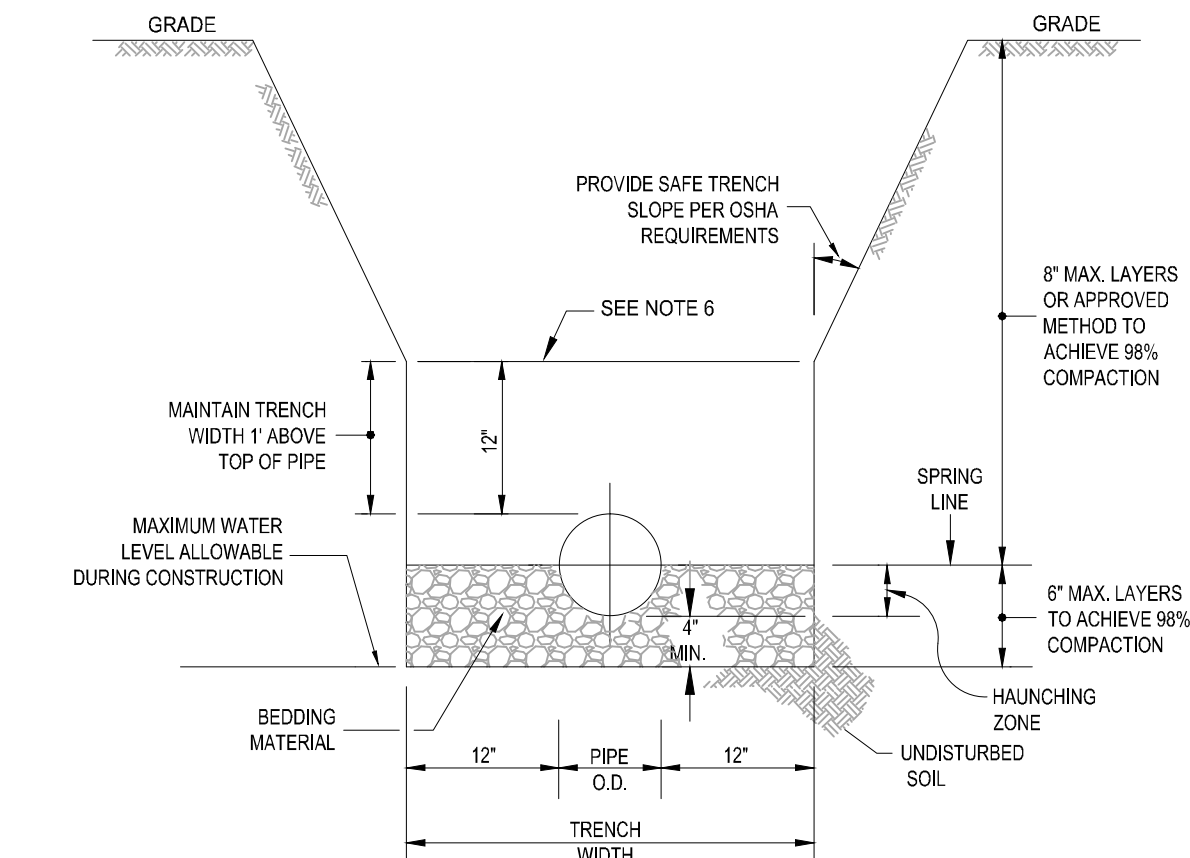


1 PRECAST CIRCULAR DRAINAGE MANHOLE

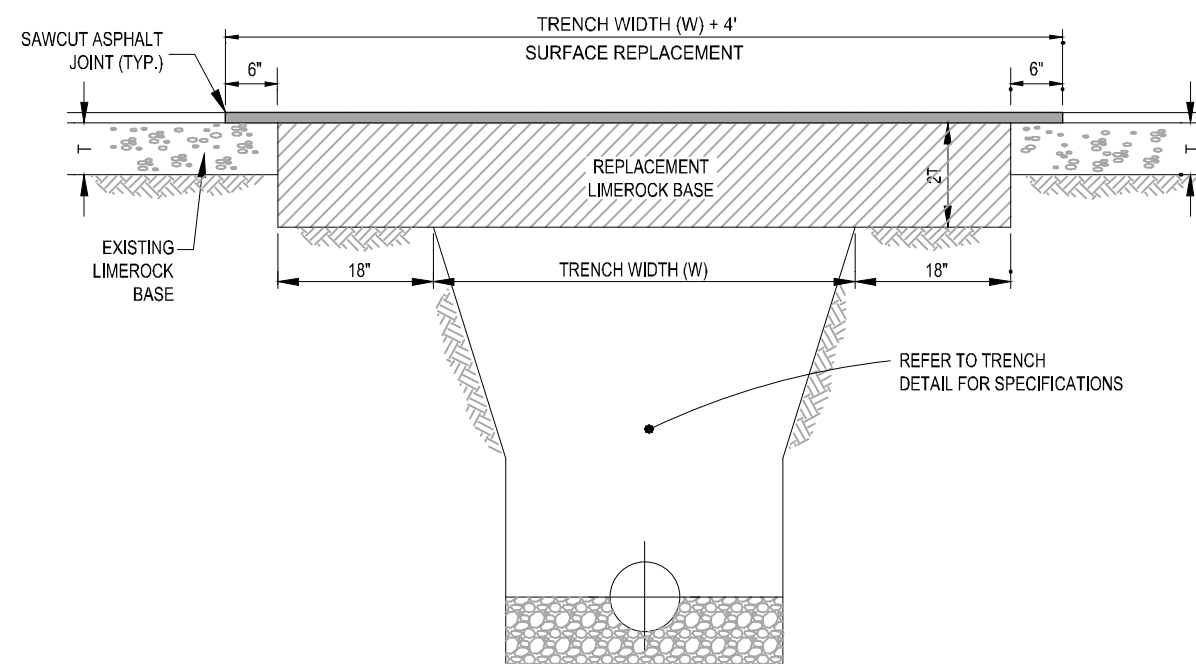
2 PRECAST CONCRETE-TOP SLAB FOR DRAINAGE MANHOLES

3 PRECAST CIRCULAR CATCH BASIN

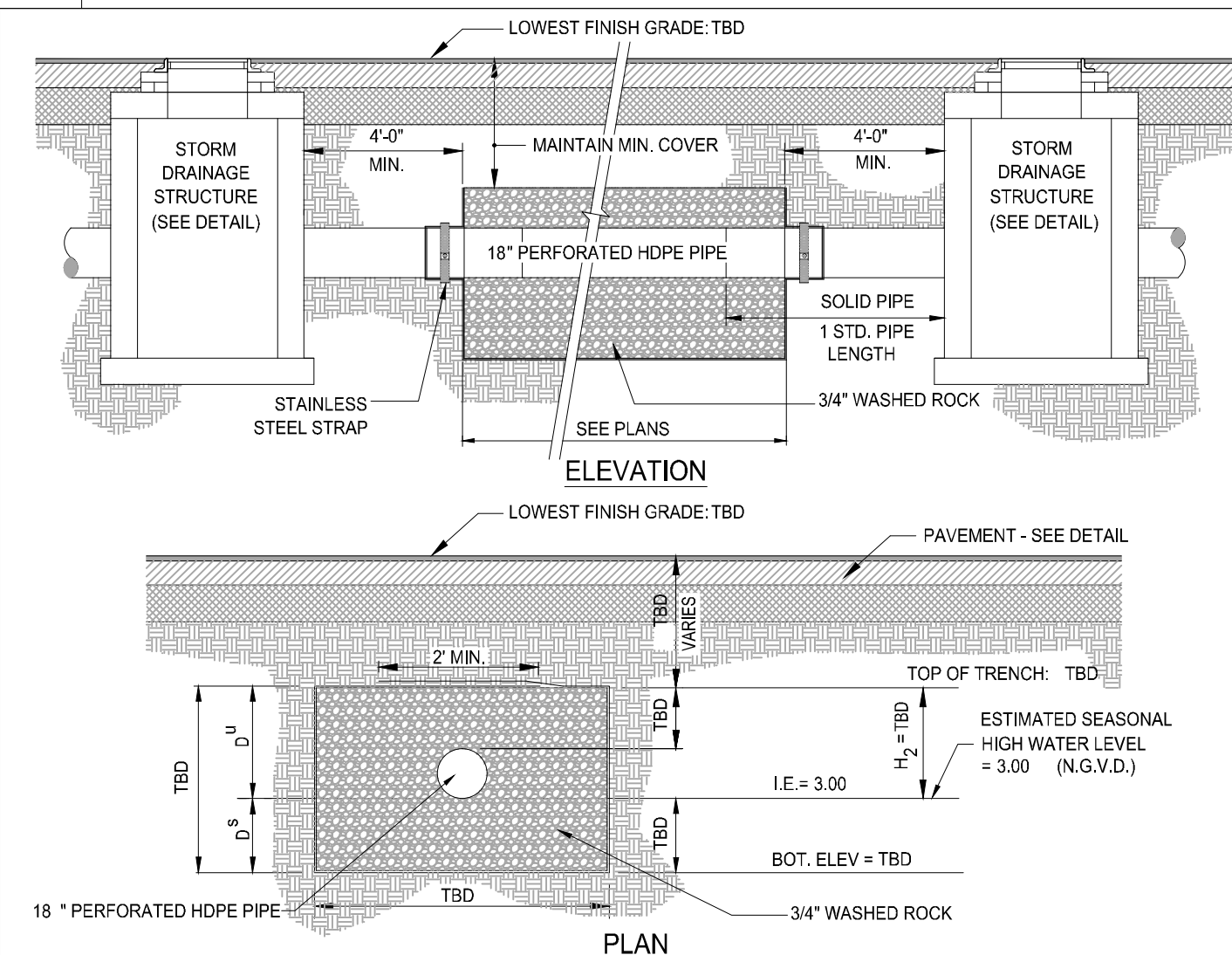
4	PRECAST CONCRETE-TOP SLAB
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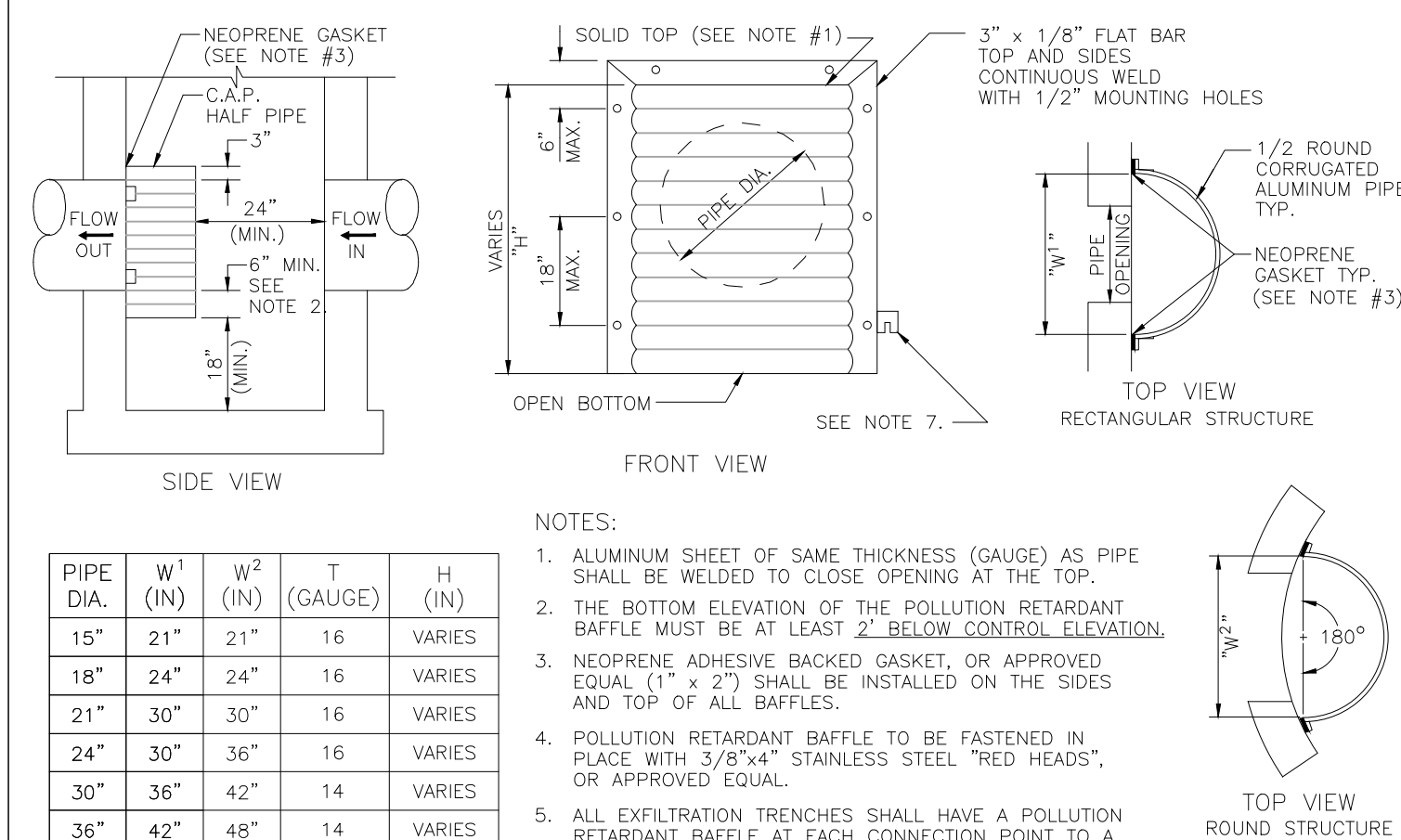
- NOTES:**
1. WHERE SOIL CONDITIONS CAN NOT BE MAINTAINED AS SHOWN ABOVE, PROVIDE APPROVED MEANS OF CONSTRUCTION.
 2. BEDDING MATERIAL SHALL CONSIST OF WELL GRADED ASTM C33 #57 ROCK (3/4" TO NO.4) AND BE PLACED TO SPRING LINE OF PIPE.
 3. BACKFILL MATERIAL SHALL BE FREE OF MUCK, STUMPS, ROOTS, ROCKS OR OTHER MATERIAL UNACCEPTABLE TO ENGINEER.
 4. SHEETING WILL BE REQUIRED AS DETERMINED IN THE FIELD.
 5. REFER TO SPECIFICATIONS FOR EXCAVATION IN MUCK OR OTHER UNSUITABLE MATERIAL.
 6. COMPACTION PERCENTAGES SHOWN REFER TO A5HTO 1180.
 7. MECHANICAL COMPACTION NOT ALLOWED BELOW THE FIELD (WITHIN 12" OF TOP OF PIPE).
 8. THOROUGHLY WORK IN AND TAMP THE BEDDING MATERIAL IN THE HAUNCHING ZONE BEFORE PLACING AND COMPACTING REMAINDER OF BACKFILL.



- NOTES:**
1. REPLACED BASE MATERIAL OVER TRENCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE. MINIMUM 6", MAXIMUM 18".
 2. BASE MATERIAL SHALL BE PLACED IN 6" MAXIMUM (LOOSE MEASUREMENT) LAYERS AND EACH LAYER THOROUGHLY ROLLED OR TAMPED TO 98% OF MAXIMUM DENSITY. PER ASPH-T-160.
 3. SUBGRADE MATERIAL SHALL BE GRANULAR AND ANGULAR AND SHALL HAVE A MINIMUM LBR OF 40.
 4. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED PARALLEL TO OR PERPENDICULAR TO THE ROADWAY
 5. SURFACE TREATED PAVEMENT JOINTS SHALL BE LAPPED.
 6. SURFACE MATERIAL SHALL BE CONSISTENT WITH THE SURROUNDING SURFACE (MINIMUM 1" THICKNESS)
 7. BASE MATERIAL SHALL HAVE A MINIMUM LBR OF 100 AND A MINIMUM CARBONATE CONTENT OF 70% (FOR LOCAL STREETS)
 8. IF THE TRENCH IS FILLED TEMPORARILY, IT SHALL BE COVERED WITH A 2" ASPHALT CONCRETE PATCH TO KEEP THE FILL MATERIAL FROM RAVELING UNTIL REPLACED WITH A PERMANENT PATCH.

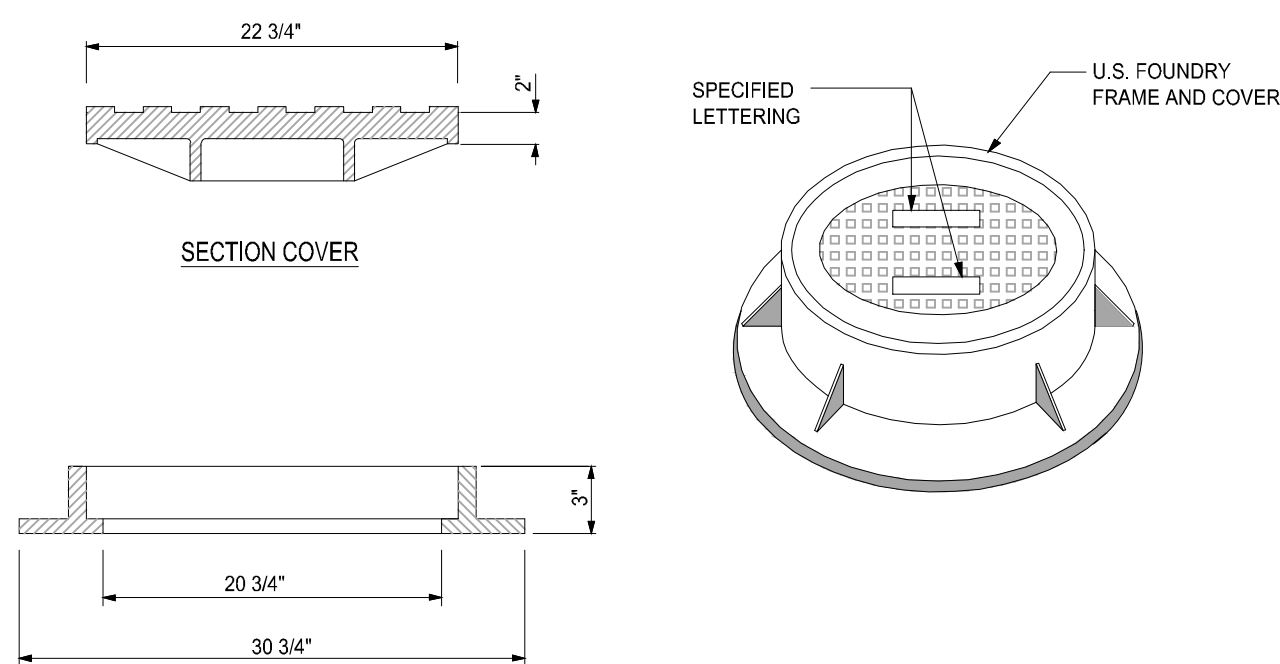


- NOTES:**
1. PIPES SHALL CONNECT TO ADDITIONAL CATCH BASINS AS REQUIRED.
 2. BALLAST ROCK SHALL CONSIST OF 3/4" WASHED ROCK AND BE FROM FRESH WATER WASHED FREE OF DELETERIOUS MATTER.
 3. TRENCH TO BE LINED WITH AMOCO PROPEX 4546 OR APPROVED EQUIVALENT TYPE FILTER FABRIC. OVERLAP TRENCH LINING MATERIAL A MINIMUM OF 2' AT TOP OF TRENCH. CLOSE ENDS AND STRAP AROUND PIPE.
 4. IN AREAS OVER TRENCH WHERE THE FULL ROADWAY SECTION CANNOT BE CONSTRUCTED, THE AREA ABOVE THE TRENCH SHALL CONSIST ENTIRELY OF LIMEROCK BASE (LBR100).



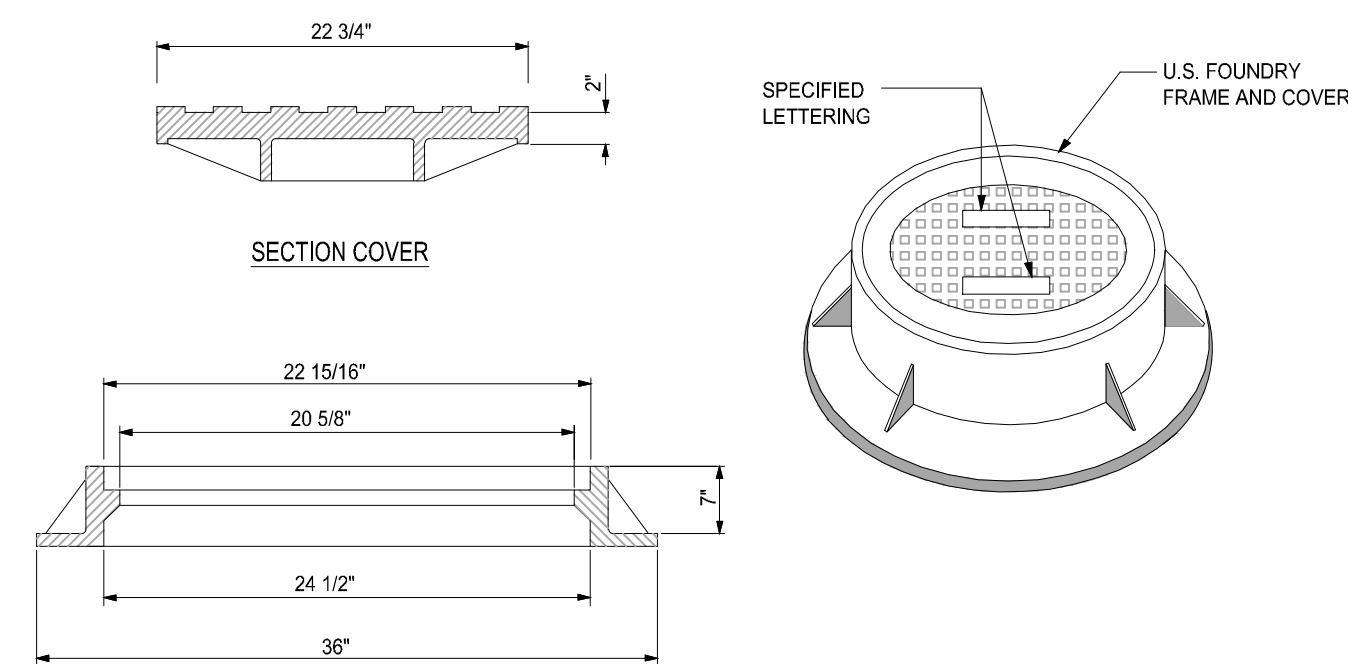
- NOTES:
1. ALUMINUM SHEET OF SAME THICKNESS (GAUGE) AS PIPE SHALL BE ELDED TO CLOSE OPENING AT THE TOP.
 2. THE BOTTOM WELDMENT OF EACH CONNECTION SHALL BE A BELOW TRENCH ELEVATION BATTLE BUT NOT A BELOW TRENCH ELEVATION BATTLE.
 3. NEOPRENE ADHESIVE BACKED GASKET, OR APPROVED EQUAL (1" x 2" SHALL BE INSTALLED ON THE SIDES AND TOP OF ALL BATTLE.
 4. POLLUTION RETARDANT BATTLE TO BE FASTENED IN PLACE WITH 3/8"x4" STAINLESS STEEL "RED HEADS", OR APPROVED EQUAL.
 5. ALL EXFILTRATION TRENCHES SHALL HAVE A POLLUTION RETARDANT BATTLE AT EACH CONNECTION POINT TO A STRUCTURE (SEE EXFILTRATION TRENCH DETAIL).
 6. FIBERGLASS BATTERS ARE NOT PERMITTED.
 7. MOUNTING BRACKETS MAY BE ADDED TO FLAT BARS TO PROVIDE EXTRA SUPPORT FOR STRUCTURES. SPACING TO MATCH HOLES IN FLAT BARS.

5	TRENCH DETAIL
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- NOTE:
1. RING AND COVER TO BE TYPE U.S.F. No. 440-A

6 PAVEMENT RESTORATION DETAIL



- NOTE:
1. RING AND COVER TO BE TYPE U.S.F. No. 420-C

7 EXFILTRATION TRENCH 10' WIDE

9	POLLUTION RETARDENT BAFFLE DETAIL
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11 MANHOLE FRAME DETAIL USF No.440-A

12	MANHOLE FRAME DETAIL USF No. 420-C
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