

PLAN VIEW

END VIEW

SECTION

- NOTES:
1. PLACE DITCH SEDIMENT TRAP PRIOR TO ON-SITE CONSTRUCTION WORK.
 2. MAINTAIN DITCH SEDIMENT TRAP IN GOOD OPERATION DURING PROJECT & REMOVE AT END OF PROJECT.
 3. CHANNEL TO BE RESTORED TO ORIGINAL CONDITION OR BETTER AS DIRECTED BY THE ENGINEER.
 4. CRUSHED STONE INCLUDED WITH DITCH SEDIMENT TRAP.

DITCH SEDIMENT TRAP

NOT TO SCALE

PLAN VIEW

CROSS-SECTION

SECTION A-A

SECTION B-B

- NOTE:
CHECK DAMS GREATER THAN TWO FEET
IN DEPTH MAY SERIOUSLY IMPACT THE
FLOW CHARACTERISTICS OF THE DITCH.

CHECK DAMS

NOT TO SCALE

SILT FENCE

SILT FENCE

NOT TO SCALE

DRAINAGE STRUCTURE FILTER

NOT TO SCALE

TOP VIEW

SIDE VIEW

DEWATERING FILTER BAG DETAIL

NOT TO SCALE

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE AGENCY HAVING JURISDICTION.
2. ALL SOIL EROSION CONTROL MEASURES SHALL BE CHECKED A MINIMUM OF ONCE PER WEEK AND WITHIN A MINIMUM OF 24 HOURS AFTER EVERY RAINFALL. ANY SOIL EROSION CONTROL MEASURES DAMAGED OR RENDERED INEFFECTIVE SHALL BE IMMEDIATELY REPAIRED OR REMOVED AND REPLACED AT NO ADDITIONAL COST.
3. EROSION AND ANY SEDIMENT FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MANMADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
4. ALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) DEVICES SHALL BE INSTALLED PRIOR TO CONTRACTOR BEGINNING ANY WORK. ALL SESC DEVICES SHALL BE MAINTAINED IN AN EFFECTIVE, FUNCTIONING CONDITION AT ALL TIMES DURING THE COURSE OF THE WORK. ALL TEMPORARY SESC DEVICES SHALL BE REMOVED AND THE AREA RESTORED AFTER THE PERMANENT SESC MEASURES ARE INSTALLED AND FUNCTIONING.
5. DEBRIS FROM THE PROJECT SHALL BE LEFT ON THE SITE BY DELIVERY OR CONSTRUCTION VEHICLES THROUGH THE USE OF CLEAN STONE EXITS. SHOULD THE STONE BECOME INEFFECTIVE IT WILL BE REPLACED. ALL CONSTRUCTION TRAFFIC WILL USE THE CLEAN STONE EXITS.
6. IMMEDIATELY AFTER SEEDING, MULCH ALL SEEDING AREAS WITH UNWEATHERED SMALL GRAIN STRAW OR HAY SPREAD UNIFORMLY AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE. ANCHOR MULCH WITH DISC-TYPE MULCH ANCHORING TOOL OR OTHER MEANS AS APPROVED BY THE AGENCY WITH JURISDICTION.
7. ALL MUD, DIRT, AND DEBRIS TRACKED OR SPILLED ONTO EXISTING ROADS FROM THIS SITE SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
8. PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING OR FINAL EARTH CHANGES HAVE BEEN COMPLETED. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IMMEDIATELY. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE ESTABLISHED. ALL PERMANENT SOIL EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED. ALL DRAIN BANKS DISTURBED BY CONSTRUCTION SHALL BE RESTORED WITHIN FIVE CALENDAR DAYS AND SOD PEGGED IN PLACE.
9. PARTICULAR CARE SHOULD BE TAKEN WHEN WORKING ALONG THE PERIMETER OF THE SITE. IN NO EVENT SHALL WORK AREA EXTEND BEYOND THE LIMITS INDICATED ON THE PLANS.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

10. SHOULD IT BE NECESSARY FOR THE CONTRACTOR TO DEWATER THE GROUND IN THE COURSE OF CONSTRUCTING THE PROPOSED UTILITY, THE CONTRACTOR SHALL FILTER ALL DISCHARGE THROUGH A DISCHARGE FILTER BAG. THAT WILL FILTER ALL DISCHARGED WATER FROM THE DEWATERING OPERATION. IN NO INSTANCE SHALL THE DEWATERING DISCHARGE BE PERMITTED TO FLOW UNFILTERED FROM THE CONSTRUCTION SITE.
11. THE CONTRACTOR SHALL CONTROL THE DUST ON THE SITE DURING THE LIFE OF THE CONTRACT. IN ACCORDANCE WITH THE SPECIFICATIONS AND THE REQUIREMENTS OF THE COMMUNITY THIS DUST CONTROL SHALL BE COMPLETED BY THE APPLICATION OF A POSITIVE DUST PICK-UP METHOD WITH WATER ON HARD SURFACES. SUCH DUST CONTROL MATERIALS SHALL BE APPLIED AS OFTEN AS IS NECESSARY IN THE OPINION OF THE COMMUNITY TO CONTROL THE DUST.
12. SHOULD THE SOIL EROSION CONTROL REQUIREMENTS BE NEGLECTED OR NOT ADEQUATELY FOLLOWED, THE COMMUNITY MAY REQUIRE THE CONTRACTOR TO CEASE CONSTRUCTION OPERATIONS AND TO APPLY HIS ENTIRE FORCE TO MEET THE REQUIREMENTS BEFORE PROCEEDING FURTHER WITH THE PROJECT.
13. SOIL EROSION AND SEDIMENTATION CONTROL SHALL BE IN ACCORDANCE WITH PART 91 SOIL EROSION AND SEDIMENTATION CONTROL (SESC), OF THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT, 1994 PA 451, AS AMENDED (NREPA).
14. AS SOON AS POSSIBLE, COMPLETE FINAL GRADING AND PLACING OF PERMANENT SOIL EROSION CONTROL DEVICES. AFTER ESTABLISHMENT OF PERMANENT VEGETATION, REMOVE ALL TEMPORARY SOIL EROSION CONTROL MEASURES.

NOTE :

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION

ENTRANCE/EXIT

NOT TO SCALE

[illegible]

NOT VALID FOR CONSTRUCTION
UNLESS SIGNED AND DATED:

 **WADETRUM**

25251 Northline Rd., PO Box 10
Taylor, MI 48180
Tel: 734.947.2864
Fax: 734.947.5726

VAN BUREN CHARTER
TOWNSHIP
STANDARD SOIL EROSION AND
SEDIMENTATION CONTROL DETAILS (SE-1)

ISSUED FOR: DATE: BY:

JOB NO.

SHEET

SE-1

① Wade Trim Group, Inc.	STANDARD SOIL EROSION AND SEDIMENTATION CONTROL DETAILS (SF-1 of 1)
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PLOTTED 3/16/2009 9:02:47 AM BY hlaprad

PROJECT MANAGER: - FIELD BOOK INFORMATION: -
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SANITARY SEWER NOTES

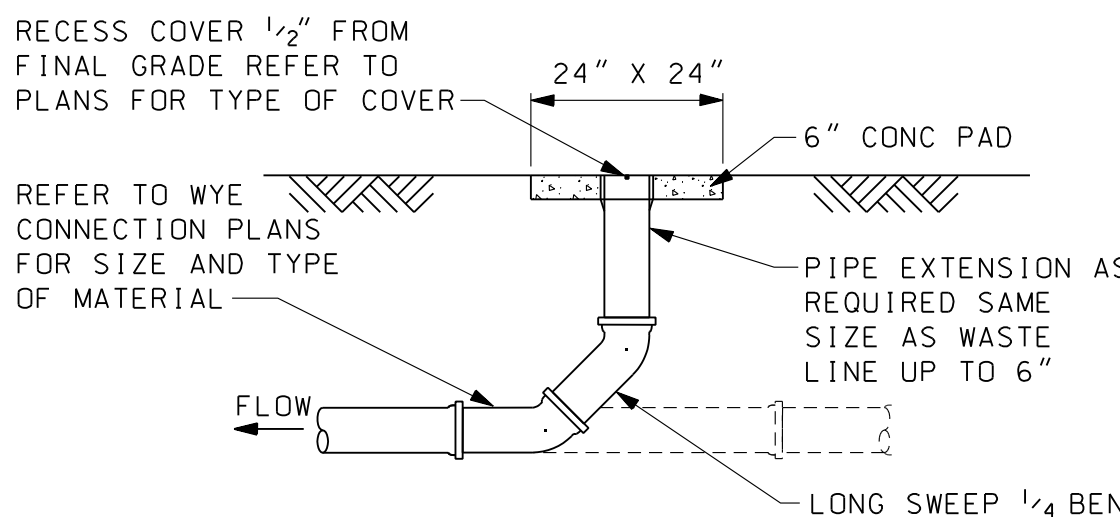
1. ALL SEWER SYSTEM CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND GENERAL SPECIFICATION OF THE COMMUNITY SEWER DEPARTMENT AND ANY OTHER AGENCY HAVING JURISDICTION OF THE CONSTRUCTION AREA.
2. DETAILS ARE FOR STRUCTURES WITH NO MORE THAN TWO PIPES ENTERING, 180° APART. LARGER DIAMETER STRUCTURES MAY BE REQUIRED FOR DIFFERENT CONFIGURATIONS.
3. THE MANHOLE STRUCTURE REQUIRES A MINIMUM OF 8 INCHES OF CONCRETE WALL BETWEEN PIPE OPENINGS. LARGER DIAMETER STRUCTURES MAY BE REQUIRED WHERE PIPE ENTERING THE STRUCTURE ARE LESS THAN 90° APART IN ANY DIRECTION.
4. CONSTRUCTION SHALL NOT COMMENCE WITHOUT A REPRESENTATIVE OF THE OWNER PRESENT.
5. ALL MANHOLES SHALL USE ECCENTRIC CONES PLACED WITH STEPS AWAY FROM THE ROAD UNLESS DIRECTED OTHERWISE.
6. ALL MANHOLES SHALL BE PROVIDED WITH WATER TIGHT MANHOLE COVERS AND RIMS SHALL BE SET TO GRADE OR AS INDICATED ON THE PLANS.
7. ALL PRECAST PRODUCTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
8. DIFFERENTIAL OF EXCAVATION AROUND EXISTING MANHOLES SHALL NOT EXCEED SIX FEET.
9. EXTERIOR DROP CONNECTIONS ARE REQUIRED WHENEVER A SEWER INVERT IS 2.0 FEET OR GREATER ABOVE THE MANHOLE FLOW CHANNEL INVERT. INTERIOR DROP CONNECTIONS ARE NOT ALLOWED.
10. NO SEWERS SHALL BE CONSTRUCTED LESS THAN 10-INCH DIAMETER WITHOUT SPECIFIC APPROVAL OF THE COMMUNITY SEWER DEPARTMENT.
11. ALL RIGID SANITARY SEWER PIPE SHALL BE CLASS "R-8" BEDDING, ALL FLEXIBLE PIPE SHALL BE CLASS "F-1" BEDDING, UNLESS OTHERWISE NOTED ON THE PLANS. SEE SHEET MD1.
12. PLACE ONE 6-INCH WYE FOR EACH LOT OR PARCEL 100 FEET OR LESS IN WIDTH OR EVERY 100 FEET FOR LOTS OR PARCELS IN EXCESS OF 100 FEET ON SANITARY SEWERS UNLESS OTHERWISE NOTED.
13. NO CONNECTION RECEIVING STORM WATER, SURFACE WATER, OR GROUND WATER SHALL BE MADE TO SANITARY SEWERS.
14. NO FOOTING DRAINS SHALL BE CONNECTED TO THE BUILDINGS SANITARY SEWER.
15. RISERS ON SANITARY SEWERS SHALL BE INSTALLED TO A DEPTH OF 10 FEET WHERE SEWER IS OVER 12 FEET.
16. PRIOR TO THE BACKFILLING OF A SERVICE LEAD, A 2" BY 2" PIECE OF WOOD SHALL BE PLACED FROM A POINT IMMEDIATELY IN FRONT OF THE SERVICE CONNECTION TO 2-FOOT BELOW THE FINISH GROUND SURFACE. DO NOT REST THE MARKER ON ANY PORTION OF THE SERVICE CONNECTION OR STOPPER.

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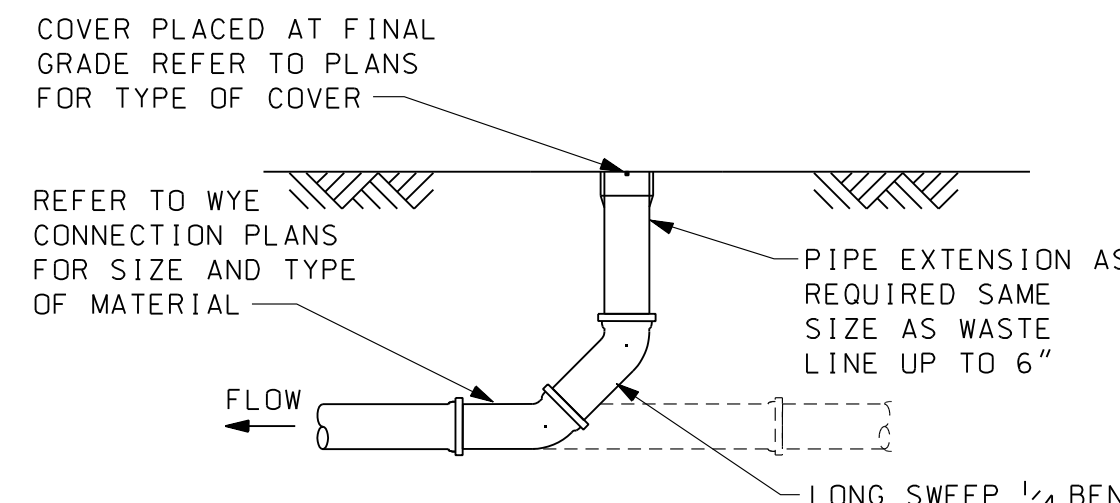
17. ALL STUBS SHALL HAVE A WATER TIGHT BULKHEAD.
18. INFILTRATION FOR ANY SECTION OF SEWERS BETWEEN MANHOLES SHALL NOT EXCEED 100 GALLONS PER INCH DIAMETER PER MILE OF SEWER PER 24 HOURS AND SHALL INCLUDE THE INFILTRATION FROM ALL MANHOLES AND OTHER APPURTENANCES.
19. ALL SEWERS SHALL BE SUBJECTED TO AIR, INFILTRATION OR EXFILTRATION TESTS, OR A COMBINATION OF SAME, PRIOR TO ACCEPTANCE. ALL SEWERS OVER 24-INCH DIAMETER SHALL BE SUBJECTED TO INFILTRATION TESTS. ALL SEWERS OF 24-INCH DIAMETER OR SMALLER, WHERE THE GROUND WATER LEVEL ABOVE THE TOP OF THE SEWER IS OVER SEVEN FEET, SHALL BE SUBJECTED TO INFILTRATION TESTS. ALL SEWERS OF 24-INCH DIAMETER OR LESS, WHERE THE GROUND WATER LEVEL ABOVE THE TOP OF THE SEWER IS SEVEN FEET OR LESS, SHALL BE SUBJECTED TO AIR TESTS OR EXFILTRATION TESTS.
20. THE PROCEDURE FOR AIR TESTING OF SEWERS SHALL BE IN ACCORDANCE WITH ASTM C828, ASTM C924, OR ASTM F1417 AS APPLICABLE.
21. NINE POINT MANDREL TEST IS REQUIRED FOR ALL FLEXIBLE PIPES AND MAY NOT BE PERFORMED UNTIL 30 DAYS AFTER INSTALLATION.
22. IF A SEWER FAILS TO PASS ANY OF THE PREVIOUSLY DESCRIBED TESTS, THE CONTRACTOR SHALL DETERMINE THE LOCATION OF THE LEAKS, REPAIR THEM, AND RETEST THE SEWER. THE TEST SHALL BE REPEATED UNTIL SATISFACTORY RESULTS ARE OBTAINED. TELEVISION INSPECTION SHALL BE CONSIDERED COMPLETED WHEN THE NECESSARY CONSTRUCTION REPAIRS HAVE BEEN MADE AND THE INSTALLATION RETELED AND THE SYSTEM IS ACCEPTABLE FOR THE TESTING PHASE.
23. THE CONTRACTOR SHALL PROVIDE FOR TELEVISION INSPECTION OF THE SANITARY SEWER LINES. ALL SANITARY LEADS FOR COMMERCIAL AND INDUSTRIAL SITES OVER 100 FEET IN LENGTH MUST BE AIR TESTED AND TELEVISION INSPECTION COMPLETED.
24. ALL SEWER SHALL BE TELEVIEWED, WITH RESULTS APPROVED BY THE COMMUNITY PRIOR TO PLACING THE SEWER IN SERVICE. COPIES OF THE TELEVISION RECORDING (DVD FORMAT) NEED TO GO TO THE COMMUNITY AND THE ENGINEER PRIOR TO THE CONTRACTOR LEAVING THE SITE. THE TELEVISION INSPECTION MUST BE WITNESSED BY THE OWNERS REPRESENTATIVE.
25. THE CONTRACTOR SHOULD ARRANGE FOR, ENGAGE, AND PAY ALL EXPENSES INVOLVED FOR THE SERVICES OF A COMPETENT COMPANY TO PERFORM THIS TELEVISION INSPECTION.
26. THE TELEVISION INSPECTION SHALL BE OBSERVED BY REPRESENTATIVES OF THE OWNER, ENGINEER, AND THE CONTRACTOR. ANY TELEVISION VIEWING PERFORMED IN THE ABSENCE OF THE ENGINEER WILL NOT BE CONSIDERED AS A PART OF THE FINAL INSPECTION.

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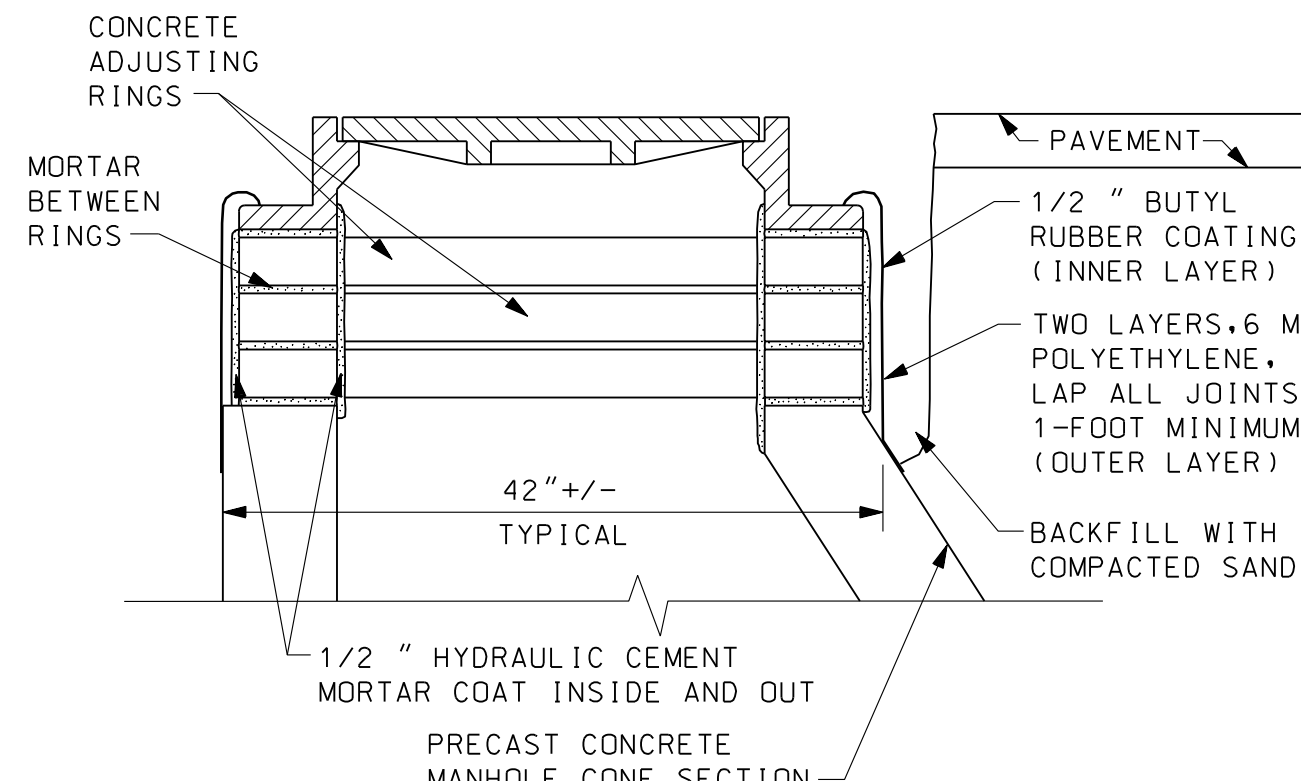
27. THE INSPECTION SHALL INVOLVE THE VISUAL OBSERVATION BY CLOSED CIRCUIT TELEVISION OF ALL SANITARY SEWER INSTALLED AS PART OF THIS CONTRACT. THE INSPECTION SHALL BE PERFORMED AT A RATE OF SPEED WHICH WILL ALLOW EXAMINATION OF ALL POINTS OF INFILTRATION, CRACKED OR CRUSHED PIPE, DEFECTIVE JOINTS, MISALIGNMENT IN LINE OR GRADE, LOCATION OF ALL WYE OPENINGS AND ANY DEFECTS OR ITEMS OF POOR WORKMANSHIP WHICH MAY APPEAR. ANY ITEMS WHICH, IN THE OPINION OF THE ENGINEER, REQUIRE REPAIR SHALL BE PRECISELY LOCATED AND PHOTOGRAPHED ALONG WITH A DETAILED STATEMENT OF THE CONDITION. THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO REPAIR ALL SUCH DEFECTS INCLUDING EXCESSIVE INFILTRATION AT ANY SPECIFIC LOCATION, EVEN THOUGH THE INFILTRATION LIMITS AS HEREIN SPECIFIED HAVE NOT BEEN EXCEEDED FOR THE ENTIRE LENGTH OF SEWER BEING INSPECTED. FOLLOWING COMPLETION OF THE REPAIR, THE ENGINEER, IN HIS DISCRETION, MAY REQUIRE A SECOND TELEVISION INSPECTION OF ANY REPAIRED AREAS. THE CONTRACTOR SHALL ARRANGE FOR AND PAY ALL COSTS INVOLVED IN PERFORMING THIS RE-INSPECTION.
28. THERE SHALL BE NO DISCHARGE OF UNTREATED SANITARY SEWAGE TO THE SURFACE WATERS OF THE STATE DUE TO CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT.
29. CONTRACTOR SHALL NOTIFY WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES, ENGINEERING DIVISION PERMIT OFFICE, 48 HOURS PRIOR TO START OF CONSTRUCTION. MR. PAUL POLKOWSKI AT (734) 595-6507, EXTENSION 2009.



CLEAN - OUT
(LOCATED IN PAVED AREA)



CLEAN - OU
LOCATED IN GREENBELT



* OUTSIDE DIAMETER OF
FRAME SHALL NOT EXCEED
OUTSIDE DIAMETER OF RING.

NOTE:
THIS DETAIL TO BE USED IN CONCRETE OR
BITUMINOUS PAVED AREAS. ALL OTHER AREA
SHALL USE BOLT DOWN FRAMES WITH RUBBER
O-RINGS AS SHOWN ON MANHOLE DETAILS.

EXTERNAL FRAME SEAL DETAIL

[illegible]

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WADE TRIM

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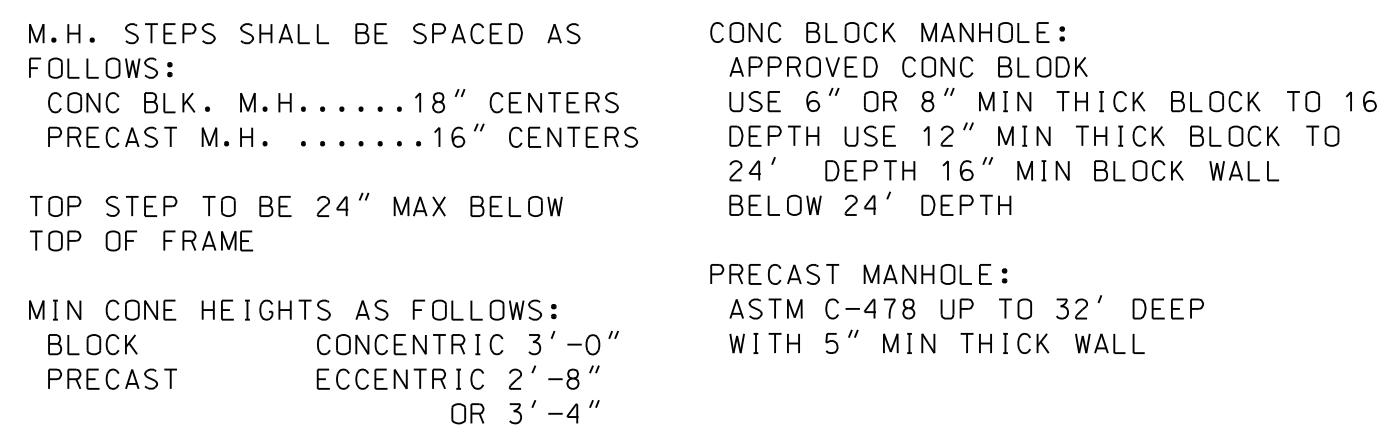
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TOWNSHIP

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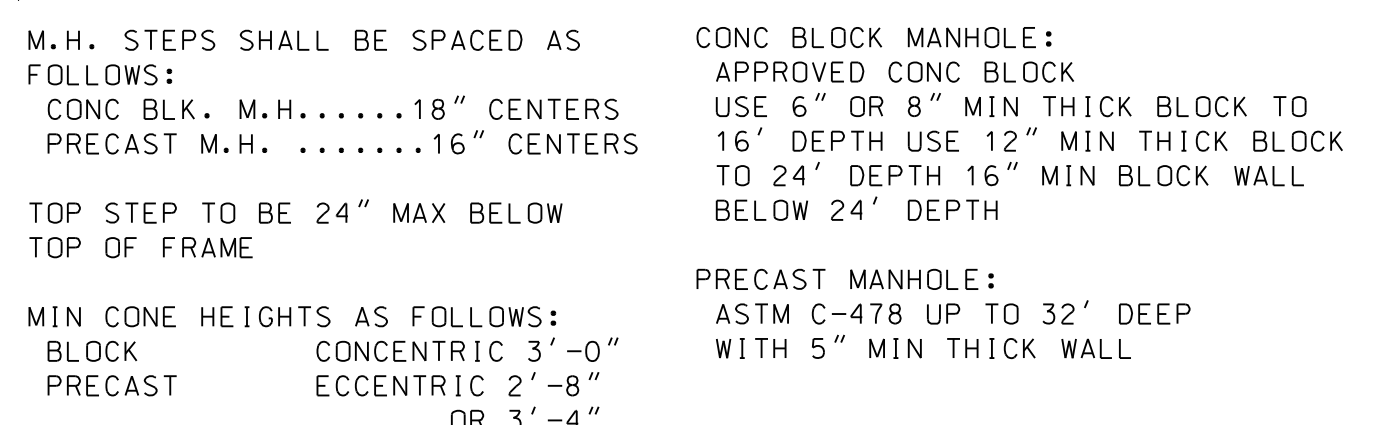
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SHEET

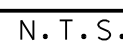
SS-2



N.T.S.



N.T.S.



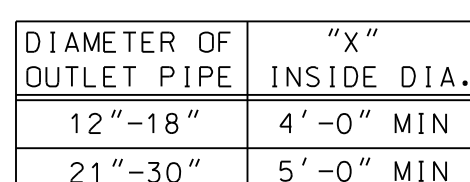
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- Diagram illustrating the construction details of a storm sewer structure, showing the following components and dimensions:
- SEE STORM SEWER NOTES
 - 1-3 BRICK COURSES FOR FUTURE ADJUSTMENT
 - PLASTER COAT ENTIRE BLOCK STRUCTURE WITH 1/2" CEMENT MORTAR
 - 6" CONCRETE BLOCK OR PRECAST CONCRETE
 - 12" DIA. MAXIMUM SIZE
 - PRECAST 3500 P.S.I. CONC. BASE WITH 4X4-W4XW4 WELDED WIRE FABRIC
 - BEDDING UNDER STRUCTURE SHALL BE CRUSHED STONE.
 - Dimensions: 3'-6" MAX DEPTH, 2'-0" MIN, 2" MAX, 4" MIN, 8", 3"

STANDARD INLET
N.T.S.

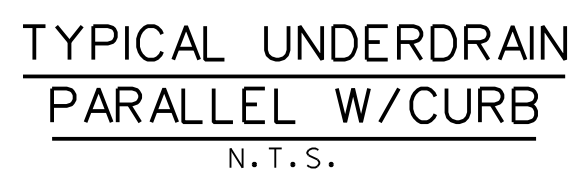


STANDARD MANHOLE FRAME AND COVER
N.T.S.

* TOP SLAB
** 2' SUMP REQ'D FOR MANHOLE
WITH OUTLET OF 18" & UNDER



STANDARD CATCH BASIN



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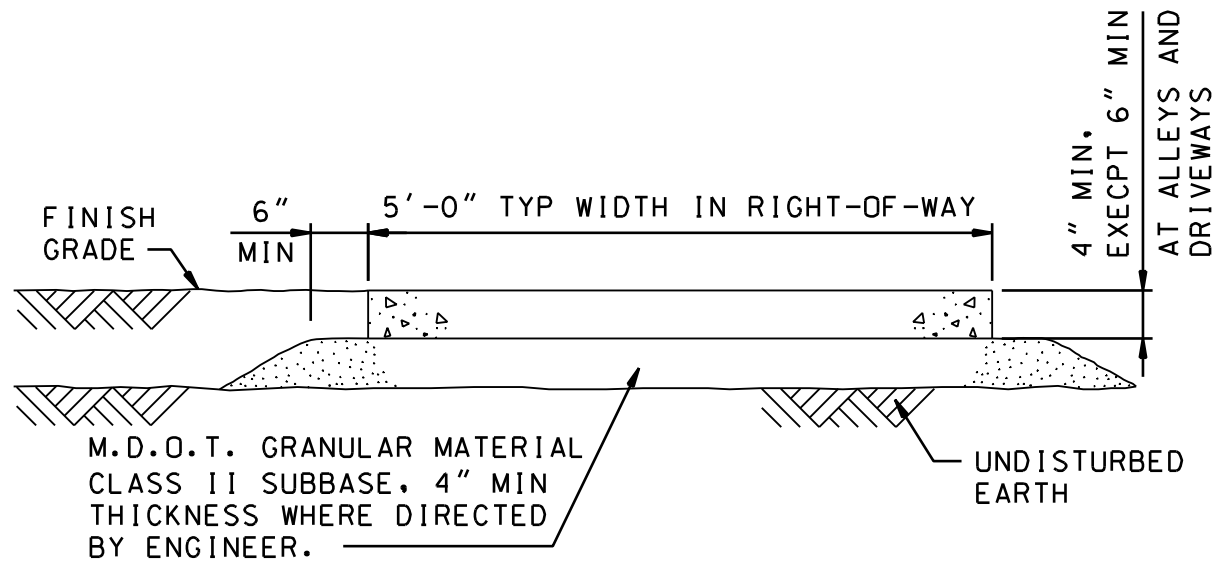
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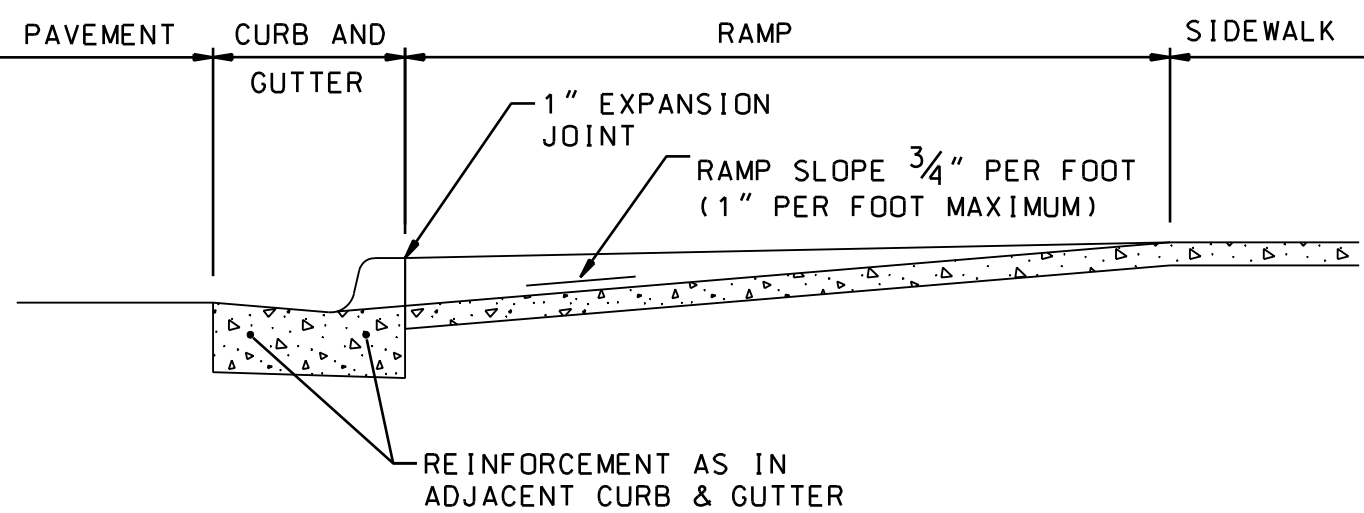
SHEET
ST-1

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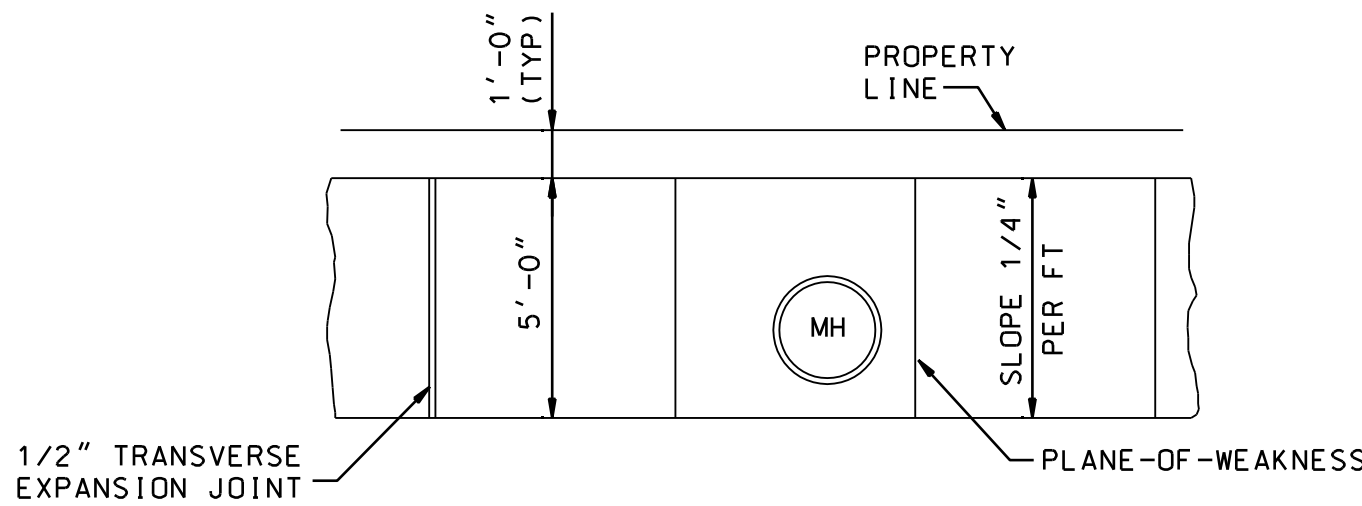
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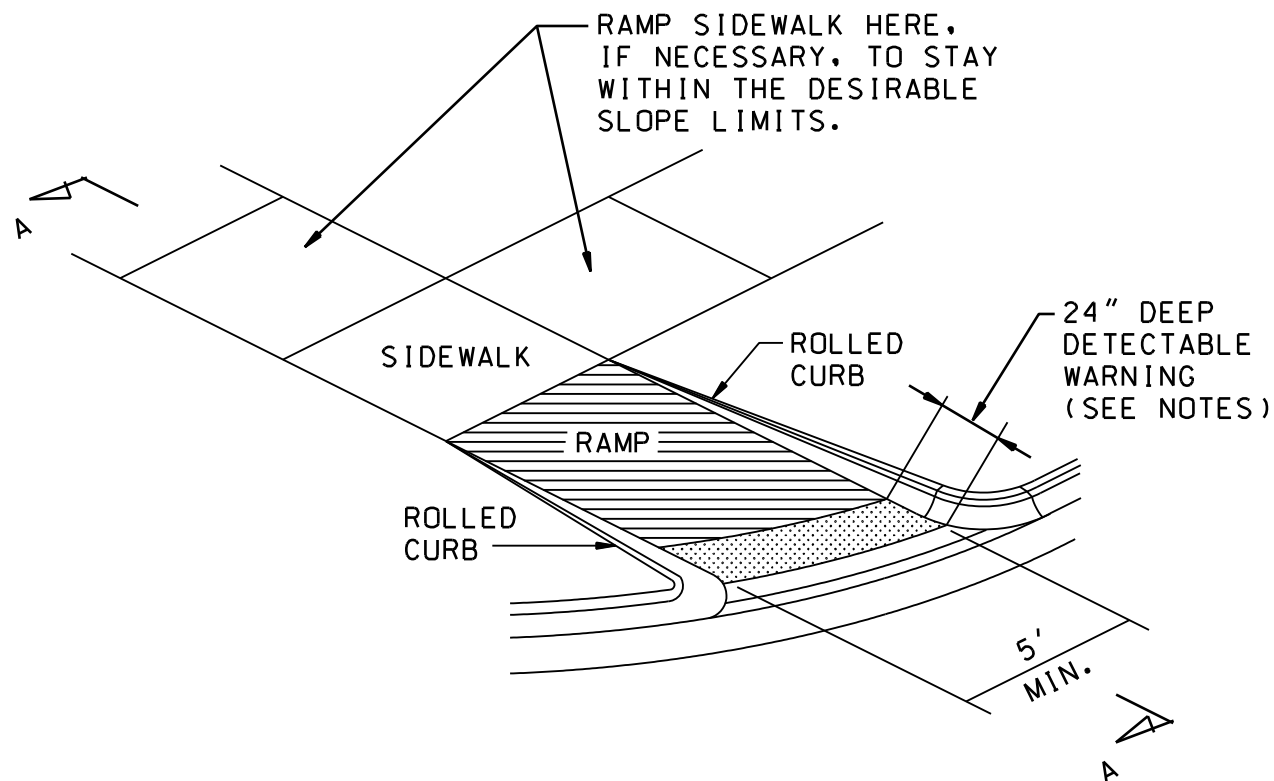
TYPICAL SECTION
N. T. S.



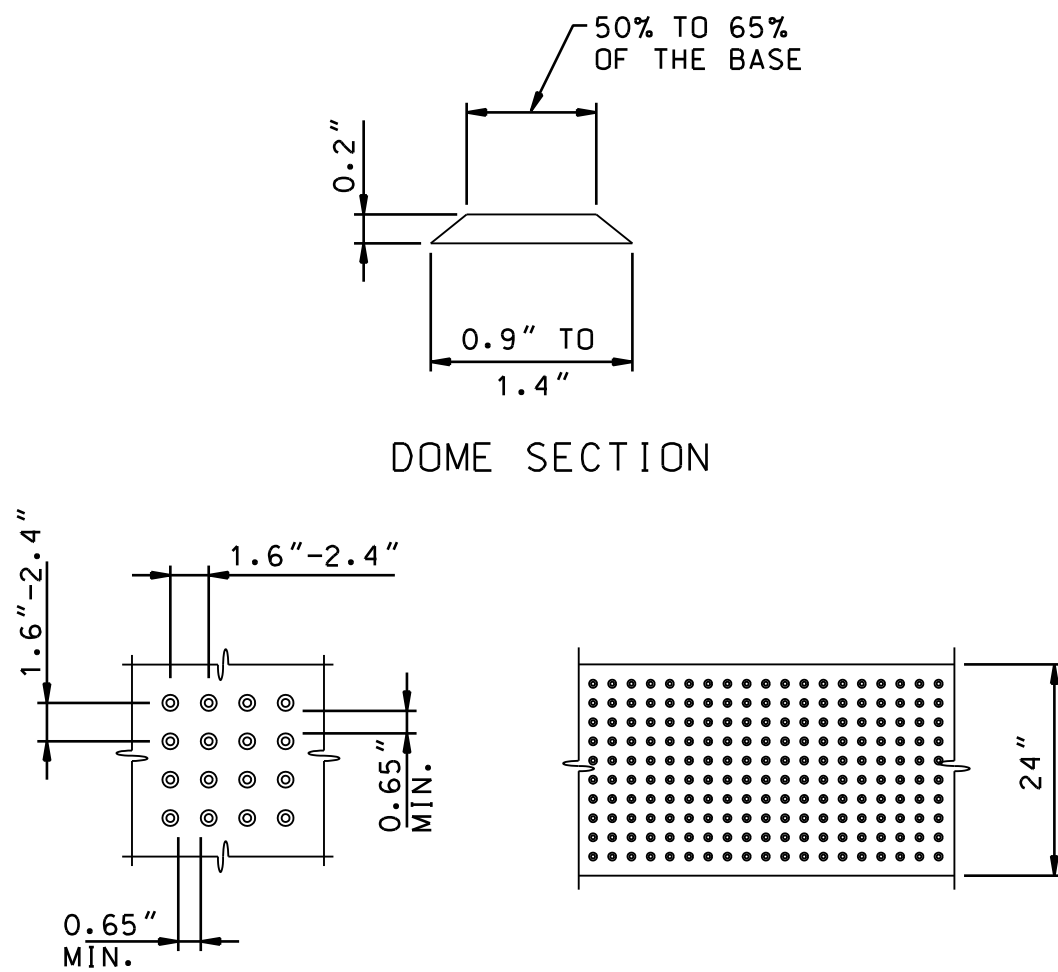
SECTION A-A
(TYPICAL ALL RAMP DETAILS)
TYPICAL PLAN IN RIGHT-OF-WAY
N. T. S.



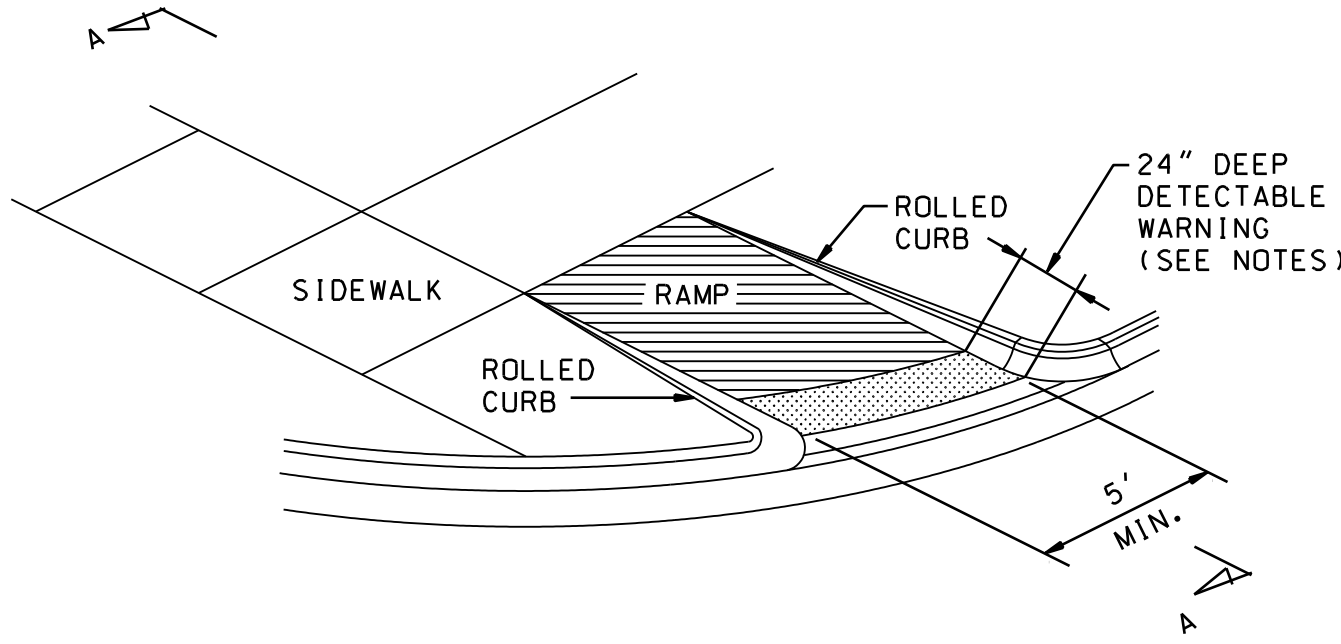
TYPICAL PLAN IN RIGHT-OF-WAY
N. T. S.



SIDEWALK RAMP TYPE 1
TYPICAL PLAN IN RIGHT-OF-WAY
N. T. S.



DETECTABLE WARNING DETAILS
N. T. S.



SIDEWALK RAMP TYPE 2
SIDEWALK RAMP DETAILS
N. T. S.

NOTES:

- ONE-HALF INCH TRANSVERSE EXPANSION JOINTS SHALL BE PLACED THROUGH THE SIDEWALK AT UNIFORM INTERVALS OF NOT MORE THAN 50 FEET. ONE-HALF INCH EXPANSION JOINT SHALL ALSO BE PLACED BETWEEN THE SIDEWALK AND ABUTTING PARALLEL CURB, BUILDINGS, RIGID STRUCTURES, CONCRETE DRIVES AND CONCRETE DRIVE APPROACHES. ONE INCH EXPANSION JOINTS SHALL BE PLACED BETWEEN SIDEWALK RAMP AND BACK OF CURB.
- PLANE-OF-WEAKNESS JOINTS SHALL BE PLACED EVERY 5 FEET AND BE PRODUCED BY USE OF SLAB DIVISION FORMS EXTENDING TO THE FULL DEPTH OF CONCRETE OR BY CUTTING JOINTS IN THE CONCRETE, AFTER FLOATING, TO A DEPTH OF NOT LESS THAN ONE-FOURTH THE THICKNESS OF THE SIDEWALK. THE CUT JOINTS SHALL BE NOT LESS THAN 1/8 INCH NOR MORE THAN 1/4 INCH IN WIDTH AND SHALL BE FINISHED SMOOTH AND TRUE TO LINE.

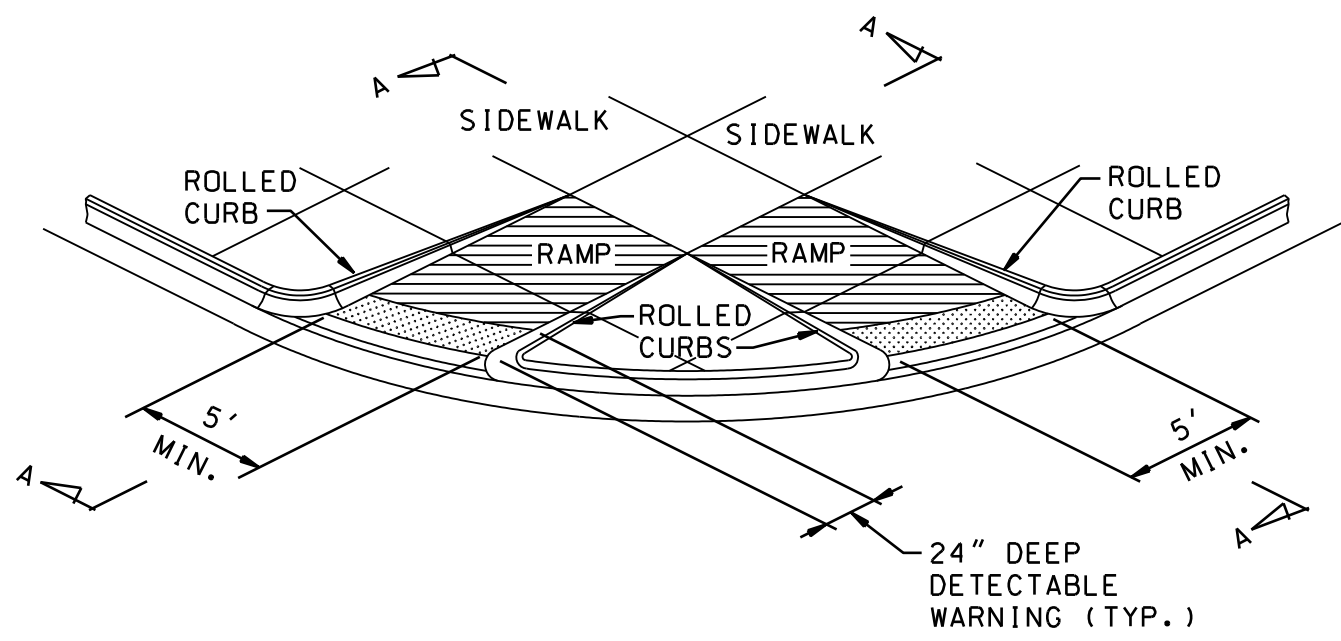
SIGN NOTES:

- SIGN PANEL SHALL BE 0.080 INCH THICK, ALUMINUM SHEET, TYPE 6061-T6 (MDOT TYPE III).
- HOLES IN SIGN POSTS SHALL BE CONTINUOUS 2" DIA HOLES ON 1-INCH CENTERS.
- POSTS, BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED STEEL.
- SIGN FACE SHALL BE PER THE FOLLOWING TYPE:

TYPE	BACKGROUND	LEGEND
A.	Reflectorized	Reflectorized
B.	Reflectorized	Non-Reflectorized
C.	Non-Reflectorized	Reflectorized

SIDEWALK RAMP NOTES:

- ALL SIDEWALK RAMP AS CALLED FOR ON THE PLANS SHALL HAVE DETECTABLE WARNINGS.
- DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH THE ADJACENT WALKING SURFACE.
- DETECTABLE WARNING SHALL BE MODULAR PLASTIC TILE, POLYMER CONCRETE TILE OR OTHER SIMILAR TILE EMBEDDED INTO THE FRESH CONCRETE, AS APPROVED BY THE ENGINEER; OR A STAMPED PATTERN IN THE FRESH CONCRETE WITH INTEGRAL COLOR (NOT SHAKE-ON COLOR). ADHESIVE APPLIED DETECTABLE WARNINGS ARE NOT ACCEPTABLE.
- ALL DETECTABLE WARNINGS SHALL HAVE SKID RESISTANT SURFACE.
- SYSTEM AND COLOR SHALL BE APPROVED BY THE ENGINEER PRIOR TO BEGINNING WORK.



(TWO RAMP ARE SHOWN)
SIDEWALK RAMP TYPE 4
N. T. S.

VAN BUREN CHARTER
TOWNSHIP
STANDARD SIDEWALK DETAILS (SW-1)

ISSUED FOR: DATE: BY:

JOB NO.

SHEET

SW-1

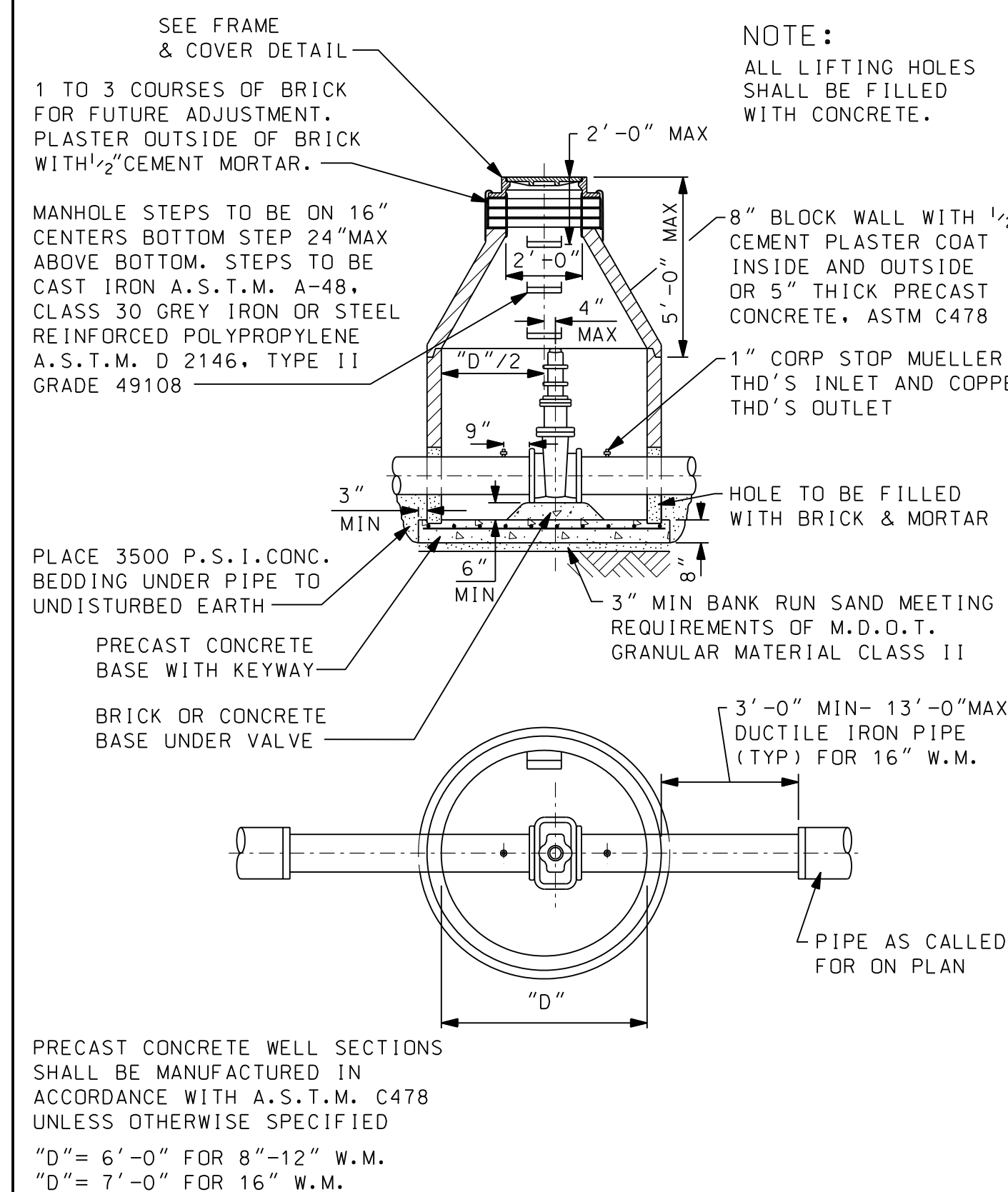
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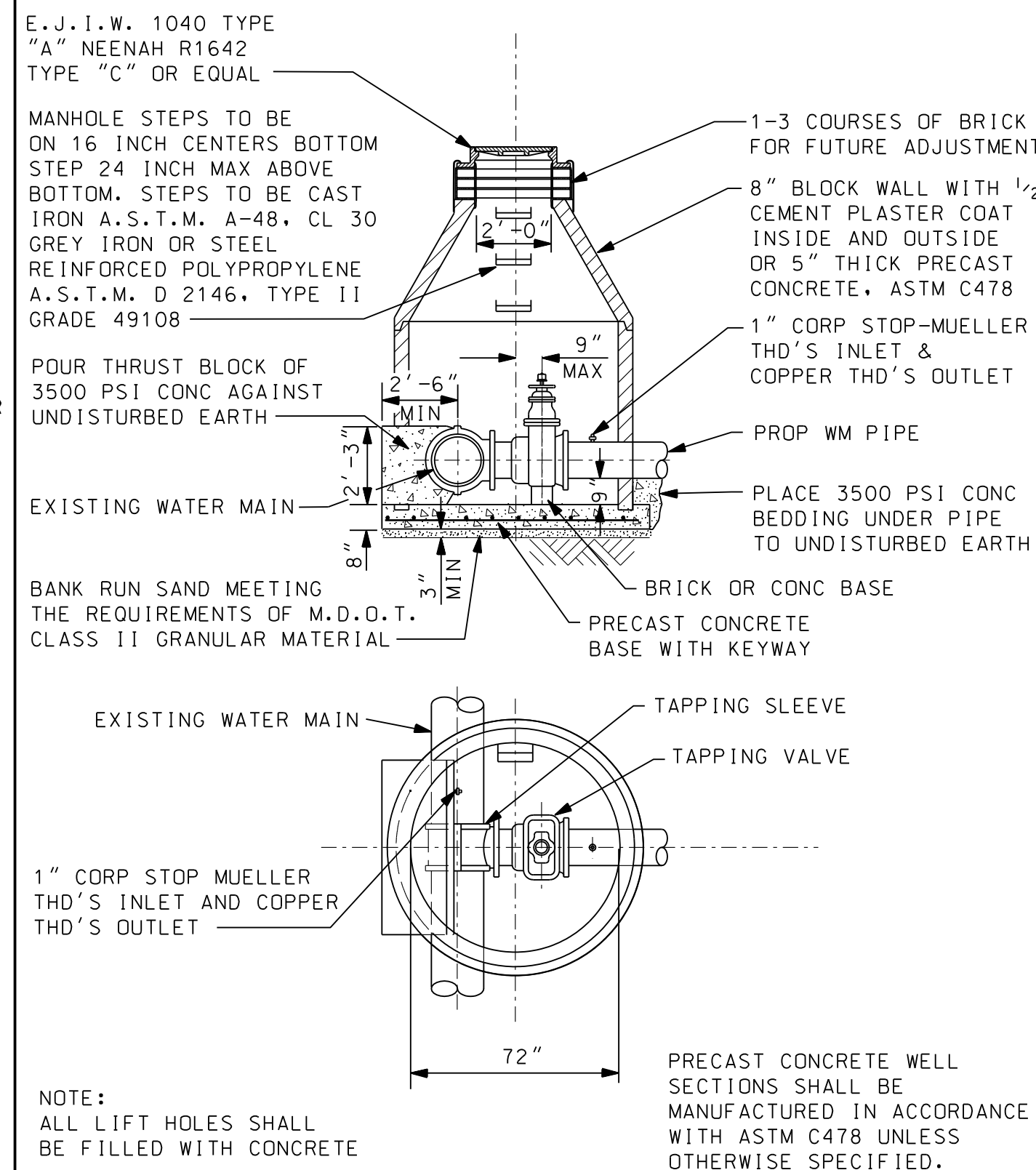
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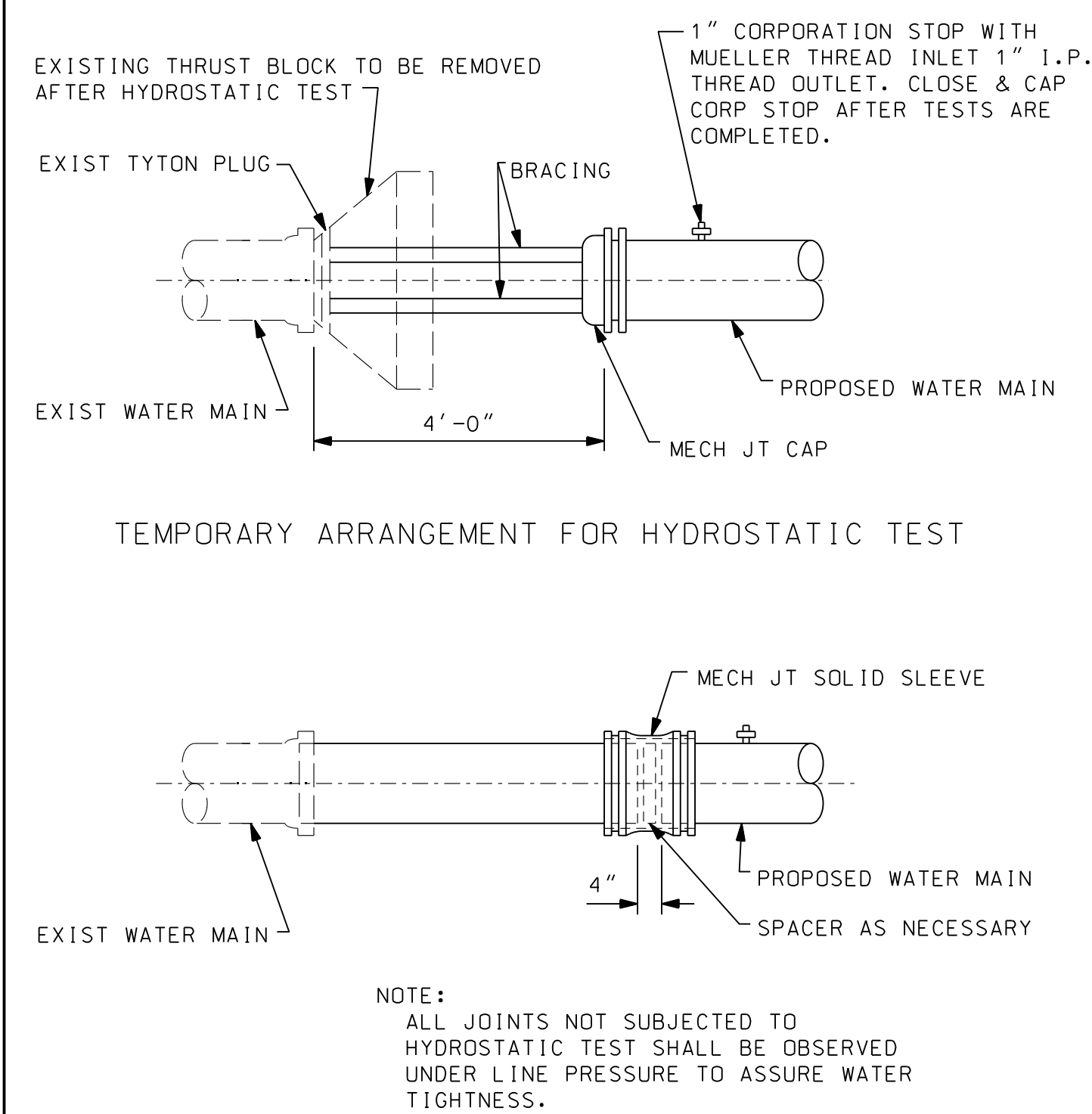
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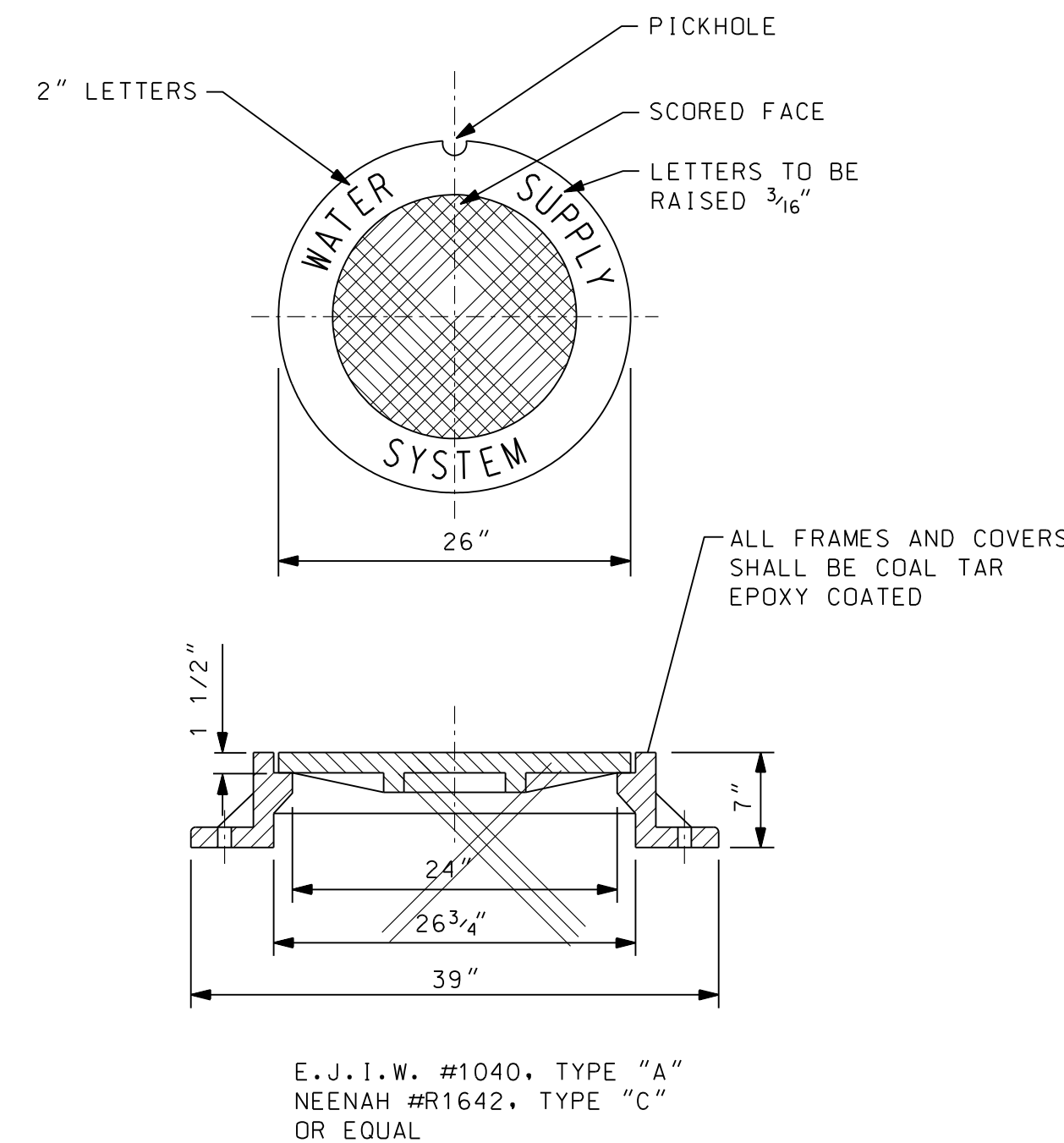
STANDARD GATE WELL
N.T.S.



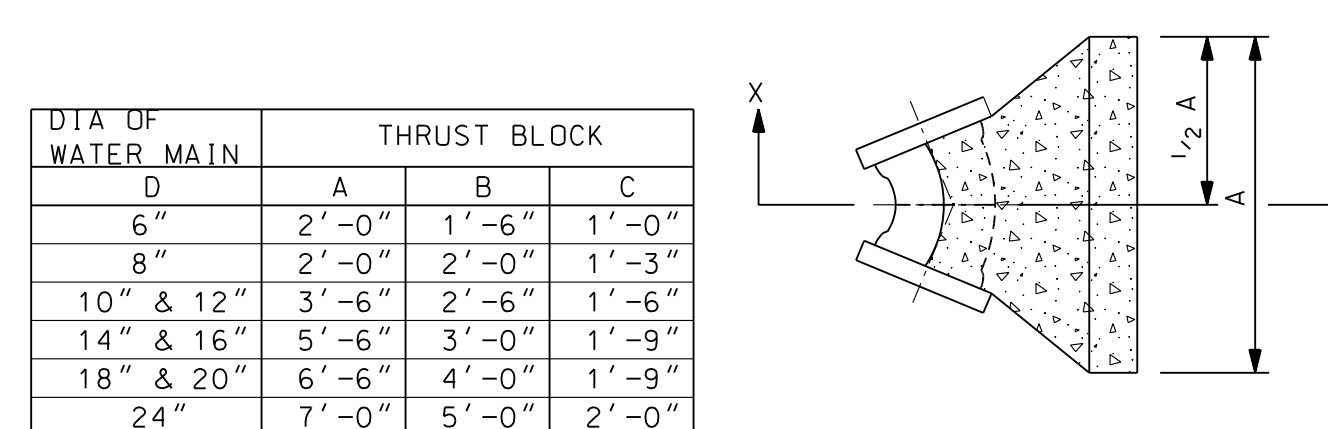
STANDARD TAPPING SLEEVE, VALVE & WELL
N.T.S.



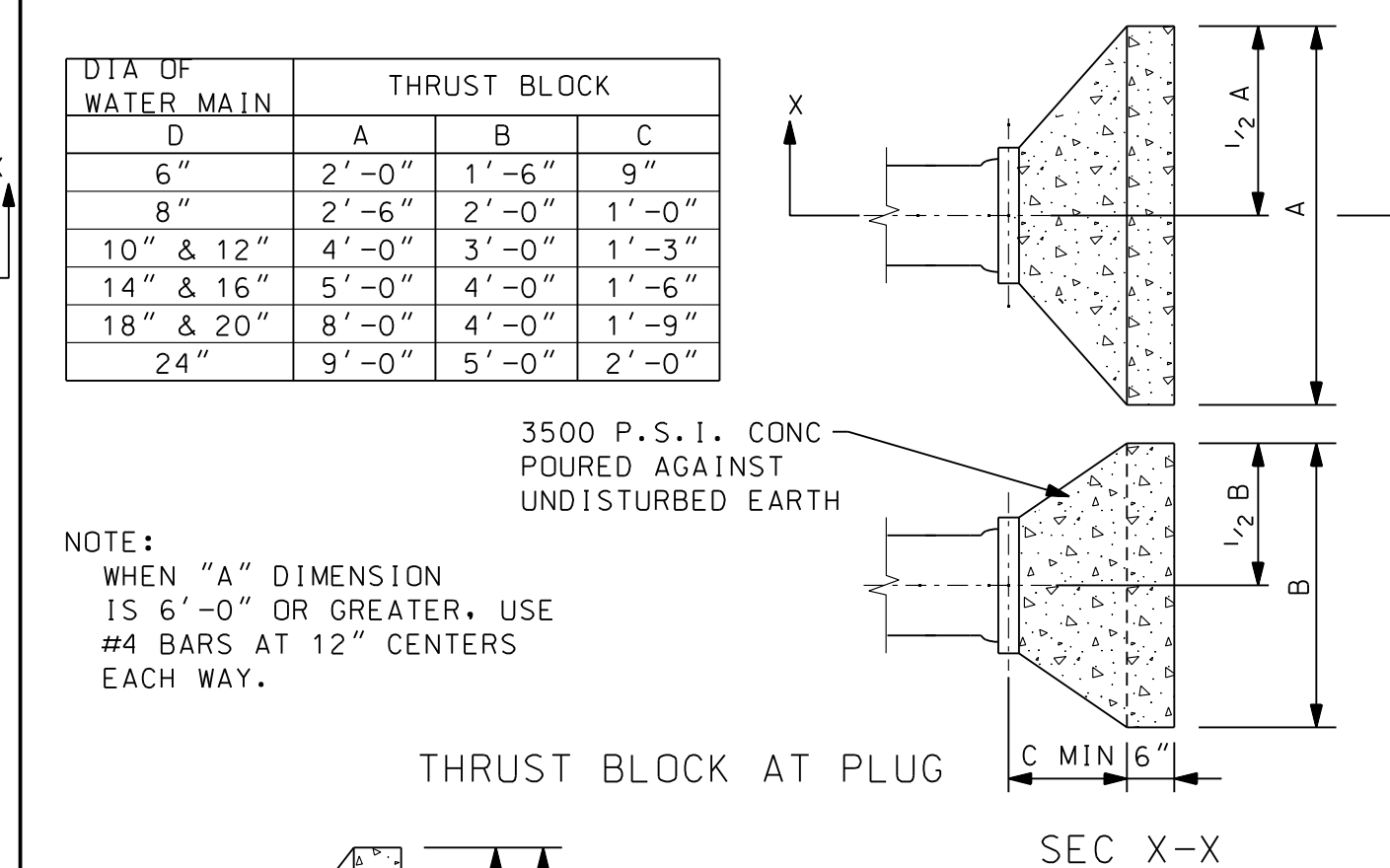
COMPLETED CONNECTION TO EXIST WATER MAIN
N.T.S.



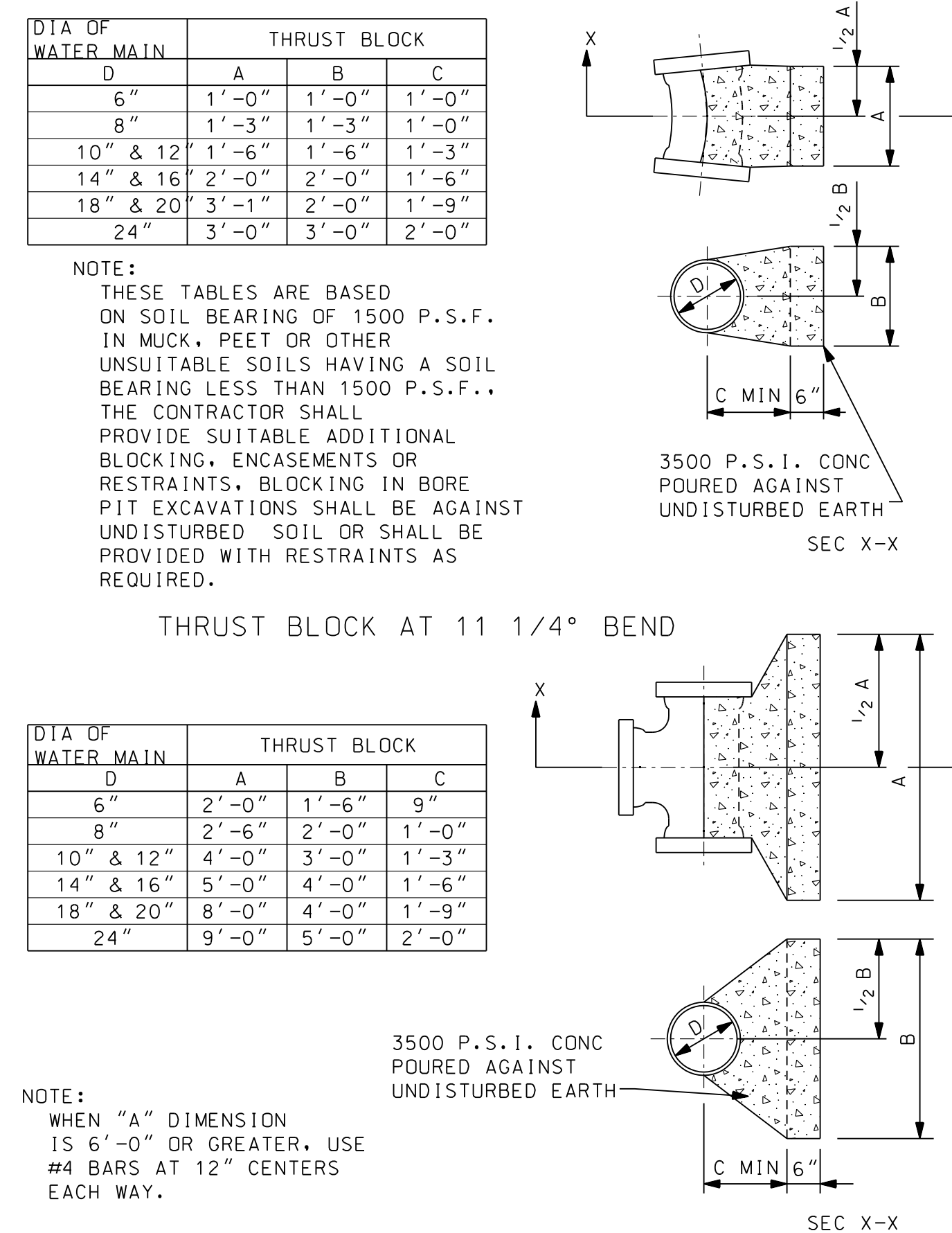
STANDARD FRAME AND COVER
N. T. S.



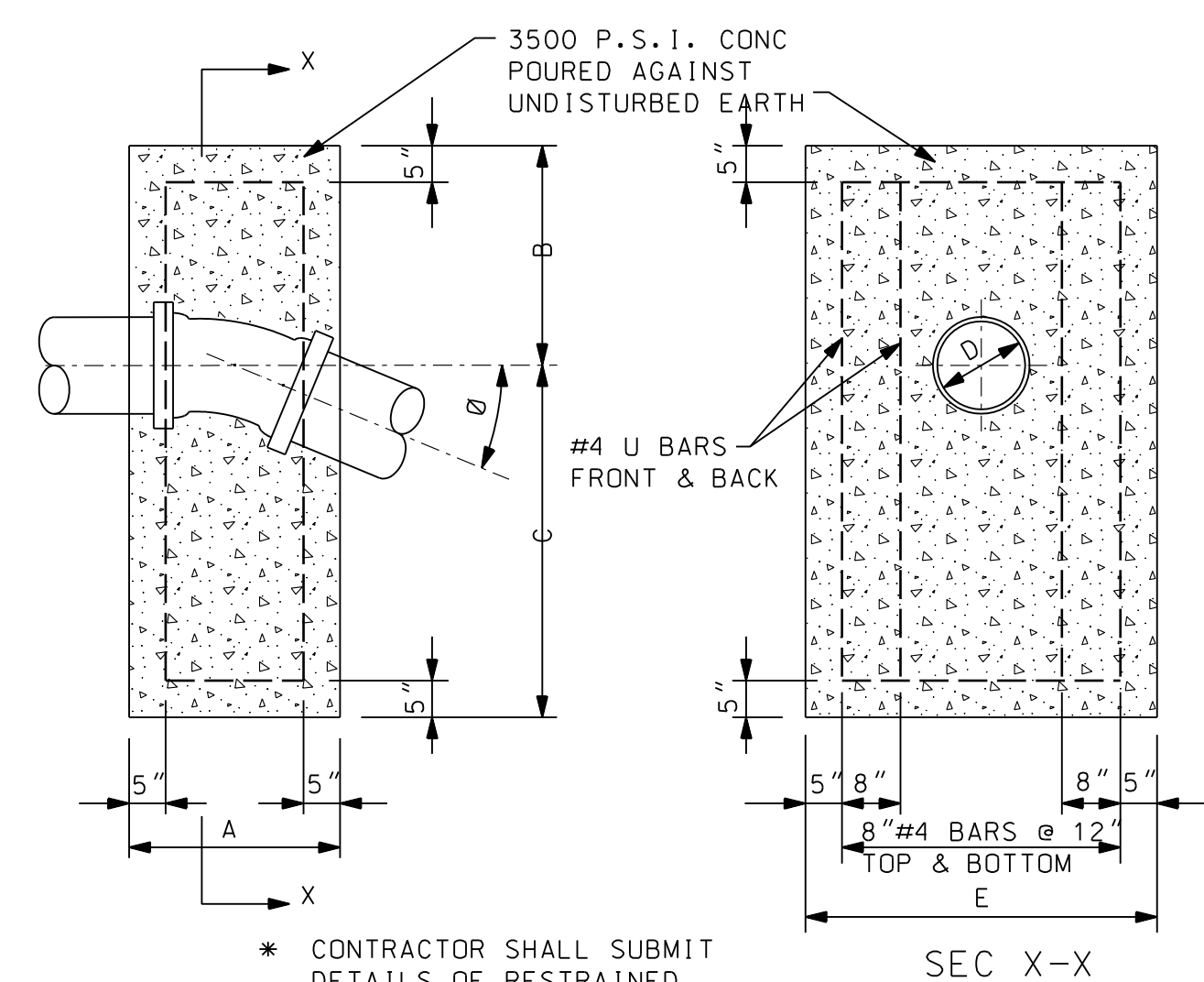
THRUST BLOCK AT 30° & 45° BEND



THRUST BLOCK AT 60° & 90° BEND
N.T.S.



THRUST BLOCK AT TEE
N.T.S.

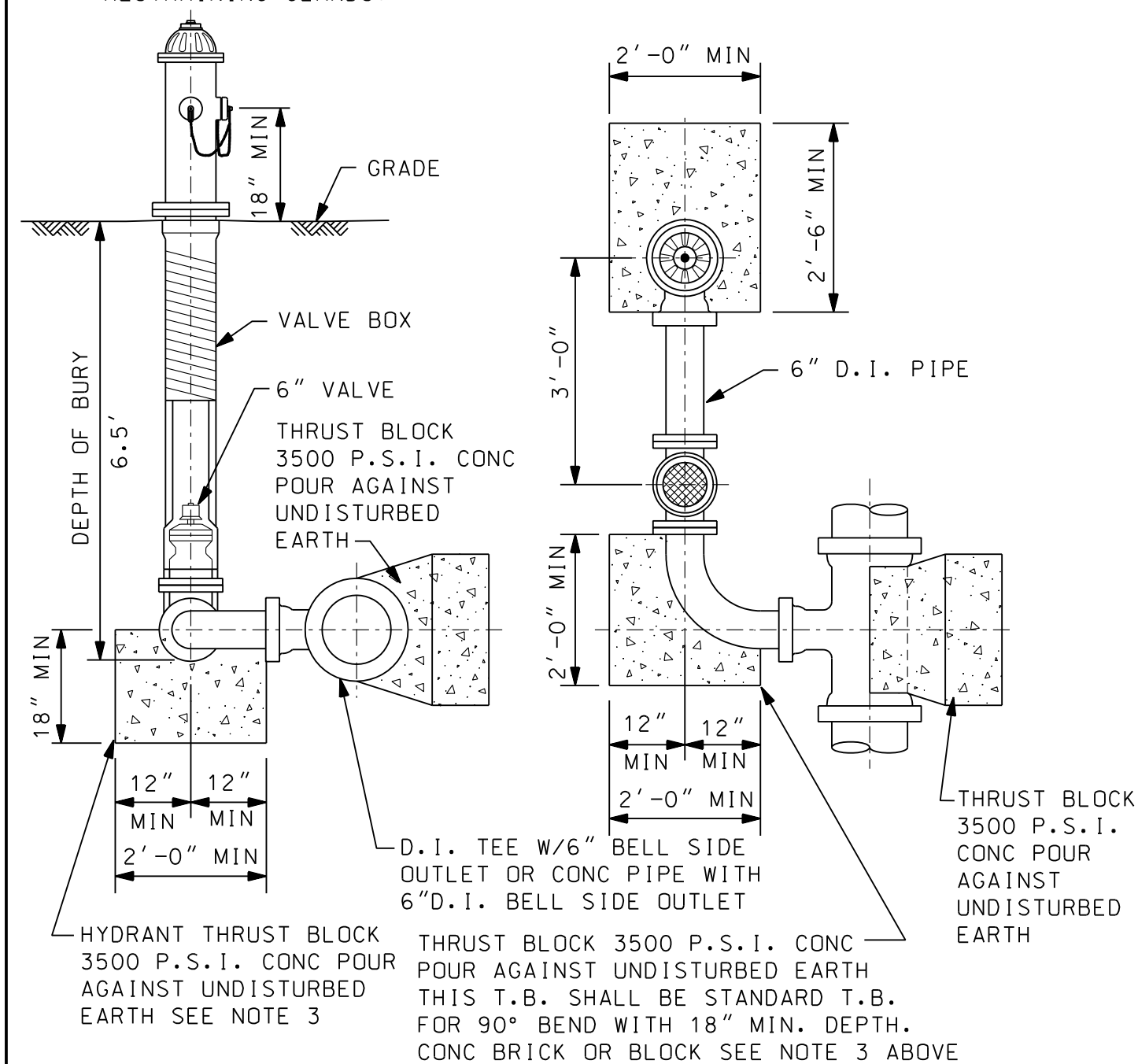


ANCHORAGE DETAILS FOR VERTICAL BENDS
N.T.S.

PROJECT MANAGER: * FIELD BOOK INFORMATION: *
C:\PW_Work\hlaprad\dms38632\CD1-PLT5-WW2.dgn PLOTTED 3/16/2009 9:05:09 AM BY hlaprad

NOTES:

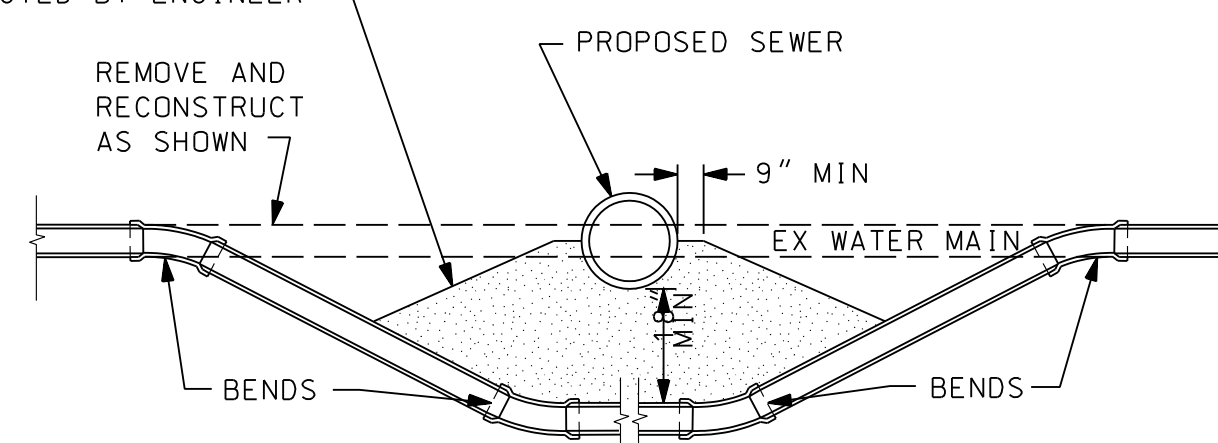
1. INSTALL ADDITIONAL FITTINGS & SPIGOT PIPE AS NECESSARY BETWEEN WATER MAIN & VALVE BOX TO ADJUST FOR PROPER LOCATION AND GRADE OF HYDRANT.
2. VERTICAL ANCHORAGES WILL BE REQUIRED ON ALL VERTICAL HYDRANT BENDS IN EXCESS OF 11 1/4".
3. WHERE HYDRANTS ARE INSTALLED ON EXISTING MAINS THAT ARE TO BE PLACED BACK INTO SERVICE IMMEDIATELY, PLACE CONCRETE BRICK OR BLOCK TO UNDISTURBED EARTH AND ENCASE WITH CONCRETE OR USE RESTRAINING GLANDS.



STANDARD FIRE HYDRANT ASSEMBLY
CLOSE COUPLE TYPE
N.T.S.

COMPACTED SAND OR FLOWABLE
FILL SHALL EXTEND FOR 9" EACH
SIDE OF PROPOSED PIPE AND SHALL
SLOPE OUT AT 1 ON 4 SLOPE TO
BOTTOM OF TRENCH, OR AS
DIRECTED BY ENGINEER

NOTE:
FOR ANCHORAGE DETAILS
AT BENDS SEE WATER
DETAIL SHT-WM 2

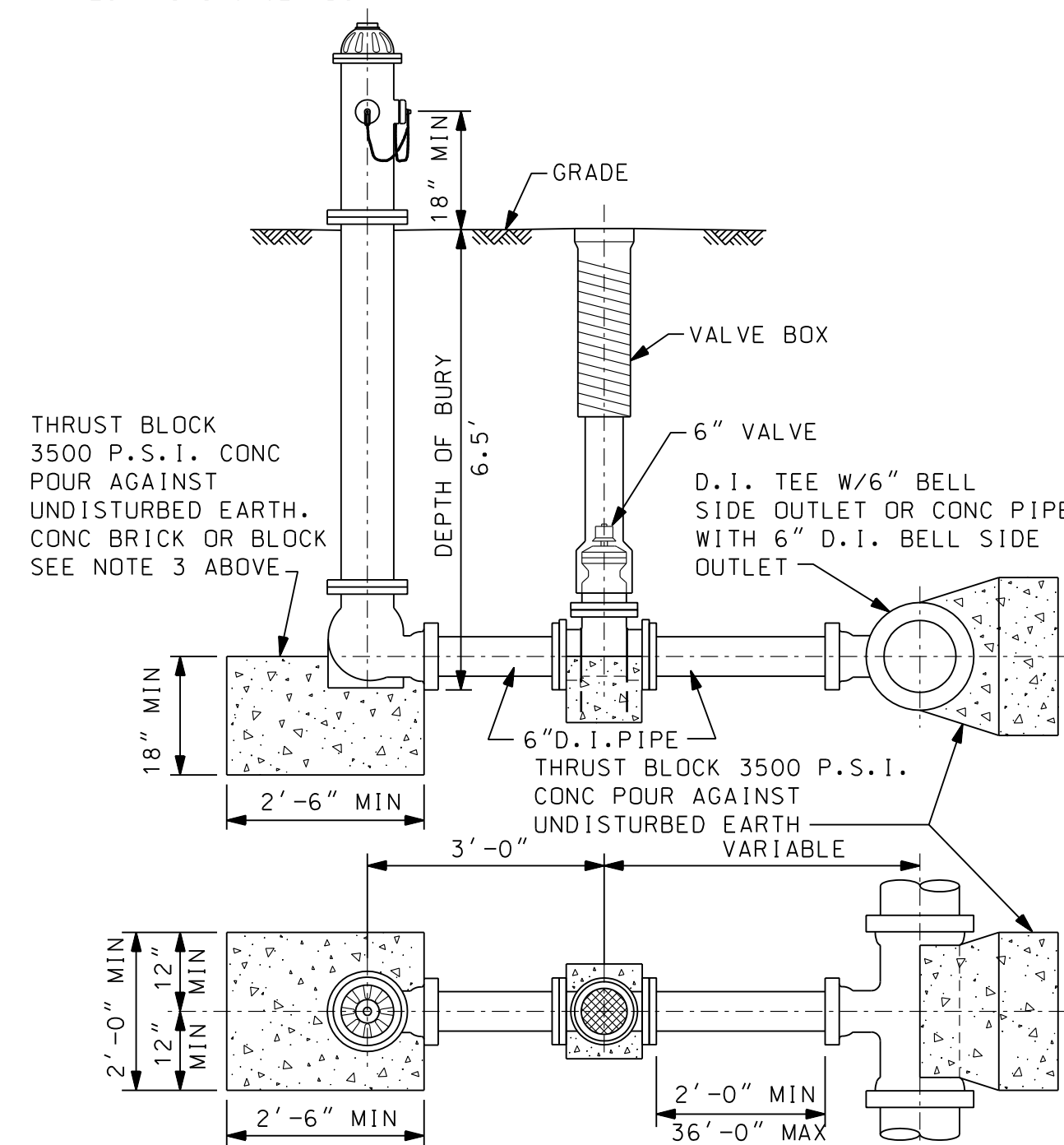


NOTE:
FOR BEDDING OF WATER MAIN
SEE STANDARD SAND ENCASEMENT
CLASS "F-III" THIS SHT.

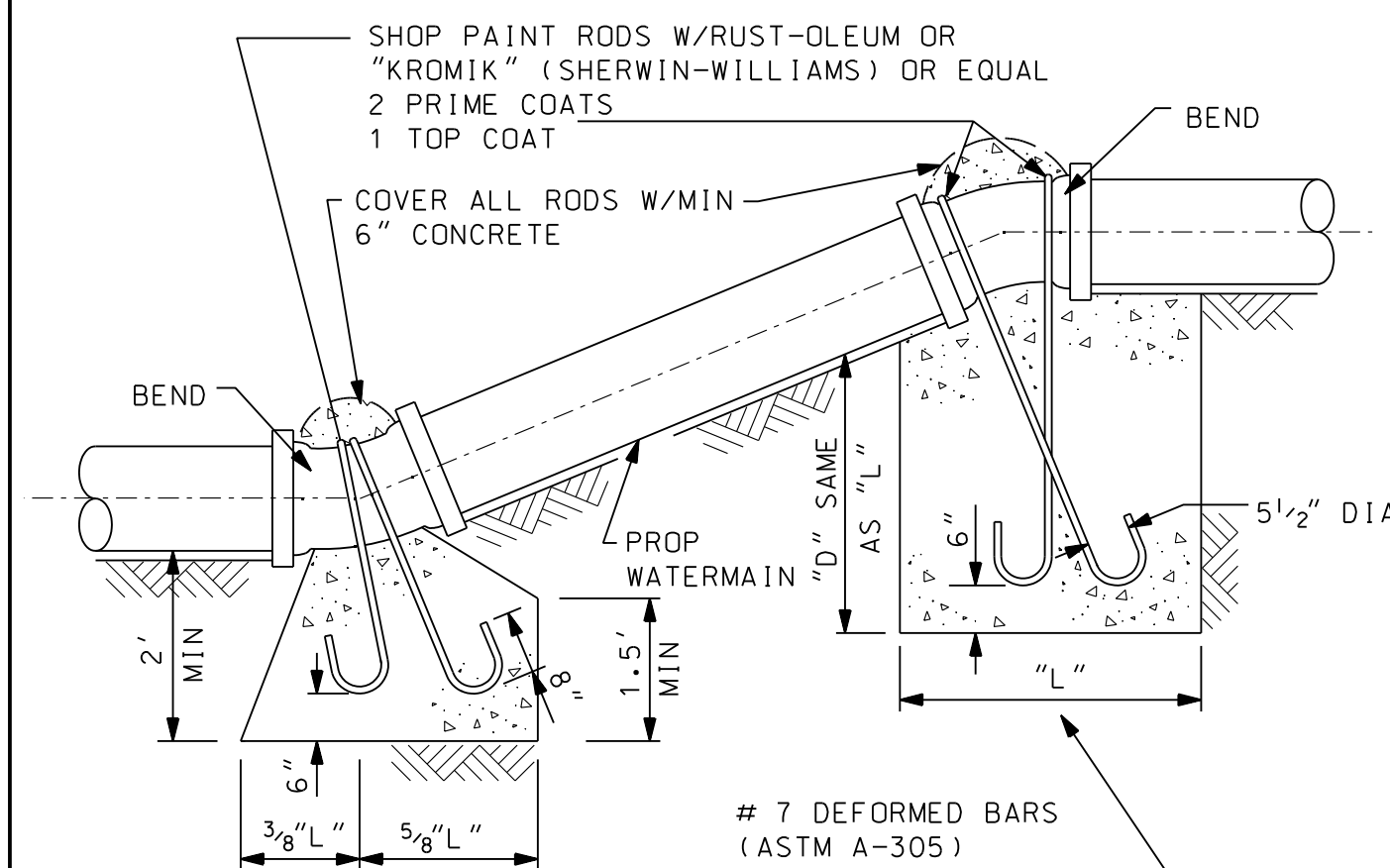
RELOCATION OF WATER MAIN
N.T.S.

NOTES:

1. INSTALL ADDITIONAL FITTINGS, BENDS & SPIGOT PIPE AS NECESSARY BETWEEN WATER MAIN & VALVE BOX TO ADJUST FOR PROPER LOCATION AND GRADE OF HYDRANT.
2. VERTICAL ANCHORAGES WILL BE REQUIRED ON ALL VERTICAL HYDRANT BENDS IN EXCESS OF 11 1/4".
3. WHERE HYDRANTS ARE INSTALLED ON EXISTING MAINS THAT ARE TO BE PLACED BACK INTO SERVICE IMMEDIATELY, PLACE CONCRETE BRICK OR BLOCK TO UNDISTURBED EARTH AND ENCASE WITH CONCRETE OR USE RESTRAINING GLANDS.



STANDARD FIRE HYDRANT ASSEMBLY "T" TYPE
N.T.S.



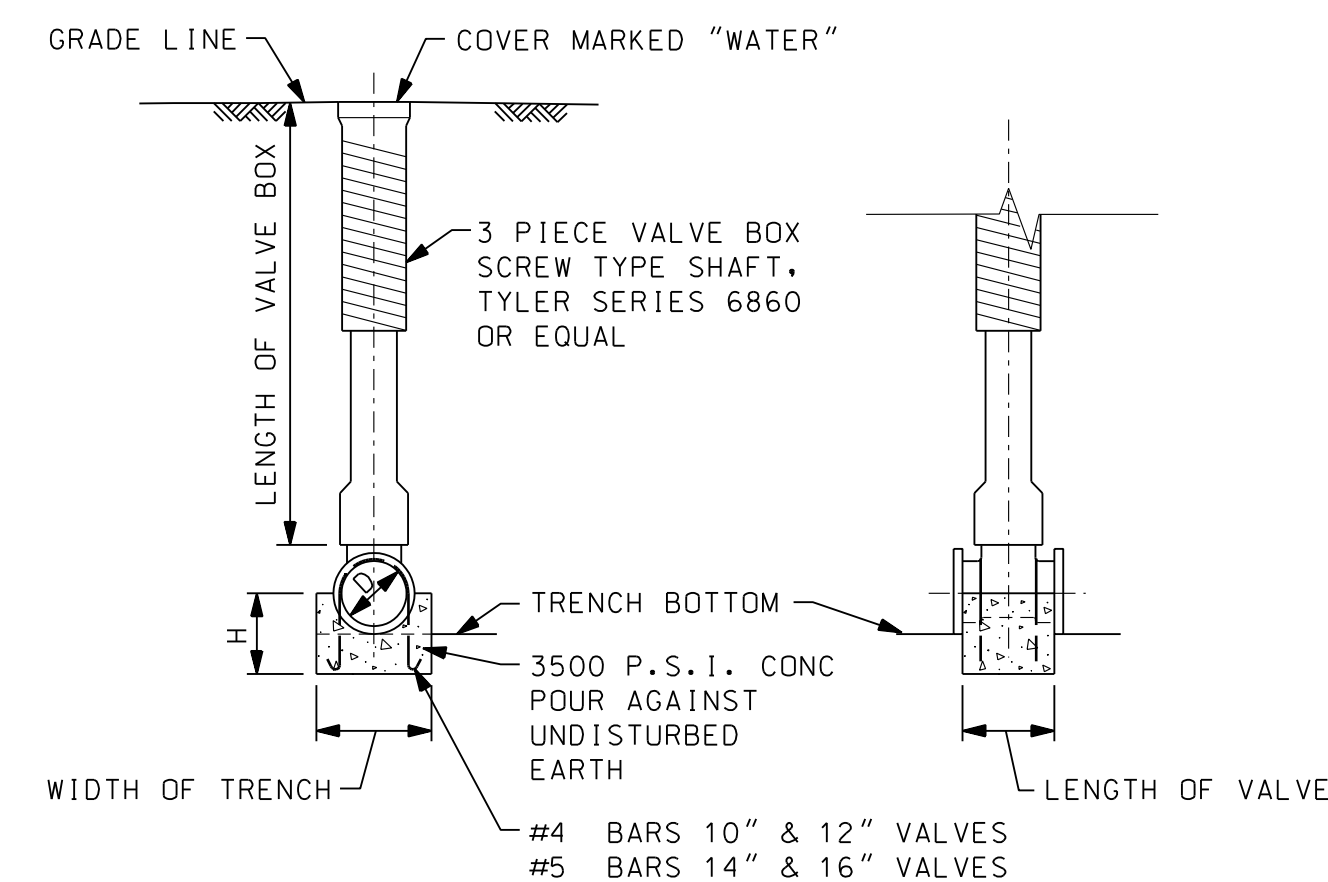
BLOCK WIDTH TO BE 1.5'
OUTSIDE EDGES OF
DISTURBED EARTH
(TUNNEL INTO TRENCH
SIDES) MIN 6.0' WIDE

NOTE:
4' MIN COVER ON ALL DITCH CROSSINGS,
BENDS IF REQUIRED TO BE PLACED PER VERTICAL
CONCRETE TO BE 3500 P.S.I.

VERTICAL REACTION BLOCKING
N.T.S.

WATER MAIN NOTES

1. ALL WATER SYSTEM CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND GENERAL SPECIFICATION OF THE AGENCY OR AGENCIES HAVING JURISDICTION OF THE WATER SUPPLY SYSTEM AND CONSTRUCTION AREA.
2. WATER MAINS SHALL NOT BE CONSTRUCTED UNDER SIDEWALKS OR ROAD PAVEMENT AREAS.
3. ALL SURFACE STRUCTURES, SUCH AS HYDRANTS, GATE WELLS AND VALVE BOXES SHALL BE SET TO GRADE OR AS INDICATED ON THE PLANS.
4. FIRE HYDRANTS ARE TO BE INSTALLED PLUMB AND HAVE THEIR NOZZLES AS DETERMINED BY THE ENGINEER.
5. ALL FITTINGS SHALL BE DUCTILE IRON, PRESSURE RATING 350 P.S.I., CONFORMING TO ANSI/AWWA C 153/A21.53 COMPACT FITTINGS WITH DOUBLE THICKNESS CEMENT MORTAR LINING AND COAL TAR ENAMEL COATING INSIDE AND OUTSIDE.
6. GATE WELLS AND OTHER WATER MAIN STRUCTURES SHALL NOT BE CONSTRUCTED IN DRIVEWAYS, DRIVE APPROACHES, OR SIDEWALKS.
7. PROVIDE 7-FOOT MINIMUM COVER BELOW EXISTING PAVEMENT CENTERLINE OR GROUND AT WATER MAIN LOCATION, WHICHEVER IS LOWEST. WHEN PROPOSED WATER MAIN IS WITHIN 32 FEET OF CENTERLINE ON SECTION LINE ROADS, OR WITHIN 19 FEET OF CENTERLINE ON 1/4 LINE ROADS, SEVEN FEET COVER SHALL ALSO BE REQUIRED AT OTHER LOCATIONS AS NOTED ON THE PLAN. PROVIDE 6-FOOT MINIMUM COVER BELOW EXISTING ROAD CENTERLINE OR GROUND AT WATER MAIN LOCATION, WHICHEVER IS LOWEST, AT ALL OTHER LOCATIONS UNLESS OTHERWISE NOTED.
8. PLACE NATURAL BANK RUN SAND BACKFILL WITHIN THREE FEET OF ALL STRUCTURES, INCLUDING VALVE WELLS, FIRE HYDRANTS, ETC.
9. ALL WATER MAIN PIPE SHALL HAVE CLASS III BEDDING UNLESS OTHERWISE NOTED ON THE PLANS. SEE SHEET MD-1.
10. ALL PRECAST PRODUCTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
11. CONTRACTOR SHALL BAG ALL NEW FIRE HYDRANTS UNTIL THE WATER MAIN IS ACCEPTED FOR SERVICE.
12. WHEN THE FIRE HYDRANT IS BEING INSTALLED, THE 6-INCH DIAMETER FIRE HYDRANT VALVE SHALL BE INSTALLED IN THE FULL OPEN POSITION.
13. WATER MAIN TO BE PLACED LEVEL THROUGH ALL GATE WELLS.
14. ALL WATER SYSTEM BOLTS ARE TO BE COR-BLUE, MASTIC COATED, OR SPRAY PAINTED WITH UNDER COATING.
15. A FIRE HYDRANT SHOULD BE PLACED AT THE END OF ALL DEAD END WATER MAIN.



SIZE OF PIPE	H
6"	6"
8"	8"
10"	10"
12"	12"

VALVE BLOCK AND BOX DETAIL

N.T.S.

VAN BUREN CHARTER
TOWNSHIP

ISSUED FOR: DATE: BY:

JOB NO

SHEET

WM-2

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NOT VALID FOR CONSTRUCTION
UNLESS SIGNED AND DATED:



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