

CONSTRUCTION NOTES & STANDARDS FOR SANITARY SEWER INSTALLATION

1. A.) SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 ASTM D-3034 WITH RING-TITE FACTORY INSTALLED RUBBER SEALING RING(ASTM D-3212) TO DEPTH OF 17 FT.

B.) FOR DEPTHS OF 17 FT. TO 28 FT. SDR 26 ASTM D3034 SHALL BE USED.

C.) THE SANITARY PIPE FOR DEPTHS GREATER THAN 28 FT. SHALL BE APPROVED BY THE CITY ENGINEER.

2. MANHOLE TO MANHOLE DISTANCE SHALL NOT EXCEED 400 FEET.

3. WELL POINTS SHALL BE INSTALLED AT THE DOWN STREAM MANHOLE OF ALL SANITARY MAIN SYSTEMS FOR THE PURPOSE OF MEASURING GROUND WATER, SO AS TO CALCULATE REQUIRED AIR PRESSURE. WELL POINTS MUST BE FILLED IN WITH #57 LIMESTONE OR LSM PRIOR TO COMPLETION /ACCEPTANCE OF PROJECT. SEE SHEET SAN-2 SANITARY LINE AIR TESTING.

4. SANITARY MANHOLES SHALL MEET ASTM C-478 FOR MATERIAL AND ASTM C-443 FOR JOINTS.

5. FLEXIBLE GASKETS ON ALL SEWER LINE CONNECTIONS AND ALL PRECAST MAHOLE COLLARS SHALL BE ASTM C-923

6. ALL SANITARY MAINLINE RUNS SHALL END WITH A MANHOLE. A MANHOLE SHALL ALSO BE INSTALLED AT ALL PIPE SIZE CHANGES AND DIRECTION CHANGES.

7. ALL MANHOLE CASTINGS ARE TO BE E.J.I.W. 1040 SERIES HEAVY DUTY CASTING. SANITARY MANHOLE LIDS SHALL BE TYPE "A" GASKET SEAL, "WATERTITE" TYPE WITH 'O' RING GASKETTING(ASTM C-443)EXCEPTING THAT HEAVY DUTY BOLT DOWN CASTING AND COVER (E.J.I.W. 1040-WT) SHALL BE USED WHENEVER A SANITARY MANHOLE IS IN AN OFF-SITE EASEMENT, NEAR A WATERWAY OR WITHIN ROADWAY AREAS. THE MANHOLE SHALL CLEARLY BE LABELED "SANITARY" ON THE LID.

8. ALL ADJUSTMENTS TO CASTINGS SHALL BE MADE WITH PRECAST CONCRETE GRADE RINGS.

9. FLOW LINES SHALL BE FORMED SO AS TO MATCH ALL PIPE PENETRATION INVERTS.
10. SANITARY SEWER MAINS AT MANHOLES PROPOSED WITHIN 2 FEET OF EXISTING INVERT ELEVATION SHALL BE REQUIRED TO MATCH THE EXISTING INVERT.

11. SANITARY SEWERS IN EXCESS OF 4 FEET SHALL REQUIRE A PRECAST EXTERIOR DROP MANHOLE. (REFERENCE S-13)

12. SANITARY SEWER MANHOLE CONNECTIONS SHALL BE THE A LOK OR Z LOK TYPE.

13. FOR DROP MANHOLE INSTALLATIONS, SEE SHEET SAN-8 AND SAN-9 FOR DETAILS.

14. A MONITORING MANHOLE SHALL BE REQUIRED FOR ALL COMMERCIAL AND INDUSTRIAL APPLICATIONS DURING DEVELOPMENT. THE MONITORING MANHOLE SHALL BE PLACED AS CLOSE TO THE ESTABLISHED RIGHT OF WAY AS POSSIBLE.

15. SANITARY LINE EASEMENTS SHALL BE PROVIDED WITH CITY ACCESS FOR THE PURPOSE OF MAINTENANCE OF UTILITIES. ACCESS DRIVE SHALL BE PER THE DETAIL ON G-8. SAID EASEMENTS SHALL BE DESIGNATED AS BLOCKS.

16. IN NO CASE SHALL SANITARY OR LATERALS BE DIRECTLY CONNECTED INTO A MANHOLE.

17. ALL LATERALS SHALL HAVE A DEPTH OF (9) NINE FEET AT ITS RIGHT-OF-WAY TERMINUS POINT OR DEEP ENOUGH TO SERVICE THE LOWEST POINT OF THE BUILDING OR A DEPTH IN RELATION TO THE DEPTH OF SANITARY SYSTEM.

18. CLAY DAM IS TO BE PROVIDED 6 FT. FROM THE LATERAL TERMINUS PER G-10.

19. CROSSING AS HEREIN DEFINED SHALL BE EITHER PERPENDICULAR TO ANY PART OF A SKEW OR ANGLE AT THE CROSSING.

20. WHERE MINIMUM CLEARANCES ARE NOT MAINTAINED PER DRAWING G-7 DIP CLASS 52 SHALL BE USED.

21. WHERE THE SANITARY LATERAL IS LESS THAN 3 FT. IN DEPTH D.I.P. CLASS 52 SHALL BE USED.
22. TRANSITIONAL ADAPTERS ARE TO BE USED FROM PVC TO D.I.P. PREFERRED SINGLE UNIT ADAPTER IS SPECIFIED FITTINGS 791056-CDD 6" OR EQUAL. FERNCO FITTINGS WILL NOT BE PERMITTED IN PLACE OF ADAPTERS.

23. PVC SANITARY SEWER REPAIRS SHALL BE MADE USING SOLID SLEEVE COUPLINGS ONLY. FERNCO FITTINGS SHALL NOT BE PERMITTED FOR SANITARY REPAIRS.

24. SHOULD EXCAVATION ENCOUNTER EXISTING DRAINLINES, REPAIR SHALL BE MADE VIA A MINIMUM (6") SIX INCH TEE OR KOR-N-TEE INTO THE STORM SYSTEM. (6") SIX INCH PVC SDR 35 PIPE TO THE RIGHT-OF-WAY LINE, USING A REDUCER AND/OR VARIOUS BENDS TO MAKE THE CONNECTION. FERNCOS MAY BE USED IN THIS APPLICATION. SEE SHEET STM-8 FOR INSTALLATION DETAIL.

25. WHEN A WATER SERVICE AND/OR GAS SERVICE IS DISTURBED OR DISCONNECTED DURING TRENCH OR SHEETING EXCAVATION, SUCH SERVICES SHALL BE PLANKED USING 2"x8" HARDWOOD MINIMUM, 18" INTO VIRGIN SOIL, EACH END.

26. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
CONSTRUCTION NOTES FOR SANITARY SEWER INSTALLATION	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING SAN-1	61-24	5/29/24

1. SANITARY LINE AIR TESTING

- A) LOW PRESSURE AIR SHALL BE INTRODUCED INTO THE SEALED LINE UNTIL THE INTERNAL PRESSURE REACHES 4.0 PSIG GREATER THAN THE AVERAGE BACK PRESSURE OF ANY GROUND WATER PRESSURE THAT MAY BE OVER THE PIPE. AT LEAST TWO (2) MINUTES SHALL BE ALLOWED FOR THE AIR PRESSURE TO STABILIZE. AFTER THE STABILIZATION PERIOD, THE HOSE FOR INTRODUCING LOW PRESSURE AIR INTO THE SEALED LINE SHALL BE DISCONNECTED FROM THE AIR SOURCE IN SUCH A MANNER AS TO RETAIN THE PRESSURE IN THE SEALED LINE.
- B) NO AIR PRESSURE LOSS SHALL BE ACCEPTED.

PIPE DIAMETER (INCHES)	MINUTES
6	4.0
8	4.0
10	5.0
12	5.5
15	7.5
18	8.5
21	10.0
24	12.5
27	15.0
30	18.0
33	21.0

- C) WHERE HIGH GROUND WATER IS KNOWN TO EXIST, THE HEIGHT IN FEET, OF GROUND WATER 2FT. ABOVE THE INVERT OF THE SEWER SHALL BE DIVIDED BY 2.31 TO ESTABLISH THE POUNDS OF PRESSURE THAT WILL BE ADDED TO THE INTERNAL AIR PRESSURE USED FOR THE LINE ACCEPTANCE TEST. MAXIMUM AIR PRESSURE IS NOT TO EXCEED 8 PSIG. DOWN STREAM MANHOLE WELL POINTS SHALL NOT BE PUMPED DOWN FOR THE PURPOSES OF THIS TESTING PROCEDURE.
- D) IF THE INSTALLATION FAILS TO MEET THE REQUIREMENTS OF THIS TEST, THE CONTRACTOR SHALL DETERMINE AT HIS OWN EXPENSE THE SOURCE OF THE LEAKAGE. HE SHALL REPAIR OR REPLACE ALL DEFECTIVE MATERIALS AND/OR WORKMANSHIP AND THEN RE-TEST THE INSTALLATION FOR COMPLIANCE WITH THESE SPECIFICATIONS FOR THE LINE ACCEPTANCE TEST.
- E) AT THE DISCRETION OF THE CITY ENGINEER, SANITARY SEWERS SHALL BE TESTED FOR INFILTRATION AND/OR EXFILTRATION NOT TO EXCEED 100 GAL. OF WATER PER INCH OF PIPE DIAMETER PER MILE PER DAY.

2. VACUUM TESTING FOR MANHOLES

- A) VACUUM TESTING SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
- B) THIS TEST METHOD IS ONLY APPLICABLE TO PRECAST CONCRETE MANHOLES AND ITEM "M" AS NOTED BELOW.
- C) ALL LIFTING HOLES AND EXTERIOR JOINTS SHALL BE FILLED AND POINTED WITH AN APPROVED NON-SHRINKING MORTAR GROUT.
- D) ALL PIPES, MANHOLE BOOTS, STUBOUTS, AND OTHER OPENINGS INTO THE MANHOLE SHALL BE SUITABLY PLUGGED IN SUCH A MANNER AS TO PREVENT DISPLACEMENT OF THE PLUGS WHILE THE VACUUM IS DRAWN.
- E) INSTALLATION AND OPERATION OF VACUUM EQUIPMENT AND INDICATING DEVICES SHALL BE IN ACCORDANCE WITH EQUIPMENT SPECIFICATIONS AND INSTRUCTIONS PROVIDED BY THE MANUFACTURER.
- F) THE TEST HEAD SHALL BE PLACED AT THE INSIDE OF THE TOP OF THE MANHOLE CASTING AND THE SEAL INFLATED IN ACCORDANCE WITH THE MANUFACTURER’S RECOMMENDATION.
- G) A MEASURED VACUUM OF 10 INCHES OF MERCURY SHALL BE DRAWN TO THE MANHOLE. THE TIME FOR THE VACUUM TO DROP TO 9 INCHES OF MERCURY SHALL BE RECORDED.
- H) ACCEPTANCE FOR 4 FT. DIAMETER MANHOLES SHALL BE DEFINED AS WHEN THE ELAPSED TIME FOR A NEGATIVE PRESSURE CHANGE FROM 10 IN. TO 9 IN. OF MERCURY MEETS OR EXCEEDS THE FOLLOWING:

MANHOLE DEPTH	DIAMETER	TIME TO DROP 1” Hg
10 FT. OR LESS	4 FT.	60 SECONDS
10 FT. TO 15 FT.	4 FT.	75 SECONDS
15 FT. TO 25 FT.	4 FT.	90 SECONDS

- I) FOR MANHOLES 5 FT. IN DIAMETER, ADD AN ADDITIONAL 15 SECONDS AND FOR MANHOLES 6 FT. IN DIAMETER 30 SECONDS TO THE TIME REQUIREMENTS FOR FOUR FOOT DIAMETER MANHOLES. PRECAST GREASE TRAP TIMING SHALL BE DEPENDENT UPON SIZES OF THE UNIT.
- J) IF THE MANHOLE FAILS THE TEST, NECESSARY REPAIRS SHALL BE MADE BY THE CONTRACTOR AND THE VACUUM TEST REPEATED UNTIL THE MANHOLE PASSES THE TEST. REPAIRS ARE TO BE MADE WITH NON-SHRINK GROUT ONLY.
- K) IF THE MANHOLE JOINT MASTIC IS DISPLACED DURING THE VACUUM TEST, THE MANHOLE SHALL BE DISASSEMBLED, THE SEAL REPLACED, AND THE MANHOLE RETESTED.
- L) VACUUM TESTING WILL BE REQUIRED IN ALL EXISTING TIE-IN MANHOLES, UNLESS OTHERWISE ADVISED BY THE CITY UTILITY DEPARTMENT.
- M) VACUUM TESTING METHOD SHALL ALSO BE USED IN THE CASE OF EXTERIOR PRECAST GREASE TRAP/INTERCEPTOR INSTALLATIONS (REF. SAN-14)

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
SANITARY SEWER ACCEPTANCE TESTING	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING SAN-2	61-24	5/29/24
		SHEET 1 OF 2

3. DEFLECTION TEST

ALL PLASTIC PIPE SHALL BE TESTED FOR PROPER INSTALLATION BY MEANS OF DEFLECTION ATTAINMENT. IN ADDITION TO MATERIAL TESTS, CONSTRUCTION COMPACTION AND LEAKAGE TESTS REQUIRED ELSEWHERE IN THESE REGULATIONS, THE CONTRACTOR IS REQUIRED TO INSTALL THE PIPE IN SUCH A MANNER THAT THE DIAMETRIC DEFLECTION SHALL NOT EXCEED FIVE PERCENT (5%). TO ATTAIN THIS REQUIREMENT, THE BACKFILL MATERIALS SURROUNDING THE PIPE SHALL BE COMPACTED TO THE REQUIRED STANDARD DENSITIES CALLED OUT IN ASTM D 2321. THE SECTORS REQUIRING COMPACTION SHALL INCLUDE THE BED AND SIDE FILL MATERIAL, AS WELL AS THE MATERIAL PLACED ABOVE THE PIPE FOR A DISTANCE OF EIGHTEEN (18) INCHES.

DEFLECTION TESTS SHALL BE PERFORMED NO SOONER THAN 30 DAYS FOLLOWING COMPLETION OF BACKFILL, AND AGAIN ONE YEAR AFTER ACCEPTANCE. DEFLECTION TESTS SHALL BE PERFORMED BY AN ACCREDITED, INDEPENDENT TESTING LABORATORY THAT SHALL SUBMIT VERIFICATION RECORDS OF RESULTS AND DATES TESTED. MAXIMUM RING DEFLECTION OF THE PIPE UNDER LOAD SHALL BE LIMITED TO 5% OF THE INSIDE DIAMETER.

DEFLECTION LIMITS TABLE
ASTM D3034

NOM. PIPE DIA. (IN.)	MANDRELL SIZE	
	SDR 35	SDR 26
6	5.45	5.33
8	7.28	7.12
10	9.08	8.87
12	10.79	10.54
15	13.20	12.90
18	16.13	15.76
21	19.01	18.57
24	21.36	20.87

ALL PIPE FAILING TO MAINTAIN THE MINIMUM DEFLECTION DIAMETER OR LARGER LISTED FOR THE APPLICABLE TYPE OF PIPE SHALL BE CONSIDERED TO HAVE BEEN IMPROPERLY INSTALLED AND SHALL BE RE-LAID OF REPLACED BY THE CONTRACTOR.

DEFLECTION TESTING SHALL BE ACCOMPLISHED BY USING AN ELECTRONIC DEFLECTOMETER WHICH PRODUCES A CONTINUOUS RECORD OF DIAMETER READINGS OR BY PULLING A SLED TYPE – FULL CIRCLE GAGE THROUGH THE PIPE. SLED TYPE – FULL CIRCLE GAGES SHALL BE A MANDREL TYPE. THE DIAMETER OR MINIMUM DIMENSION OF THE SLED TYPE – FULL CIRCLE GAGE SHALL BE AS LISTED IN THE DEFLECTION LIMITS TABLE FOR THE TYPE AND NOMINAL DIAMETER OF THE PIPE BEING TESTED.

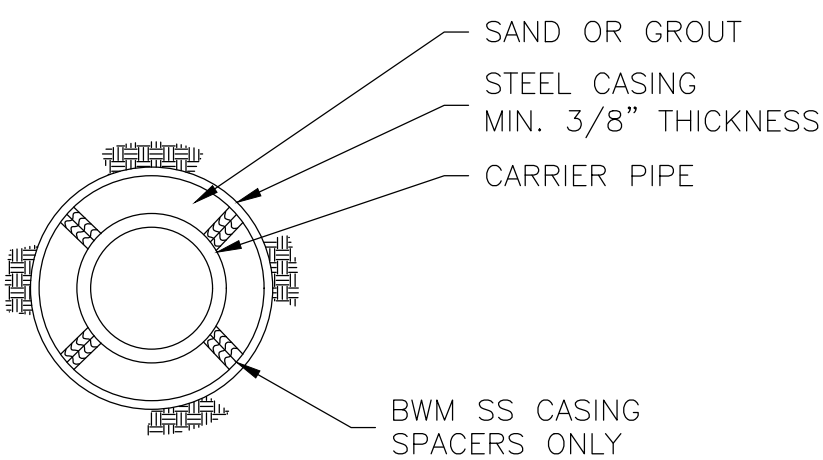
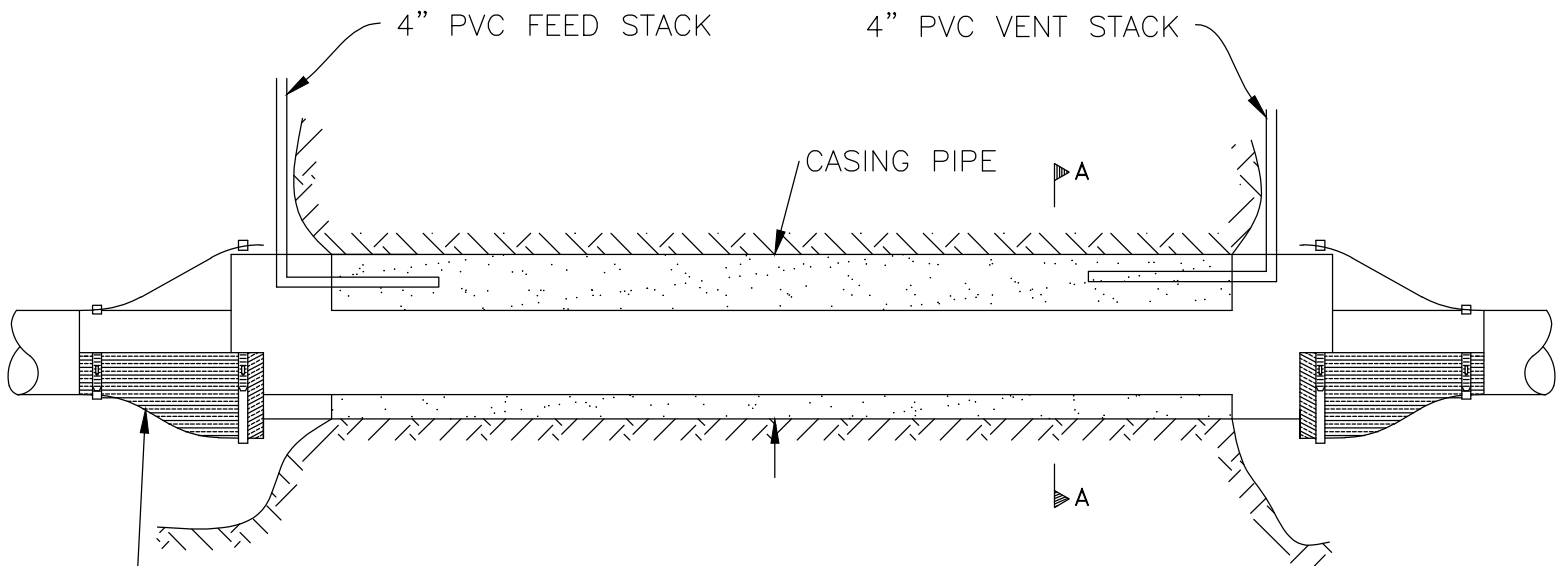
4. SEWER PHOTOGRAPHY (CCTC)

ALL SEWERS SHALL BE PRESSURE JET AND VACUUMED BY THE CONTRACTOR BEFORE VIDEO PHOTOGRAPHY. ALL SEWER INTERIORS SHALL BE VIDEO RECORDED BY AN APPROVED TESTING COMPANY AT THE DIRECTION OF THE UTILITY DEPT.

- A) ALL VIDEO TAPING SHALL BE FROM CENTER OF MANHOLE TO CENTER OF MANHOLE.
- B) VIDEO TAPING SHALL BE MADE UPSTREAM ONLY.
- C) VIDEO SHALL BE CONTINUOUS AND CONTAIN VIDEO FOOTAGE OF MAIN AND LATERALS IN ONE CONTINUOUS VIDEO.
- D) SEWER VIDEO SHALL BE SUBMITTED TO THE UTILITIES DEPARTMENT ON TWO THUMB DRIVES ALONG WITH THE VIDEO REPORT PRIOR TO ACCEPTANCE.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
SANITARY SEWER ACCEPTANCE TESTING	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING SAN-2	61-24	5/29/24
		SHEET 2 OF 2

WOOD SKID DETAIL



SECTION A-A

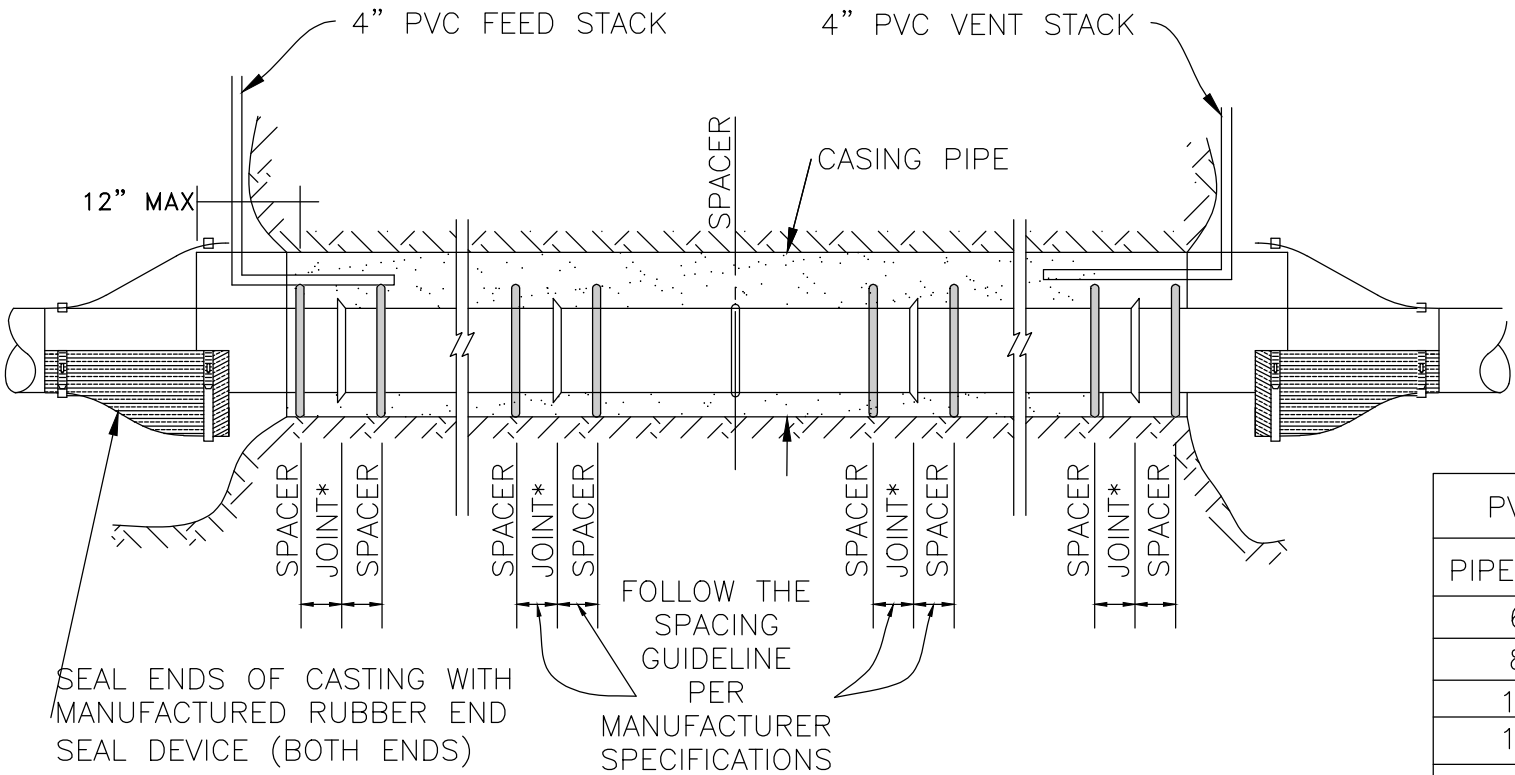
SEAL ENDS OF CASTING WITH
MANUFACTURED RUBBER END
SEAL DEVICE (BOTH ENDS)

BORE DETAIL

BORE NOTES:

- 1) PVC STACKS ARE TO BE FILLED TO WITHIN 2 FT. OF GRADE AND CUT AND CAPPED 2 FT. BELOW GRADE.
- 2) MASONRY BULK HEADS SHALL BE PROVIDED AT EACH END.
- 3) GRANULAR BEDDING IN BORE PIT AND RECEIVING PIT SHALL BE PLACED TO A MINIMUM OF 1 FOOT ABOVE THE PIPE.
- 4) BONDED SKIDS MAY BE PERMITTED IN LIEU OF RETAINING GLANDS, AS APPROVED BY THE CITY UTILITY DEPARTMENT.
- 5) SANITARY PIPE THROUGH THE CASING SHALL BE PVC SDR-35 ASTM D3034 OR SDR 26 IF 17FT DEEP OR DEEPER.
- 6) ANY TRANSITION OF PIPE FROM DIP TO PVC, SHALL BE DONE WITH A TRANSITIONAL ADAPTER AS DETAILED ON SHEET S-1.
- 7) MINIMUM CASING WALL THICKNESS IS TO BE 3/8"
- 8) CASING SIZE FOR PIPE IN EXCESS OF 16" SHALL BE REVIEWED AND DETERMINED BY THE ENGINEER AT THE TIME OF PLAN REVIEW AND PRIOR TO ANY CONSTRUCTION.
- 9) NO CASING SHALL BE REQUIRED UNDER THE ROAD IF OPEN CUT TRENCHING. THIS SHALL BE AT THE UTILITY DEPARTMENT'S DISCRETIONS.
- 10) CASING TO BE GROUT FILLED BY USING A GROUT PUMP.
- 11) MIXTURE:

FLOWABLE FILL CEMENT – 50 LBS.
FLY ASH – 850 LBS.
FINE AGGREGATE – 2,100 LBS.
WATER – 625 LBS.



SEAL ENDS OF CASTING WITH
MANUFACTURED RUBBER END
SEAL DEVICE (BOTH ENDS)

SPACER DETAIL

PVC CASING SIZE REQUIREMENTS		
PIPE SIZE	BELL SIZE	CASING SIZE
6"	7.23"	12"
8"	9.50"	16"
10"	11.86"	18'
12"	14.06"	24"
15"	17.93"	24"

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
SANITARY PIPE BORE DETAIL	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING SAN-3	61-24	5/29/24

A) ALL SANITARY SEWER LATERALS SHALL BE MINIMUM OF 6” P.V.C. SDR35 (3034) GASKETED PIPE. SHOULD A LATERAL HAVE LESS THAN THREE FEET OF COVER, DUCTILE IRON PIPE SHALL BE REQUIRED USING A TRANSITIONAL ADAPTER.

B) THERE SHALL BE AN INSPECTION/CLEAN OUT TEE AT THE RIGHT OF WAY AND APPROXIMATELY EVERY 100 LINEAR FEET. TEE SHALL BE SANITARY TEE TYPE.

C) THERE SHALL NOT BE ANY CLEAN OUT OR INSPECTION TEES WITHIN ANY DRIVEWAY OR ROADWAY WITHOUT UTILITY DEPARTMENT APPROVAL. INSTALLATION SHALL CONFORM TO SAN-5.

D) THERE SHALL BE A MINIMUM OF 6” OF STONE BEDDING AND A MINIMUM OF 6” OF STONE COVER OVER PIPE.

E) STONE SHALL BE #57 LIMESTONE FOR SANITARY.

F) 45 DEGREE AND 22 DEGREE BEND FITTING SHALL BE USED. THERE SHALL BE NO 90 DEGREE BEND FITTINGS. ALSO, THERE SHALL NOT BE ”BACK TO BACK” FITTING USED. MINIMUM OF TWO (2) FEET OF PIPE BETWEEN FITTINGS.

G) SANITARY LATERAL SHALL HAVE A MINIMUM 1% GRADE.

H) SHOULD A NEW LATERAL TO A BUILDING BE INSTALLED TO ENTER THE BUILDING UNDER A FOOTER, AN EARTHEN DAM SHALL BE INSTALLED APPROXIMATELY 10’ FROM THE BUILDING.

I) WHEN INSTALLING NEW SANITARY SEWER LATERAL, AND THERE IS A REQUIREMENT FOR NEW WATER AND STORM SERVICE LATERALS, THE SERVICE LATERALS SHALL NOT BE INSTALLED IN COMMON TRENCH. THE MINIMUM HORIZONTAL SEPARATION SHALL BE:

- TEN FEET (10’) BETWEEN SANITARY AND WATER SERVICE
- FIVE FEET (5’) BETWEEN SANITARY AND ALL OTHER UTILITIES

J) ALL SANITARY SEWER MAINS WILL BE REQUIRED TO BE AIR TESTED AT FOUR (4) PSI FOR A MINIMUM OF FOUR (4) MINUTES WITHOUT ANY ALLOWABLE LOSS. IN THE CASE A COMMERCIAL OR INDUSTRIAL INSTALLATION, THE LATERAL WILL BE TESTED TO THE BUILDING IN ACCORDANCE WITH THESE SPECIFICATIONS.

K) THERE SHALL BE A ”GLUE CAP” INSTALLED ON THE RISER OF ANY SANITARY SEWER CONNECTION RISING THROUGH THE FOUNDATION FLOOR. WHEN SAID SEWER CONNECTION IS NOT IMMEDIATELY ”TIED-INTO” A HOUSE DRAIN, THIS CAP SHALL RISE TO A MINIMUM OF 18 INCHES ABOVE THE PROPOSED FINISH BASEMENT FLOOR GRADE.

L) FOR EXISTING HOMES, THE NEW 6” LATERAL IS TO BE INSTALLED TO AN APPROXIMATE LOCATION AS NEAR TO THE HOUSE AS POSSIBLE. ALL NEW PIPE SHALL BE CONNECTED TO THE EXISTING CAST IRON OR PLASTIC PIPE AT THIS LOCATION. A 4”X6” GASKETED P.V.C. REDUCER IS TO BE USED IF NEEDED. THERE SHALL BE A CLEAN OUT INSTALLED AT THIS POINT.

M) FOR COMMERCIAL/INDUSTRIAL SANITARY LATERALS, THERE SHALL BE INSTALLED A ”MONITORING MANHOLE” AT THE RIGHT OF WAY OR EASEMENT LIMITS. THIS MANHOLE SHALL BE A STANDARD 48” DIAMETER BY 6 FOOT DEPTH. COMMERCIAL AND INDUSTRIAL SITES MAY BE REQUIRED TO INSTALL A GAS/OIL INTERCEPTOR.

N) THERE SHALL BE A \$100.00 INCIDENT FINE FOR DISCHARGING STORM OR GROUND WATER TO A SANITARY SEWER.

* THE CITY WILL REQUIRE A MINIMUM OF 24 HOURS NOTICE FOR ANY AND ALL INSPECTIONS. PLEASE CONTACT THE BUILDING DEPARTMENT AT 937-7818 AND THE UTILITIES DEPARTMENT AT 937-5740.

O) OWNER TO MAINTAIN SEWER TO MAIN LINE FROM RIGHT-OF-WAY CLEANOUT TO HOME.

P) LATERAL INSTALLATION FROM THE RIGHT-OF-WAY LINE TO THE BUILDING SHALL BE AT A SUFFICIENT DEPTH TO SERVE THE LOWEST POINT OF THE BUILDING, TO INCLUDE BASEMENTS, IF ANY. THE RISER SHALL EXTEND TO 3 FEET ABOVE GRADE.

Q) NEW SANITARY LATERAL CONNECTIONS FOR EXISTING HOMES SHALL BE REQUIRED TO HAVE THE EXISTING AERATION OR SEPTIC TANKS PUMPED AND SOLIDS TRUCKED AWAY. THE TANK(S) SHALL BE TOTALLY COLLAPSED WITH THE BOTTOM, SIDES AND TOP DESTROYED. THE TANK(S) SHALL BE FILLED WITH HEAVY FILL I.E. CLAY, STONE, ETC. THE OWNER SHALL SUPPLY THE CITY WITH A ”PUMP SLIP”. OWNER SHALL OBTAIN AN ABANDONMENT PERMIT FROM THE LORAIN COUNTY HEALTH DEPARTMENT.

R) ALL NORMAL HOUSEHOLD DRAINS, TOILETS, SINKS AND WASHING MACHINES MUST DISCHARGE TO A SANITARY SEWER.

S) SHOULD A WASHING MACHINE, LAUNDRY TUB, SERVICE SINK OR FLOOR DRAIN DISCHARGE INTO A SUMP PUMP, THIS PUMP MUST DISCHARGE INTO A SANITARY SEWER. HOWEVER, SHOULD THIS SUMP PUMP ALSO COLLECT STORM WATER FROM FOOTER TILE OR OTHER SOURCES, THERE SHALL BE A NEED TO SEPARATE THESE FLOWS BY INSTALLING SEPARATE PUMPS.

T) SUMP PUMPS FOR FOOTER TILE ARE PROHIBITED FROM DISCHARGING INTO A SANITARY.

U) PRIOR TO WORK COMMENCING, A REPRESENTATIVE OF THE UTILITIES DEPARTMENT AND BUILDING DEPARTMENT WILL PRE-INSPECT EACH HOME TO CONFIRM PROPER INSTALLATION AND ABANDONMENT OF SYSTEMS.

V) THE UTILITIES DEPARTMENT INSPECTS ALL INSTALLATIONS FROM THE STREET TO WITHIN THREE (3) FEET OF THE OUTSIDE OF THE BUILDING WALL. THE BUILDING DEPARTMENT INSPECTS ALL PLUMBING WITHIN A BUILDING. NOTE: THE BUILDING DEPARTMENT RESERVES THE RIGHT TO CHARGE THEIR OWN INSPECTION FEES. THE BUILDING DEPARTMENT MAY REQUIRE HOUSE DRAINS TO BE SMOKE TESTED.

W) SHOULD A RESIDENT ANTICIPATE THE HOUSE LATERAL TO BE INSTALLED UNDER THE FOOTER FOR FUTURE PLUMBING IN THE BASEMENT, ALL PROVISIONS FOR FUTURE WORK SHALL BE COMPLETED AT THIS TIME. AS PER THE BUILDING DEPARTMENT, THIS MEANS ANY PLUMBING WORK UNDER THE EXISTING FLOOR WILL BE REQUIRED TO BE INSTALLED NOW AND TESTED.

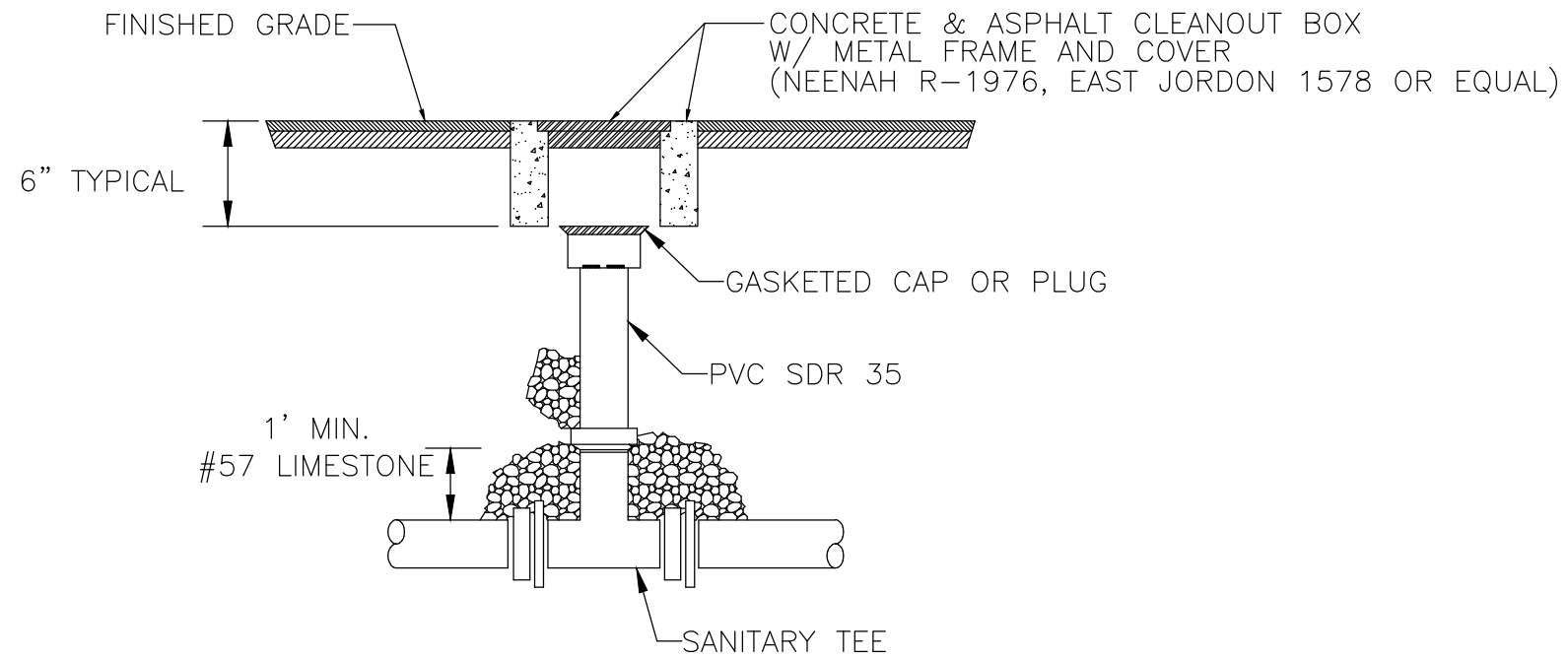
X) AS PER THE BUILDING DEPARTMENT, ANY MAJOR PLUMBING WORK INSIDE OF THE HOUSE SHALL BE COMPLETED BY A REGISTERED PLUMBER OR HOME OWNER AS PER PLUMBING CODES. THIS WILL BE DETERMINED AT THE TIME OF PRE-INSPECTION.

Y) THE BUILDING DEPARTMENT AND UTILITIES DEPARTMENT WILL PERFORM A FINAL INSPECTION AT THE COMPLETION OF EACH INSTALLATION.

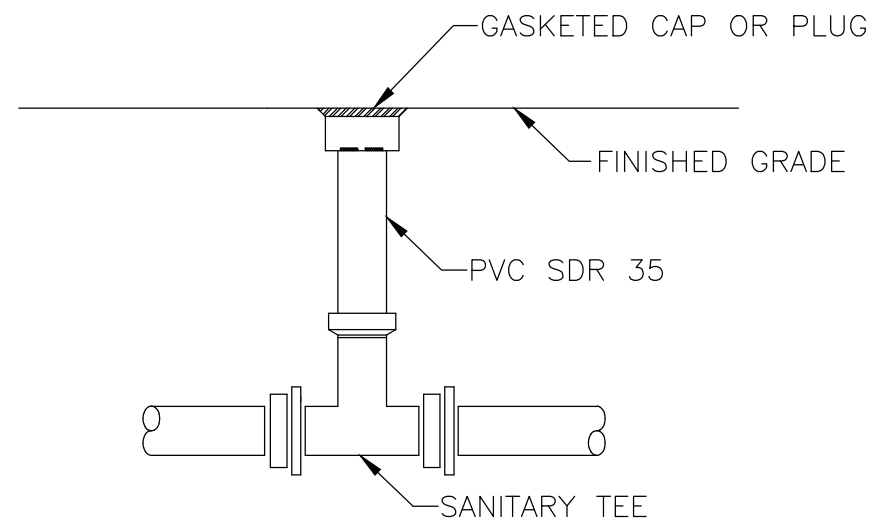
Z) THE CITY WILL REQUIRE A MINIMUM OF 24 HOURS NOTICE FOR ANY AND ALL INSPECTIONS. PLEASE CONTACT THE BUILDING DEPARTMENT AT 937-7813 AND THE UTILITIES DEPARTMENT AT 937-5740.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
SANITARY CONNECTION NOTES	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING	61-24	5/29/24

SAN-4



**TYPICAL SANITARY
CLEANOUT IN PAVED AREAS**

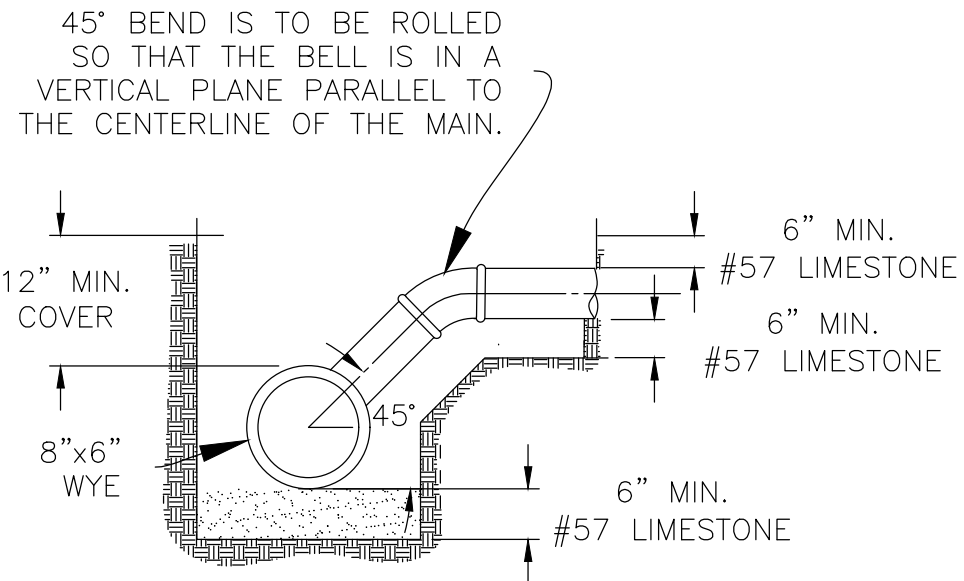


**TYPICAL SANITARY CLEANOUT
IN UNPAVED AREAS**

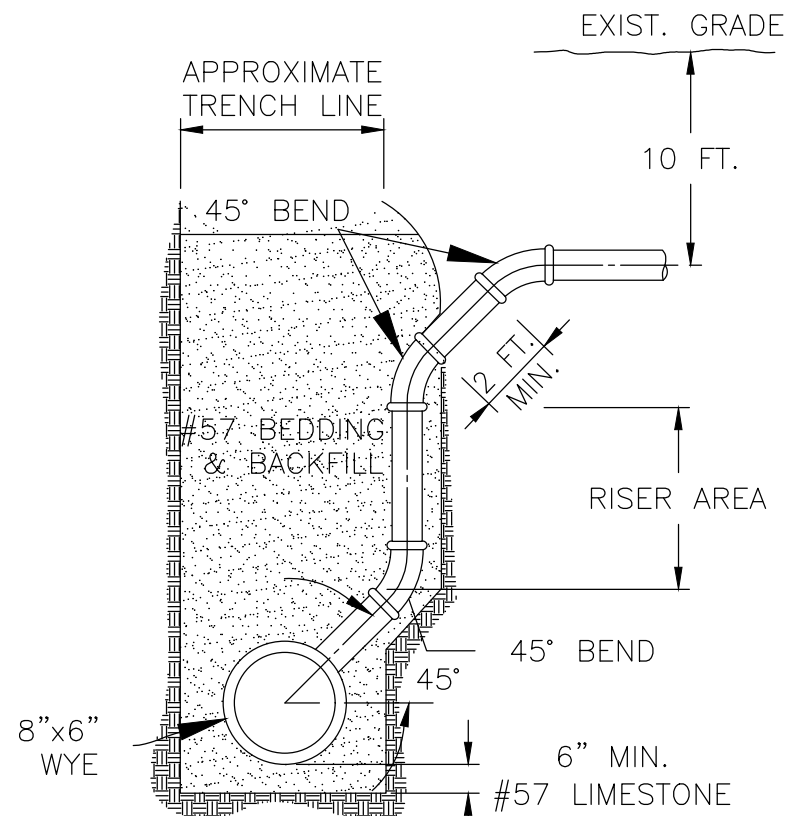
NOTES:

1. ALL CLEANOUT'S & WATER CURB BOXES LOCATED IN DRIVEWAY OR SIDEWALK ARE TO BE PROVIDED WITH A METAL FRAME AND COVER.
2. PS G.C. TO INSTALL CLEANOUTS AT ANY PIPING ANGLE CHANGES.

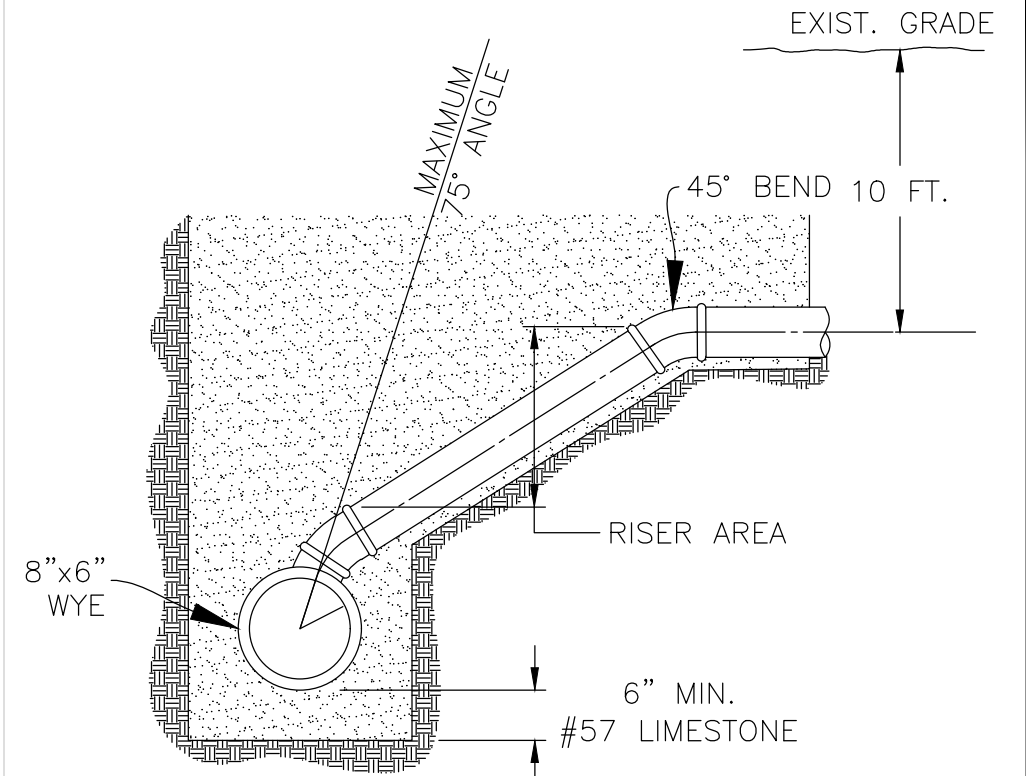
CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
FOR SANITARY SEWER CLEANOUT DETAILS	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING SAN-5	61-24	5/29/24



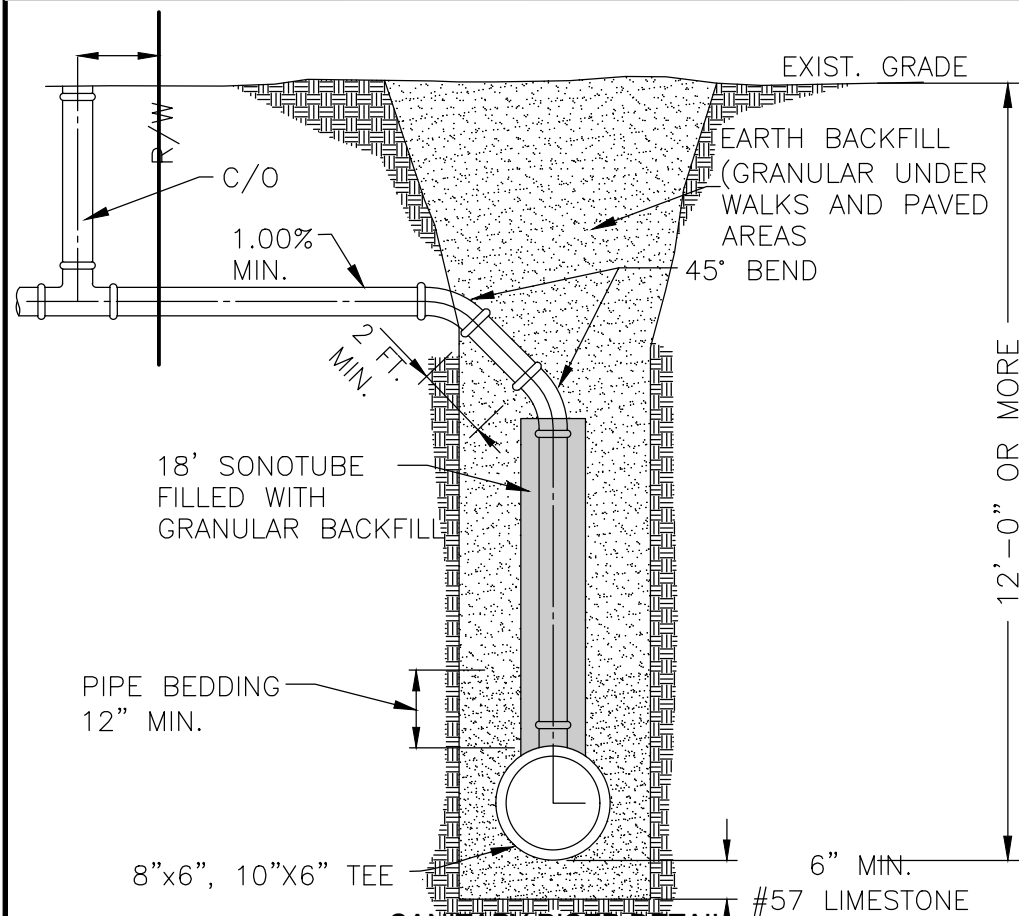
STANDARD SANITARY CONNECTION



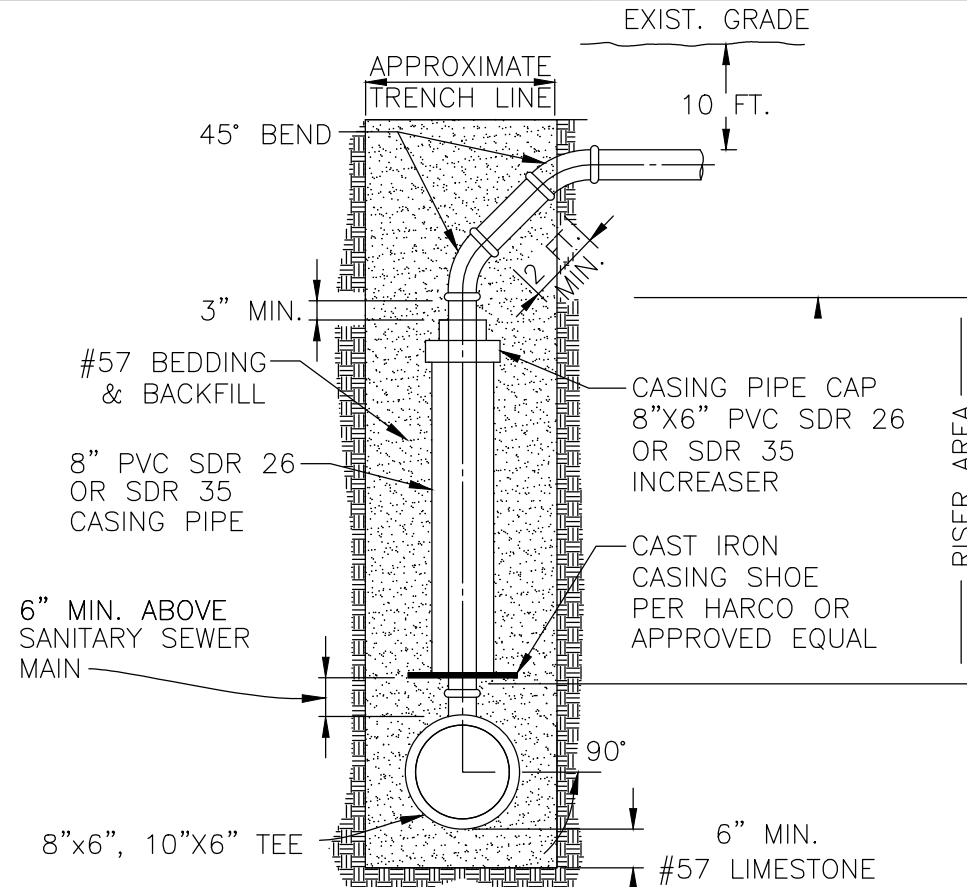
SANITARY RISER DETAIL
OPTION "A"
(SEE NOTE 3)



SANITARY RISER DETAIL
OPTION "B"
(SEE NOTE 3)



SANITARY RISER DETAIL
OPTION "C"
(SEE NOTE 3)



SANITARY RISER DETAIL
OPTION "D"
(SEE NOTE 3)

RISER NOTES:

1. RISERS SHALL BE USED WHERE DEPTH OF COVER EXCEEDS FIFTEEN FEET (15 FT.) ON THE MAINLINE. RISERS SHALL BE EXTENDED INCLINED AT 10° TO A DEPTH OF (9) FEET FROM EXISTING GRADE.
2. THE MINIMUM HORIZONTAL BARREL TO BARREL SEPARATION SHALL BE:
 - TEN FEET (10') BETWEEN SANITARY AND WATER SERVICE
 - FIVE FEET (5') BETWEEN SANITARY AND ALL OTHER UTILITIES
3. OPTIONS CAN ONLY BE USED WITH THE APPROVAL OF THE UTILITIES DEPARTMENT.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
SANITARY CONNECTION DETAIL	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING	SAN-6 61-24	5/29/24

CONSTRUCTION NOTES AND STANDARDS FOR PRECAST SANITARY MANHOLES

1. SECTIONS OF THE PRECAST MANHOLE SHALL BE CAST AND ASSEMBLED WITH EITHER ALL TONGUE AND ALL GROOVE ENDS UP. LIFT HOLES MAY BE PROVIDED IN EACH SECTION FOR HANDLING.

2. TOP AND TRANSITION (OR REDUCER) SECTIONS MAY BE EITHER ECCENTRIC CONE, CONCENTRIC CONE OR FLAT SLAB.

3. BASES FOR MANHOLES ARE SHOWN WITH MONOLITHIC FLOOR AND RISER WHICH MAY BE CAST IN ONE OR TWO OPERATIONS. OPENINGS FOR INLET AND OUTLET PIPES SHALL BE PRECAST FOR A NEW MANHOLE TO MEET PROJECT REQUIREMENTS. A FIELD CORE IS PERMISSIBLE ON AN EXISTING STRUCTURE. BOTTOM CHANNELS MAY BE FORMED OF CONCRETE PRECAST IN THE BASE OR BY FIELD CONSTRUCTION. FOR FIELD CONSTRUCTION THE CHANNEL MUST BE FORMED W/PIPE THRU AS THE FORM. SANITARY FLOOR AND BARREL SHALL BE A MONOLITHIC POUR TYPE.

4. FLEXIBLE CONNECTIONS SHALL BE PROVIDED FOR SANITARY SEWERS PER ASTM C-923.

5. JOINT SEAL BETWEEN PRECAST MANHOLE SECTIONS SHALL BE THE COMBINATION OF AN O-RING & ASPHALTIC STRIP. IN ADDITION, THE EXTERIOR JOINT AREA SHALL BE COATED WITH AN ASPHALTIC MASTIC TO A WIDTH OF 1 FT. ALL JOINT SEAL SHALL MEET ASTM C-443.

6. MATERIALS FOR BASES AND OTHER PRECAST SECTIONS, INCLUDING REINFORCEMENT NOT SPECIFIED HEREON, SHALL COMPLY WITH ODOT SPECIFICATIONS, SECTION 706.13.

7. PRECAST MANHOLE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C478.

8. SEAL LIFT HOLES WITH APPROVED WATER PLUG AND MORTAR, EXCEPTING WHERE THE LIFT HOLE INSERTS ARE PLASTISIZED.

9. PRECAST REINFORCED CONCRETE GRADE RINGS SHALL BE USED IN ALL CASES. BRICK FOR THIS PURPOSE WILL NOT BE PERMITTED. INTERIOR AND EXTERIOR TO BE SEALED WITH 1" THICK MINIMUM COMBINATION OF 10 LBS. WATER PLUG AND 80 LBS. MORTAR MIX. PROVIDE MINIMUM OF ONE GRADE RING. ASPHALTIC MASTIC STRIPS SHALL BE USED BETWEEN ALL GRADE RINGS AND CASTINGS, IN ADDITION TO THE PORRIDGING OF THE INTERIOR AND EXTERIOR AREAS WITH THE WATER PLUG MIX EXCEPT IN CONCRETE ROADWAYS. 12" MAX HEIGHT OF GRADE RINGS.

10. ALL MANHOLE CASTINGS ARE TO BE E.J.I.W. 1040 A GS SERIES HEAVY DUTY CASTING OR EQUAL.
SANITARY MANHOLE LIDS SHALL BE TYPE "A" GASKET SEAL,"WATERTITE" TYPE WITH 'O' RING GASKETTING, EXCEPTING THAT HEAVY DUTY BOLT DOWN CASTING AND COVER (E.J.I.W. 1040-WT) OR EQUAL SHALL BE USED WHENEVER A SANITARY OR STORM MANHOLE IS IN AN OFF-SITE EASEMENT OR NEAR A WATERWAY OR WITHIN ROADWAY AREAS. THE LID SHALL CLEARLY BE LABELED "SANITARY".

11. CASTING & GRADE RINGS SHALL BE SET WITH AN ASPHALTIC STRIP BETWEEN CONE, GRADE RING, AND CASTING IN HYDROCRETE.
12. STEPS SHALL BE CO-POLYMER POLYPROPYLENE ASTM D-4101-82. THE RISER HOLE SHALL BE ALIGNED WITH THE STEPS.

13. BEDDING SHALL BE 6" MIN. #57 LIMESTONE. BACKFILL SHALL CONFORM TO PIPE TRENCH DETAIL.

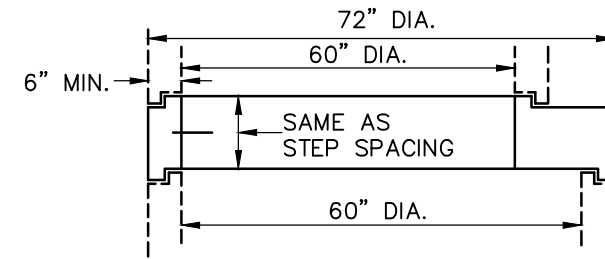
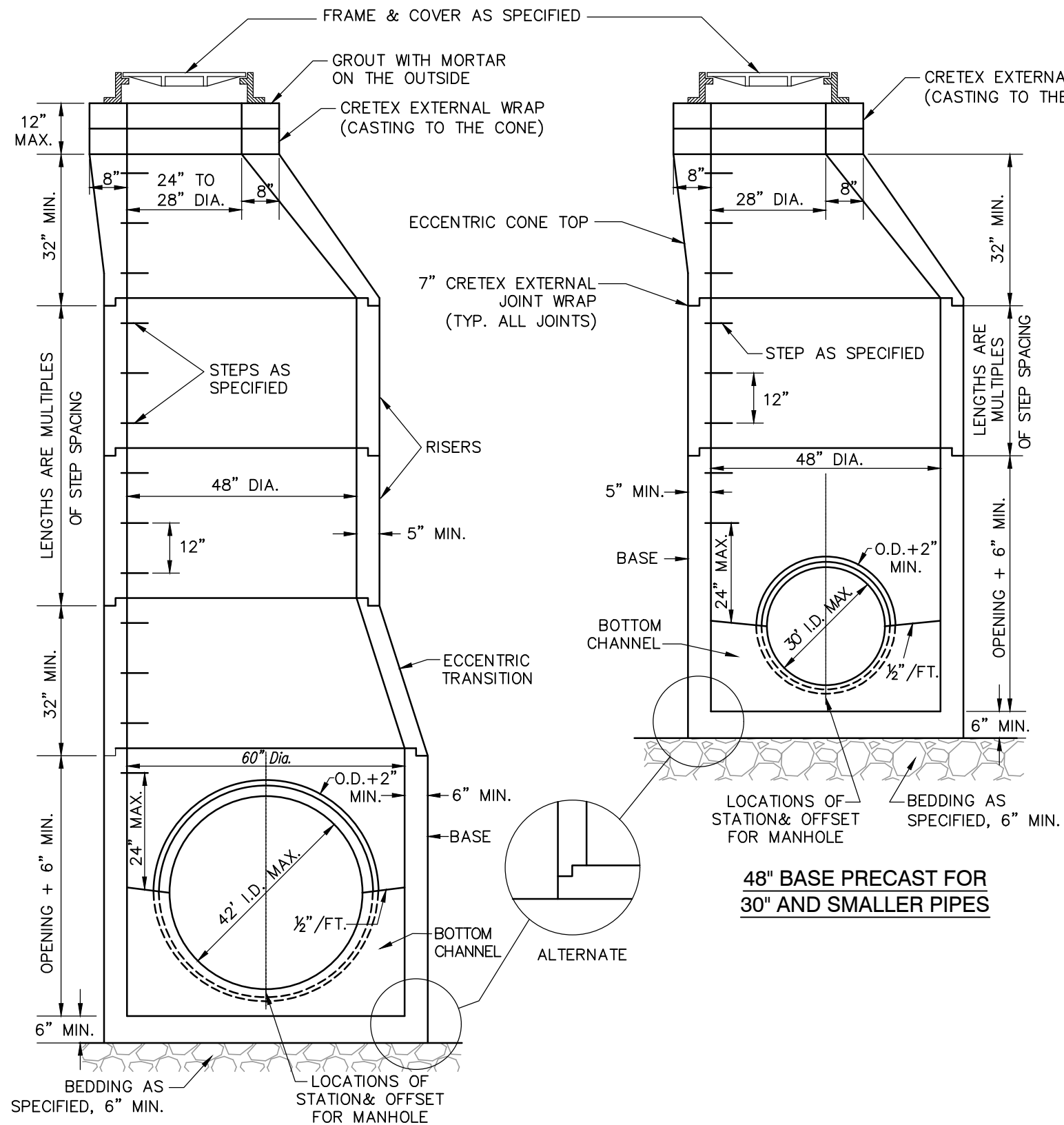
14. MANHOLES SHALL NOT BE INSTALLED IN SIDEWALKS OR ROADWAY AREAS WHENEVER POSSIBLE. WHEN THEY ARE THEY MUST BE INSPECTED BY THE UTILITIES DEPARTMENT PRIOR TO PAVEMENT RESTORATION.

15. THE NEWLY INSTALLED SANITARY SYSTEM SHALL REMAIN INDEPENDENT FROM THE EXISTING SYSTEM AND PLUGGED BY THE CONTRACTOR UNTIL SUCH TIME AS THE CITY OF AVON HAS ACCEPTED THE SYSTEM. ALSO A FINE OF \$100 PER DAY WILL BE IMPOSED FOR INFLOW AND INFILTRATION.

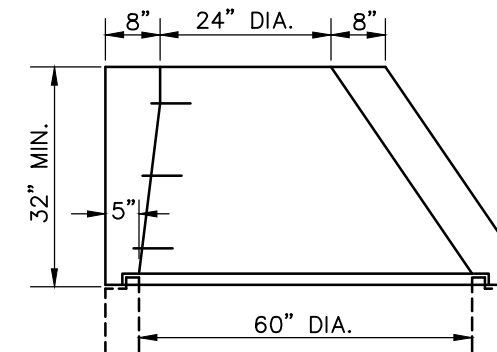
16. "DOGHOUSE" TYPE INSTALLATION SHALL NOT BE PERMITTED IN SANITARY SYSTEMS.

17. FOR 60" MANHOLES, E.J.I.W. #2075 52" RING WITH 36" OPENING IS REQUIRED

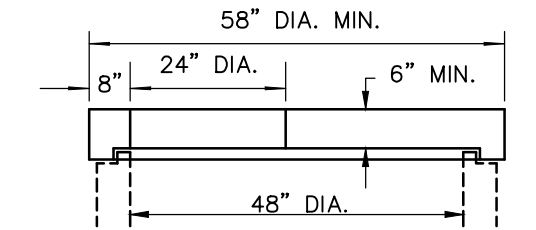
CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
CONSTRUCTION NOTES & STANDARDS FOR PRECAST SANITARY MANHOLE	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING SAN-7	61-24	5/29/24



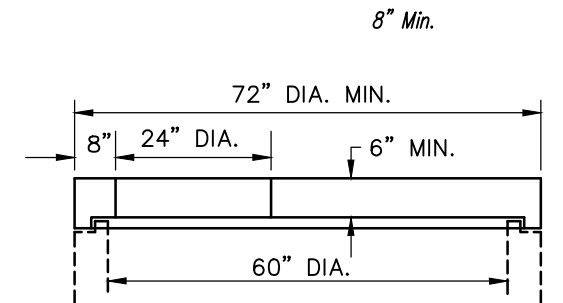
FLAT SLAB TRANSITION



ALTERNATE ECCENTRIC CONE TOP

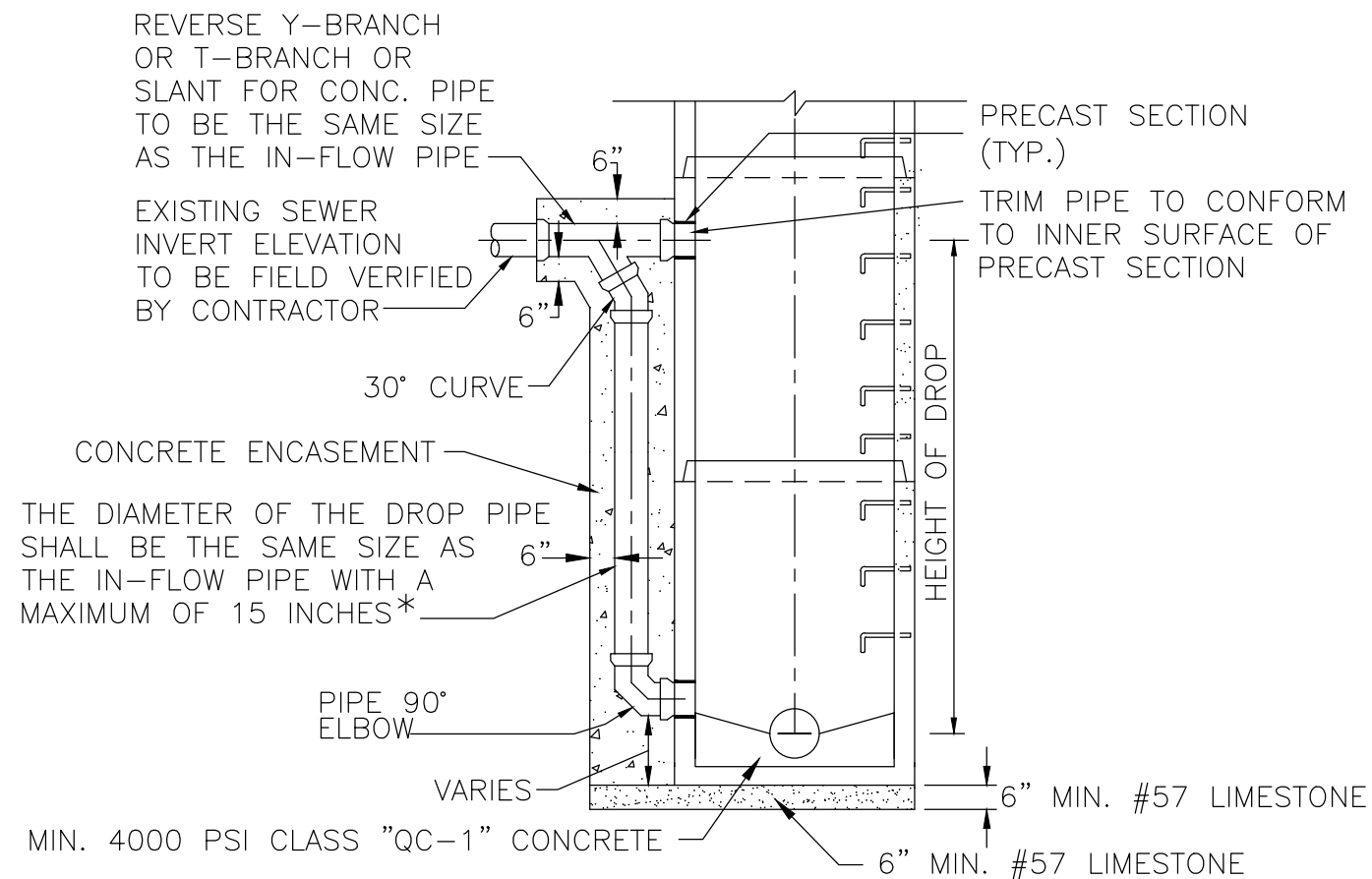


FLAT SLAB TOP

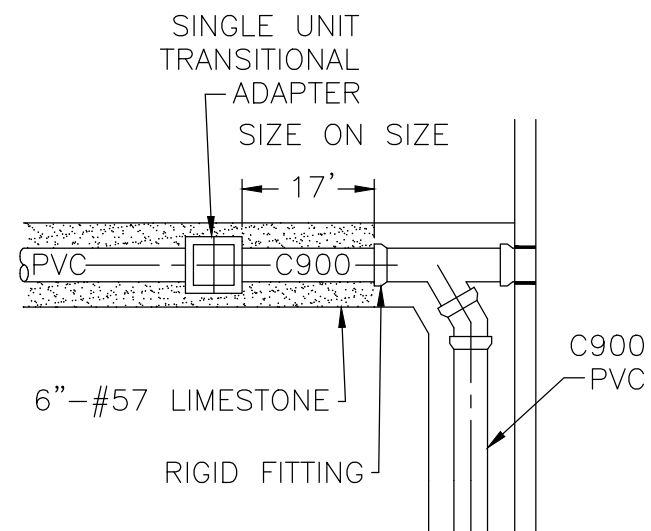


FLAT SLAB TOP

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
PRECAST SANITARY MANHOLE	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING SAN-8	61-24	5/29/24



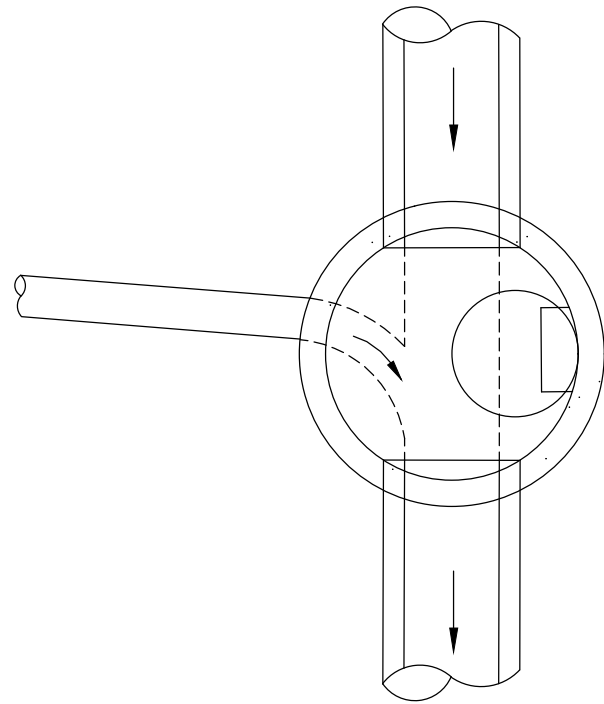
* THE MANUFACTURER IS TO BE CONSULTED FOR DROP
PIPE SIZES LARGER THAN 15 INCHES.



PRECAST DROP MANHOLE TRANSITIONAL ADAPTER

- 1) ANY DROP IN EXCESS OF 4 FT. SHALL BE
MANUFACTURED PRECAST CONCRETE TYPE.
- 2) IN CASE OF TIE-IN M.H.'S WHERE THE DROP EXCEEDS
2 FT., THE EXISTING GRADE SHALL BE CONTINUED AND
A NEW PRECAST CONCRETE DROP M.H. INSTALLED.
- 3) IN THE CASE OF EXTERIOR DROP CONNECTIONS OF
2FT TO 4FT EXISTING MANHOLES FIELD FABRICATION
MAY BE PERMITTED ONLY WITH THE AUTHORIZATION OF
THE CITY OF AVON UTILITY DEPARTMENT
- 4) THE FIRST LENGTH OF PIPE OUT OF THE TOP OF THE
DROP MANHOLE SHALL BE C900 A TRANSITIONAL
ADAPTER IS TO BE USED BETWEEN THE D.I.P. & PVC.
ADAPTER SHALL BE A SINGLE UNIT SPECIFIED FITTINGS
581056 SWR. GXGDR18CDDSWR OR EQUAL. THE DROP
PIPE SHALL BE C900 PVC.
- 5) THE ENTIRE EXCAVATION FOR THE DROP MANHOLE
SHALL BE BACKFILLED TO GRADE WITH #57 LESTONE.
- 6) THE BOTTOM 90° BEND SHALL BE AN ELBOW TYPE.
- 7) PIPE OPENINGS FOR PRECAST MANHOLE SHALL BE THE
ALOK OR ZLOK TYPE PER ASTM C-923.
- 8) PIPE OPENINGS FOR FIELD FABRICATED CONNECTIONS
TO EXISTING MANHOLES SHALL BE KOR-N-SEAL BOOT
PER ASTM C-923.
- 9) REFER TO SANITARY MANHOLE DETAIL FOR ADDITIONAL
REQUIREMENTS.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
SANITARY DROP MANHOLE DETAIL	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING SAN-9	61-24	5/29/24

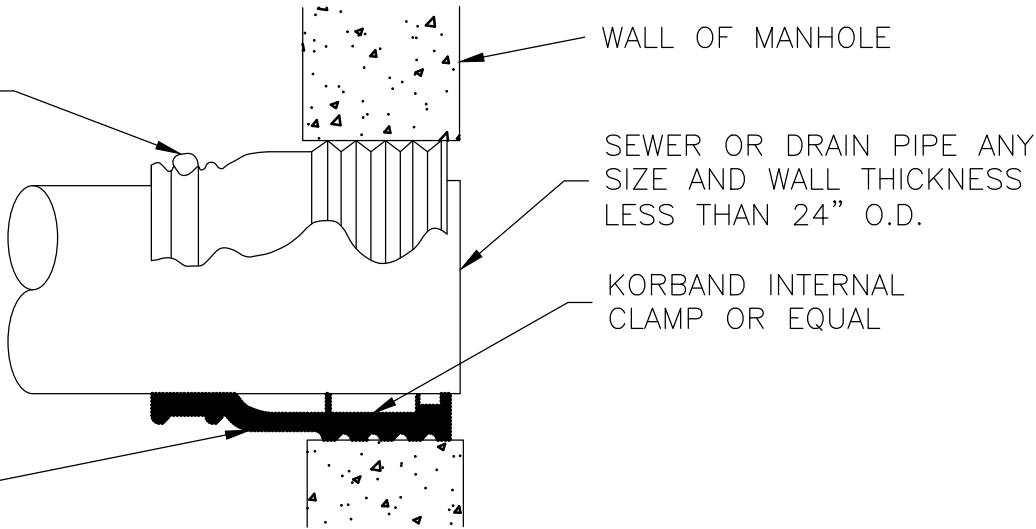


CORE/CONNECTOR DETAIL

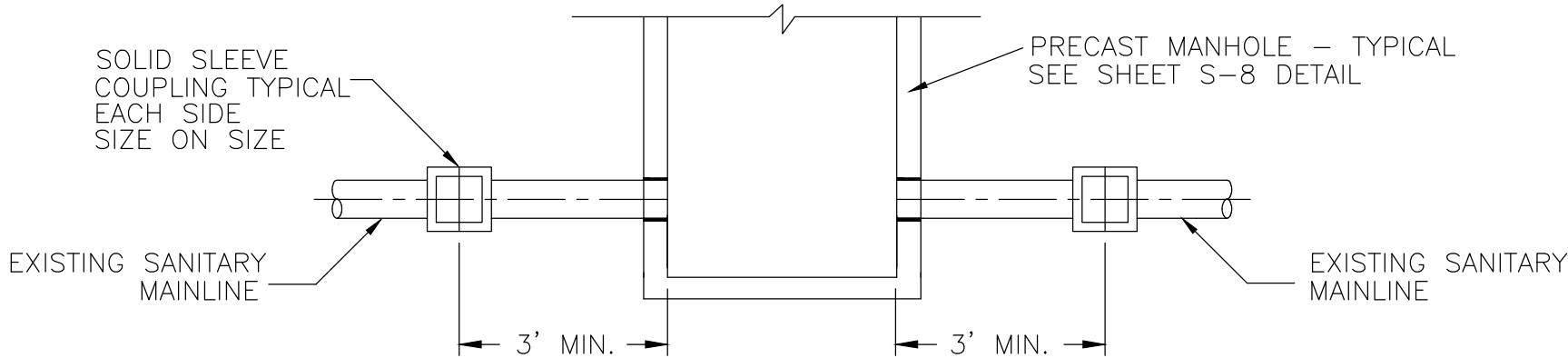
NOTE:
APPLIES TO ANY SIZE MANHOLE
FOR CUT-IN MANHOLES
AND FIELD FABRICATED DROPS

EXTERNAL CLAMP TIGHTENED BY
SCREWDRIVER, SEALS BOOT TO PIPE

NEOPRENE COMPOUND
PER A.S.T.M. C-923



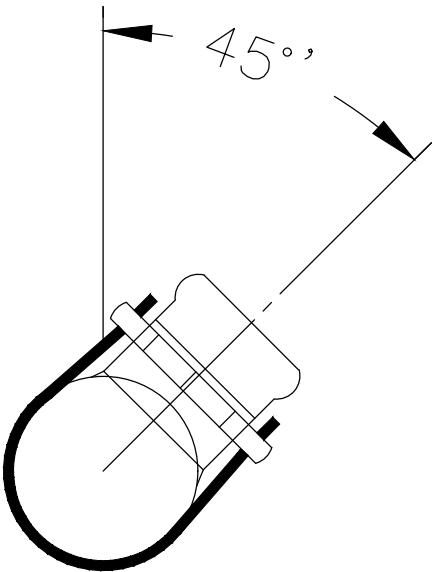
**SANITARY MANHOLE
KOR-N-SEAL BOOT**



SANITARY CUT-IN MANHOLE DETAIL

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
SANITARY MANHOLE FIELD FABRICATION DETAIL	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING	61-24	5/29/24

SAN-10



STYLE "CB" SEWER SADDLE

SANITARY SEWER TAPS

- TAP NOTES:
- 1) SANITARY MAIN SHALL BE CORED PRIOR TO SETTING THE TAPS IN PLACE.
 - 2) TAPS ARE TO BE PLACED AT AN ANGLE OF 45° TO THE MAINLINE.
 - 3) "CB" SEWER TAPS OR AN APPROVED EQUIVALENT MAY BE USED ONLY AT THE DISCRETION OF THE CITY UTILITY DEPARTMENT.
 - 4) SANITARY LATERAL CONNECTIONS TO A SANITARY SEWER MAIN SHALL BE COMPLETED WITH A ROMAC INDUSTRIES, INC. STYLE "CB" SEWER SADDLE OR AN APPROVED EQUIVALENT. INSTALLATIONS SHALL BE COMPLETED PER MANUFACTURE DETAILING AND SPECIFICATION.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
SANITARY CONNECTION DETAIL	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING SAN-11	61-24	5/29/24

PRIVATE PUMP STATIONS

1. CONTRACTOR SHALL FURNISH AND INSTALL A PUMP STATION SYSTEM IN ACCORDANCE WITH THE MOST CURRENT VERSION OF THE OHIO EPA GREENBOOK AND TEN STATE STANDARDS.

2. CONTACTOR SHALL FURNISH OHIO ENVIRONMENTAL PROTECTION AGENCY PERMIT–TO–INSTALL PRIOR TO CONSTRUCTION.

3. IF THE PUMP STATION IS LOCATED IN A NON–PAVED AREA AN ACCESS DRIVE SHALL BE PROVIDED FOR MAINTENANCE PER AVON STANDARD DRAWING G–8.

4. BOTH AUDIO AND VISUAL ALARM SHALL BE PROVIDED.

5. THE FOLLOWING MATERIALS ARE ACCEPTABLE FOR WET WELL CONSTRUCTION: 4000 PSI CONCRETE AT 28 DAYS OR FIBERGLASS REINFORCED POLYESTER (FRP). FRP WET WELLS SHALL BE MANUFACTURED FROM COMMERCIAL GRADE UNSATURATED POLYESTER RESIN OR VINYL ESTER RESIN WITH FIBERGLASS REINFORCEMENTS. ALTERNATE MATERIALS MAY BE USED WITH UTILITY DEPARTMENT APPROVAL.

6. DESIGNER SHALL SUBMIT CALCULATIONS SIGNED, SEALED, AND DATED BY A PROFESSIONAL ENGINEER FOR CITY REVIEW. INCLUDE THE FOLLOWING:

A. FLOW CALCULATIONS AND ASSUMPTIONS

B. TOTAL DYNAMIC HEAD

C. SYSTEM CURVE/PUMP CURVE ANALYSIS

D. PUMP STATION CYCLE AND PUMP RUN TIMES

E. PUMP STATION FLOTATION

F. AVAILABLE EMERGENCY STORAGE CAPACITIES AT AVERAGE AND PEAK WASTEWATER FLOWS

G. MINIMUM FORCE MAIN VELOCITY AND PRESSURE CALCULATIONS. MINIMUM FORCEMAIN SIZE SHALL BE 2”. MATERIAL TO BE APPROVED BY THE CITY

H. ANALYSIS OF DOWNSTREAM SEWER VERIFYING CAPACITY USING PEAK PROPOSED FLOWS AND PEAK EXISTING FLOWS.

5. DESIGNER SHALL SUBMIT SIGNED, SEALED, AND DATED CONSTRUCTION DRAWINGS BY A PROFESSIONAL ENGINEER FOR CITY REVIEW.

6. OPERATION AND MAINTENANCE PLAN SHALL BE SUBMITTED TO THE CITY FOR REVIEW. PLAN SHALL INCLUDE HOW MAINTENANCE VEHICLES WILL APPROACH THE PUMP STATION SITE, SPECIFICATIONS ON A NOTIFICATION SYSTEM (IE. AUTO DIALER/SCADA ALARM SYSTEM), EMERGENCY PUMPING AVAILABLE, AND EMERGENCY CONTACT INFORMATION OF RESPONSIBLE PARTY THAT WILL BE CONTACTED IN AN EMERGENCY.
8. WET WELL DETENTION TIME MAY BE REQUIRED AT THE UTILITY DEPARTMENT’S DISCRETION.

9. NOISE CONTROL MAY BE REQUIRED AT THE UTILITY DEPARTMENT’S DISCRETION.

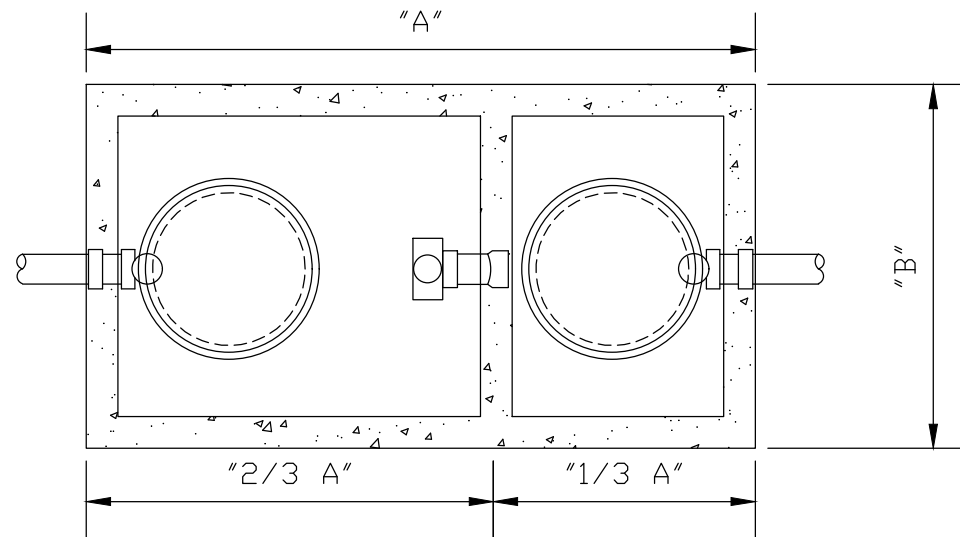
10. CONCRETE WET WELL ACCEPTANCE TESTING SHALL CONFORM TO AVON STANDARD DRAWING SAN–2.

11. FIBERGLASS WET WELL ACCEPTANCE TESTING SHALL CONFORM TO THE FOLLOWING:
- AN EXFILTRATION TEST MUST BE PERFORMED AFTER THE WET WELL HAS BEEN BACKFILLED AND COMPACTED. EXFILTRATION SHALL NOT EXCEED 0.0142 GAL/HR PER FOOT DIAMETER PER FOOT DEPTH. THE TEST MUST BE DONE BY PLUGGING THE GRAVITY INVERT AND FILLING UP THE WET WELL WITH WATER TO EITHER 1–FOOT BELOW THE WET WELL TOP SLAB, OR UP TO THE MANHOLE LID WITH THE LOWEST ELEVATION BELOW TOP SLAB. THIS LEVEL MUST BE CLEARLY TEMPORARILY MARKED IN THE WE WELL INTERNAL WALL. ONCE THE WET WELL IS FILLED, IT MUST BE LEFT FOR STABILIZATION FOR 48 HOURS MINIMUM PRIOR TO BEGINNING THE EXFILTRATION TEST. AFTER THE STABILIZATION PERIOD, THE WET WELL MUST BE REFILLED UP TO THE MARK TO BEGIN THE TEST. THE TEST SHALL BE DONE FOR TWO HOURS MINIMUM, AND NO WATER MAY BE ADDED TO THE WET WELL DURING THE TEST PERIOD. THE EXFILTRATION TEST MUST BE DETERMINED BY MEASURING THE AMOUNT OF WATER REQUIRED TO RAISE THE WET WELL LEVEL BACK TO THE MARK AT THE END OF THE TEST PERIOD. THE MAXIMUM ALLOWABLE WATER LOSS TO PASS THE TEST IS DETERMINED BY THE FOLLOWING EQUATION:
- WATER LOSS (GALLONS) = 0.0142tDH
- WHERE:
- t=TEST TIME PERIOD (2 HOURS)
- D=WET WELL DIAMETER (IN FEET)
- h=WATER LEVEL DEPTH WITHIN WET WELL (IN FEET)
- IF THE WET WELL FAILS THE EXFILTRATION TEST, NECESSARY REPAIRS SHALL BE MADE BY THE CONTRACTOR AND THE TEST REPEATED UNTIL THE WET WELL PASSES.
12. WET WELL FOUNDATION SHALL BE #57 LIMESTONE AT A MINIMUM DEPTH OF 6”. BACKFILL SHALL BE PER AVON STANDARD DRAWING G–6.
13. A SIGN SHALL BE POSTED ON OR ADJACENT TO THE LIFT STATION. THE SIGN SIZE SHALL BE 24”X30”, WHITE BACKGROUND WITH RED LETTERS. THE SIGN SHALL STATE THE FOLLOWING:
- A. PRIVATE SANITARY SEWER LIFT STATION

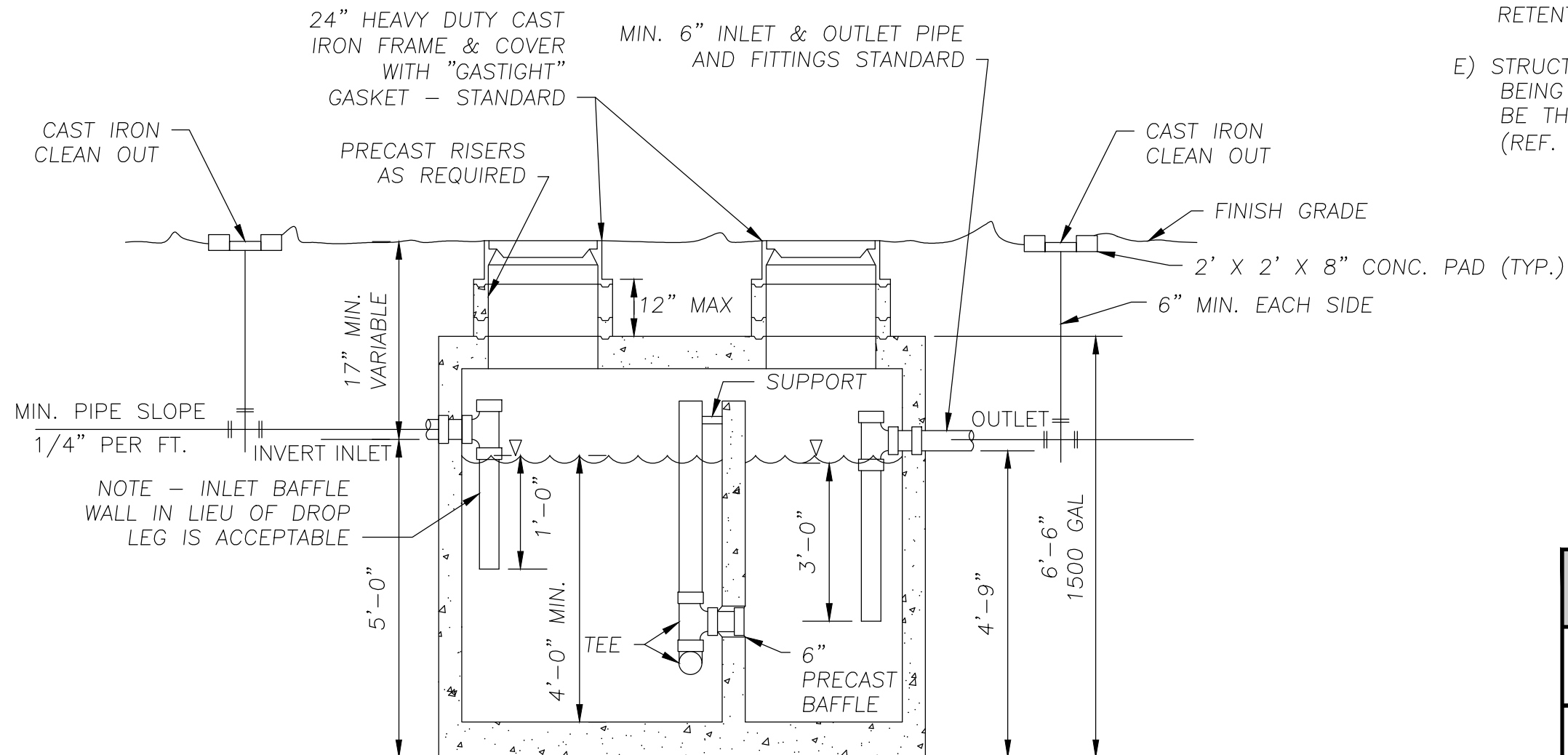
B. IN CASE OF EMERGENCY CALL.....

C. OWNER OR BUSINESS NAME AND PHONE NUMBER

D. CONTRACTOR’S NAME AND PHONE NUMBER
- | CITY OF AVON
CONSTRUCTION STANDARDS
AND SPECIFICATIONS | | |
|--|-----------------------|---------|
| PRIVATE
PUMP STATION
NOTES | ADOPTION
ORDINANCE | DATE |
| STANDARD
CONSTRUCTION
DRAWING SAN-12 | 61-24 | 5/29/24 |



TOP VIEW
NOT TO SCALE



SECTION VIEW
NOT TO SCALE

G.T. SIZE	DIM. "A"	DIM. "B"
500 GALLON	6'-2"	4'-2"
750 GALLON	8'-1"	4'-0"
1000 GALLON	8'-2"	5'-1"
1200 GALLON	8'-6"	5'-9"
1500 GALLON	9'-0"	7'-0"

NOTE:

- A) TRAFFIC BEARING GREASE TRAP IS REQUIRED. MATERIAL SHALL BE APPROVED BY THE UTILITY DEPARTMENT.
- B) INDIVIDUAL PRECAST DIMENSIONS MAY VARY.
- C) PROVIDE SHOP DRAWINGS FOR APPROVAL.
- D) THE OHIO PLUMBING CODE SHALL BE FOLLOWED TO DETERMINE SIZING AND PROPER CAPACITY FOR GREASE RETENTION OF THE INTERCEPTOR.
- E) STRUCTURES SHALL BE VACUUM TESTED PRIOR TO BEING PUT INTO USE. TESTING REQUIREMENTS SHALL BE THE SAME AS FOR MANHOLE VACUUM TESTING (REF. SAN-2)

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
EXTERIOR PRECAST GREASE TRAP / INTERCEPTOR DETAIL	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING	61-24	5/29/24
		SHEET 1 OF 2

SAN-13

NOTES

- 1) TRAFFIC BEARING GREASE TRAP, DESIGNED TO TRAP NON-BIODEGRADABLE MATERIALS, SUCH AS GREASE AND SEDIMENTS EMANATING PRIMARILY FROM KITCHENS AND FOOD SERVICE OPERATIONS, SHALL BE PROVIDED.

2) THE CAPACITY AND DIMENSIONS FOR THE GREASE TRAP SHOWN ARE FOR USE AS A GUIDE ONLY. DETAILED SHOP DRAWINGS AND INSTALLATION PLANS SHALL BE SUBMITTED TO THE CITY FOR APPROVAL.

3) THE NUMBER OF INLET PIPES SHALL BE VERIFIED, AS ARE THE SIZES OF THE INLET AND OUTLET PIPES.

4) 6 INCH CLEAN OUTS SHALL BE PROVIDED FOR BOTH THE INLET AND OUTLET PIPE.

5) A SAMPLING PORT MANHOLE MAY BE REQUIRED BY THE CITY DOWNSTREAM OF THE INTERCEPTOR BEFORE CONNECTION TO THE SANITARY MAIN, FOR SAMPLING PURPOSES.

6) INSTALL STRUCTURE ON A BED OF 6 INCH COMPACTED #57 LIMESTONE AGGREGATE.

7) OUTLET IS TO BE AT 1/3 LIQUID DEPTH FROM BOTTOM OR A MINIMUM OF 1 FOOT WHICHEVER IS GREATER.

8) INTERCEPTOR IS TO BE CONSTRUCTED AS A TRAFFIC BEARING UNIT. ALTERNATE DESIGNS SHALL BE CONSIDERED ON A CASE-BY-CASE BASIS. ALTERNATES SHALL BE SUBMITTED TO THE UTILITY DEPARTMENT FOR REVIEW AND APPROVAL.

9) UTILIZE CONTINUOUS BITUMINOUS SEALANT AT ALL JOINTS. ALL PENETRATIONS, LIFT POINTS, ETC. ARE TO BE MADE WATERTIGHT PRIOR TO BACKFILLING STRUCTURE EXTERIOR OF INTERCEPTOR IS TO BE ASPHALT COATED.
- 11) LOCATE INTERCEPTOR IMMEDIATELY OUTSIDE BUILDING WHERE THERE IS EASY ACCESS FOR CLEANING.

12) IT IS RECOMMENDED TO FILL INTERCEPTOR WITH WATER BEFORE ACTUAL SANITARY USE.

13) UTILIZE SCH. 40 PVC OR SCH. 80 PVC INSIDE STRUCTURE, UTILIZE SDR 26 OR SDR 35 PIPE OUTSIDE INTERCEPTOR, AS APPROVED BY THE CITY.

14) UTILIZE NON-CORROSIVE MATERIALS AND FASTENERS TO SUPPORT PIPE ON BAFFLE.

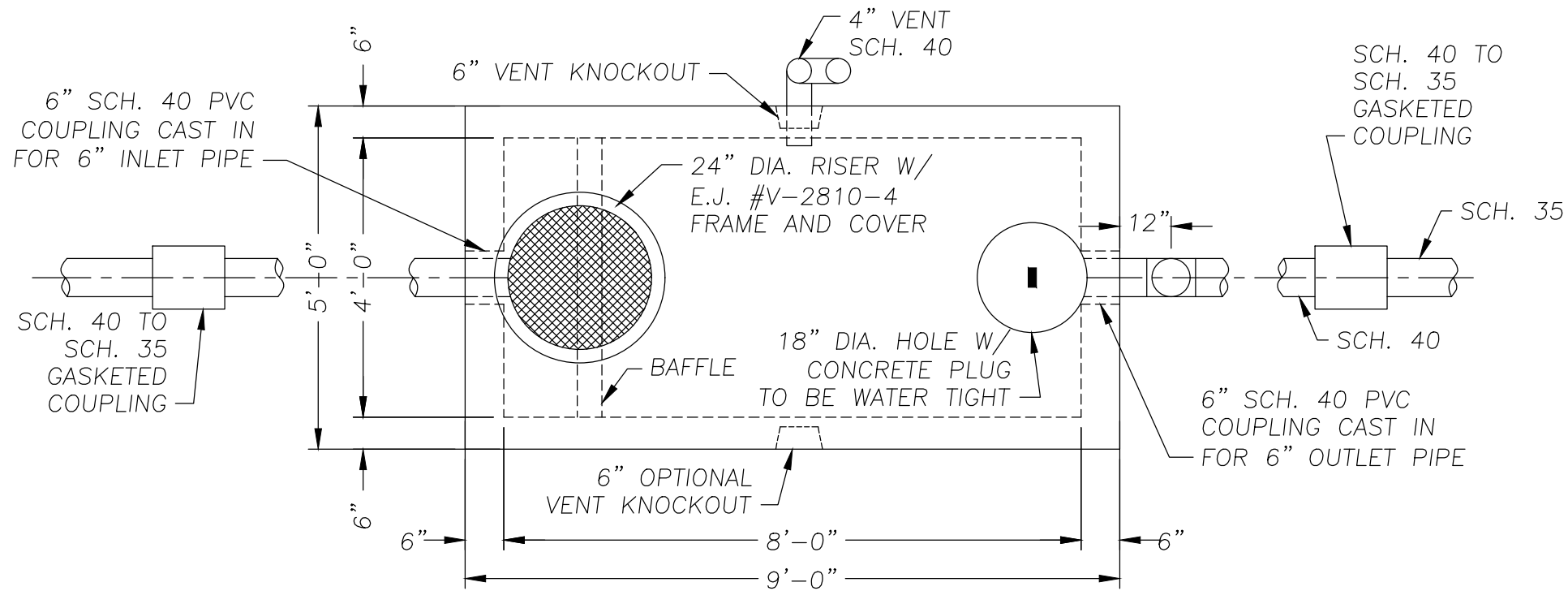
15) THE INTERCEPTOR SHALL BE CLEANED BY AN APPROVED SEWAGE DISPOSAL CONTRACTOR WHENEVER 25% OF THE OPERATING DEPTH OF THE GREASE INTERCEPTOR IS OCCUPIED BY FATS, OILS, GREASES AND SETTLED SOLIDS OR A MINIMUM OF ONCE EVERY FOUR (4) MONTHS WHICHEVER IS MORE FREQUENT. WRITTEN CLEANING RECORDS ARE TO BE MAINTAINED.

16) DO NOT CONNECT DISHWATER DISCHARGE TO A GREASE INTERCEPTOR.

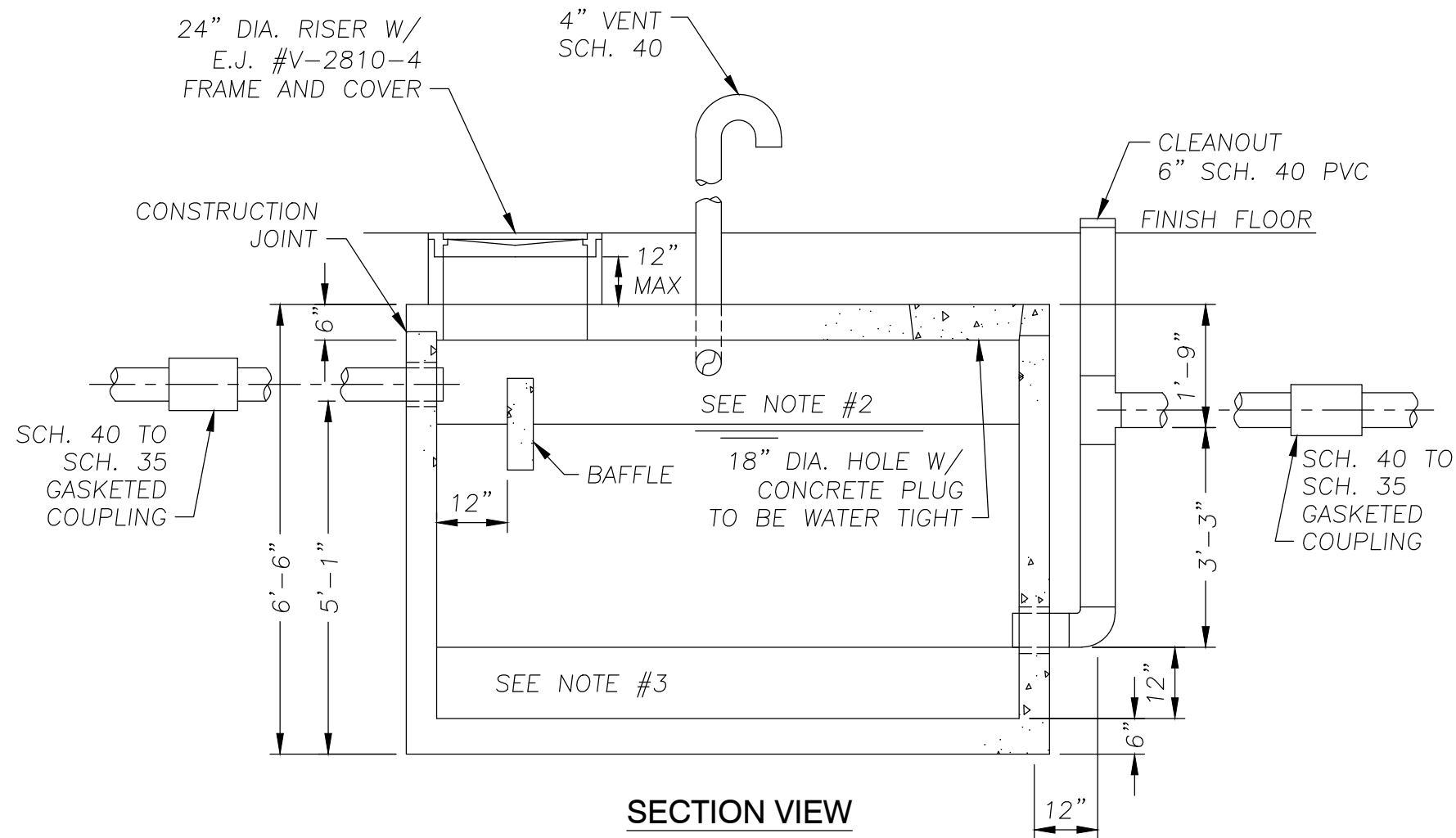
17) FLOOR DRAINS AND HAND WASHING FACILITIES IN FOOD PREPARATION AND MEAT PREPARATION AREAS SHALL NOT DISCHARGE INTO GREASE TRAPS.

18) INVERT OF OUTLET SHALL BE INSTALLED A MINIMUM OF 3 INCHES BELOW INVERT OF INLET.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
EXTERIOR PRECAST GREASE TRAP / INTERCEPTOR NOTES	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING SAN-13	61-24	5/29/24
		SHEET 2 OF 2



TOP VIEW

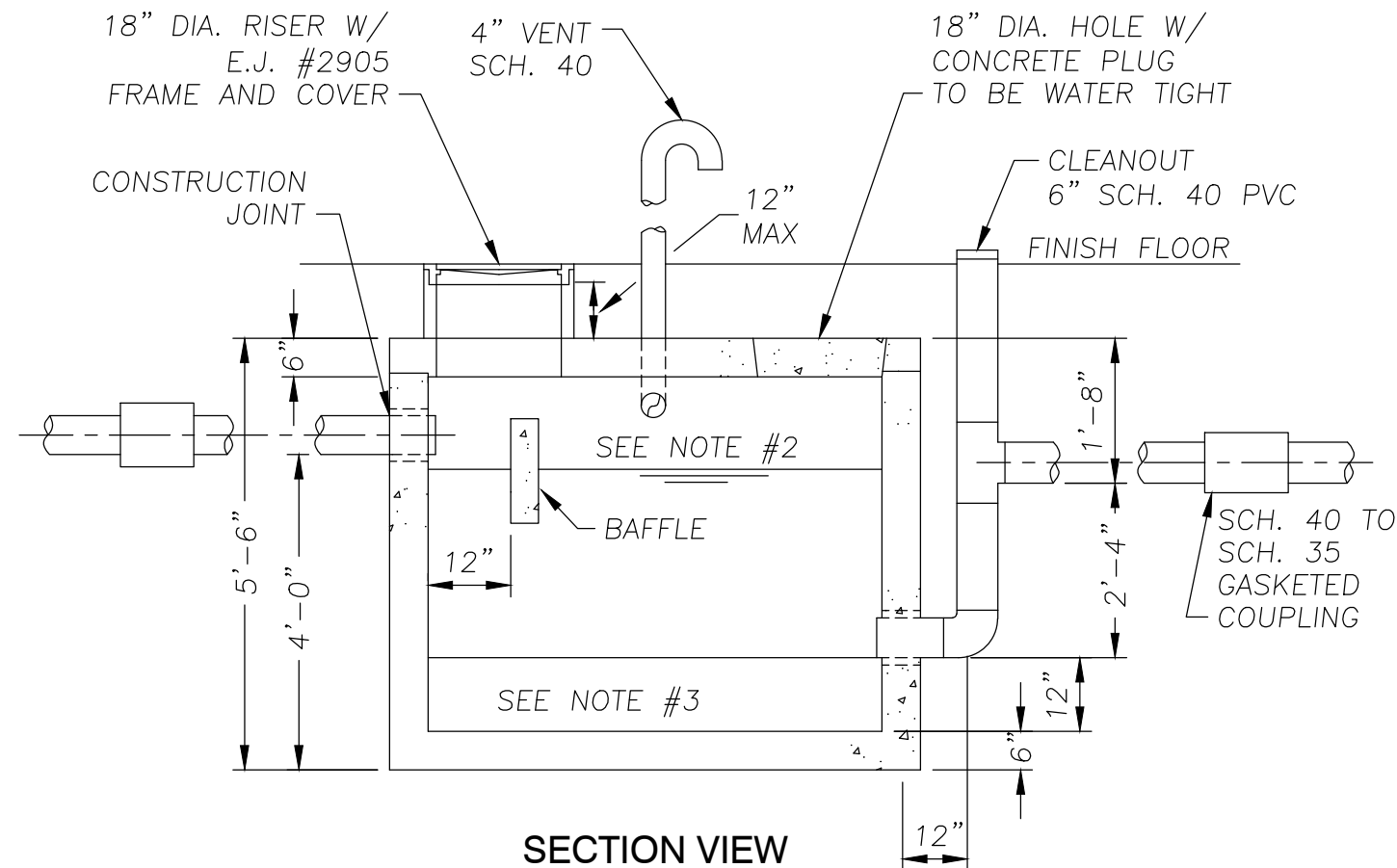
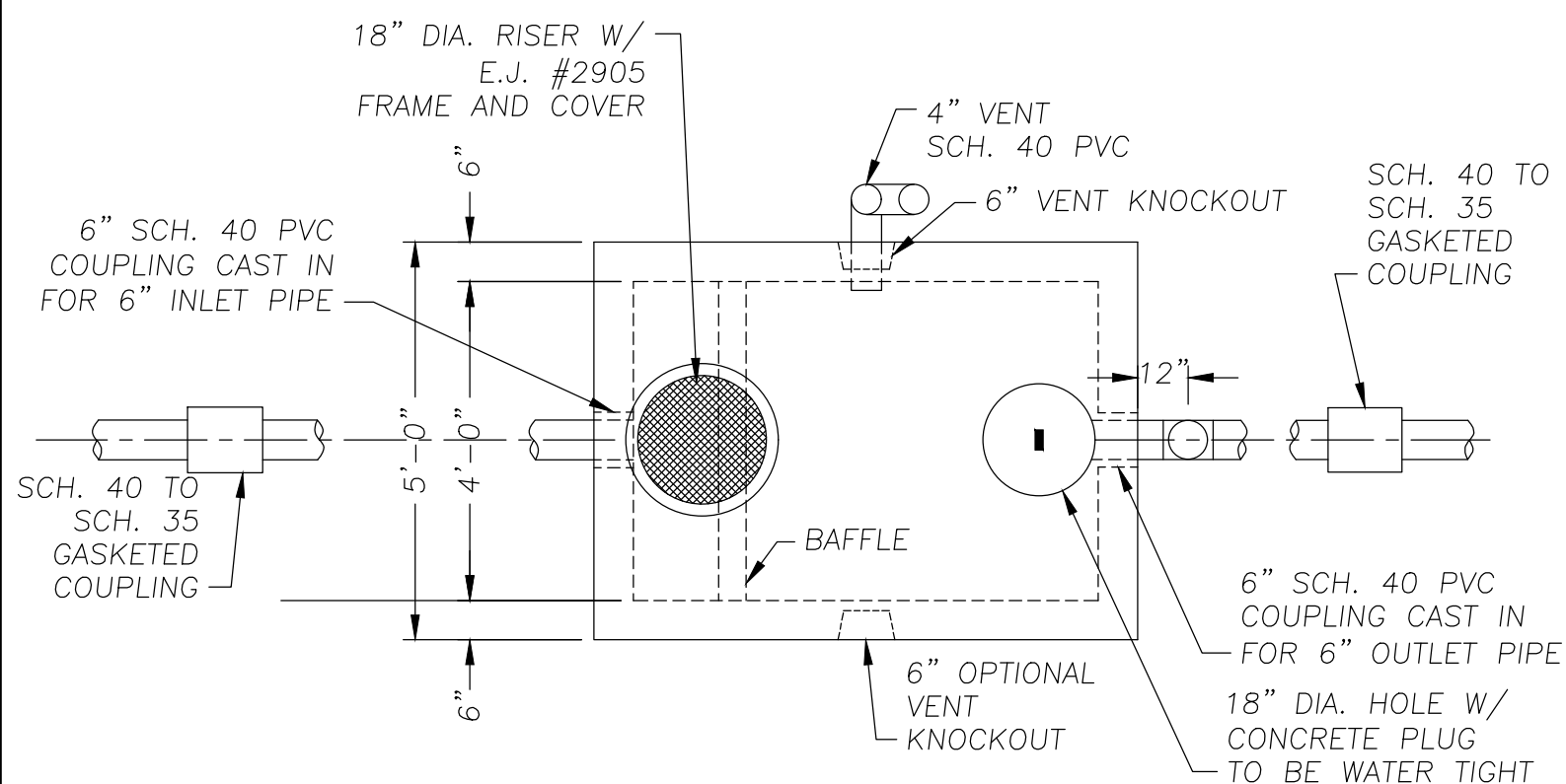


SECTION VIEW

NOTES:

- 1) REINFORCED PRECAST CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS.
- 2) VENTILATED AIRSPACE.
- 3) SPACE TO COLLECT SETTLING SOLIDS.
- 4) VENT PIPE TO BE 4" PVC SCH. 40 TYPE WITH HYDRAULIC CEMENT AT THE KNOCKOUT INSET.
- 5) THE VENT OUTLET SHALL BE PLACED IN A NON-TRAFFIC BEARING AREA.
i.e.: LAWN AREA OR NEXT TO THE WALL OF A BUILDING.
- 6) VENT RUNS SHALL RUN SO AS TO HAVE A SLIGHT POSITIVE PITCH BACK TO THE PRECAST TANK.
- 7) THE INLET PIPE MAY BE SCH. 35 PVC. HOWEVER, AN ADAPTER SHALL BE PROVIDED AND A SCH. 40 PVC COUPLING SHALL BE CAST IN FOR THE 6" INLET PIPE.
- 8) CLEANOUT INSTALLATION TO BE IN ACCORDANCE WITH DETAIL SHEET SAN-5 IN PAVED AREAS FOR COMMERCIAL/INDUSTRIAL AND UNPAVED AREAS FOR COMMERCIAL/INDUSTRIAL AREAS.
- 9) CONSTRUCTION JOINT TO BE SEALED WITH 1" CONSEAL CS-440 OIL RESISTANT SEALANT.
- 10) 24" DIAMETER RISER AVAILABLE IN 12" + 24" HEIGHTS.
- 11) ACCESS FOR CLEANING SHALL BE PROVIDED THROUGH A BOLT DOWN CAST IRON, GAS TIGHT COVER LOCATED AT THE INLET END OF THE STRUCTURE.
- 12) SHALL BE TRAFFIC BEARING IF WITHIN PAVED AREA.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
OIL & SAND SEPARATOR 104 CUBIC FEET EFFECTIVE CAPACITY	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING SAN-14	61-24	5/29/24
		SHEET 1 OF 3



NOTES:

- 1) REINFORCED PRECAST CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS.
- 2) VENTILATED AIRSPACE.
- 3) SPACE TO COLLECT SETTLING SOLIDS.
- 4) VENT PIPE TO BE 4" PVC SCH. 40 TYPE WITH HYDRAULIC CEMENT AT THE KNOCKOUT INSET.
- 5) THE VENT OUTLET SHALL BE PLACED IN A NON-TRAFFIC BEARING AREA.
i.e.: LAWN AREA OR NEXT TO THE WALL OF A BUILDING.
- 6) VENT RUNS SHALL RUN SO AS TO HAVE A SLIGHT POSITIVE PITCH BACK TO THE PRECAST TANK.
- 7) THE INLET PIPE MAY BE SCH. 35 PVC. HOWEVER, AN ADAPTER SHALL BE PROVIDED AND A SCH. 40 PVC COUPLING SHALL BE CAST IN FOR THE 6" INLET PIPE.
- 8) CLEANOUT INSTALLATION TO BE IN ACCORDANCE WITH DETAIL SHEET SAN-5 IN PAVED AREAS FOR COMMERCIAL/INDUSTRIAL AND UNPAVED AREAS FOR COMMERCIAL/INDUSTRIAL AREAS.
- 9) CONSTRUCTION JOINT TO BE SEALED WITH 1" CONSEAL CS-440 OIL RESISTANT SEALANT.
- 10) 24" DIAMETER RISER AVAILABLE IN 12", 15" + 24" HEIGHTS.
- 11) ACCESS FOR CLEANING SHALL BE PROVIDED THROUGH A BOLT DOWN CAST IRON, GAS TIGHT COVER LOCATED AT THE INLET END OF THE STRUCTURE.
- 12) SHALL BE TRAFFIC BEARING IF WITHIN PAVED AREA.

WHERE AN OIL SEPARATOR ONLY IS REQUIRED AND ALL PLUMBING CODES ARE MET, A 50 CU. FT. PRECAST OIL SEPARATOR MAY BE PERMITTED BY THE CITY.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
OIL & SAND SEPARATOR 50 CUBIC FEET EFFECTIVE CAPACITY	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING SAN-14	61-24	5/29/24
		SHEET 2 OF 3

VACUUM TESTING FOR PRECAST OIL AND SAND, OIL SEPARATORS

- A) VACUUM TESTING SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
- B) THIS TEST METHOD IS ONLY APPLICABLE TO PRECAST CONCRETE OIL AND SAND, OIL SEPARATORS.
- C) ALL LIFTING HOLES AND EXTERIOR JOINTS SHALL BE FILLED WITH APPROVED HYDRAULIC CEMENT.
- D) ALL PIPES, STUBOUTS, AND OTHER OPENINGS INTO THE SEPARATOR SHALL BE SUITABLY PLUGGED IN SUCH A MANNER AS TO PREVENT DISPLACEMENT OF THE PLUGS WHILE THE VACUUM IS DRAWN.
- E) INSTALLATION AND OPERATION OF VACUUM EQUIPMENT AND INDICATING DEVICES SHALL BE IN ACCORDANCE WITH EQUIPMENT SPECIFICATIONS AND INSTRUCTIONS PROVIDED BY THE MANUFACTURER.
- F) THE TEST HEAD SHALL BE PLACED AT THE INSIDE OF THE TOP OF THE SEPARATOR CASTING AND THE SEAL INFLATED IN ACCORDANCE WITH THE MANUFACTURER’S RECOMMENDATION.
- G) A MEASURED VACUUM OF 5 INCHES OF MERCURY SHALL BE DRAWN TO THE SEPARATOR.
- H) ACCEPTANCE FOR THE OIL AND SAND, OIL SEPARATOR SHALL BE DEFINED AS WHEN THE ELAPSED TIME FOR A NEGATIVE PRESSURE HAS NO LOSS:

<u>SEPARATOR</u>	<u>CAPACITY</u>	<u>TEST TIME</u>
OIL AND SAND	104 CUBIC FEET	120 SECONDS
OIL	50 CUBIC FEET	120 SECONDS

- I) IF THE SEPARATOR FAILS THE TEST, NECESSARY REPAIRS SHALL BE MADE BY THE CONTRACTOR AND THE VACUUM TEST REPEATED UNTIL THE SEPARATOR PASSES THE TEST. REPAIRS ARE TO BE MADE WITH NON–SHRINK GROUT OR HYDRAULIC CEMENT ONLY.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
OIL AND SAND SEPARATOR TEST PROCEDURES	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING SAN-14	61-24	5/29/24
		SHEET 3 OF 3