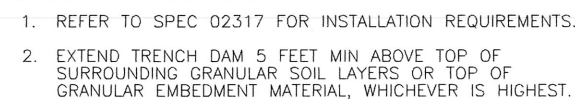
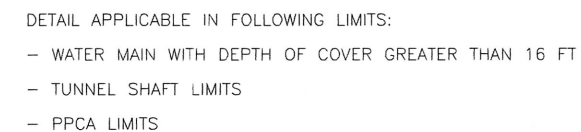



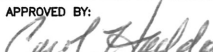
1. REFER TO MINIMUM CLEARANCE REQUIRED IN DRAWINGS.

1. SEE TRENCH SAFETY SYSTEM SPECIFICATIONS.
2. FOR WET BOTTOM EXCAVATION LIMITS OF CRUSHED STONE, EXTEND AS SHOWN.
3. PLACEMENT OF TRENCH DAM WITH A MINIMUM OF 12 INCHES INTO TRENCH BOTTOM AND WALLS.
4. TRENCH DAM MAY BE FORMED OR UNFORMED. ACTUAL SHAPE OF TRENCH DAM CROSS SECTION MAY BE DETERMINED BY CONTRACTOR IN FIELD, MEETING 12-INCH MINIMUM THICKNESS AND 12-INCH KEY DEPTH REQUIREMENTS.
5. TRENCH DAM SHALL BE PLACED AT LEAST 5 FT. AWAY FROM ANY PIPELINE STRUCTURE (EACH SIDE). SEE SECTION 02317 FOR OTHER REQUIREMENTS.
6. THIS PORTION OF PIPE EMBEDMENT ZONE MUST BE RECOMPACTED TO PROPER DENSITIES AFTER MOVING SUPPORT SYSTEM FORWARD.
7. USE FILTER FABRIC AS A BOND BREAKER IN PPCA LIMITS AND USE POLYETHYLENE WRAP AS A BOND BREAKER AT OTHER LOCATIONS BETWEEN CEMENT STABILIZED SAND AND PIPE.
8. REFER TO SPEC 02317 FOR GEOTEXTILE REQUIREMENTS AROUND EMBEDMENT.
9. ADJUST HEIGHT OF UNSUPPORTED TRENCH AS NEEDED FOR SAFE CONDITIONS.



1. FOLLOWING EXCAVATION OF TRENCH, PLACE A 6" LAYER OF CEMENT STAB. SAND AT BOTTOM OF TRENCH. LAY POLYETHYLENE WRAP IN TRENCH, AND LAY PIPE ON TOP OF WRAP. FOLD WRAP AROUND PIPE WITH A 6" OVERLAP (MIN.) AND TIE AROUND PIPE WITH HEAVY BINDER TWINE, OR EQUAL, ON 6" CENTERS. PROVIDE A 12" OVERLAP (MIN.) AND TIE WITH HEAVY BINDER TWINE END LAPS. PLACE ADDITIONAL CEMENT SAND UP TO 12" ABOVE.
2. ALL DUCTILE IRON PIPE SHALL HAVE A POLYETHYLENE "WRAP" OF 4 MIL. THICKNESS (MINIMUM) EXCEPT AS NOTED BELOW.
3. WHERE PIPE IS PLACED IN AN AUGER OR TUNNEL OR IN A CASING, PIPE IS TO HAVE A DOUBLE WRAP OF 4 MIL POLYETHYLENE AND SHALL BE BONDED ON 12" CENTERS WITH ½" STAINLESS STEEL BANDS. END LAPS TO BE AS SPECIFIED FOR TRENCH SECTIONS.
4. REFER TO SPECIFICATION SECTION 02528 - POLYETHYLENE ENCASEMENT/WRAP.



<h1 style="text-align: center;">CITY OF HOUSTON</h1> <h2 style="text-align: center;">HOUSTON PUBLIC WORKS</h2>	
<h3>STANDARD LDWL</h3> <h3>EXCAVATION AND BACKFILL</h3> <h3>DETAIL</h3> <p>(NOT TO SCALE)</p>	
APPROVED BY:  CITY ENGINEER	APPROVED BY:  DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: JUL - 01 - 2021	DWG NO: 02317-09