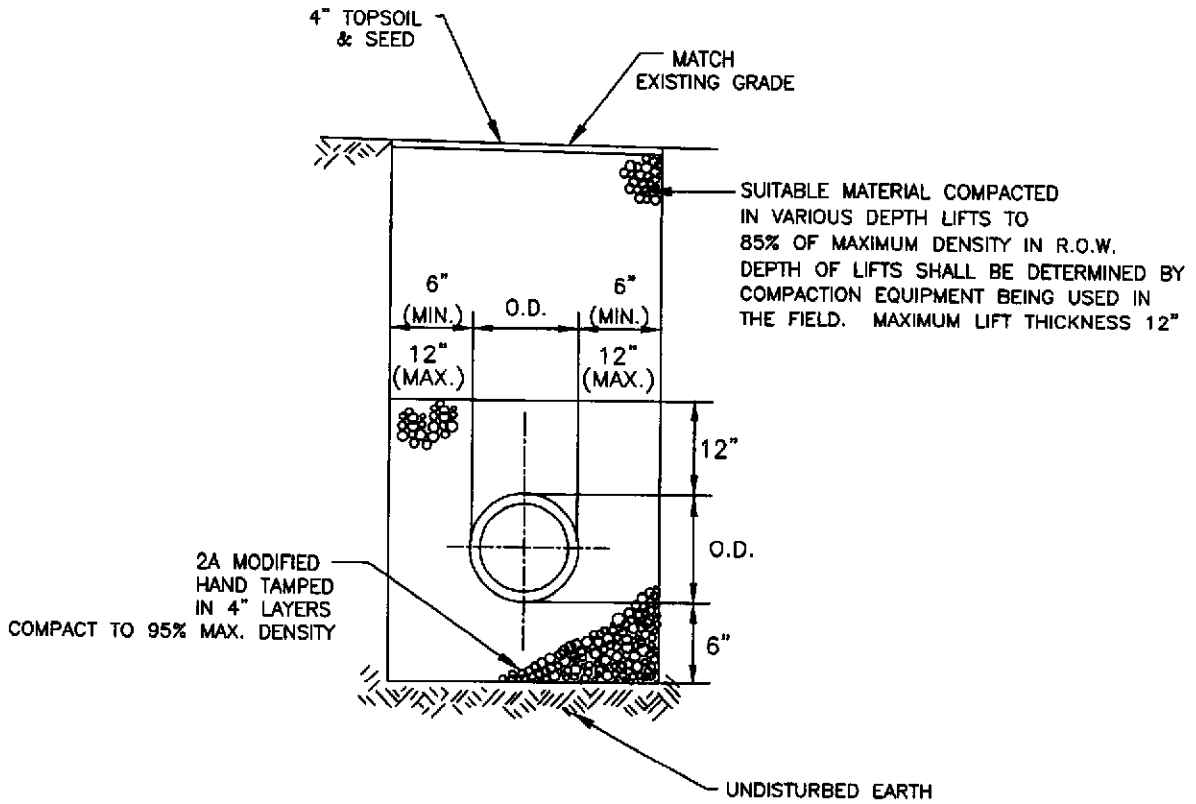


(FINAL GRADING AND SEEDING SHALL BE IN ACCORDANCE WITH SECTION 02485 OF THE SPECIFICATIONS)



NOTES:

- 1.) DETAIL FOR PIPE
4" AND LARGER
- 2.) CONTRACTOR TO PROVIDE
UNIFORM GRADE FROM
EDGE OF EXISTING R-O-W



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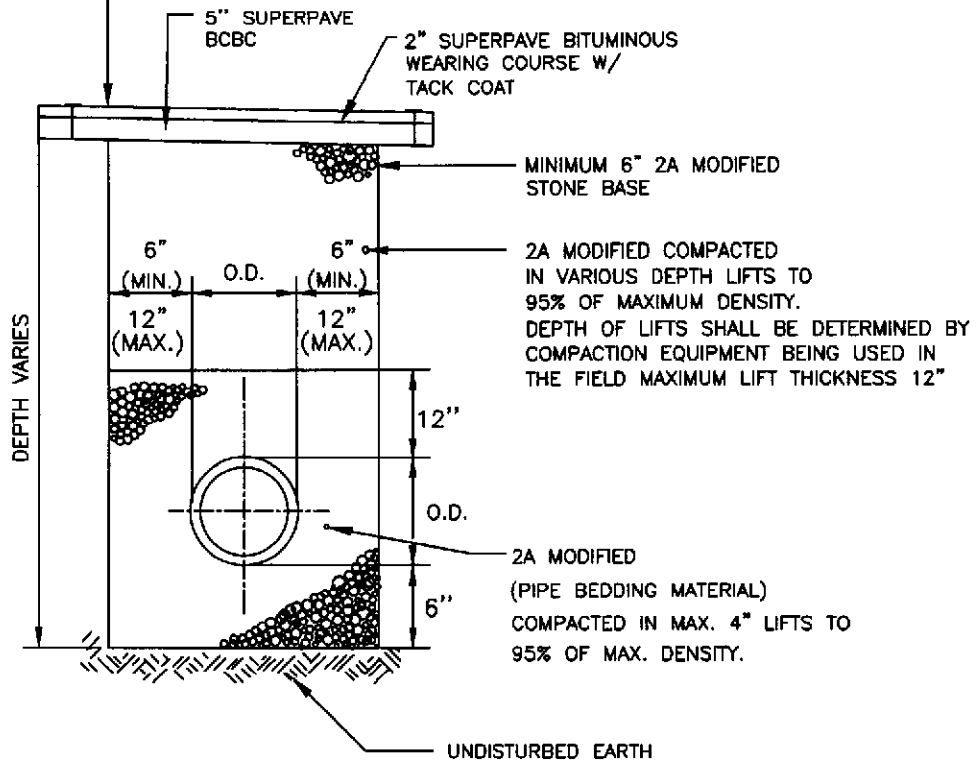
NAZARETH BOROUGH MUNICIPAL AUTHORITY
NON ROADWAY
PERMANENT RESTORATION

DETAIL NO. 1

DATE: AUG 12, 2016

SCALE: N.T.S.

APPLY JOINT SEALANT - 4" WIDE
CENTERED ON SAW CUT LOCATIONS



NOTES:

1. ALL MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, FORM 408 LATEST EDITION.
2. CONTRACTOR TO PROVIDE UNIFORM GRADE FROM EDGE OF EXISTING PAVING.
3. ALL TRENCHES IN BOROUGH STREETS ARE TO BE CLOSED AT THE END OF EACH WORKDAY BY COMPLETION OF RESTORATION OR BY COVERING WITH A PLATE.
4. IF TEMPORARY RESTORATION IS PERMITTED ON BOROUGH STREETS, INSTALL 8" 2A MODIFIED AND 2" COLD PATCH IN LIEU OF BCBC AND SUPERPAVE.



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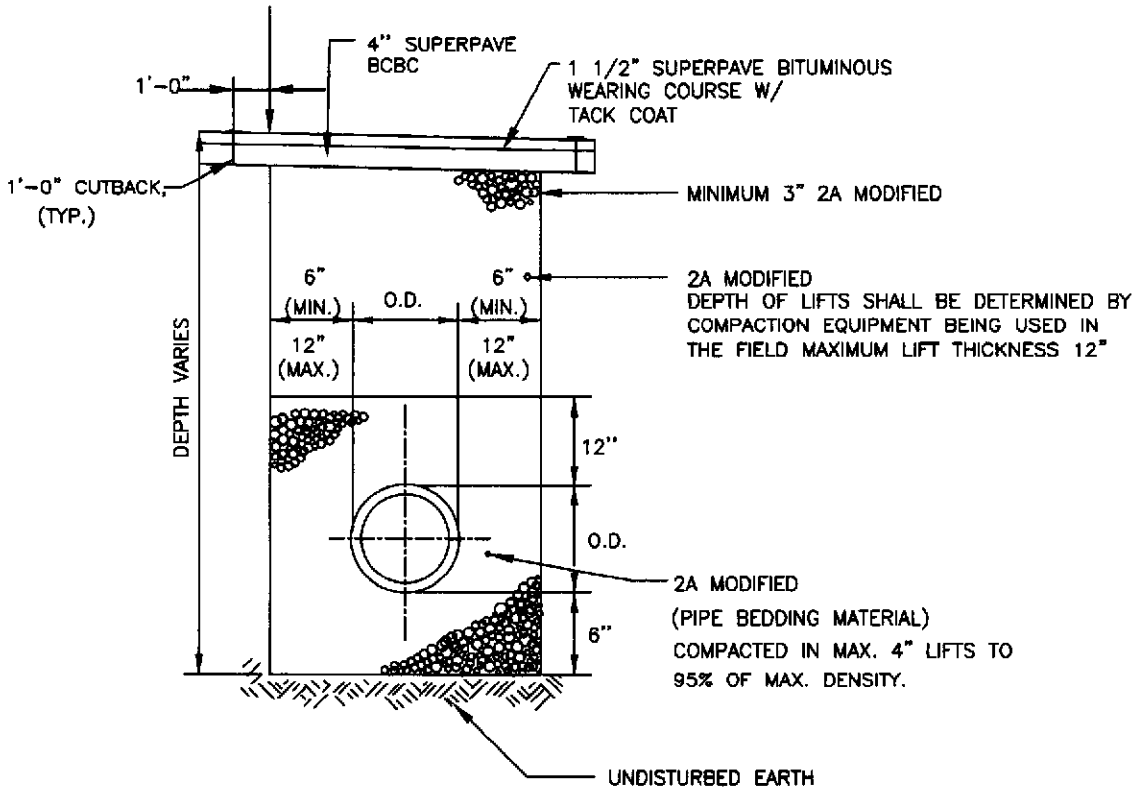
NAZARETH BOROUGH MUNICIPAL AUTHORITY
PERMANENT RESTORATION
IN BOROUGH STREETS

DETAIL NO. 2

DATE: AUG 12, 2016

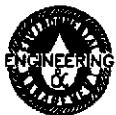
SCALE: N.T.S.

APPLY JOINT SEALANT - 4" WIDE
CENTERED ON SAW CUT LOCATIONS



NOTES:

1. ALL MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, FORM 408 LATEST EDITION.
2. CONTRACTOR TO PROVIDE UNIFORM GRADE FROM EDGE OF EXISTING PAVING.
3. ALL TRENCHES IN TOWNSHIP ROADS/ STREETS ARE TO BE CLOSED AT THE END OF EACH WORKDAY BY COMPLETION OF RESTORATION OR BY COVERING WITH A PLATE.



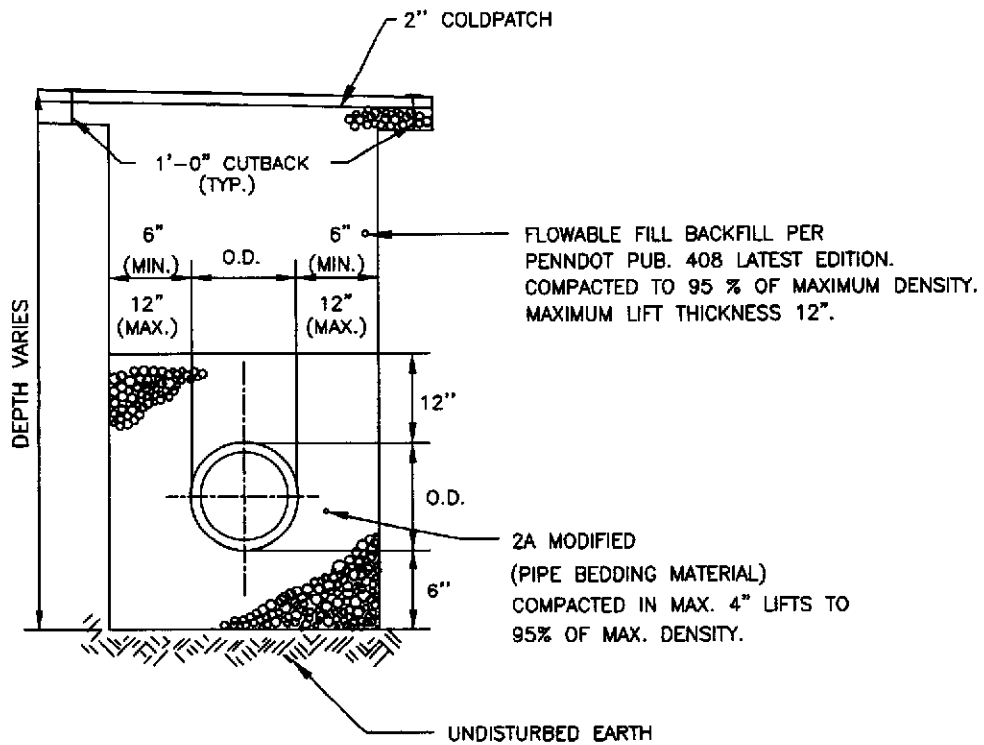
ENVIRONMENTAL ENGINEERING
&
MANAGEMENT ASSOCIATES INC.
P.O. BOX 232 KULPSVILLE, PA. 19443 (215) 368-3375

NAZARETH BOROUGH MUNICIPAL AUTHORITY
PERMANENT RESTORATION
IN TOWNSHIP ROADS

DETAIL NO. 2A

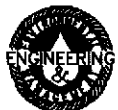
DATE: AUG 12, 2016

SCALE: N.T.S.



NOTES:

1. ALL MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, FORM 408 LATEST EDITION AND RC STANDARDS AS REQUIRED BY PERMIT.
2. CONTRACTOR TO PROVIDE UNIFORM GRADE FROM EDGE OF EXISTING PAVING.
3. TEMPORARY PAVING TO REMAIN FOR 60 TO 90 DAYS.



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NAZARETH BOROUGH MUNICIPAL AUTHORITY

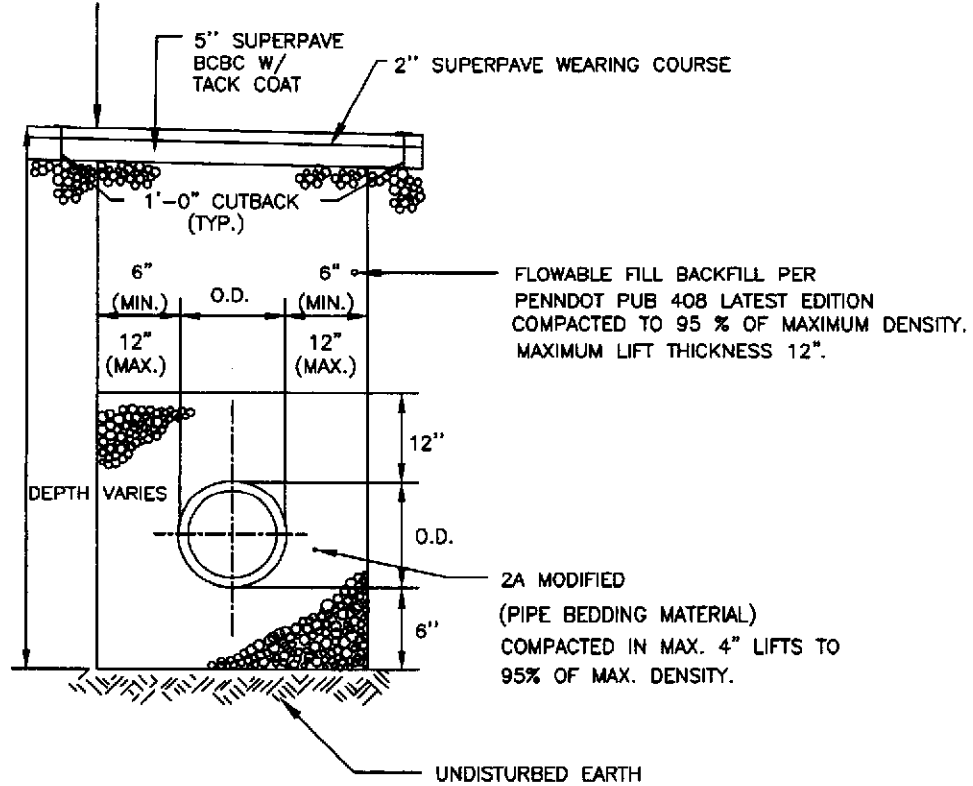
TEMPORARY RESTORATION
STATE ROADS

DETAIL NO. 3

DATE: AUG 12, 2016

SCALE: N.T.S.

APPLY JOINT SEALANT - 4" WIDE
CENTERED ON SAW CUT LOCATIONS



NOTES:

1. ALL MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, FORM 408 LATEST EDITION AND RC STANDARDS AS REQUIRED BY PERMIT.
2. CONTRACTOR TO PROVIDE UNIFORM GRADE FROM EDGE OF EXISTING PAVING
3. ALL DIMENSIONS SHALL BE IN CONFORMANCE WITH PERMIT ISSUED FOR EACH SPECIFIC LOCATION



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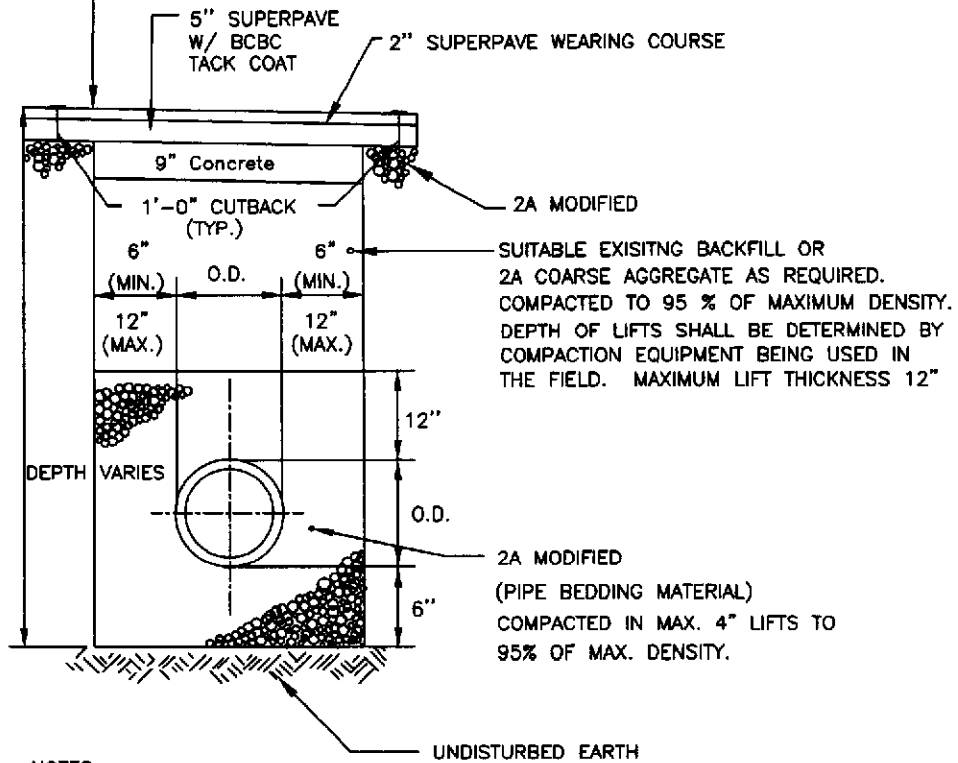
NAZARETH BOROUGH MUNICIPAL AUTHORITY
PERMANENT RESTORATION
BITUMINOUS STATE ROADS

DETAIL NO. 3A

DATE: AUG 12, 2016

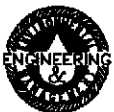
SCALE: N.T.S.

APPLY JOINT SEALANT - 4" WIDE
CENTERED ON SAW CUT LOCATIONS



NOTES:

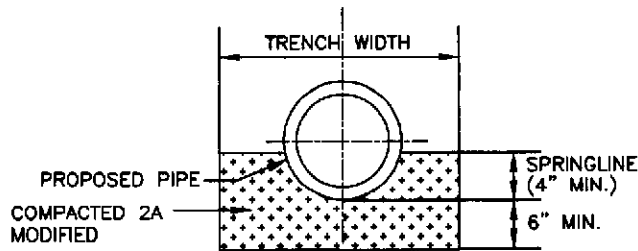
1. ALL MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, FORM 408 LATEST EDITION AND RC STANDARDS AS REQUIRED BY PERMIT.
2. CONTRACTOR TO PROVIDE UNIFORM GRADE FROM EDGE OF EXISTING PAVING
3. DURASET CONCRETE SHALL SET WITHIN 4 HOURS.
4. ALL DIMENSIONS SHALL BE IN CONFORMANCE WITH PERMIT ISSUED FOR EACH SPECIFIC LOCATION.



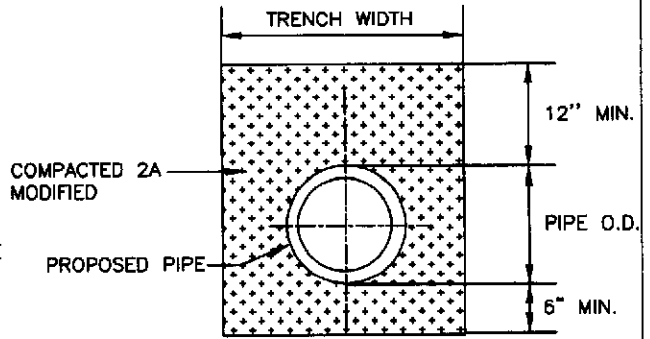
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&
MANAGEMENT ASSOCIATES INC.
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NAZARETH BOROUGH MUNICIPAL AUTHORITY
PERMANENT RESTORATION
CONCRETE BASE STATE ROADS

DETAIL NO. 38
DATE: AUG 12, 2016
SCALE: N.T.S.

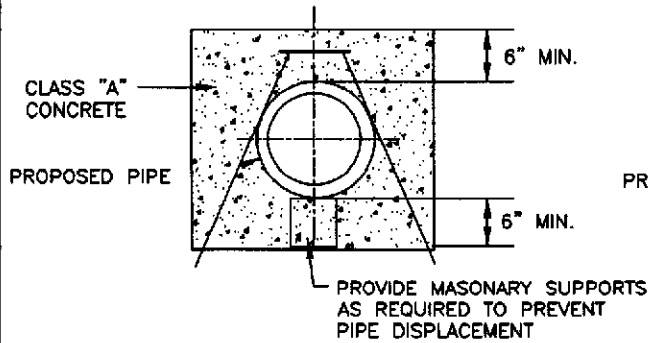


CRUSHED STONE CRADLE
(MINIMUM FOR DUCTILE IRON PIPE)

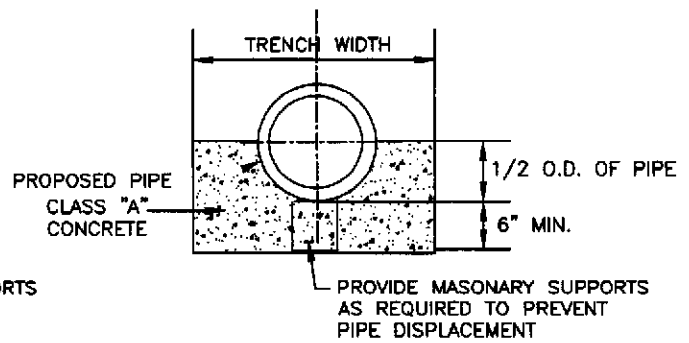


CRUSHED STONE ENCASEMENT
(MIN. FOR PVC & CAST IRON PIPE)

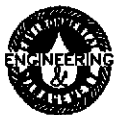
SECURE PIPE USING NO.5 STEEL REINFORCING RODS WITH WIRE, SPACED AS REQUIRED TO PREVENT PIPE MOVEMENT



CONCRETE ENCASEMENT DETAIL



CONCRETE CRADLE



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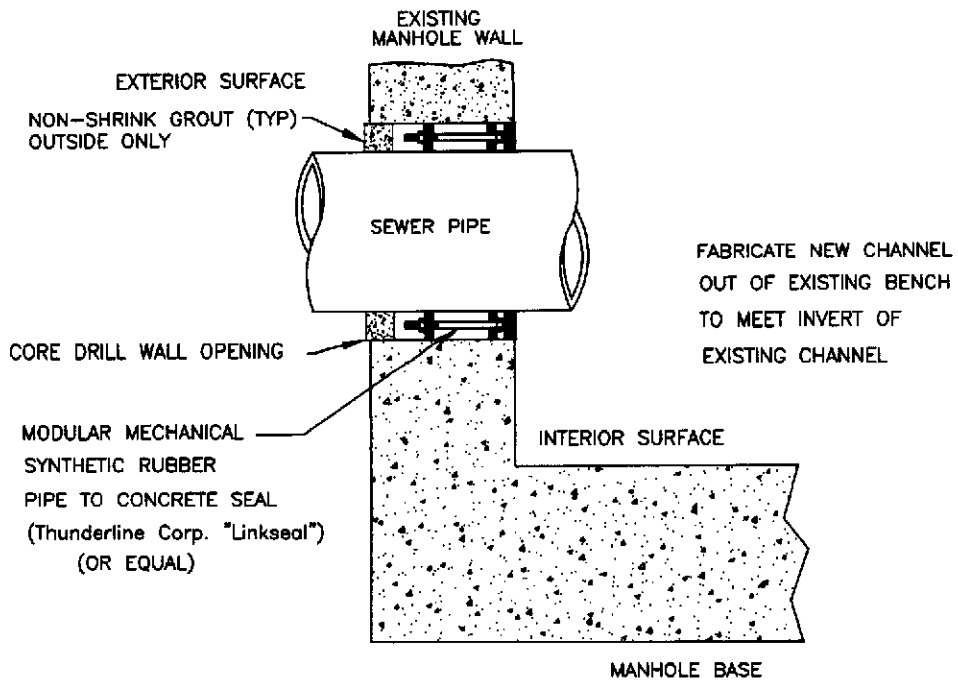
NAZARETH BOROUGH MUNICIPAL AUTHORITY

PIPE BEDDING DETAILS

DETAIL NO. 4

DATE: AUG 12, 2016

SCALE: N.T.S.



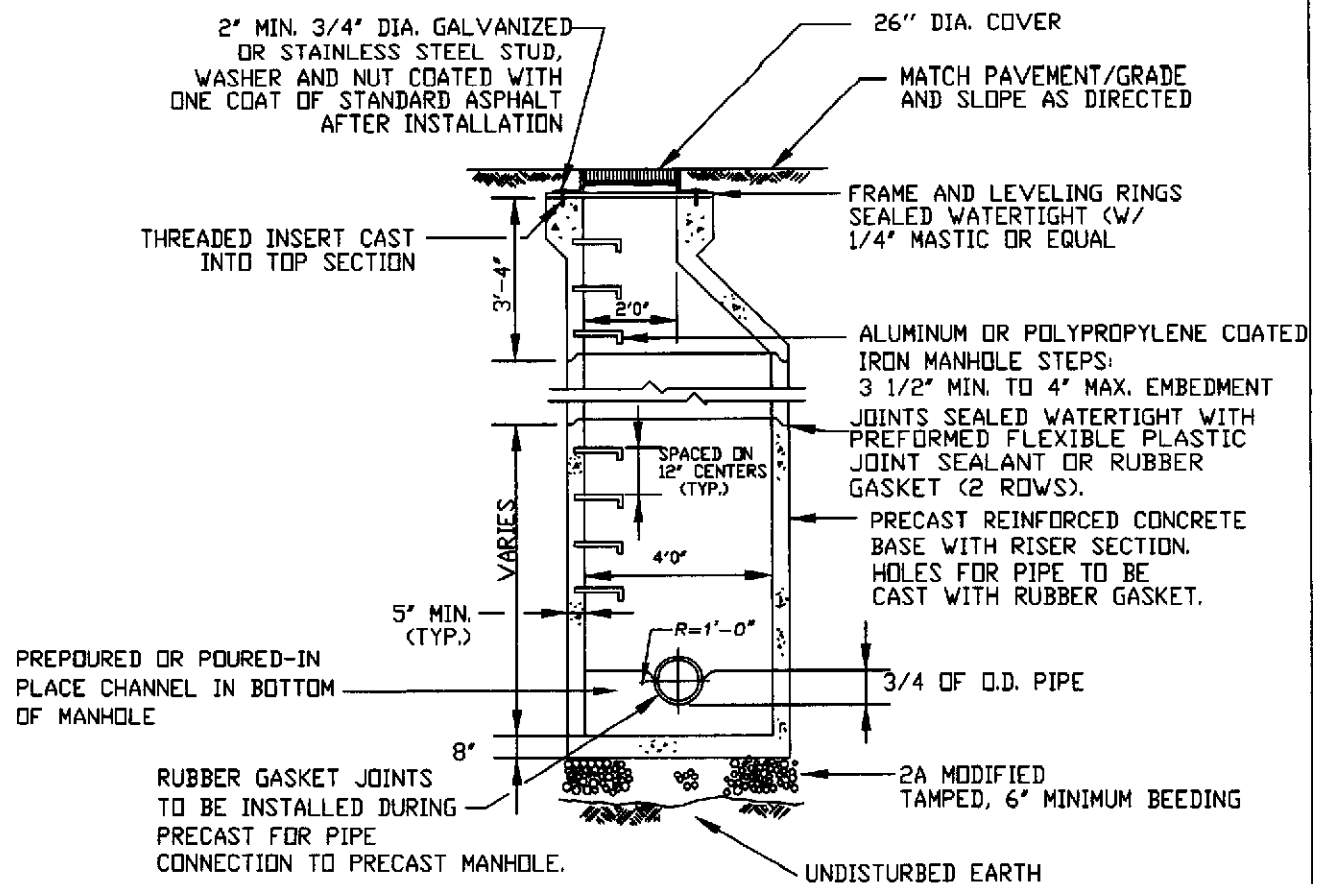
ENVIRONMENTAL ENGINEERING
&
MANAGEMENT ASSOCIATES INC.
P.O. BOX 232 KILPSVILLE, PA. 19443 (215) 368-3375

NAZARETH BOROUGH MUNICIPAL AUTHORITY
PIPE CONNECTION TO
AN EXISTING MANHOLE

DETAIL NO. 5

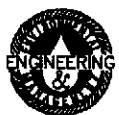
DATE: AUG 12, 2016

SCALE: N.T.S.



SECTION

- NOTES:
1. THIS MANHOLE UTILIZED FOR RIM TO INVERT DEPTH LESS THAN SEVEN FEET.
 2. PIPES SHALL PROTRUDE 2" INSIDE MANHOLE WALL
 3. STEEL TEMPLATE TO BE SUPPLIED BY MANHOLE MFR. IN ORDER TO FORM PROPER RECESS IN CONCRETE
 4. RISERS TO BE OF MULTIPLE LENGTHS OF 1', IN ORDER TO SUIT VARIATIONS IN ELEVATION
 5. ALL EXTERIOR CONCRETE SURFACES SHALL BE COATED WITH BIOMASTIC SUPER SERVICE BLACK AS MANUFACTURED BY CARBOLINE INC. OR COOPERS CREEK. COATING, 2 COATS, TOTAL 24 ML. DRY THICKNESS.
 6. ALL INTERIOR CONCRETE SURFACES SHALL BE COATED WITH 2 COATS OF EPOXY-AMINE ADDUCT, MULTI-MILL, TWO COMPONENT, CATALYZED EPOXY WITH TOTAL SOLIDS VOLUME OF 49-51%.



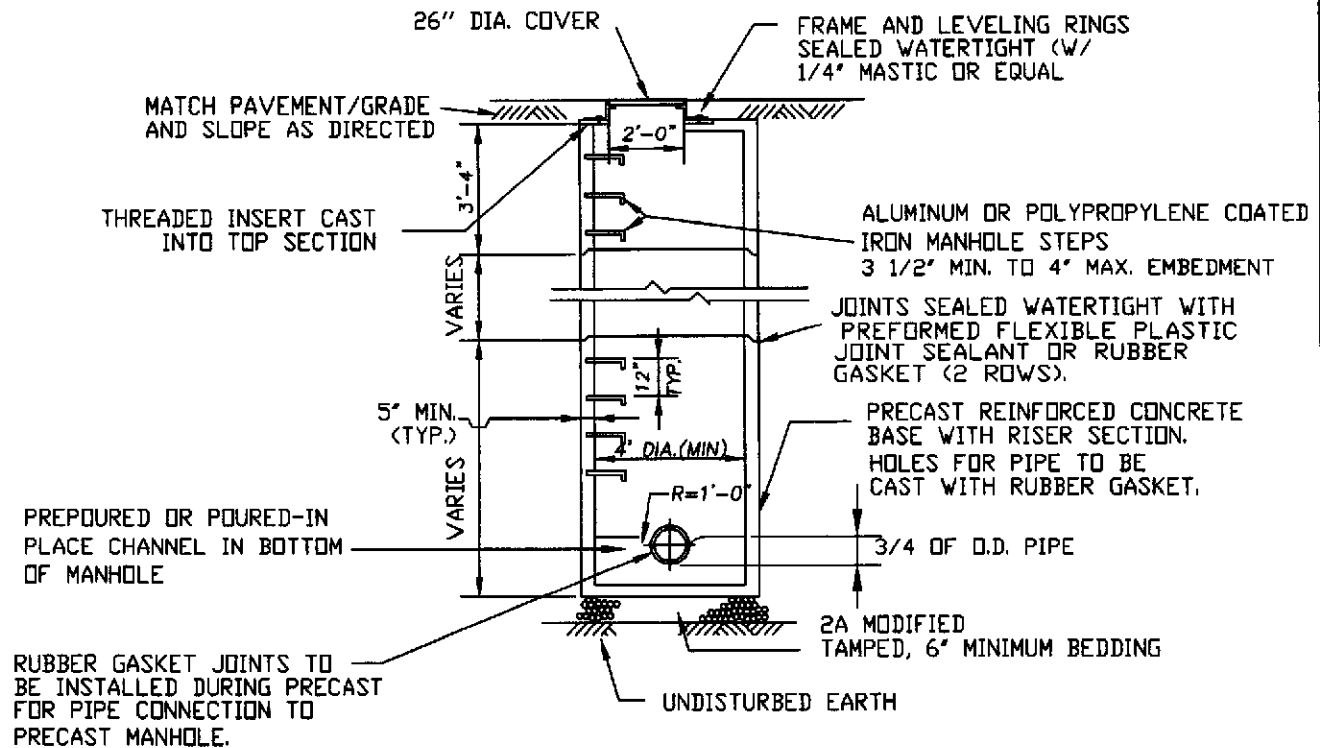
ENVIRONMENTAL ENGINEERING
&
MANAGEMENT ASSOCIATES INC.
P.O. BOX 232 KILPSVILLE, PA. 19443 (215) 388-3376

NAZARETH BOROUGH MUNICIPAL AUTHORITY
PRECAST CONCRETE MANHOLE
WITH PRECAST BASE (CONE TOP)

DETAIL NO. 6

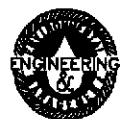
DATE: AUG 12, 2016

SCALE: N.T.S.



SECTION

- NOTES:
1. THIS MANHOLE UTILIZED FOR RIM TO INVERT DEPTH LESS THAN SEVEN FEET.
 2. PIPES SHALL PROTRUDE 2' INSIDE MANHOLE WALL
 3. STEEL TEMPLATE TO BE SUPPLIED BY MANHOLE MFR. IN ORDER TO FORM PROPER RECESS IN CONCRETE
 4. RISERS TO BE OF MULTIPLE LENGTHS OF 1', IN ORDER TO SUIT VARIATIONS IN ELEVATION
 5. ALL EXTERIOR CONCRETE SURFACES SHALL BE COATED WITH BIOMASTIC SUPER SERVICE BLACK AS MANUFACTURED BY CARBOLINE INC. OR COOPERS CREEK. COATING, 2 COATS, TOTAL 24 ML. DRY THICKNESS.
 6. ALL INTERIOR CONCRETE SURFACES SHALL BE COATED WITH 2 COATS OF EPOXY-AMINE ADDUCT, MULTI-MILL, TWO COMPONENT, CATALYZED EPOXY WITH TOTAL SOLIDS VOLUME OF 49-51%.



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NAZARETH BOROUGH MUNICIPAL AUTHORITY

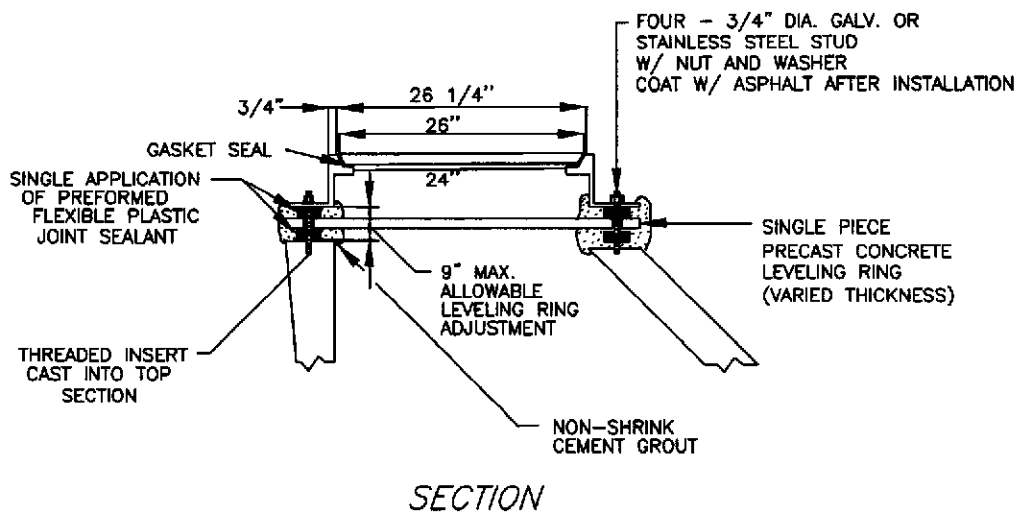
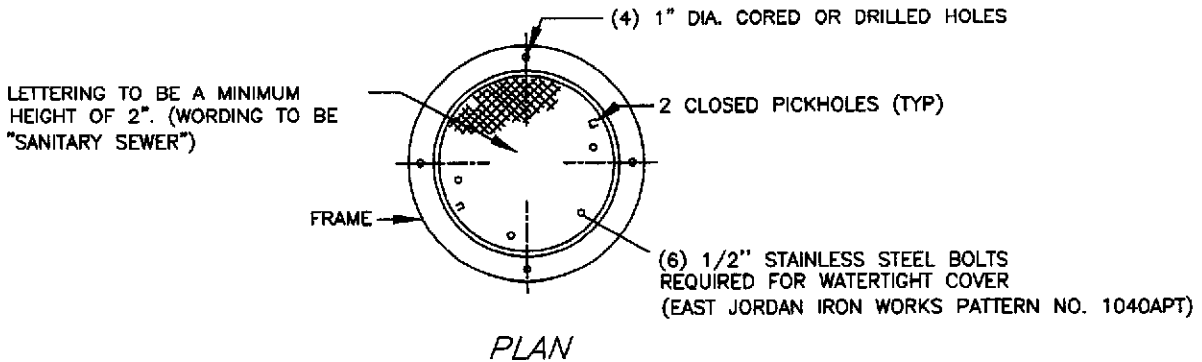
PRECAST CONCRETE MANHOLE
 WITH PRECAST BASE (FLAT TOP)

DETAIL NO. 7

DATE: AUG 12, 2016

SCALE: N.T.S.

CASTING TO BE SUPPLIED WITH COVERS,
MACHINED BEARING SURFACE AND
FLAT NEOPRENE RUBBER GASKET



NOTES:

1. MANHOLE FRAMES AND COVERS SHALL BE EAST JORDAN IRON WORKS PATTERN NO. 1040AGS OR EQUAL.
2. MINIMUM COMBINED WEIGHT OF FRAME AND COVER SHALL BE 365 #
3. WHEN ADDITIONAL CONCRETE LEVELING RINGS ARE USED, CONTRACTOR MUST DRILL THREADED INSERTS IN TOP RING TO SECURE FRAME.



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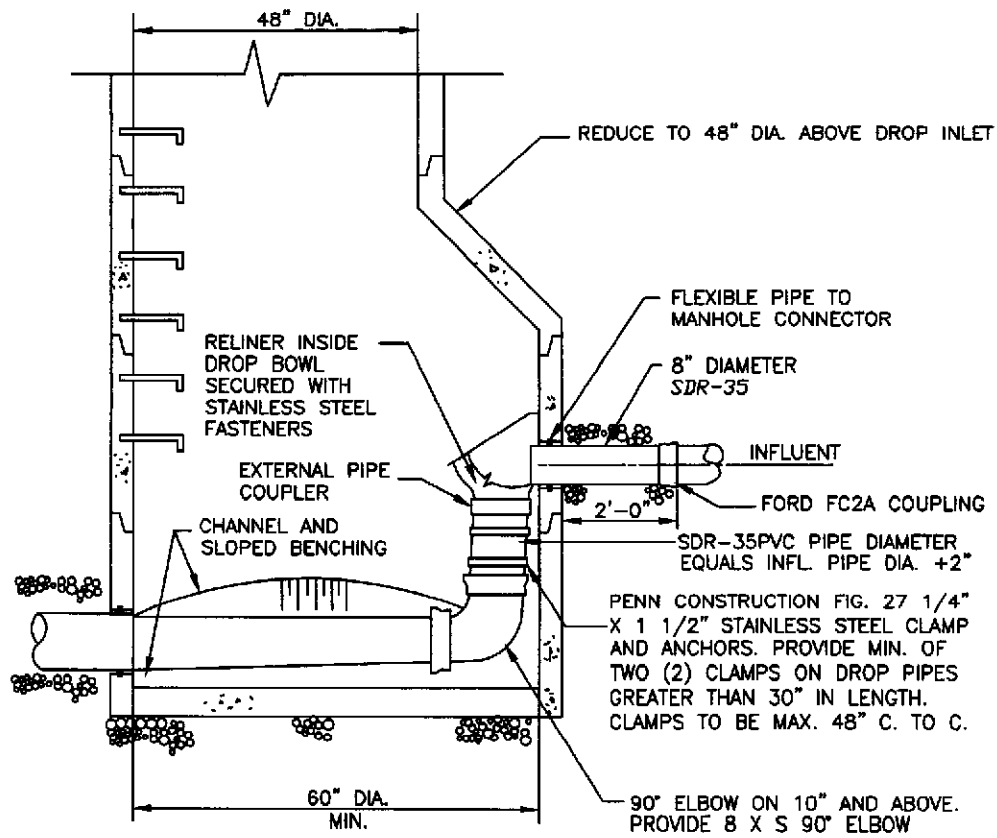
NAZARETH BOROUGH MUNICIPAL AUTHORITY

CAST IRON MANHOLE
FRAME AND COVER

DETAIL NO. B

DATE: AUG 12, 2016

SCALE: N.T.S.



NOTES:

1. SEE DETAIL NO. 6 FOR MANHOLE SPECIFICATIONS.



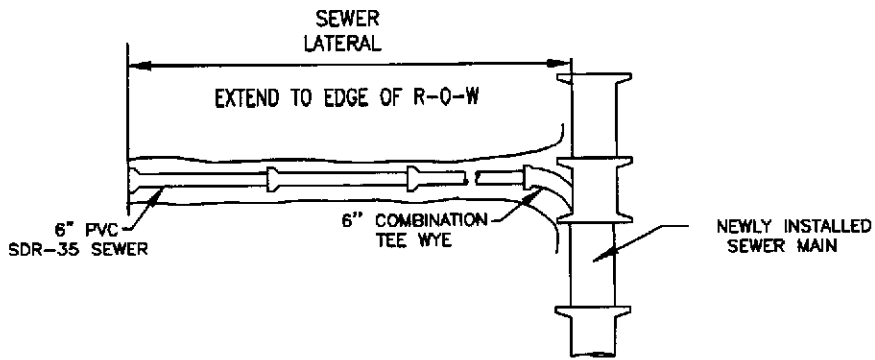
ENVIRONMENTAL ENGINEERING
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 P.O. BOX 232 KILPSVILLE, PA. 18443 (215) 368-3375

NAZARETH BOROUGH MUNICIPAL AUTHORITY
 MANHOLE DROP CONNECTION
 (INSIDE)

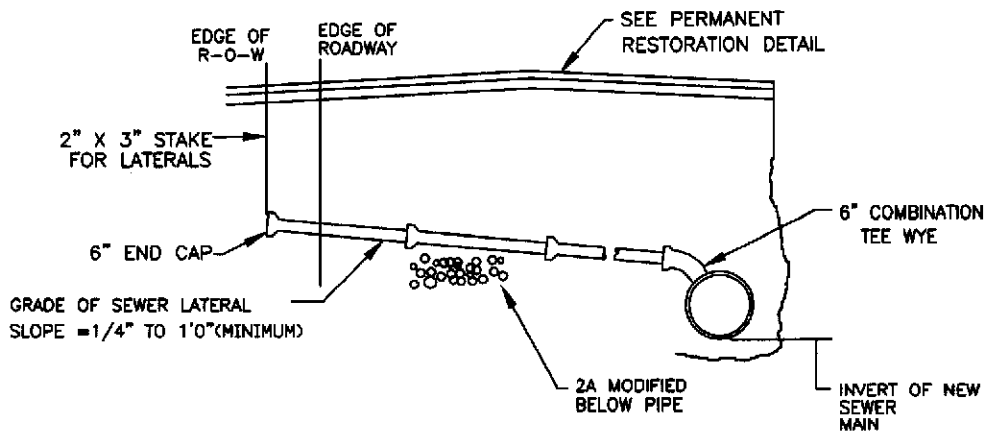
DETAIL NO. 9

DATE: AUG 12, 2016

SCALE: N.T.S.



PLAN



PROFILE

NOTES :

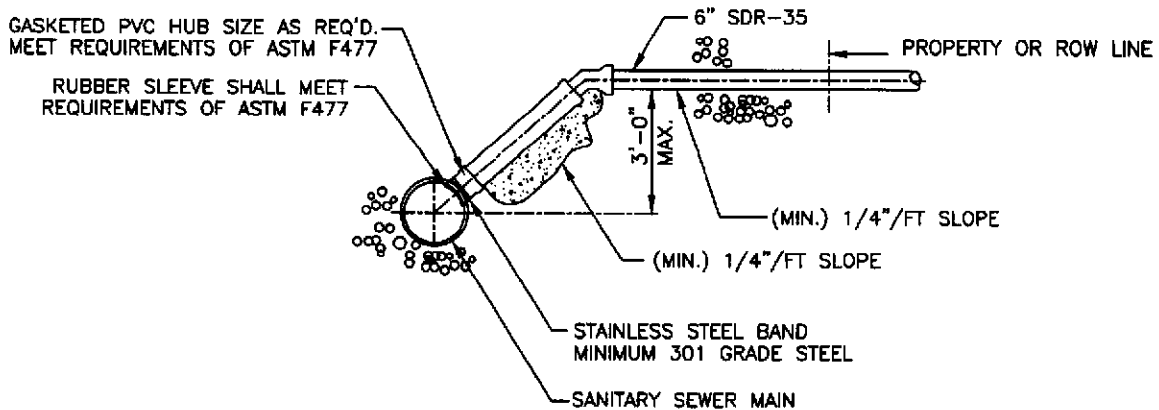
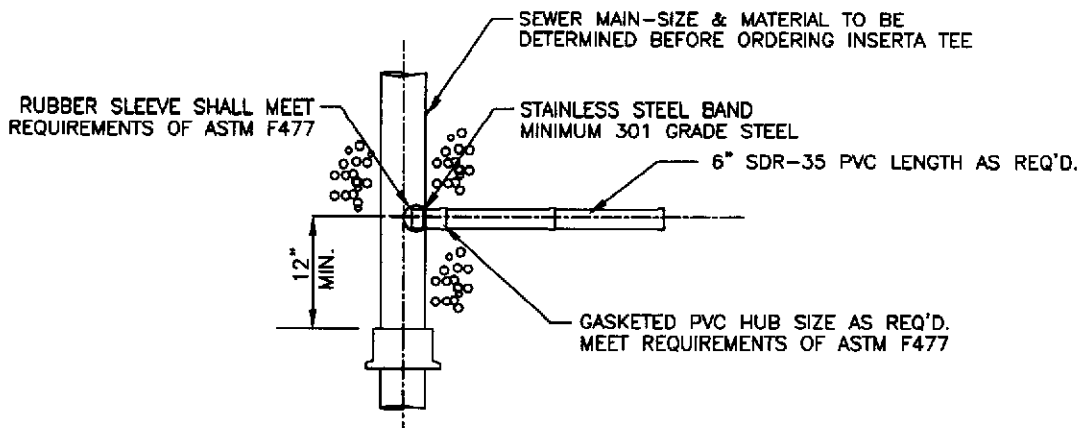
1. TOP OF SEWER LATERAL SHALL BE A MIN. OF 3'0" BELOW FINISHED GRADE.
2. THE CONTRACTOR SHALL MARK THE END OF ALL LATERALS WITH A 2" X 3" STAKE
3. THE CONTRACTOR SHALL PROVIDE "AS-BUILT" CUT SHEETS INDICATING STATION, DEPTH, AND LOCATION OF ALL ENDS OF LATERALS TO AUTHORITY.
4. LATERALS SHALL BE 6-INCH PVC SDR-35 PIPE UNLESS OTHERWISE APPROVED BY AUTHORITY



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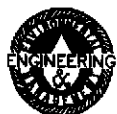
NAZARETH BOROUGH MUNICIPAL AUTHORITY
SEWER LATERAL & TEE WYE
BRANCH IN NEW MAINS

DETAIL NO. 10
DATE: AUG 12, 2016
SCALE: N.T.S.



NOTES :

1. HOLE FOR INSERTA TEE IN SEWER MAIN TO BE CORE DRILLED, USING INSERTA TEE HOLE SAW OR EQUAL. NO OTHER METHOD IS ACCEPTABLE.
2. LATERAL PIPE CONNECTION TO SEWER MAIN SHALL BE MADE USING INSERTA TEE.
3. INSERTA TEE AS MANUFACTURED BY INSERTA TEE. GASKET PORTION TO BE SUITABLE FOR EXISTING PIPE MATERIAL AND WALL THICKNESS.
4. THE WATER BASED SOLUTION PROVIDED BY MANUFACTURER SHALL BE USED DURING ASSEMBLY. DO NOT USE PIPE LUBE.
5. MAXIMUM CONNECTION SIZE SHALL BE TWO (2) INCHES IN DIAMETER SMALLER THAN THE SEWER MAIN.
6. EXTRACTED "COUPON" TO BE GIVEN TO THE AUTHORITY.
7. TOP OF SEWER LATERAL SHALL BE A MINIMUM 3'-0" BELOW FINISHED GRADE AT R/O/W.
8. THE CONTRACTOR SHALL MARK THE END OF ALL LATERALS WITH A 2" X 3" STAKE.
9. THE CONTRACTOR SHALL PROVIDE "AS-BUILT" CUT SHEETS INDICATING STATION, DEPTH, AND LOCATION OF ALL ENDS OF LATERALS TO AUTHORITY.
10. LATERALS SHALL BE 6-INCH PVC SDR-35 PIPE UNLESS OTHERWISE APPROVED BY AUTHORITY.



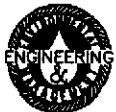
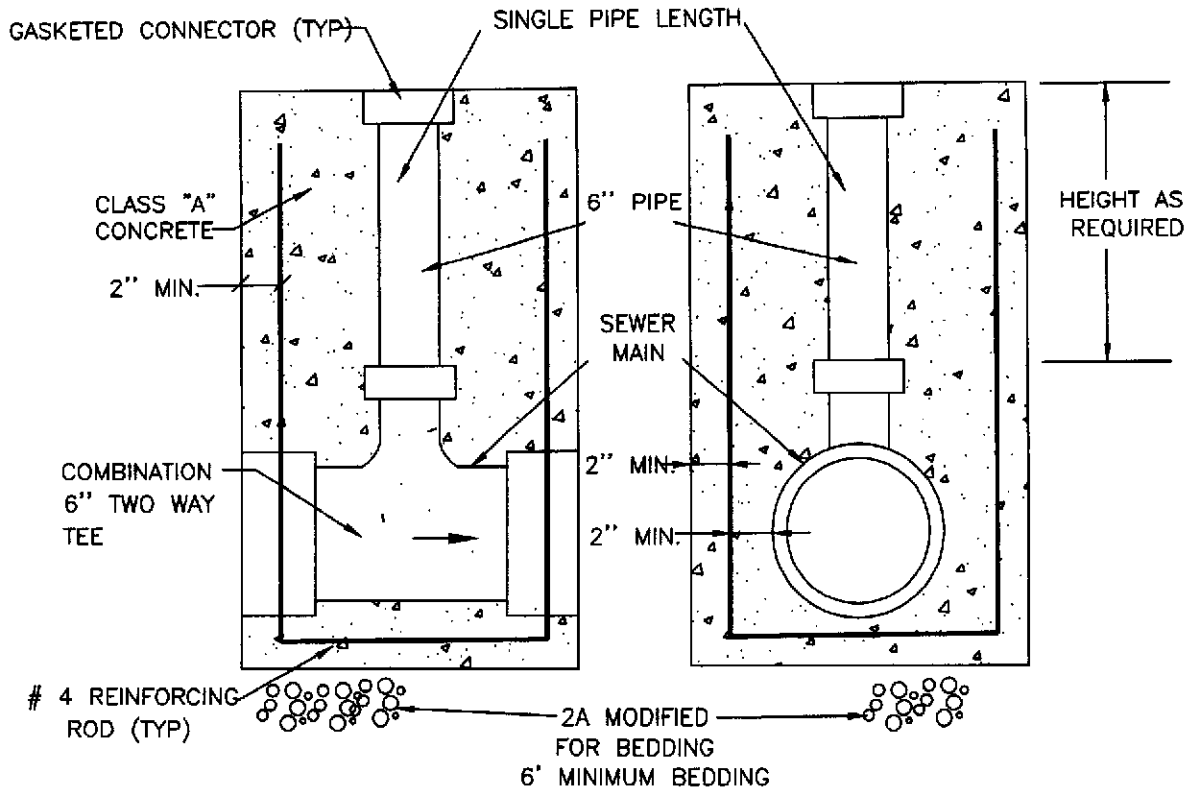
ENVIRONMENTAL ENGINEERING
&
MANAGEMENT ASSOCIATES INC.
P.O. BOX 232 KULPSVILLE, PA. 19443 (215) 398-3375

NAZARETH BOROUGH MUNICIPAL AUTHORITY
SEWER LATERAL &
TEE WYE BRANCH
TO EXISTING MAIN

DETAIL NO. 10A

DATE: AUG 12, 2016

SCALE: N.T.S.



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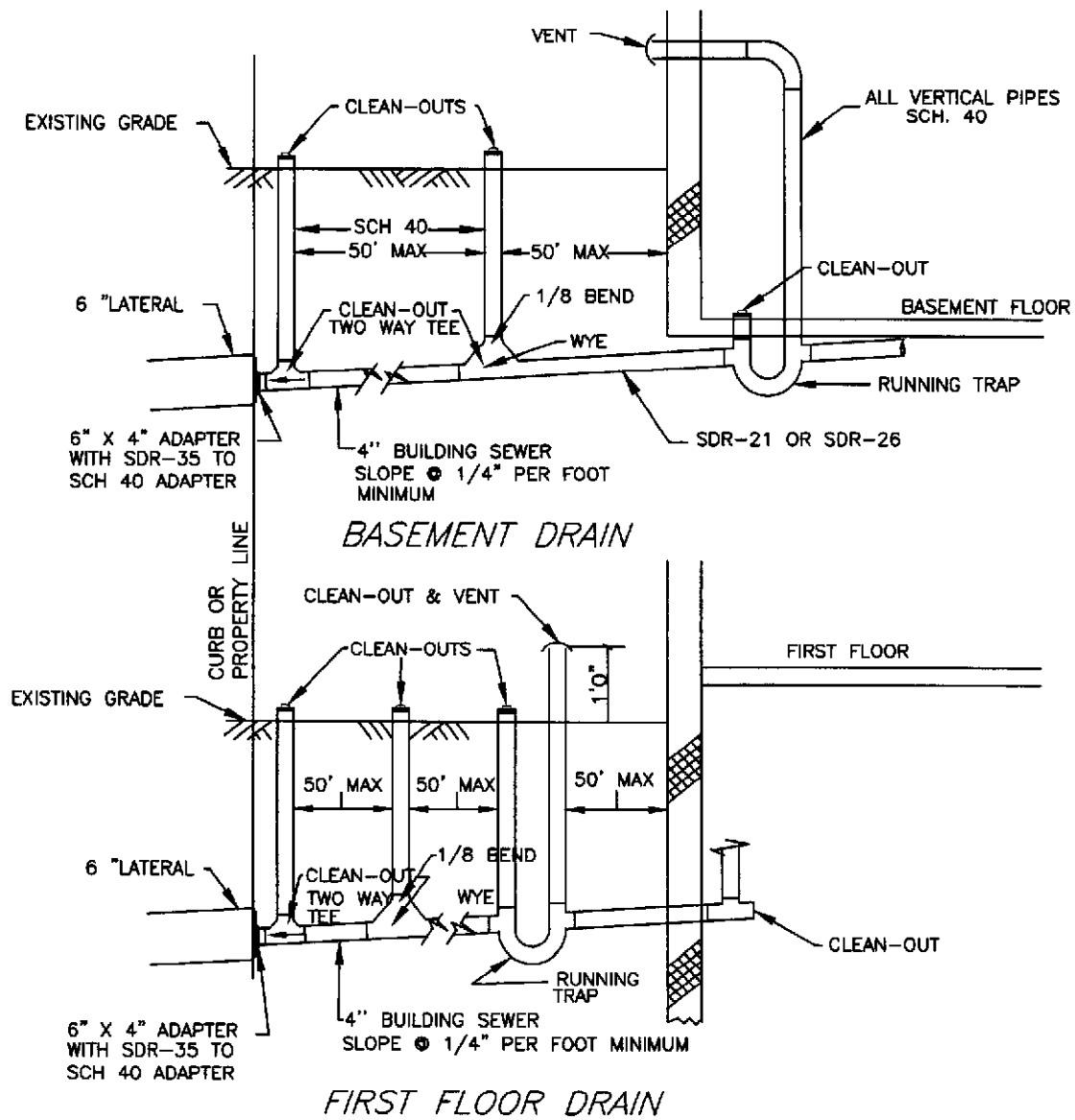
NAZARETH BOROUGH MUNICIPAL AUTHORITY

RISER LATERAL

DETAIL NO. 11

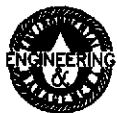
DATE: AUG 12, 2016

SCALE: N.T.S.



NOTES:

1. ALL CLEAN-OUTS TO BE FLUSH WITH GRADE.
2. CLEANOUTS BE COVERED WITH A METAL SEWER COVER. SEE DETAIL NO. 12A AND 12B.
3. CLEAN-OUTS TO BE TWO WAY TEES.



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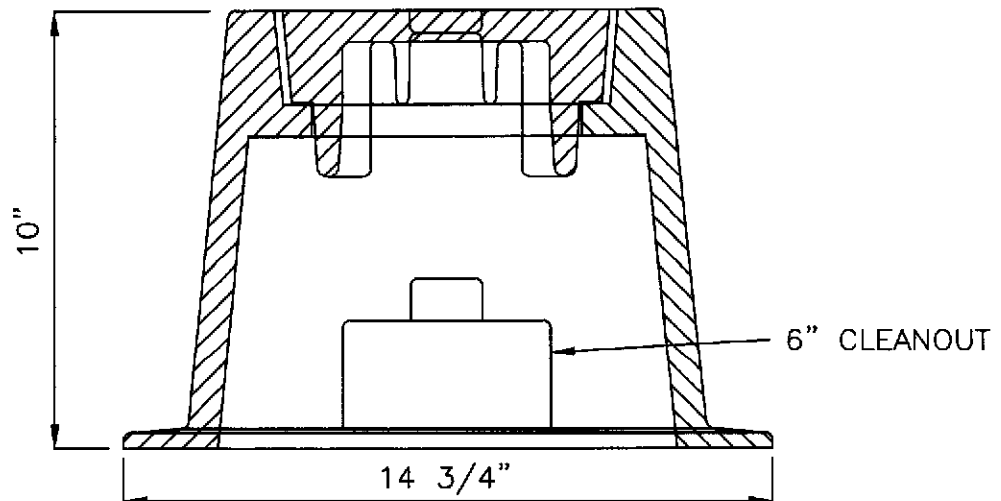
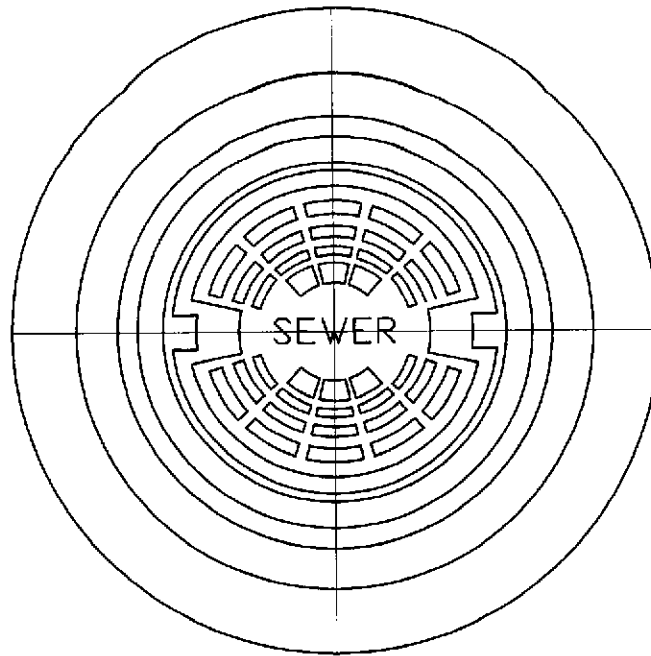
NAZARETH BOROUGH MUNICIPAL AUTHORITY

STANDARD HOUSE CONNECTION

DETAIL NO. 12

DATE: AUG 12, 2016

SCALE: N.T.S.



AS MANUFACTURED BY THE GENERAL ENGINEERING
COMPANY OR APPROVED EQUAL.



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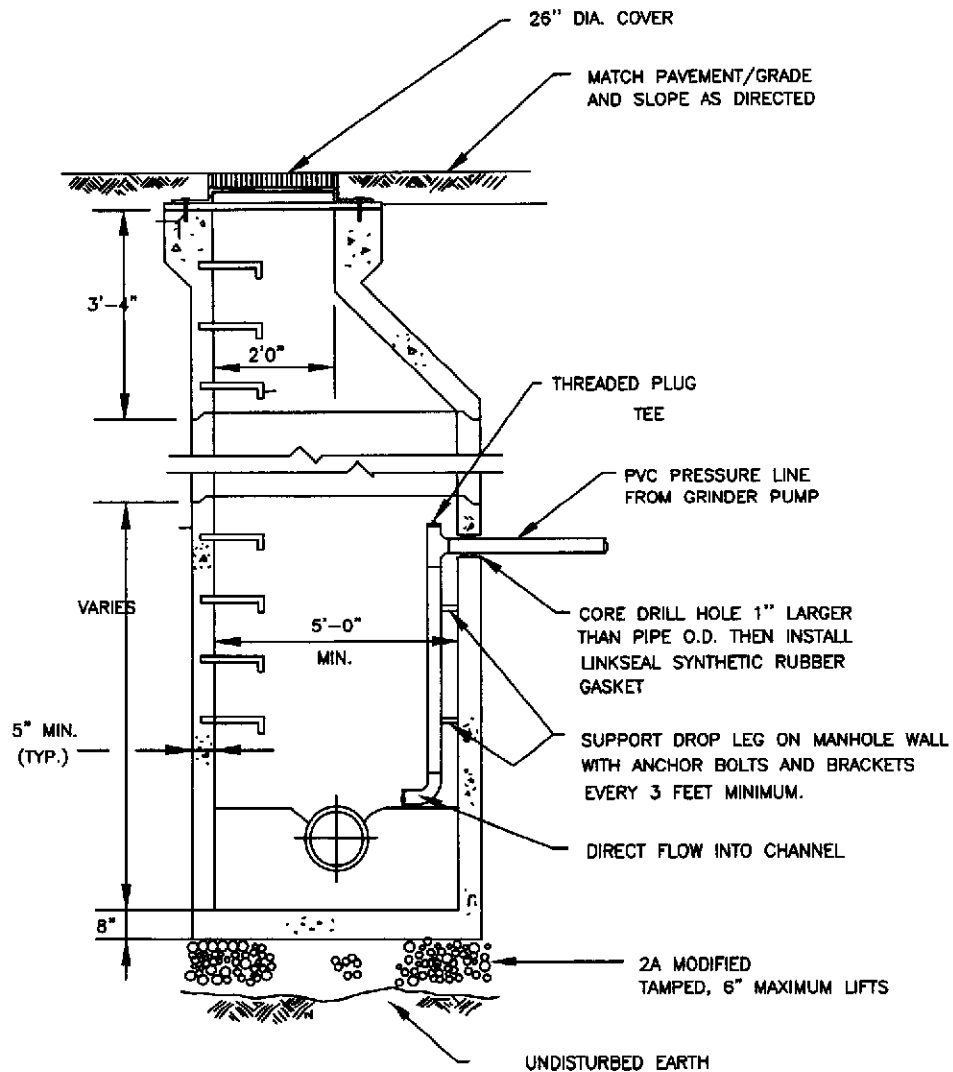
NAZARETH BOROUGH MUNICIPAL AUTHORITY

COVER FOR 6" CLEANOUT

DETAIL NO. 12A

DATE: AUG 12, 2016

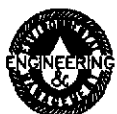
SCALE: N.T.S.



SECTION

NOTES:

1. SEE DETAIL NO. 6 FOR MANHOLE SPECIFICATIONS.



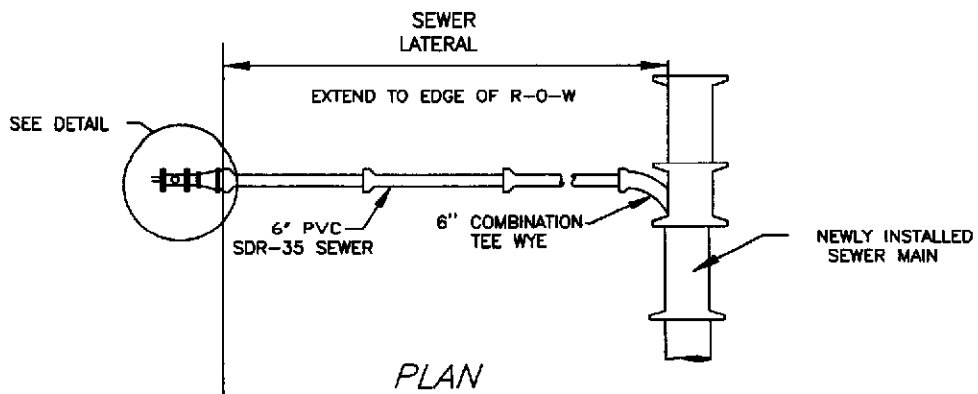
ENVIRONMENTAL ENGINEERING
&
MANAGEMENT ASSOCIATES INC.
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NAZARETH BOROUGH MUNICIPAL AUTHORITY
GRINDER PUMP FORCE MAIN
CONNECTION TO MANHOLE

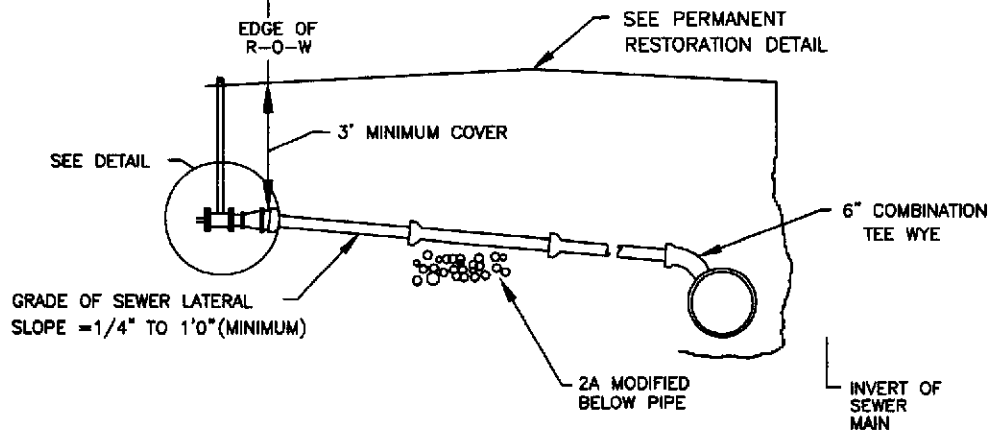
DETAIL NO. 13

DATE: AUG 12, 2016

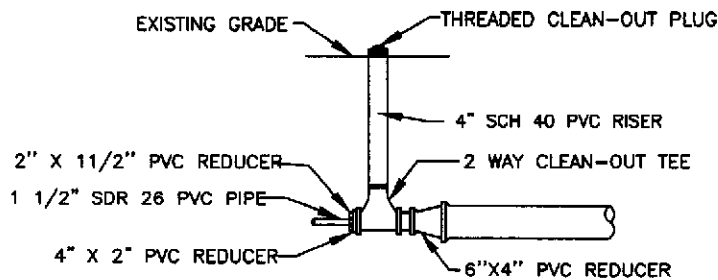
SCALE: N.T.S.



PLAN

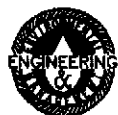


PROFILE



CLEAN-OUT DETAIL

NOTE:
ALL PIPE SHALL BE A MINIMUM OF SCHEDULE 40 PVC UNLESS OTHERWISE NOTED



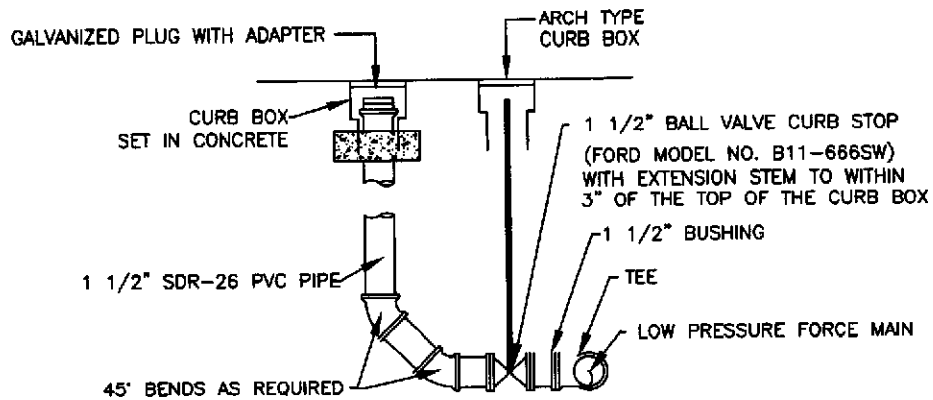
ENVIRONMENTAL ENGINEERING
&
MANAGEMENT ASSOCIATES INC.
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NAZARETH BOROUGH MUNICIPAL AUTHORITY
GRINDER PUMP FORCE MAIN
TO SEWER LATERAL

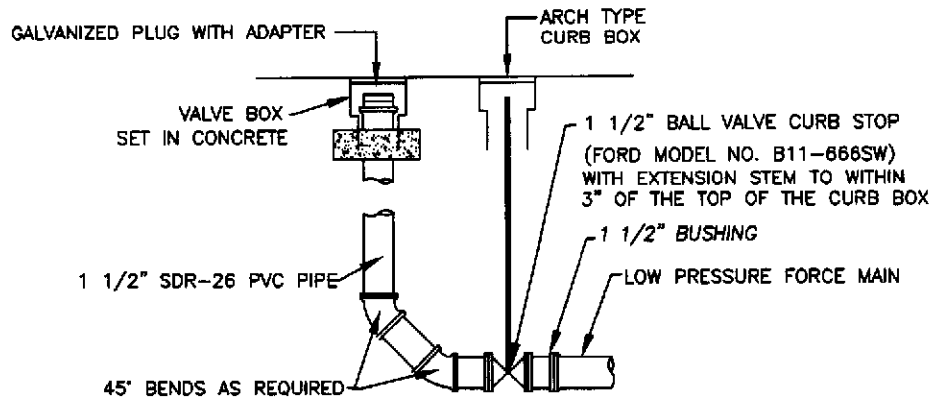
DETAIL NO. 14

DATE: AUG 12, 2016

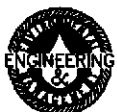
SCALE: N.T.S.



**1 1/2" FORCE MAIN
IN-LINE FLUSHING STATION**



**1 1/2" FORCE MAIN
END-LINE FLUSHING STATION**



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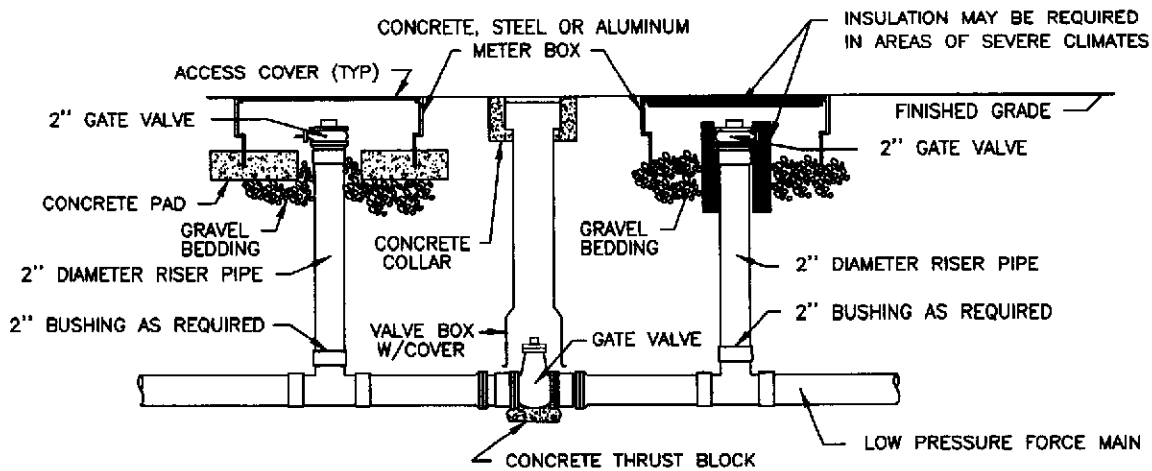
NAZARETH BOROUGH MUNICIPAL AUTHORITY

**FORCE MAIN END
FLUSHING CONNECTIONS**

DETAIL NO. 15

DATE: AUG 12, 2016

SCALE: N.T.S.



NOTES:

1. CONCRETE BEDDING REQUIRED FOR METER BOX INSTALLATIONS IN PAVED SURFACES.
2. USE 3000 PSI CLASS A CONCRETE
3. METER BOX ACCESS COVERS SHALL BE BOLT DOWN TYPE.
4. LOW PRESSURE FORCE MAIN SHALL BE A MINIMUM 3' DEEP.
5. SUPPLY 2" THREADED HOSE NIPPLE & CAP FOR 2" GATE VALVE.



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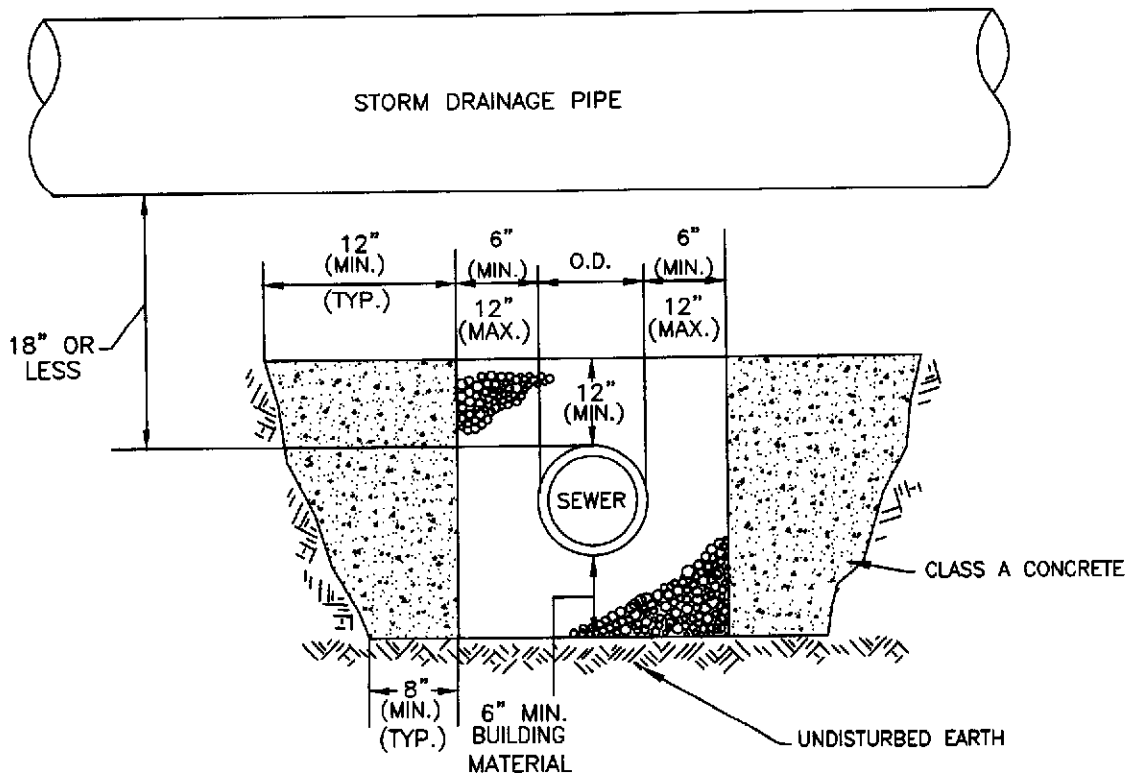
NAZARETH BOROUGH MUNICIPAL AUTHORITY

FORCE MAIN IN-LINE
FLUSHING CONNECTION

DETAIL NO. 16

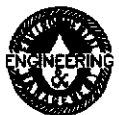
DATE: AUG 12, 2016

SCALE: N.T.S.



NOTES:

1. PIERS TO BE 5 FT. LONG CENTERED ON STORM DRAIN.
2. USE 3000 PSI CLASS A CONCRETE.
3. FORM PIERS AGAINST SOLID TRENCH WALLS.
4. PIERS REQUIRED WHEN CLEARANCE BETWEEN PIPES IS LESS THAN 18".
5. THE AUTHORITY, AND/OR THE AUTHORITY'S REPRESENTATIVE RESERVES THE RIGHT TO INCREASE/DECREASE THE CLEARANCE DISTANCE REQUIRE FOR PIER SUPPORTS.
6. ALL SANITARY SEWER PIPE CROSSINGS WILL NEED TO BE VERIFIED FOR PIPE CLEARANCE BY THE AUTHORITY AND/OR THE AUTHORITY'S REPRESENTATIVE.



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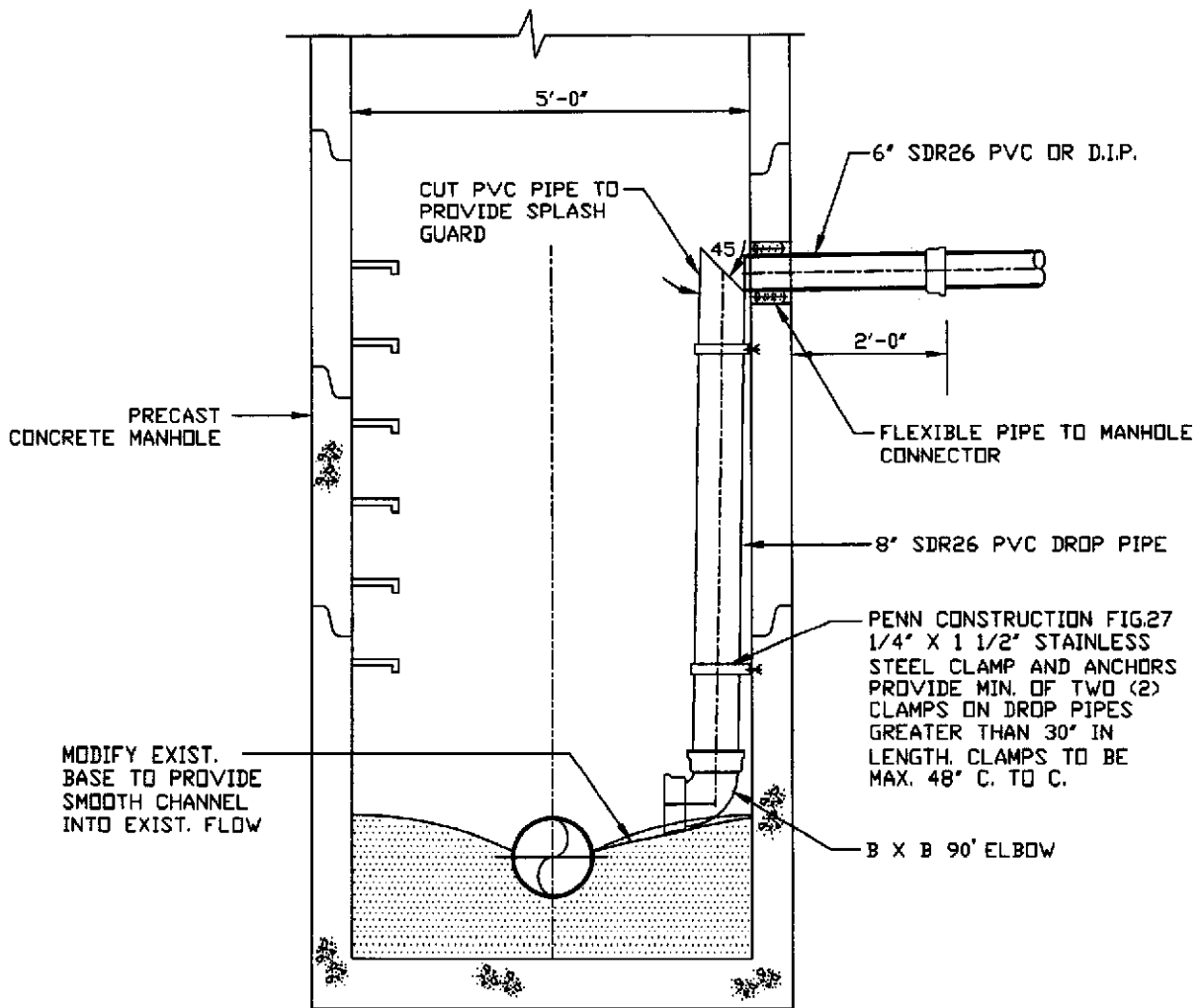
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PIER SUPPORTS

DETAIL NO. 17

DATE: AUG 12, 2016

SCALE: N.T.S.



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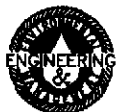
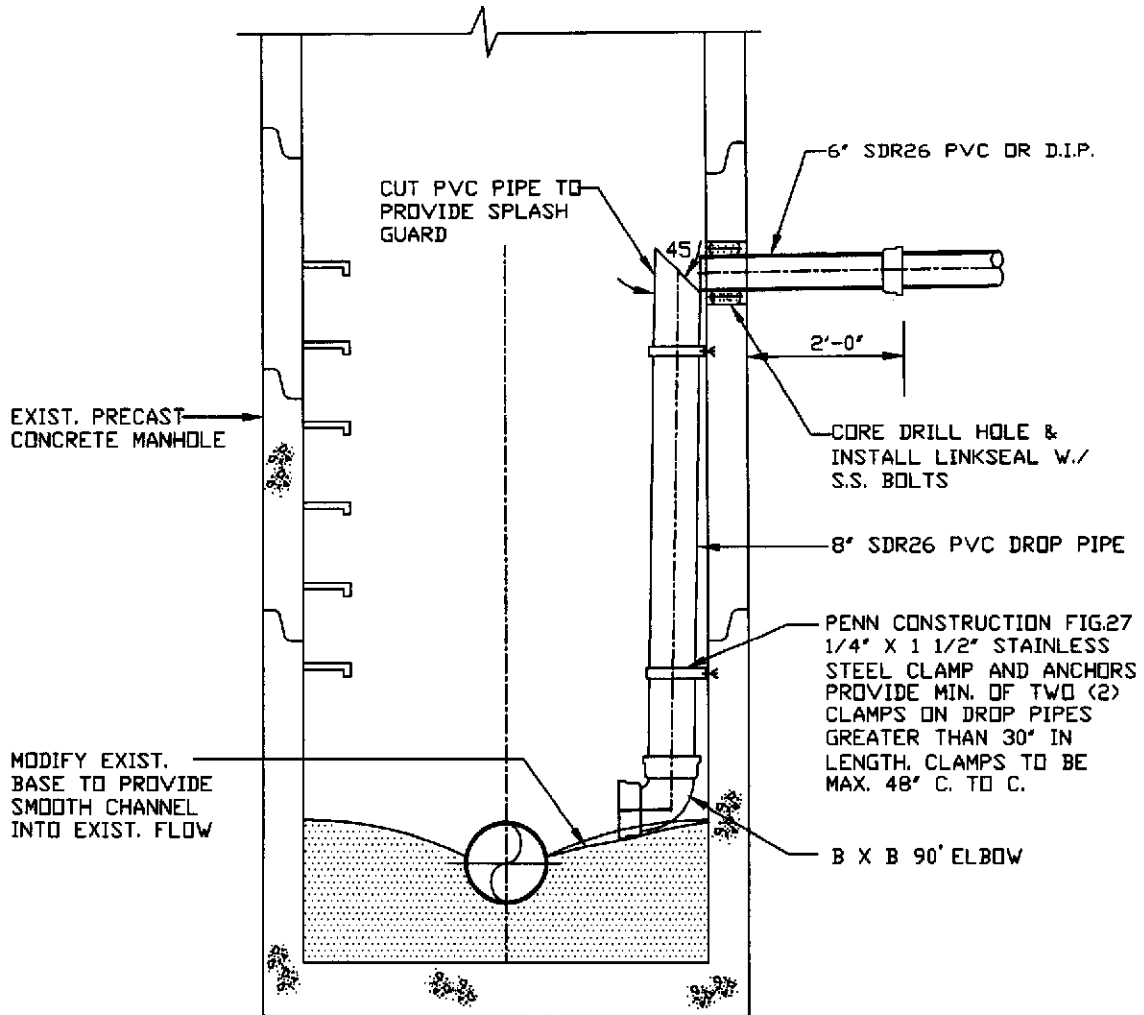
NAZARETH BOROUGH MUNICIPAL AUTHORITY

LATERAL CONNECTION
 TO MANHOLE

DETAIL NO. 18

DATE: AUG 12, 2016

SCALE: N.T.S.



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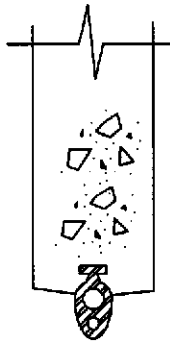
NAZARETH BOROUGH MUNICIPAL AUTHORITY

LATERAL CONNECTION
TO EXISTING MANHOLE

DETAIL NO. 19

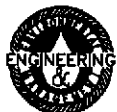
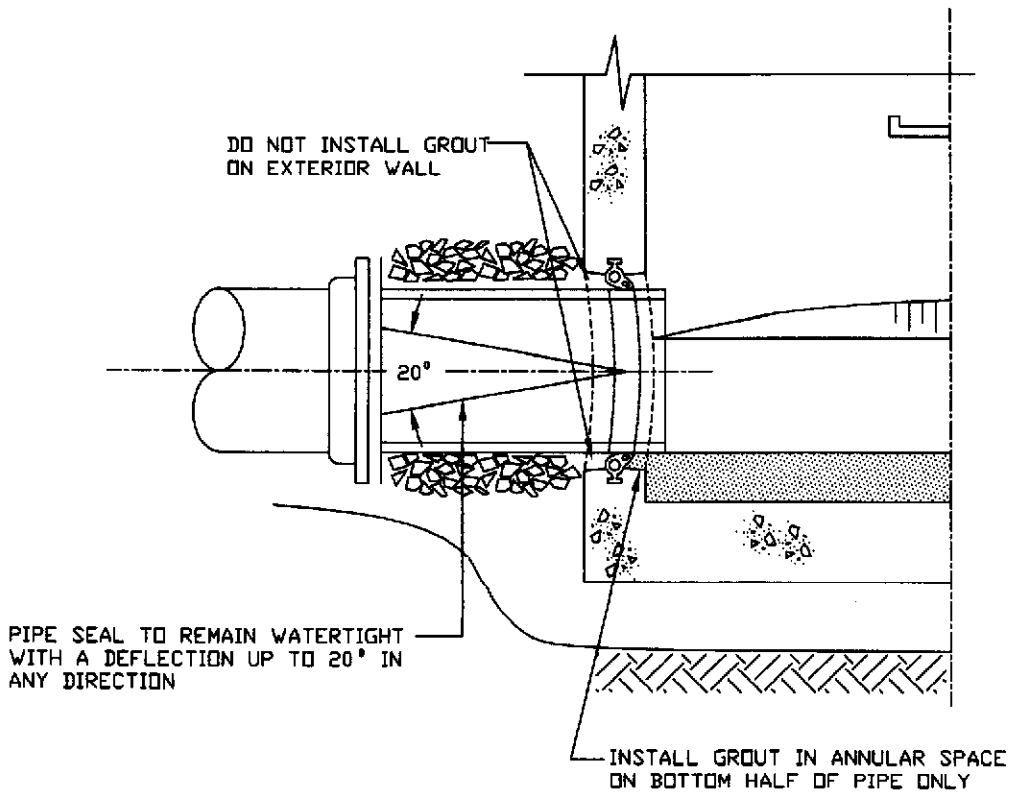
DATE: AUG 12, 2016

SCALE: N.T.S.



INTEGRAL PIPE GASKET

(BEFORE INSTALLATION)



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NAZARETH BOROUGH MUNICIPAL AUTHORITY

MANHOLE PIPE GASKET

DETAIL NO. 20

DATE: AUG 12, 2016

SCALE: N.T.S.