

SPECIFICATIONS

A. GENERAL
ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "TEN STATE STANDARDS", LATEST EDITION.

B. PERMITS
THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH PERMIT REQUIREMENTS FROM THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND OTHER REGULATORY AGENCY PERMITS.

C. PIPE MATERIALS
ALL GRAVITY SANITARY SEWERS SHALL BE SDR-35 POLYVINYL CHLORIDE PIPE IN ACCORDANCE WITH A.S.T.M. F 949-93A FOR PIPE DIAMETERS 30 INCHES OR LESS.

ALL PIPE SHALL HAVE A MINIMUM CELL CLASSIFICATION OF 12454-B. ALL PIPE SHALL HAVE A MINIMUM TENSILE STRENGTH OF F34.50 MPA AS DEFINED IN A.S.T.M. D-1784.

ALL JOINTS SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. D3212 SPECIFICATION FOR JOINTS OF PLASTIC DRAIN AND SEWER PIPES USING FLEXIBLE ELASTOMERIC SEALS.

P.V.C. SEWER FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F 949-93A. FITTINGS SHALL BE MOLDED IN ONE PIECE WITH ELASTOMERIC JOINTS AND A MINIMUM GASKET DEPTH AS SPECIFIED. GASKETS SHALL HAVE A MINIMAL CROSS SECTION AREA OF 0.20-SQ. INCHES AND CONFORM TO ASTM F-477 SPECIFICATIONS.

ALL SERVICE TAP PIPING SHALL BE SDR-35 PER ASTM D-3084. ALL FITTINGS SHALL HAVE GASKETS CONFORMING TO ASTM F-477 SPECIFICATIONS.

D. MANHOLES
MANHOLES SHALL BE PRECAST CONCRETE IN ACCORDANCE WITH A.S.T.M. C-478 AND SHALL BE WATER PROOFED USING A BUTYL RUBBER BACKPLASTER FROM THE CASTING TO THE MANHOLE BASE.

MANHOLES SHALL BE BEDDED ON A #8 STONE BEDDING FOUNDATION.

KENT SEAL OR EQUIVALENT SHALL ALSO BE APPLIED TO ALL JOINTS AND BETWEEN RISER RINGS AND CASTINGS. MANHOLE STEP SPACINGS SHALL BE NO MORE THAN 16 INCHES.

MANHOLE INVERT SHALL BE SHAPED FOR FLOW CHANNEL WITH CONCRETE SMOOTHLY FINISHED BY A U-SHAPED SECTION CONFORMING TO THE INSIDE DIAMETER OF THE CONNECTING SEWERS. CHANGES IN THE SIZE AND GRADE SHALL BE MADE WITH SMOOTH TRUE CURVES FOR ALL CONNECTING SEWERS AT EACH MANHOLE.

E. EXCAVATION
PIPE SHALL BE LAID IN OPEN TRENCHES.

THE CONTRACTOR SHALL REMOVE (BY PUMPING OR OTHER SUITABLE METHODS) ANY WATER WHICH MAY ACCUMULATE IN TRENCHES.

TRENCH SHALL BE OPENED SUFFICIENTLY AHEAD OF PIPE LAYING TO REVEAL OBSTRUCTIONS, AND SHALL BE PROPERLY PROTECTED AND/OR BARRICADED WHEN LEFT UNATTENDED.

CONTRACTOR SHALL BE RESPONSIBLE FOR SHEETING AND BRACING OF TRENCHES AS NECESSARY TO PROTECT WORKMEN AND ADJACENT STRUCTURES. ALL TRENCHING SHALL BE DONE IN ACCORDANCE WITH O.S.H.A. STANDARDS.

F. WATER LINES
WATER AND SEWER LINE CROSSINGS AND SEPARATIONS SHALL BE IN ACCORDANCE WITH "THE TEN STATE STANDARDS" AND LOCAL CODES.

WHERE WATER LINES AND SEWER LINES CROSS AND THE WATER LINE CANNOT BE PLACED ABOVE THE SEWER LINE A MINIMUM OF 18" WITH A MINIMUM COVER OF 36", THE SEWER LINE SHALL BE CONSTRUCTED OF WATERWORKS GRADE PIPE AND ENCASED IN 6" MIN. OF CONCRETE (MEASURED FROM OUTSIDE OF PIPE).

WHERE WATER LINES AND SANITARY SEWER LINES RUN PARALLEL WITH ONE ANOTHER, A MINIMUM OF 10' HORIZONTAL SEPARATION SHALL BE MAINTAINED, OUTSIDE PIPE TO OUTSIDE PIPE.

G. WATER INFLOW
NO WATER SHALL BE PERMITTED TO FLOW INTO THE PROPOSED SANITARY SEWER SYSTEM DURING CONSTRUCTION. THE CONTRACTOR SHALL UTILIZE A PUMP TO KEEP THE WATER LEVEL BELOW THE TRENCH BOTTOM. PUMP DISCHARGE SHALL BE DIRECTED TO A STORM OUTLET. ANY PIPE ENTERING EXISTING SEWERS SHALL BE PLUGGED TO ELIMINATE WATERFLOW UNTIL SUCH TIME AS ALL TESTS ON THE SEWERS HAVE BEEN COMPLETED AND THE LINES HAVE BEEN APPROVED OR WRITTEN AUTHORIZATION IS GIVEN BY THE ENGINEER.

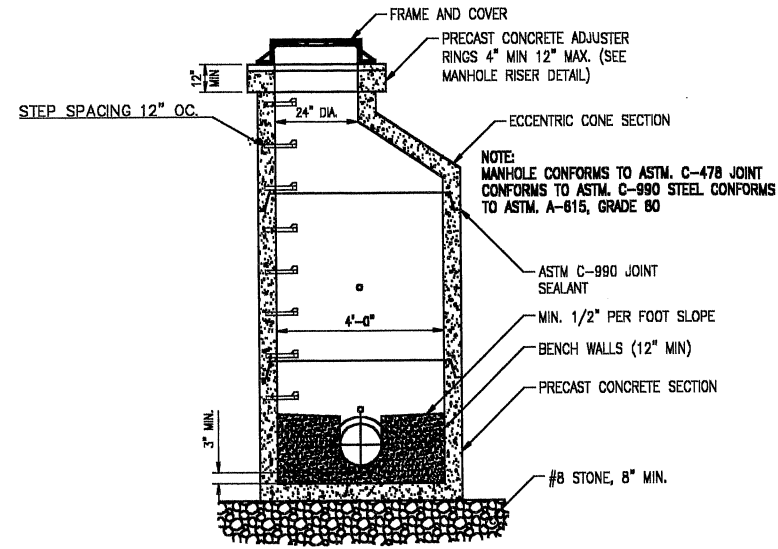
H. TESTING
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTS FOR INFILTRATION/EXFILTRATION AND DEFLECTION AS ESTABLISHED BY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT. A FIVE (5) PERCENT "GO-NO-GO" MANDREL DEFLECTION TEST AND LOW PRESSURE AIR TEST SHALL BE PERFORMED ON ALL PVC GRAVITY SANITARY SEWER PIPE. THE RATE OF INFILTRATION INTO THE GRAVITY SANITARY SEWER SYSTEM BETWEEN ANY TWO ADJACENT MANHOLES SHALL NOT BE IN EXCESS OF 100 GALLONS PER DAY PER INCH OF PIPE DIAMETER PER MILE (100 GPD/IN/MILE)

ALL TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE DISTRICT'S INSPECTOR. THE CONTRACTOR SHALL FURNISH ALL PIPING, PUMPS, GAUGES AND OTHER EQUIPMENT NECESSARY TO CARRY OUT THE TESTS. ANY PIPE WHICH IS NOT DETERMINED TO MEET THE REQUIREMENTS SHALL BE REPAIRED/REPLACED.

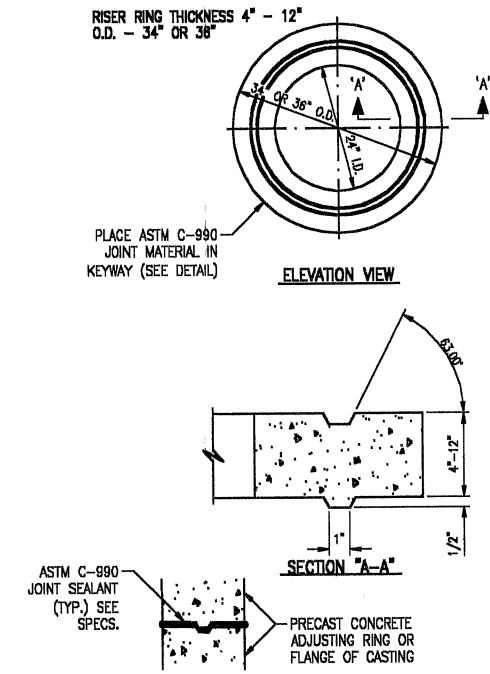
I. SAFETY
SAFETY PROVISIONS FOR THE WORK SHALL BE IN FULL COMPLIANCE WITH ALL APPLICABLE RULES AND REGULATIONS OF THE INDIANA OSHA AND ANY OTHER LOCAL STATE OR FEDERAL AGENCY HAVING JURISDICTION.

J. INCIDENTAL DAMAGES
EXISTING STORM SEWERS, HEADWALLS, DITCHES, FLUMES, SIDEWALKS, ROADS, DRIVEWAYS, LANDSCAPING, MAILBOXES, FENCES AND OTHER IMPROVEMENTS DAMAGED INCIDENTAL TO THE WORK SHALL BE REPAIRED TO EQUAL OR BETTER CONDITION OR REPLACED IN KIND BY THE CONTRACTOR IN ACCORDANCE WITH STATE, LOCAL AND FEDERAL REGULATIONS.

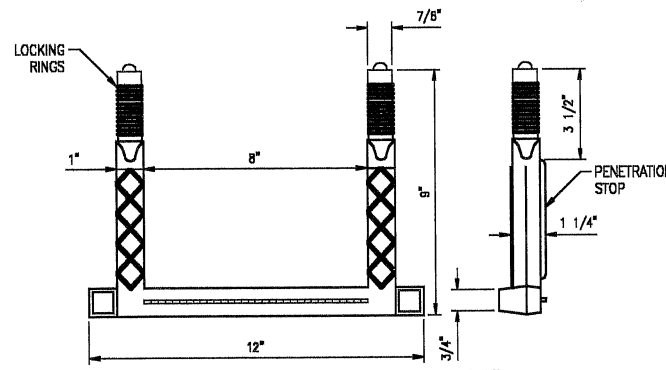
K. MAINTAINING EXISTING FLOWS
THE CONTRACTOR SHALL MAINTAIN ALL EXISTING SEWAGE FLOWS DURING CONSTRUCTION.



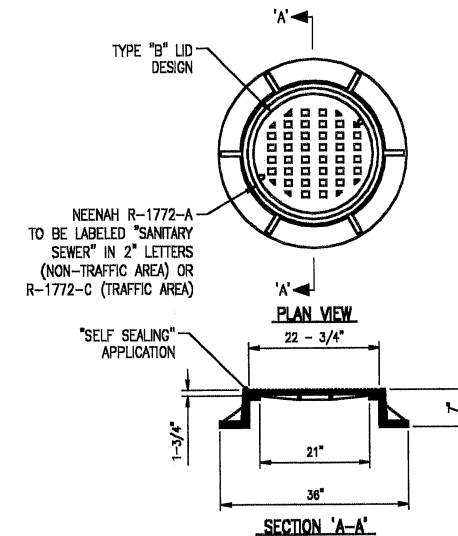
STANDARD MANHOLE FOR PIPE SIZES 8" THRU 24" (STRAIGHT THRU)
NOT TO SCALE
DETAIL 1-1



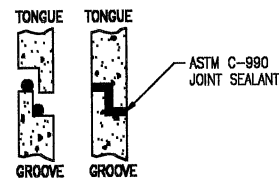
MANHOLE RISER DETAIL
NOT TO SCALE
DETAIL 1-2



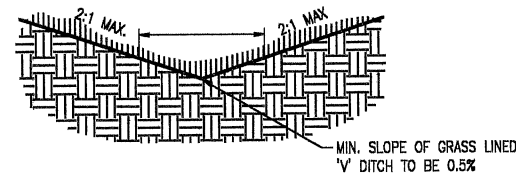
REINFORCED PLASTIC MANHOLE STEP DETAIL
NOT TO SCALE
DETAIL 1-5



SANITARY SEWER MANHOLE FRAME AND COVER DETAIL
NOT TO SCALE
DETAIL 1-6



TYPICAL WATERTIGHT COUPLING DETAIL
NOT TO SCALE
DETAIL 1-3



GRASS LINED V DITCH RESTORATION
NOT TO SCALE
DETAIL 1-4

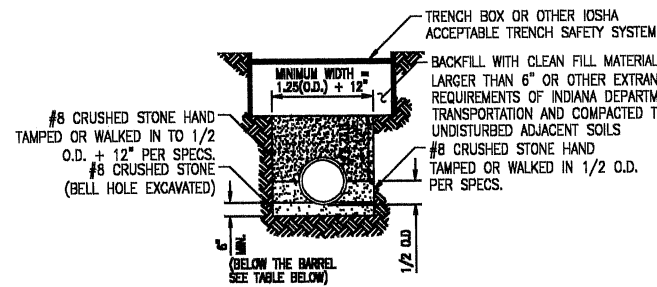
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Project: 8011.01
Date: FEBRUARY 1999

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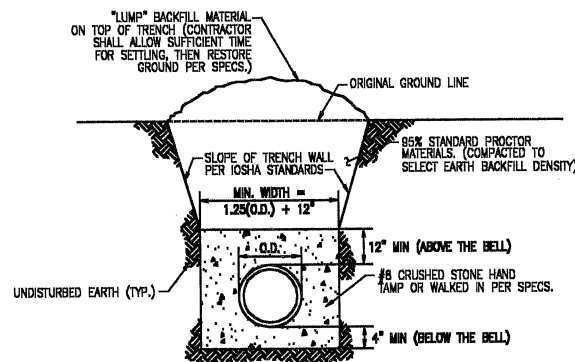
SCOTT COUNTY REGIONAL SEWER DISTRICT
DETAIL SHEET

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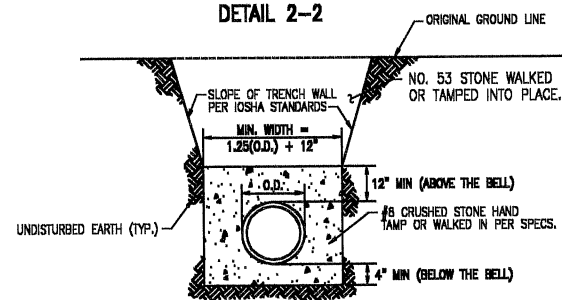


FIRST LAYER BEDDING		
PIPE SIZE	6" TO 15"	18" & OVER
BEDDING BELOW THE PIPE BARREL	O.D./4 MIN.-4"	O.D./4 MAX.-8"

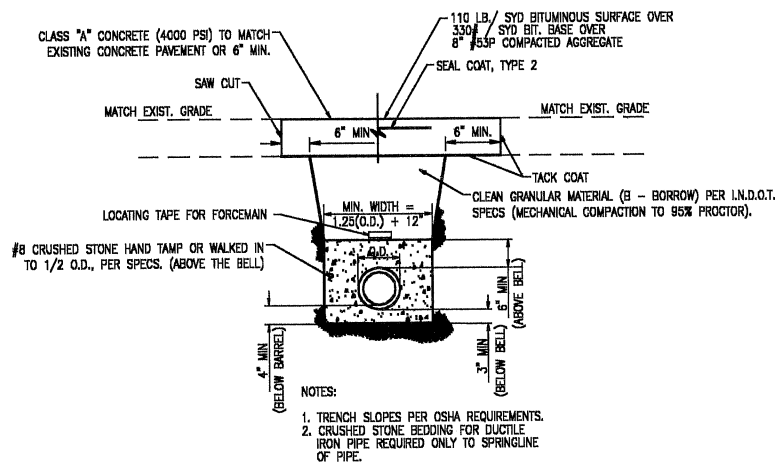
PIPE BEDDING DETAIL
NOT TO SCALE
DETAIL 2-1



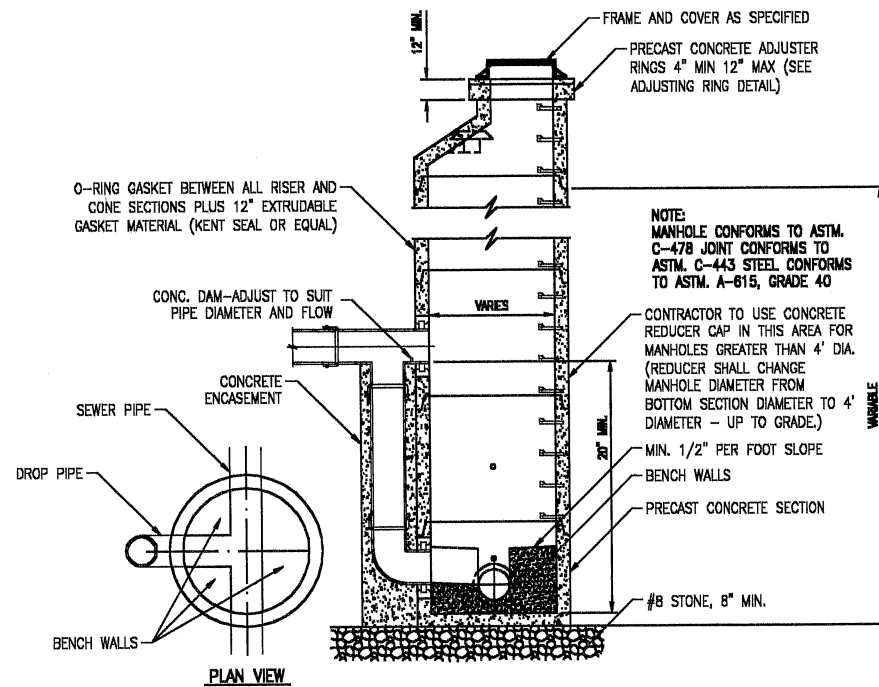
BACKFILL DETAIL - NONPAVED AREAS
NOT TO SCALE
DETAIL 2-2



BACKFILL DETAIL - GRAVEL ENTRANCE
NOT TO SCALE
DETAIL 2-3

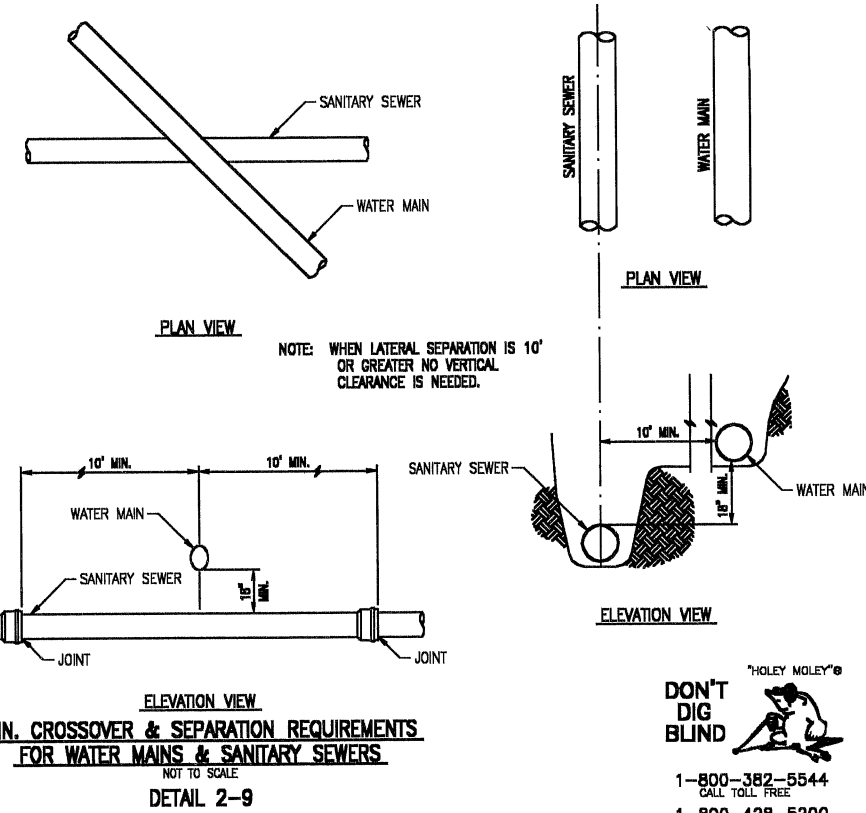
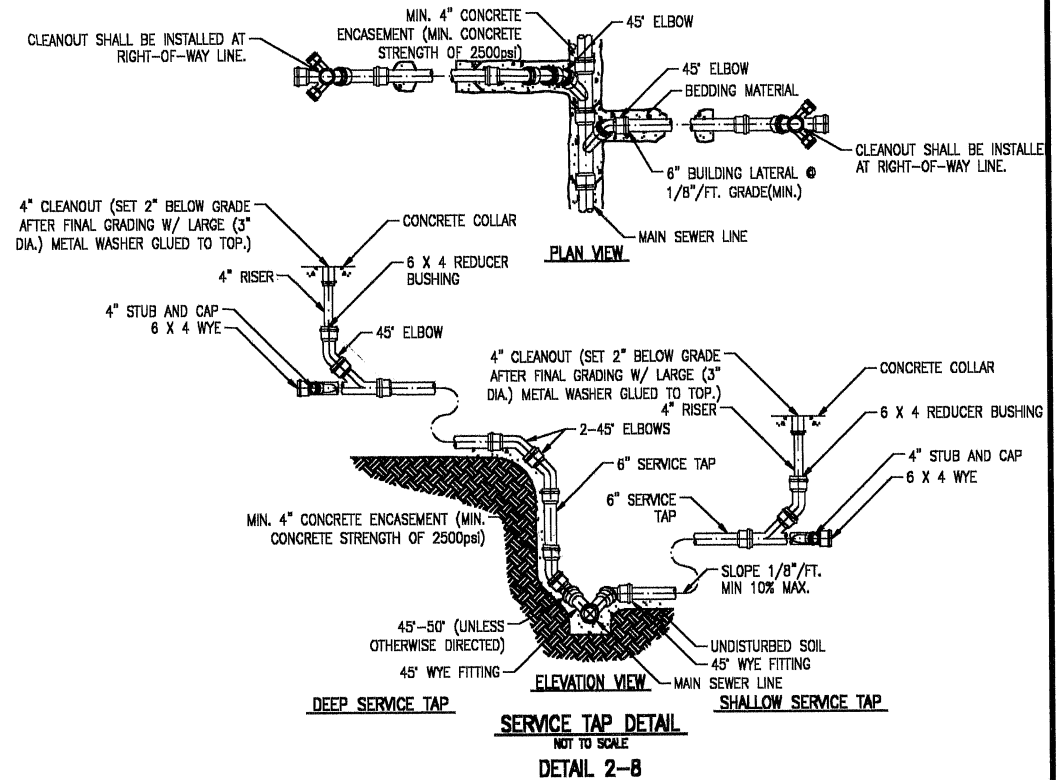
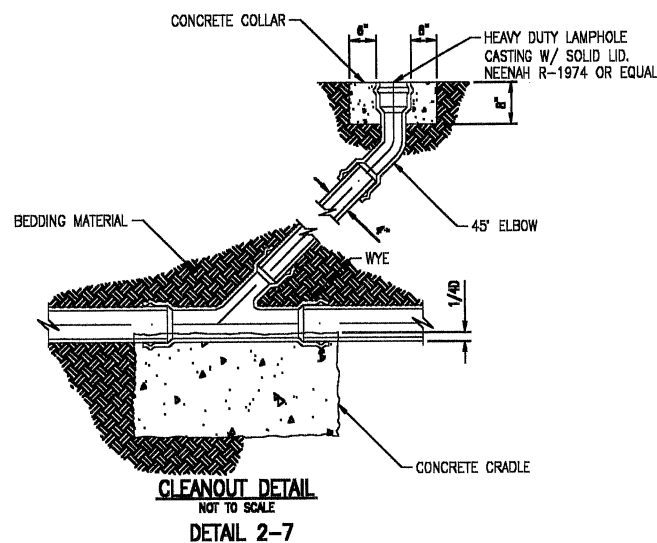


TRENCH REPAIR DETAIL FOR PAVED AREAS
NOT TO SCALE
DETAIL 2-4



BENCH WALL DETAIL
NOT TO SCALE
DETAIL 2-5

PRECAST DROP MANHOLE
NOT TO SCALE
DETAIL 2-6



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