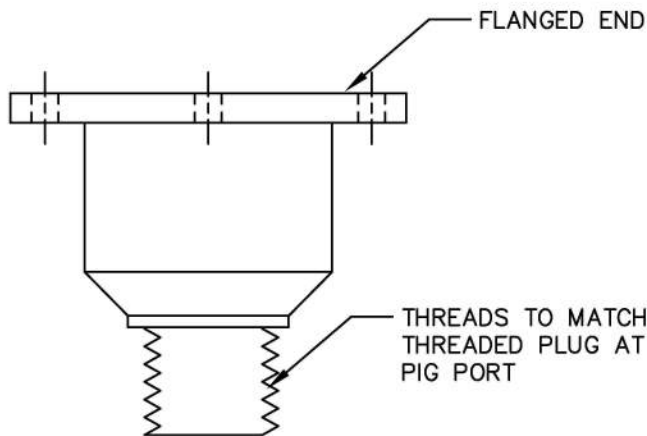
LAST REVISION: 04/01/26

SHEET 1 of 1 N.T.S.

SEWER
STANDARD DETAIL
SS4-15.3



DETAIL: 6" AND LARGER





DETAIL: 2" - 4"

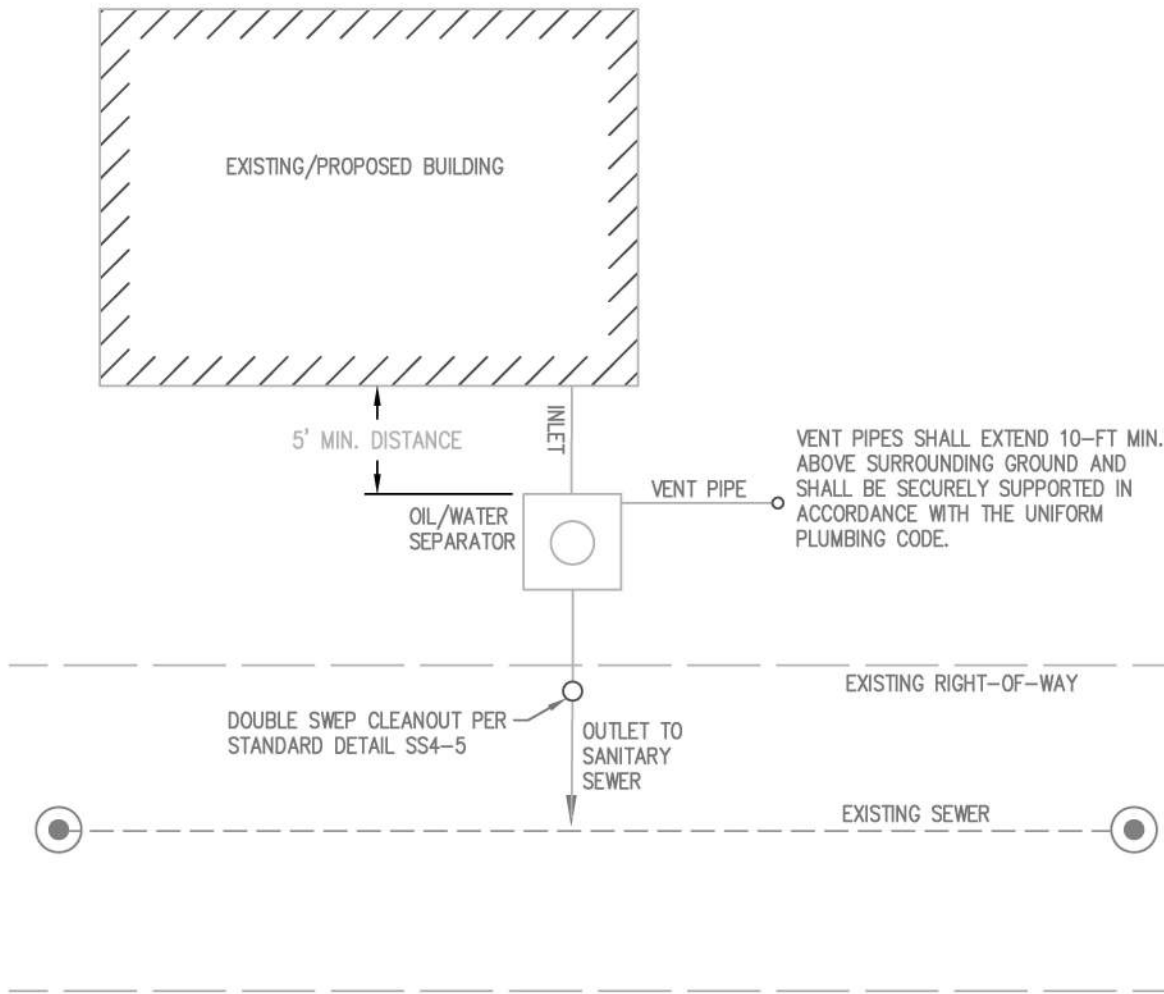
NOTE:

CONTRACTOR TO PROVIDE THIS FITTING IN ADDITION TO THE 6" AND LARGER WHEN PIG PORTS ARE 2"-4".

NOTE:

CONTRACTOR SHALL PROVIDE 1 LAUNCHER FOR EACH PIG PORT INSTALLED. USE SCH 80 PVC AND SOLVENT WELD ALL FITTINGS.

| | | |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------|
| APPROVED BY CITY ENGINEER |  | |
|  | <p align="center">PRESSURE SEWER PIG LAUNCHER</p> | |
| | <p>LAST REVISION: 04/01/26</p> | <p>SEWER STANDARD DETAIL</p> |
| <p>EXPIRES 01/07/2028</p> | <p>SHEET 1 of 1 N.T.S.</p> | <p>SS4-15.4</p> |

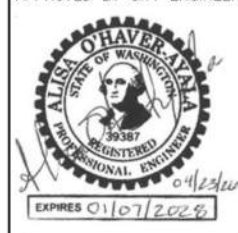


VENT PIPES SHALL EXTEND 10-FT MIN. ABOVE SURROUNDING GROUND AND SHALL BE SECURELY SUPPORTED IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE.

GENERAL NOTES

1. SEPARATOR CAPACITY AND GEOMETRY SHALL BE SIZED BY THE ENGINEER/MANUFACTURER BASED ON THE OWNER'S MEASURED OR ESTIMATED PEAK FLOW ($Q_{PEAK} = \text{___ GPM}$) AND INFLUENT CHARACTERISTICS. PROVIDE MANUFACTURER'S SIZING CALCULATIONS AND CERTIFIED PERFORMANCE DATA AT SUBMITTAL.
2. FILL WITH CLEAN WATER PRIOR TO START-UP OF SYSTEM.
3. GRAY AND BLACK WATER SHALL BE CARRIED BY SEPARATE SIDE SEWER.
4. VAULT SHALL BE CAST IN PLACE CONCRETE WITH INTERNAL COATING COMPATIBLE WITH HYDROCARBONS, OR MANUFACTURER'S PREFABRICATED FRP/HDPE/STEEL TANK/MODULES. ALL PREFABRICATED UNITS MUST INCLUDE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND LIFTING POINTS.
5. COALESCING PLATES/BAFFLES: IF COALESCING PLATES ARE USED, PLATES SHALL BE REMOVABLE FOR CLEANING AND CONSTRUCTED OF CHEMICALLY RESISTANT MATERIAL PER MANUFACTURER. PLATE TILT AND SPACING PER MANUFACTURER'S RECOMMENDATIONS.
6. PIPE, FITTINGS, AND VALVES: PVC/HDPE/DUCTILE IRON/STEEL (SPECIFY) AS SHOWN; GASKETS AND SEALS COMPATIBLE WITH HYDROCARBONS. ALL BURIED PIPING SHALL HAVE TRACER WIRE PER LOCAL UTILITY REQUIREMENTS.
7. MANWAYS & COVERS: PROVIDE GAS/WATERTIGHT COVERS WITH GASKETS. COVERS LOCATED AT GRADE SHALL BE H-20 TRAFFIC RATED WHERE SURFACING WILL BE VEHICULAR. INTERIOR ACCESS COVERS MAY BE LIGHTER DUTY AS SITE DICTATES AT DISCRETION OF CITY ENGINEER OR DESIGNEE. PROVIDE PERMANENT LIFTING MEANS.
8. OIL/WATER SEPARATOR SHALL BE ACCESSIBLE BY VEHICLE FOR SERVICE & REPAIR. SURROUNDING SURFACING MAP MAY BE REQUIRED TO BE IMPERVIOUS SURFACE BY CITY ENGINEER OR DESIGNEE.

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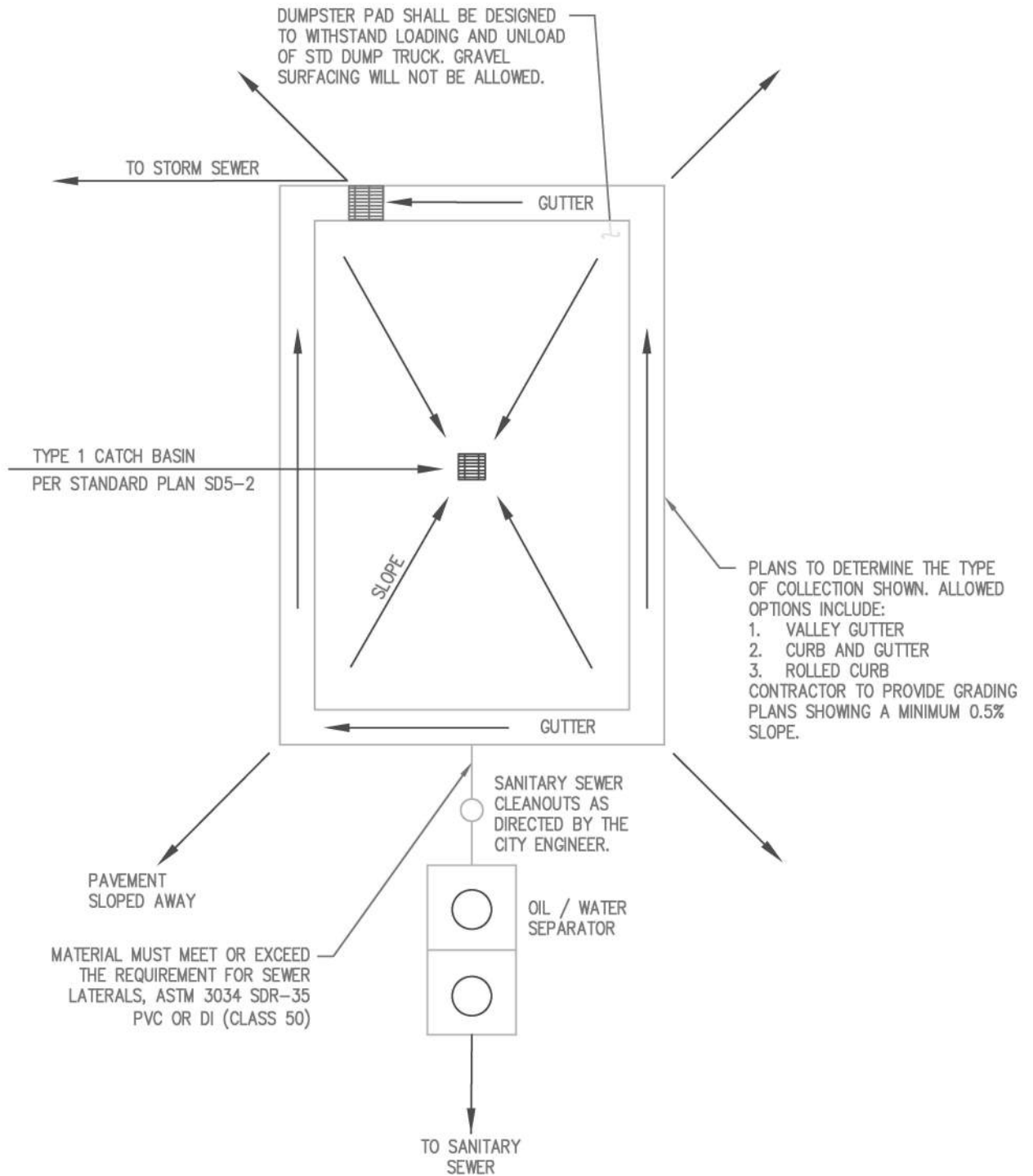


OIL WATER SEPARATOR

LAST REVISION: 04/01/26

**SEWER
STANDARD DETAIL
SS4-16**

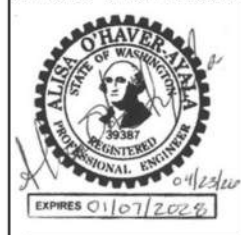
SHEET 1 of 1 N.T.S.



GENERAL NOTES

1. UNCOVERED AREA GRADED TO DRAIN TO SANITARY SEWER SHALL NOT EXCEED 100 SQ. FT. AREAS OVER 100 SQ. FT. SHALL REQUIRE A ROOF WITH THE ROOF DRAINING TO THE STORM SYSTEM.
2. OIL WATER SEPARATOR SHALL MEET REQUIREMENTS OF STANDARD DETAIL SS4-16
3. ALL COMPACTORS SHALL HAVE PERMANENT COVER.

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TRASH ENCLOSURE

LAST REVISION: 04/01/26

SHEET 1 of 1 N.T.S.

**SEWER
STANDARD DETAIL
SS4-17**