

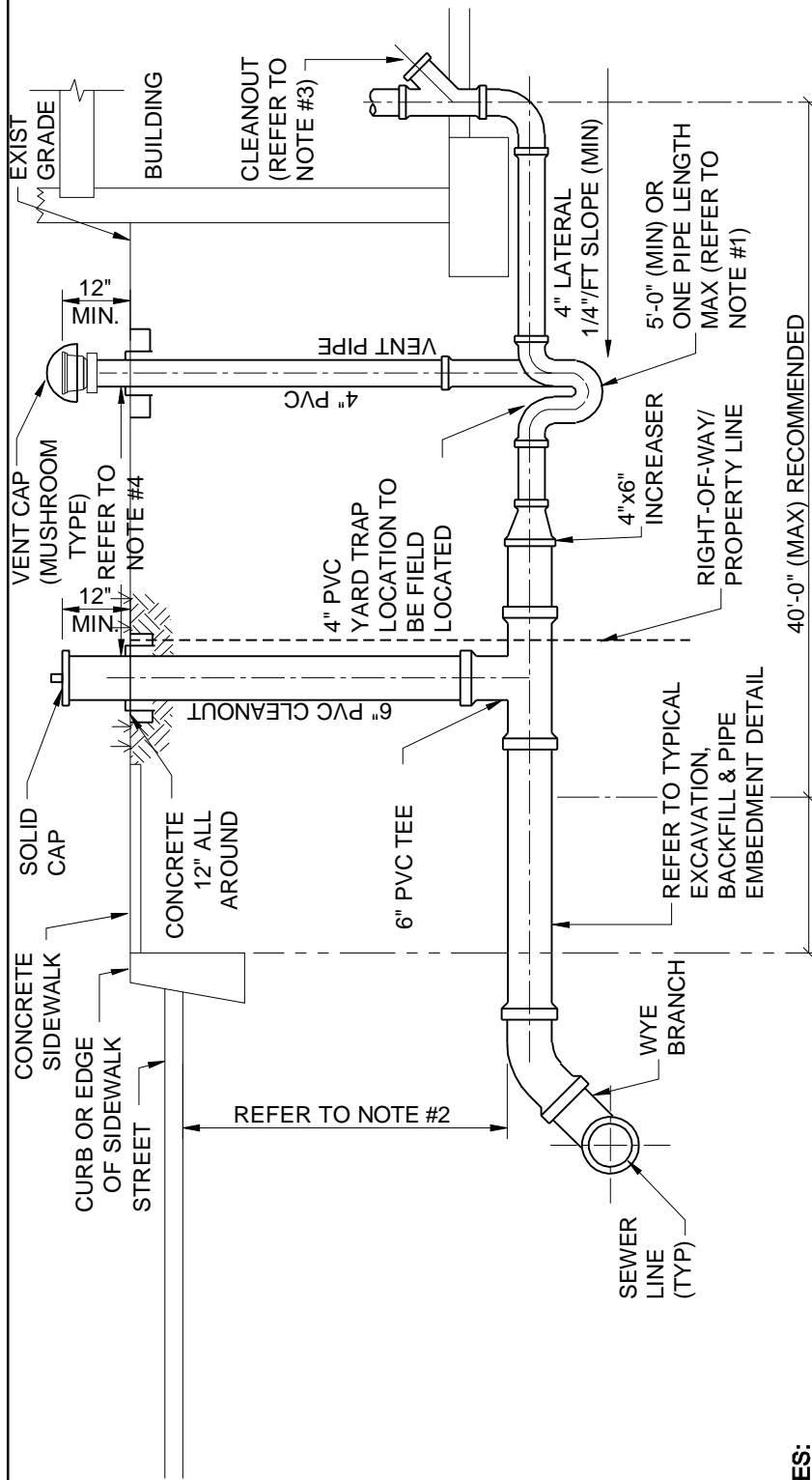
## APPENDIX F

### STANDARD CONSTRUCTION DETAILS

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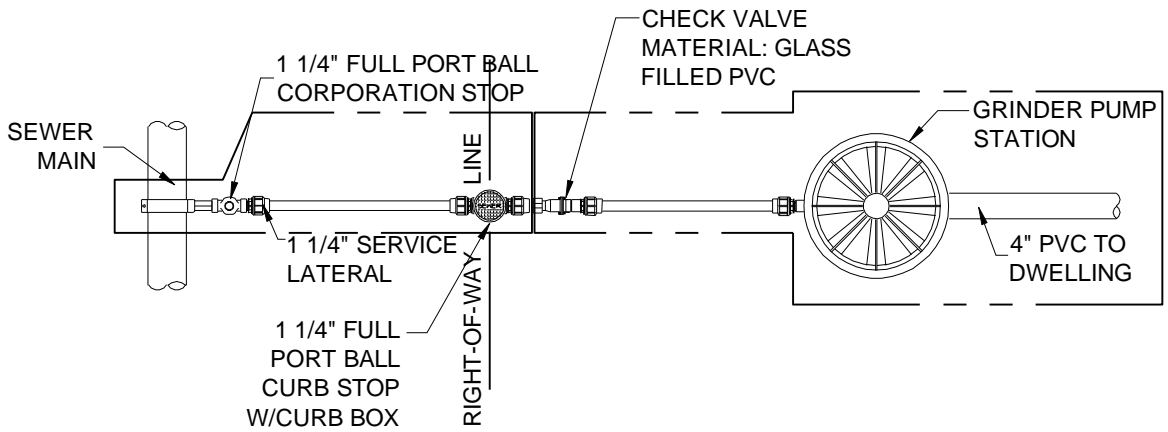
**NOTES:**

1. 4" SINGLE RUNNING TRAP WILL BE INSTALLED WITHIN ONE PIPE LENGTH OF THE END OF THE 6" LATERAL.
2. MINIMUM DEPTH OF 4" LATERAL WILL BE 48" BELOW FINISHED GRADE UNLESS APPROVED BY TOWNSHIP ENGINEER.
3. IF THERE IS NOT A CLEANOUT LOCATED INSIDE OF DWELLING AN ADDITIONAL CLEANOUT SHALL BE INSTALLED IMMEDIATELY OUTSIDE OF THE BUILDING PRIOR TO RUNNING TRAP
4. LOCATE VENT CAP AND CLEANOUT IN LAWN AREA. MUSHROOM CAP SHALL BE USED ON VENT.
5. IN GENERAL, SANITARY SEWERS SHOULD BE LOCATED AT LEAST 100 FEET FROM PUBLIC WATER SUPPLY SOURCES AND 50 FEET FROM PRIVATE WATER SUPPLY SOURCES, UNLESS THE SANITARY LINES ARE ENCASED IN CONCRETE OR APPROVED EQUIVALENT.
6. REFER TO DRAWING S-3 FOR LATERAL NOTES.

**TYPICAL BUILDING SEWER**

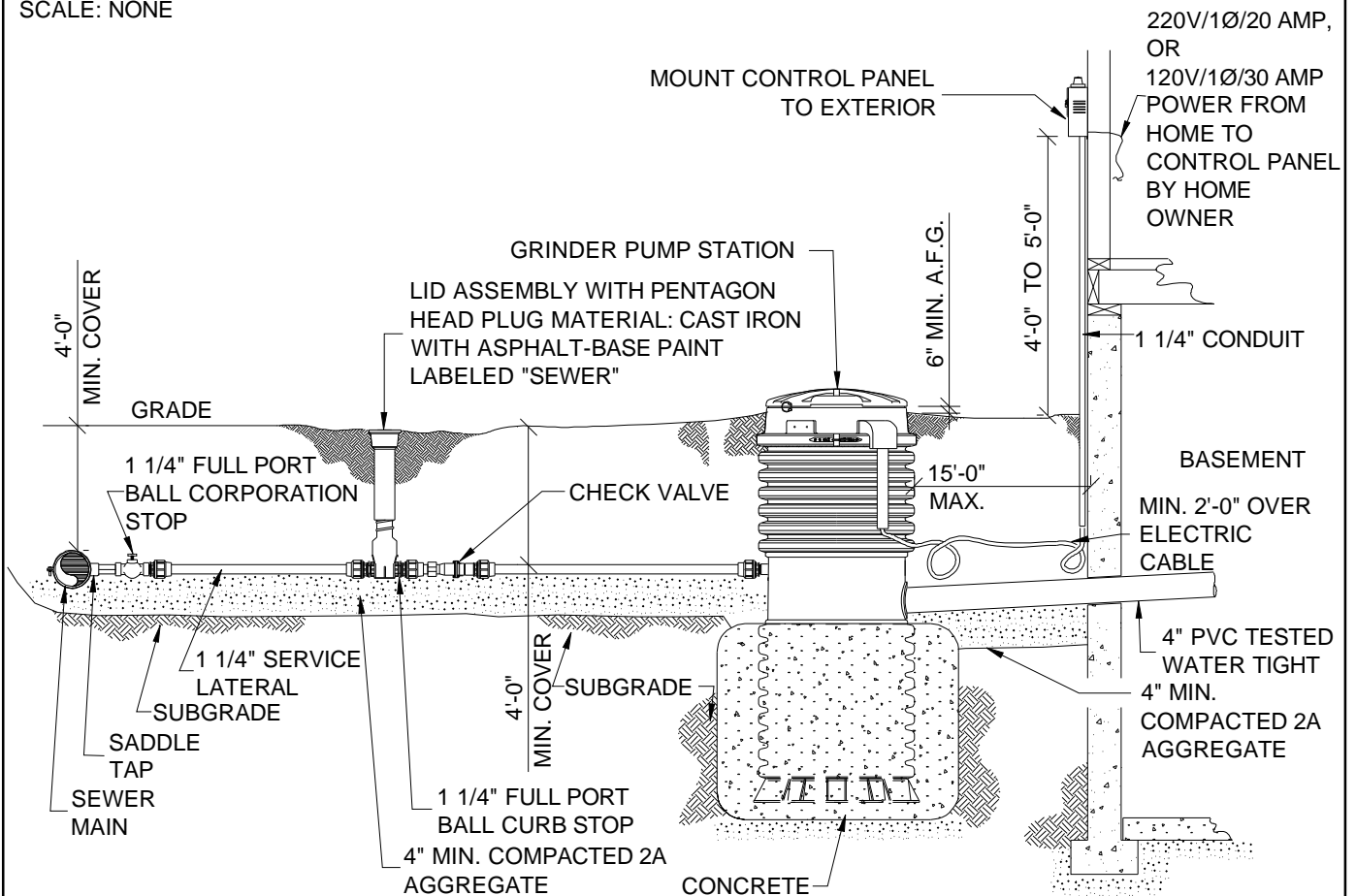
SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> <small>Engineering Architecture Construction</small> Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>TYPICAL BUILDING SEWER</b>	
	PREPARED BY <b>DYH</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	DATE: <b>7/20/10</b>



## TYPICAL GRINDER PUMP LATERAL INSTALLATION - PLAN


SCALE: NONE



## TYPICAL GRINDER PUMP INSTALLATION - ELEVATION

SCALE: NONE

**NOTES:** 1. REFER TO DRAWING S-3 FOR LATERAL NOTES.

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	Pottsville, PA ph: 570.628.5655 Mountaintop, PA ph: 570.868.0275 Lititz, PA ph: 717.626.6666 www.entecheng.com 1.800.825.1372	PREPARED BY <b>MBD</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>
					DRAWING NO. <h1 style="text-align: center;">S-2</h1>
					SCALE: <b>NONE</b>

## LATERAL NOTES:


1. ALL MATERIAL USED FOR LATERAL INSTALLATIONS SHALL BE NEW, FREE FROM DEFECTS AND CONFORM TO ALL STANDARDS SET FORTH BY WAYMART AREA AUTHORITY.
2. ALL LATERALS MUST BE INSPECTED BEFORE BACKFILLING. COMPLETED DRAWINGS SHOWING THE EXACT LOCATION AND DEPTH OF LINE SHALL BE SUBMITTED TO THE TOWNSHIP DURING FINAL INSPECTION OR THE LATERAL WILL NOT BE AUTHORIZED TO USE.
3. ALL FEES MUST BE PAID IN PROPER AMOUNT BEFORE A CONNECTION PERMIT WILL BE ISSUED.

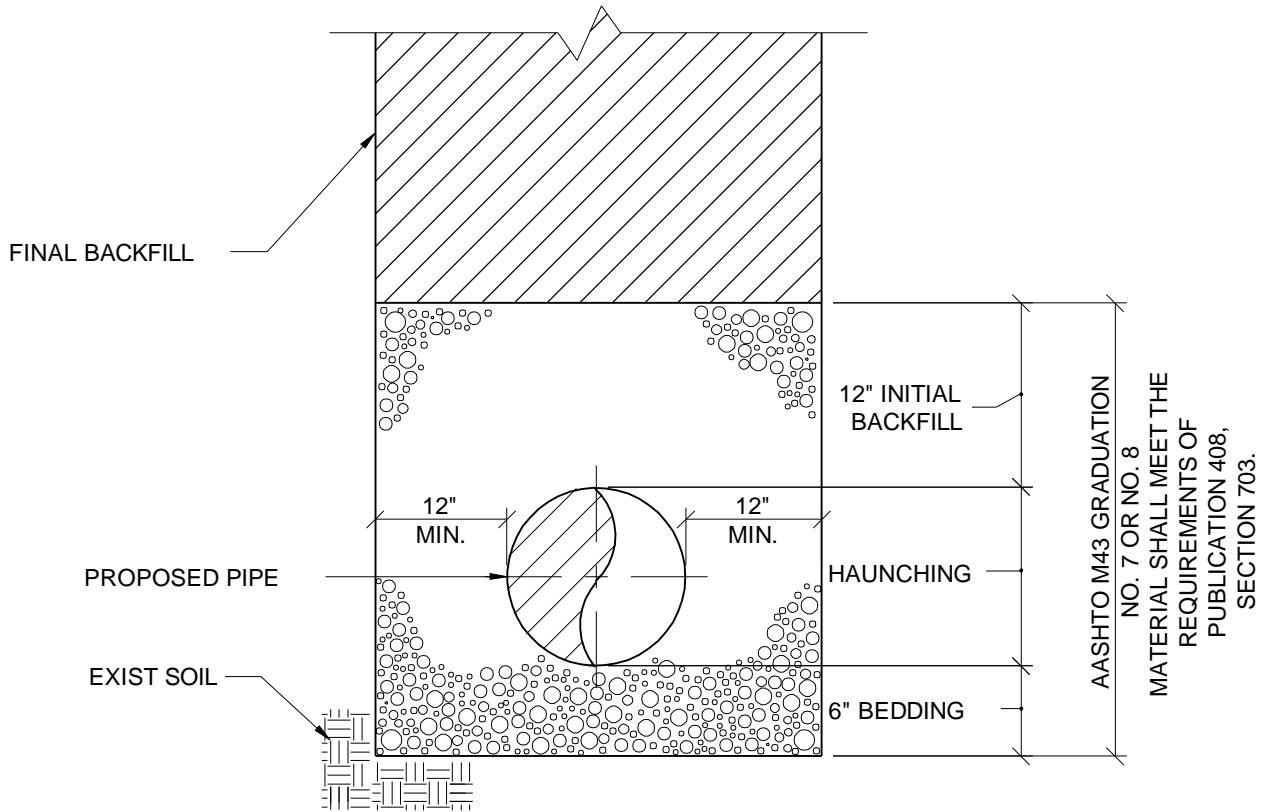
## MATERIAL ALLOWED BY WAYMART AREA AUTHORITY FOR BUILDING GRAVITY SEWERS

1. PVC BELL AND SPIGOT SEWER PIPE / SDR 35.
2. 4" @ 1/4" / FT. MIN. GRADE  
6" @ 1/8" / FT. MIN. GRADE

### LOW PRESSURE:


1. HDPE OR PVC
2. MINIMUM DIAMETER: 1 1/4 INCH

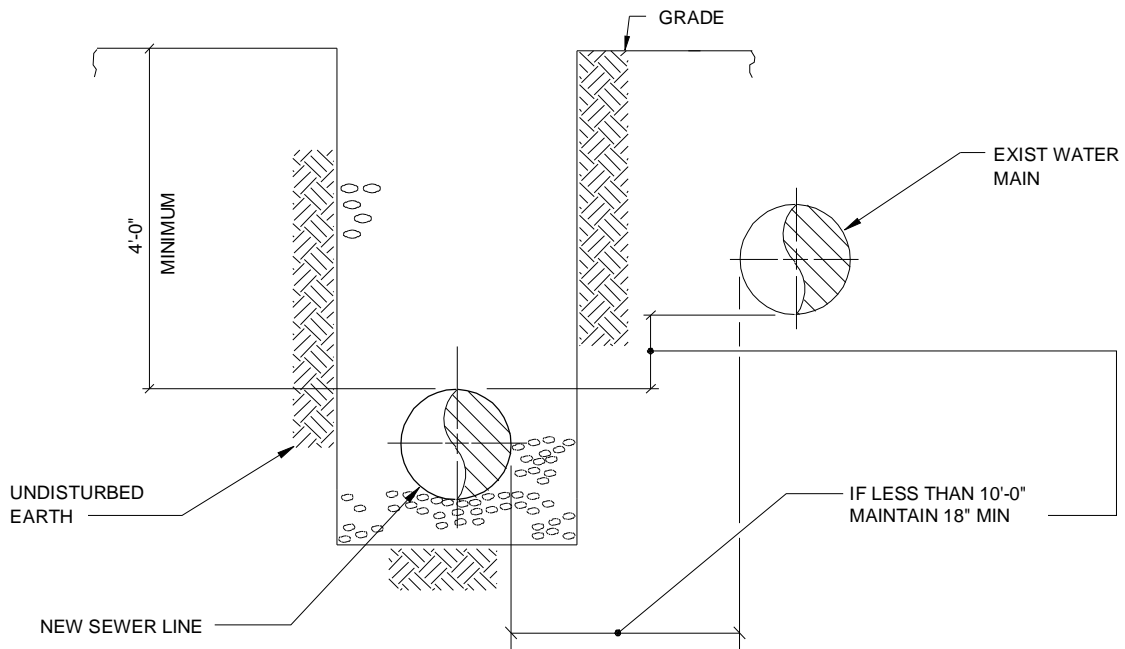
 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> <small>Engineering Architecture Construction</small> Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>LATERAL NOTES</b>	
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PREPARED BY DYH	CHECKED BY BAK	APPROVED BY EJP	PROJECT NO. 4152.14	SCALE: NONE	



## TYPICAL EXCAVATION, BACKFILL & PIPE EMBEDMENT DETAIL


SCALE: NONE

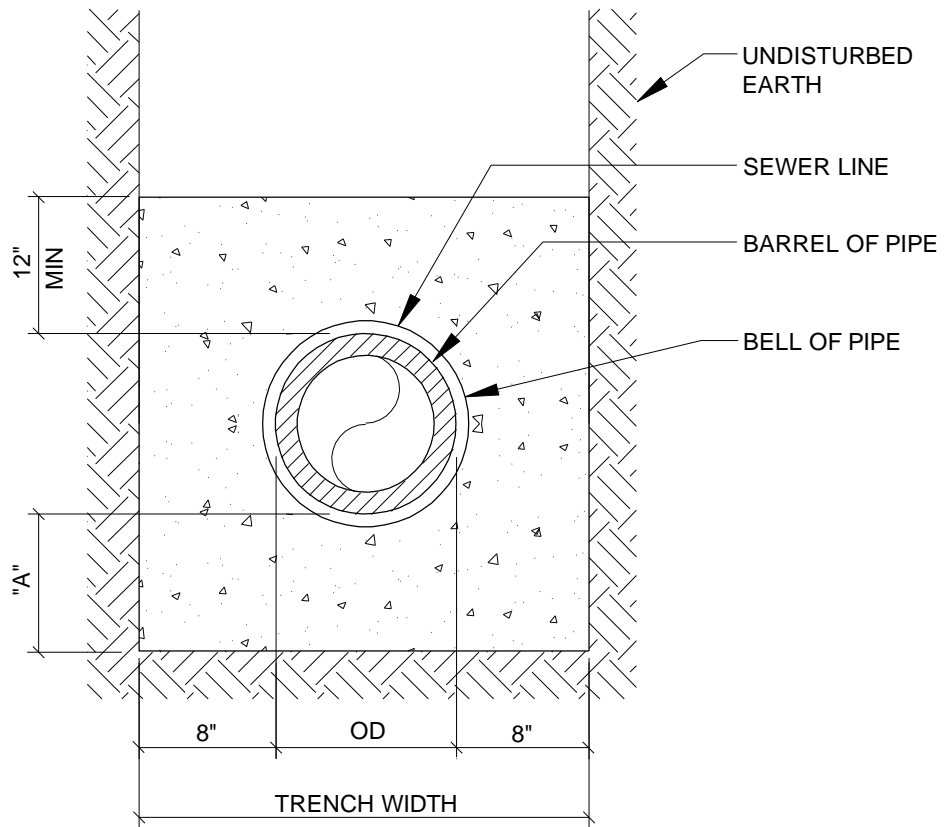
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PREPARED BY <b>MBD</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	SCALE: <b>NONE</b>	



**NEW SEWER LINE PARALLEL  
TO EXISTING WATER MAIN DETAIL**

SCALE: NONE

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	Pottsville, PA ph: 570.628.5655 Mountaintop, PA ph: 570.868.0275 Lititz, PA ph: 717.626.6666 www.entecheng.com 1.800.825.1372			DATE: 7/20/10	DRAWING NO. <b>S-5</b>
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PIPE SIZE	"A"
4" - 16"	6"
18" - 48"	6"
54" - 84"	10"

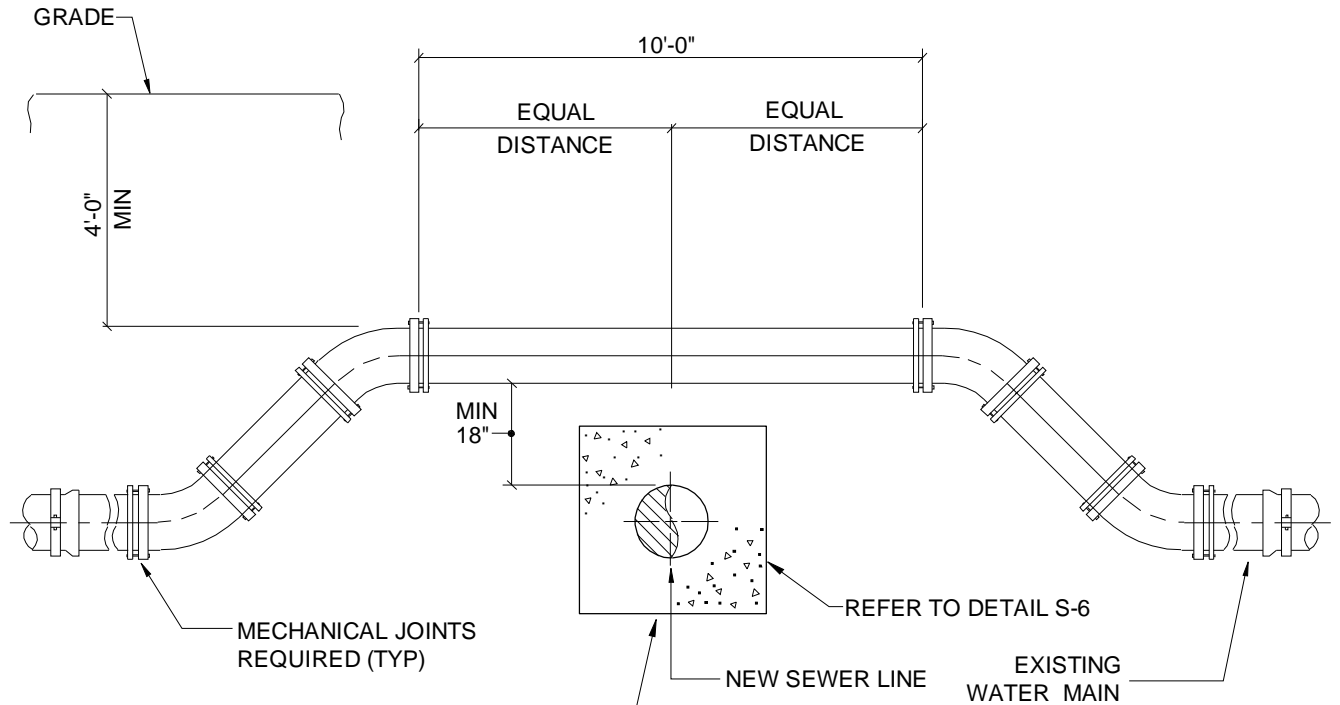
NOTE: ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT THE END OF 28 DAYS.

## CONCRETE ENCASEMENT DETAIL

SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> <small>Engineering Architecture Construction</small> Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>CONCRETE ENCASEMENT DETAIL</b>	
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PREPARED BY <b>DYH</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	SCALE: <b>NONE</b>	






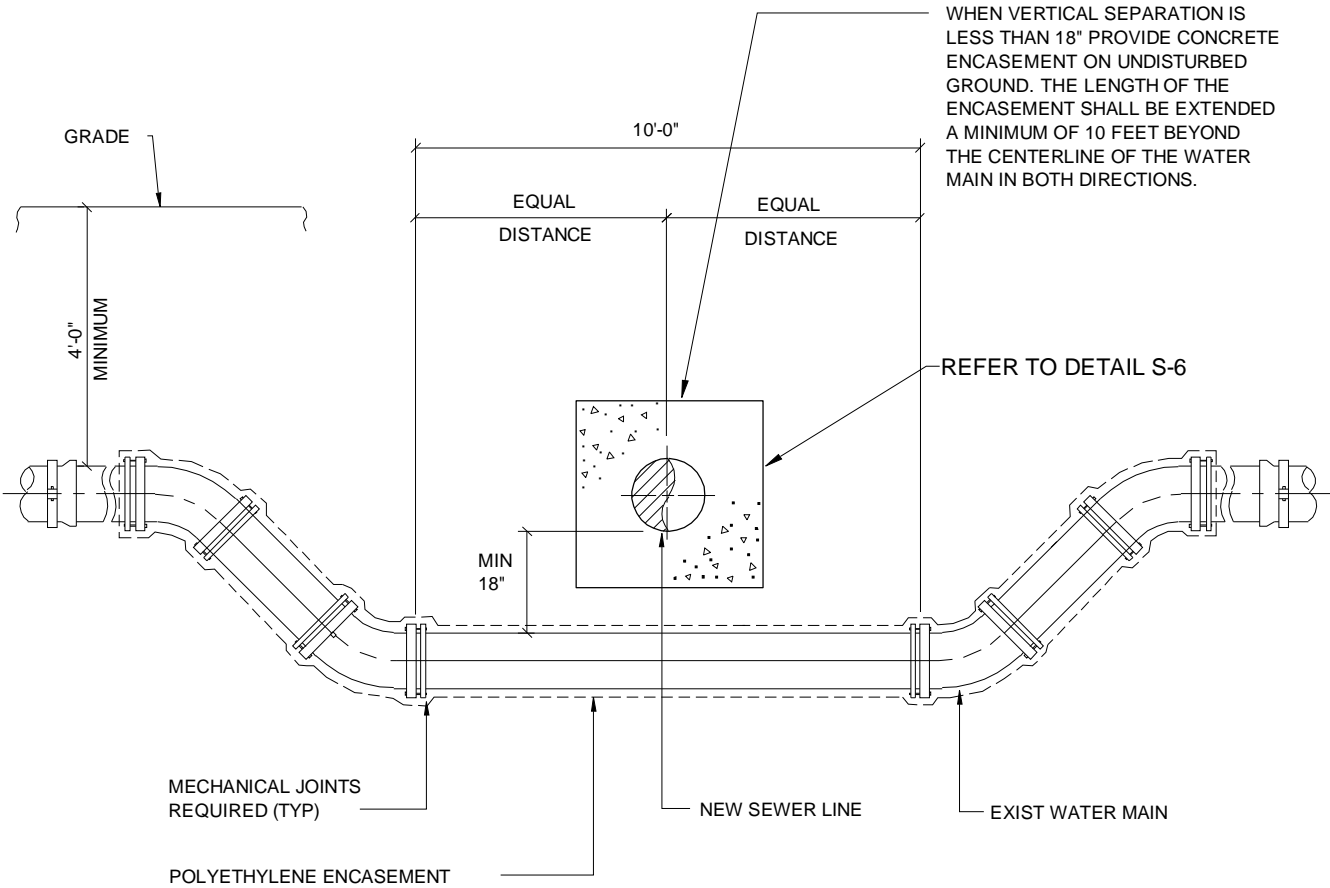
WHEN VERTICAL SEPARATION IS LESS THAN 18" PROVIDE CONCRETE ENCASEMENT ON UNDISTURBED GROUND. THE LENGTH OF THE ENCASEMENT SHALL BE EXTENDED A MINIMUM OF 10 FEET BEYOND THE CENTERLINE OF THE WATER MAIN IN BOTH DIRECTIONS.

NOTE: ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT THE END OF 28 DAYS.

**NEW SEWER LINE CROSSING**  
**UNDER EXISTING WATER MAIN DETAIL**

SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> Engineering Architecture Construction Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>SEWER CROSSING UNDER EXISTING WATER MAIN DETAIL</b>	
	Pottsville, PA ph: 570.628.5655 Mountaintop, PA ph: 570.868.0275 Lititz, PA ph: 717.626.6666 www.entecheng.com 1.800.825.1372		DATE: 7/20/10	DRAWING NO. <b>S-7</b>	
PREPARED BY DYH	CHECKED BY BAK	APPROVED BY EJP	PROJECT NO. 4152.14	SCALE: NONE	




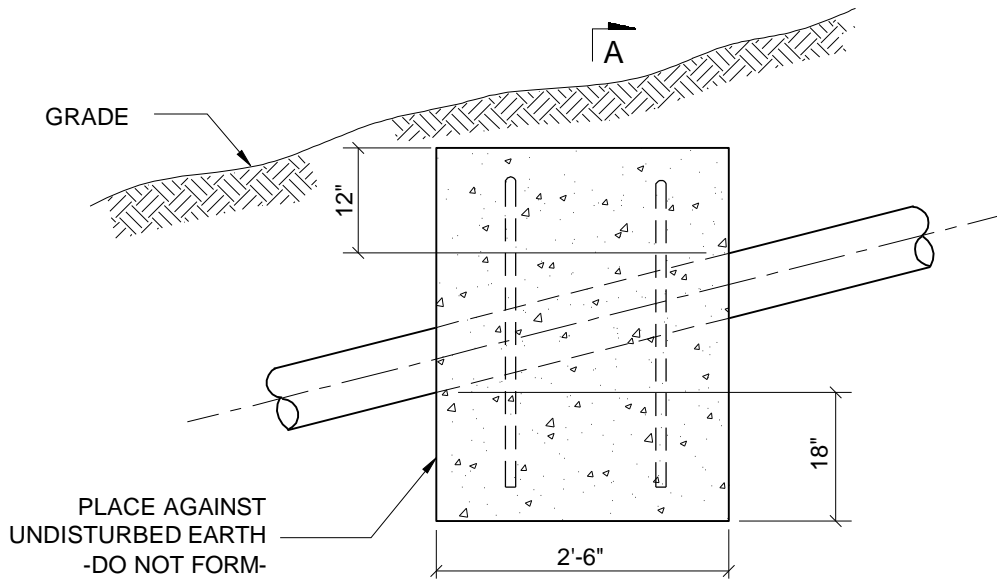
WHEN VERTICAL SEPARATION IS LESS THAN 18" PROVIDE CONCRETE ENCASEMENT ON UNDISTURBED GROUND. THE LENGTH OF THE ENCASEMENT SHALL BE EXTENDED A MINIMUM OF 10 FEET BEYOND THE CENTERLINE OF THE WATER MAIN IN BOTH DIRECTIONS.

NOTE: ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT THE END OF 28 DAYS.

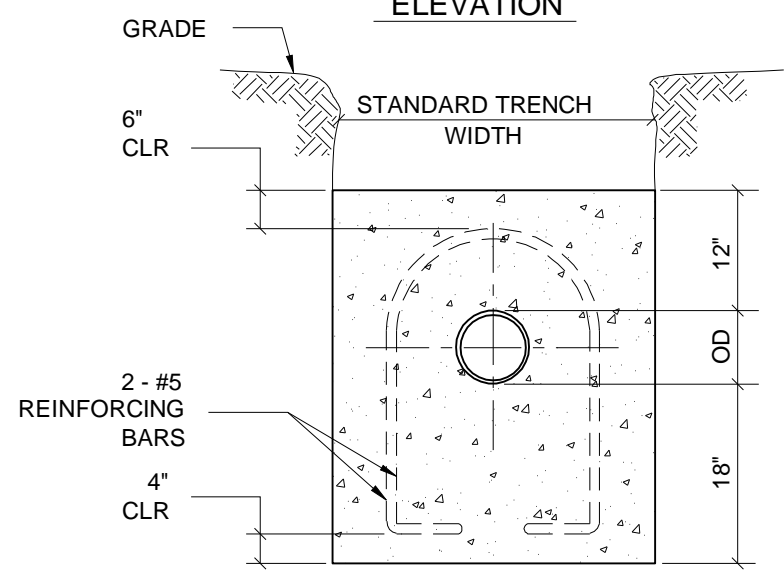
**NEW SEWER LINE CROSSING  
OVER EXISTING WATER MAIN DETAIL**

SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> Engineering Architecture Construction Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>NEW SEWER CROSSING OVER EXISTING WATER MAIN</b>	
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**ELEVATION**




**SECTION A-A**

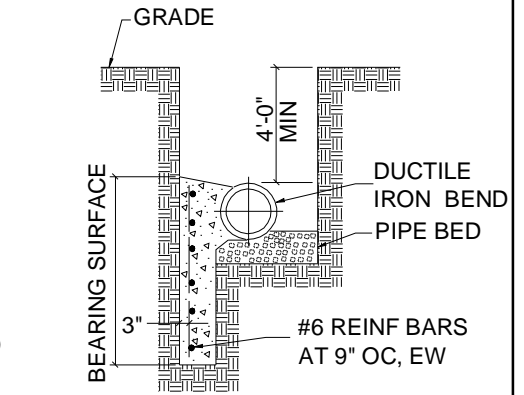
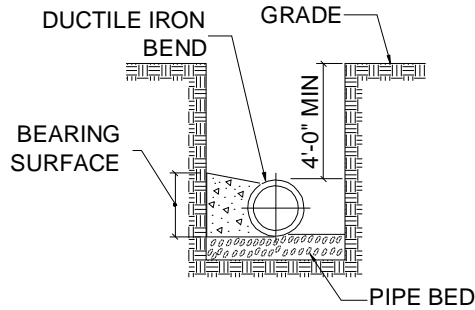
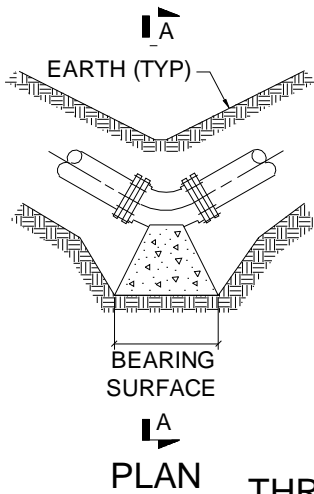
**CONCRETE ANCHOR NOTES:**

1. ANCHORS ARE NOT REQUIRED ON SLOPES LESS THAN 20% UNLESS NOTED ON DRAWINGS.
2. PROVIDE ANCHORS ON 36' CENTERS FOR SLOPES BETWEEN 20% TO 34%.
3. PROVIDE ANCHORS ON 24' CENTERS FOR SLOPES BETWEEN 35% TO 50%.
4. PROVIDE ANCHORS ON 16' CENTERS FOR SLOPES BETWEEN 51% TO 70%.
5. ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT THE END OF 28 DAYS.

**CONCRETE ANCHORS - SLOPE BREAKERS**

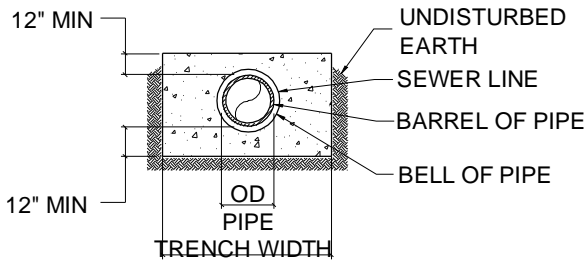
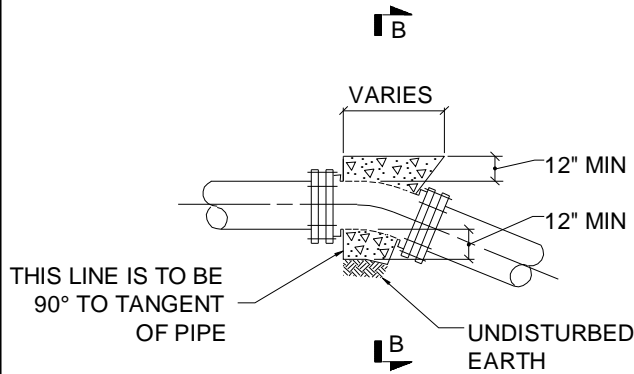
SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> <small>Engineering Architecture Construction</small> Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>CONCRETE ANCHORS - SLOPE BREAKERS</b>	
	Pottsville, PA Mountaintop, PA Lititz, PA www.entecheng.com	ph: 570.628.5655 ph: 570.868.0275 ph: 717.626.6666 1.800.825.1372	DATE: <b>7/20/10</b>	DRAWING NO. <b>S-9</b>	
PREPARED BY <b>DYH</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	SCALE: <b>NONE</b>	



**SECTION A-A**                      **ALTERNATE SECTION A-A**

**THRUST BLOCKING FOR HORIZONTAL BENDS**



**ELEVATION**                      **SECTION B-B**

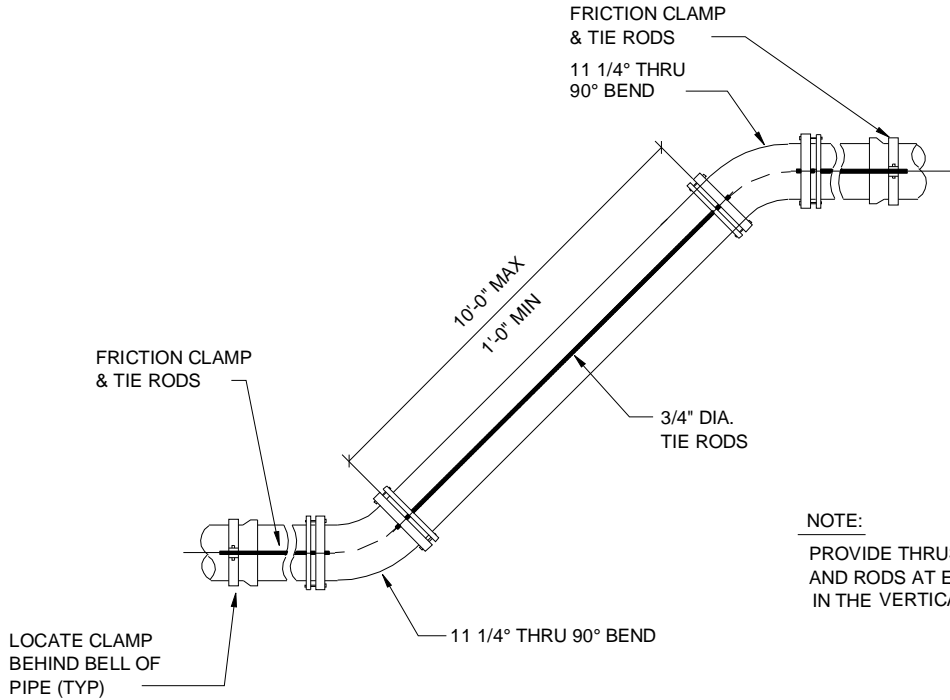
**THRUST BLOCKING FOR VERTICAL BENDS**

- NOTES:**
1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT THE END OF 28 DAYS.
  2. ALL REINFORCING STEEL SHALL BE DEFORMED BARS.
  3. NO COUPLING OR JOINTS SHALL BE COVERED WITH CONCRETE.
  4. INSTALL CONCRETE THRUST BLOCKS AT EACH ELBOW, TEE AND CAPPED END FITTINGS LOCATED IN THE HORIZONTAL PLANE.
  5. HARNESS PIPE IF ORDERED BY BUILDER/DEVELOPER ENGINEER.
  6. SIZE OF THRUST BLOCKS TO BE DETERMINED INDIVIDUALLY AT THE TIME OF CONSTRUCTION BY BUILDER/DEVELOPER ENGINEER .

**THRUST BLOCKING DETAILS**

SCALE: NONE

	<b>Entech Engineering, Inc.</b> <small>Engineering Architecture Construction</small> <b>Corporate Office:</b> 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>THRUST BLOCKING DETAILS</b>		
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## THRUST CLAMPING DETAIL

SCALE: NONE



**ENTECH**

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Engineering Architecture Construction

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Mountaintop, PA ph: 570.868.0275  
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### WAYMART AREA AUTHORITY THRUST CLAMPING DETAIL

DATE:  
7/20/10

DRAWING NO.

**S-11**

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BAK

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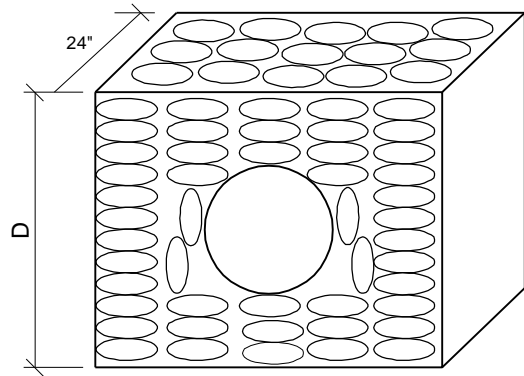
PROJECT NO.  
4152.14

SCALE:  
NONE

REQUIRED SPACING AND MATERIALS FOR TRENCH PLUGS		
TRENCH SLOPE (%)	SPACING (FT)	PLUG MATERIAL
< 5	*	*
5-15	500	** EARTH FILLED SACKS
15-25	300	** EARTH FILLED SACKS
25-35	200	** EARTH FILLED SACKS
35-100	100	** EARTH FILLED SACKS
> 100	50	CEMENT FILLED BAGS (WETTED) OR MORTARED STONE

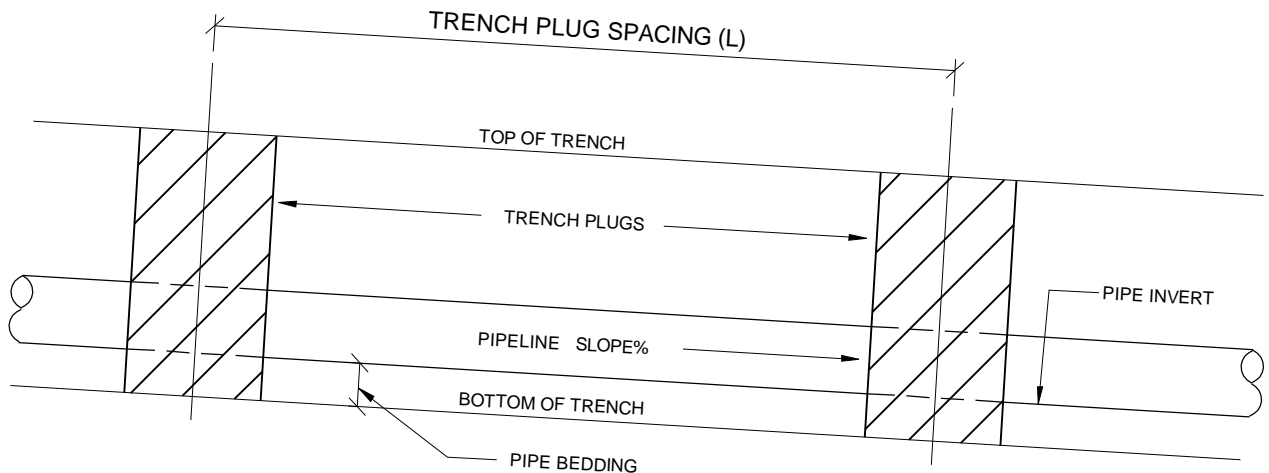
\* TRENCH PLUGS ARE REQUIRED AT ALL STREAM, RIVER, OR WATER-BODY CROSSINGS REGARDLESS OF TRENCH SLOPE. OTHERWISE NOT REQUIRED.

\*\* TOPSOIL MAY NOT BE USED TO FILL SACKS.



D = DEPTH TO BOTTOM OF TRENCH


**SECTION VIEW**

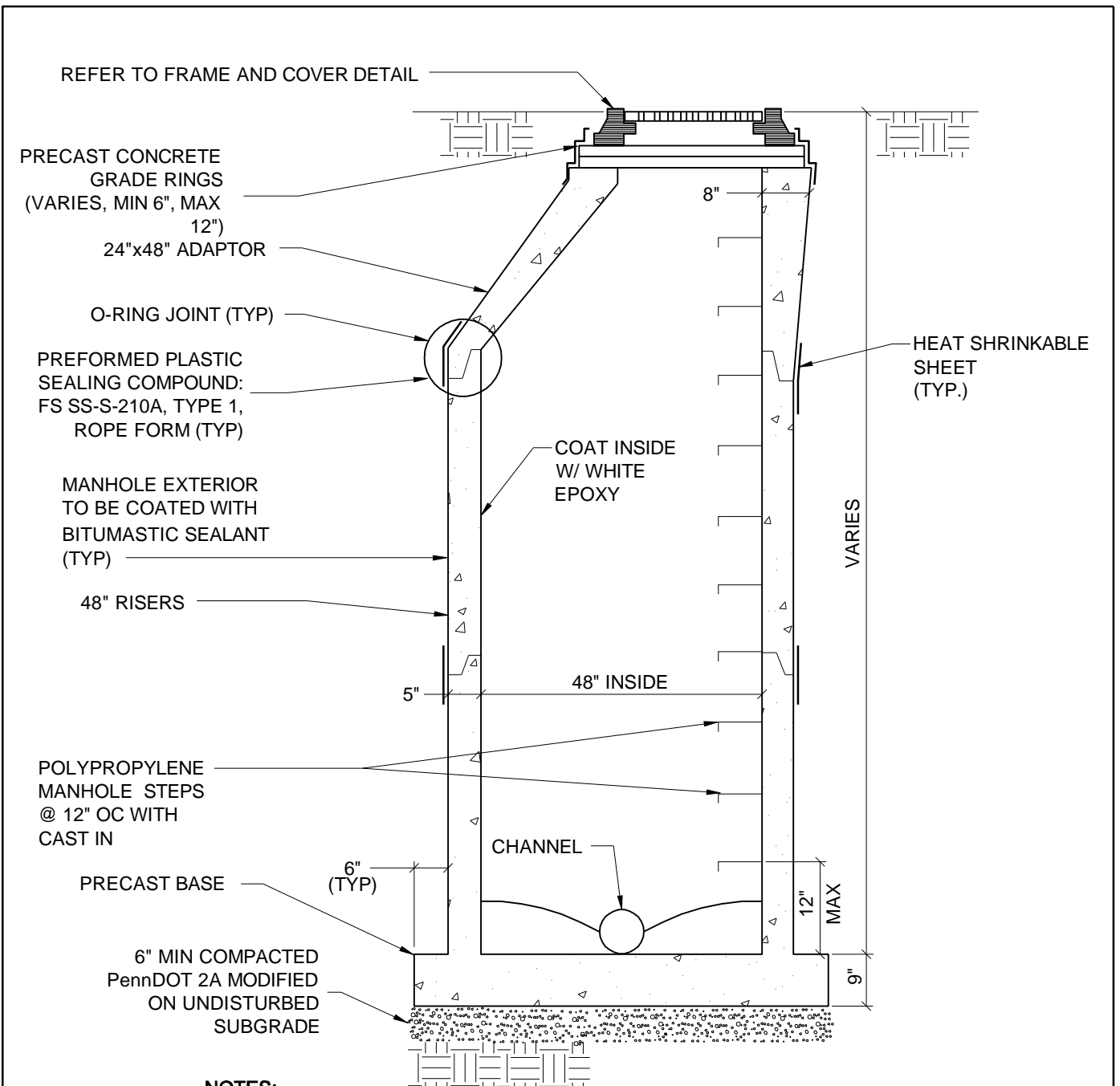


**ELEVATION**

## TRENCH PLUG DETAIL

SCALE: NONE

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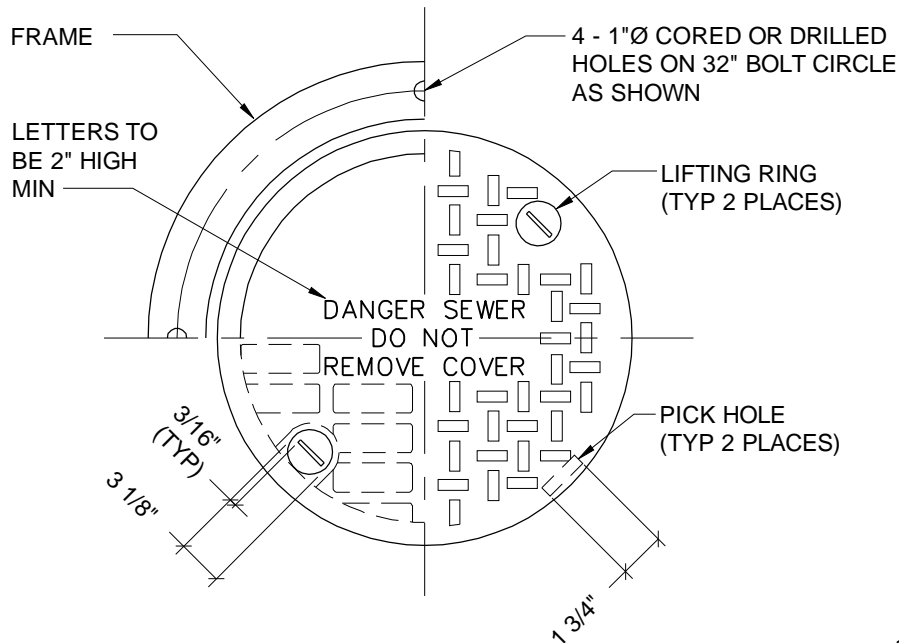
**NOTES:**

1. ALL PIPE TO MANHOLE CONNECTIONS SHALL BE MADE WITH A CAST-IN-PLACE GASKET. (TYP) (A-LOK OR APPROVED EQUAL)
2. MANHOLES EXCEEDING A DEPTH OF 16 FEET SHALL PROVIDE PRE-CAST LANDING PLATFORM.

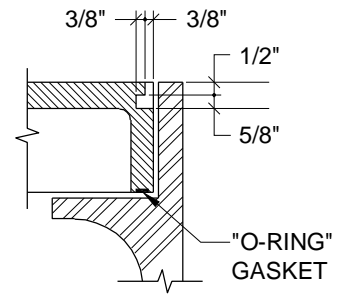
**TYPICAL MANHOLE DETAIL**

SCALE: NONE

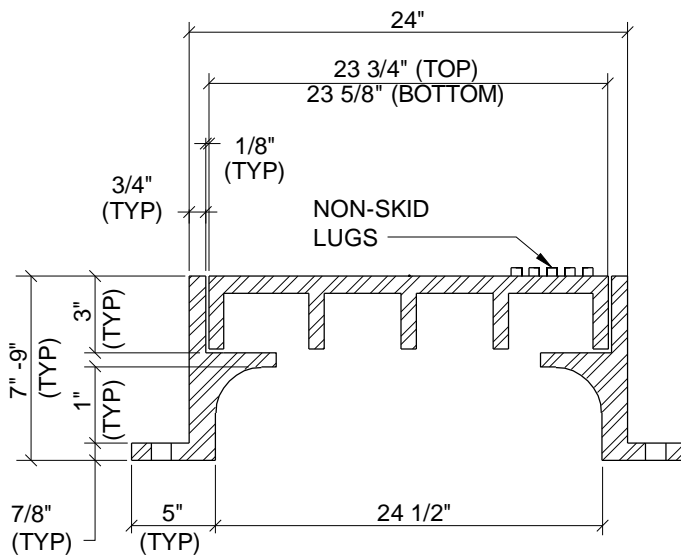
	<b>Entech Engineering, Inc.</b> Engineering Architecture Construction Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>TYPICAL MANHOLE DETAIL</b>			
	Pottsville, PA ph: 570.628.5655 Mountaintop, PA ph: 570.868.0275 Lititz, PA ph: 717.626.6666 www.entecheng.com 1.800.825.1372	DATE: 7/20/10	DRAWING NO. <b>S-13</b>	PREPARED BY DYH	CHECKED BY BAK	APPROVED BY EJP	PROJECT NO. 4152.14



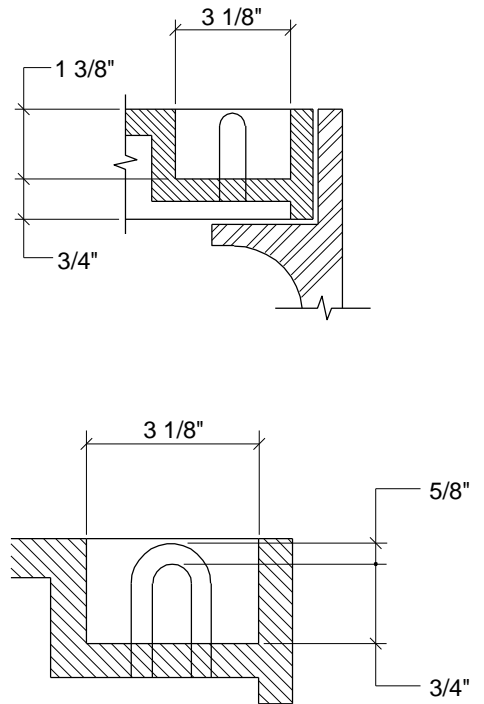
**PLAN**



**PICK HOLE DETAIL**



**SECTION**

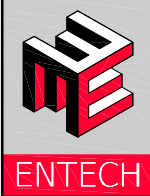


**LIFT RING DETAILS**

NOTE: APPROXIMATE WEIGHT 500#

# CAST IRON REGULAR MANHOLE FRAME & COVER

SCALE: NONE



**Entech Engineering, Inc.**

Engineering Architecture Construction

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Mountaintop, PA ph: 570.868.0275  
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WAYMART AREA AUTHORITY  
CAST IRON MANHOLE & COVER

DATE: 7/20/10

DRAWING NO.

**S-14**

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DYH

CHECKED BY  
BAK

APPROVED BY  
EJP

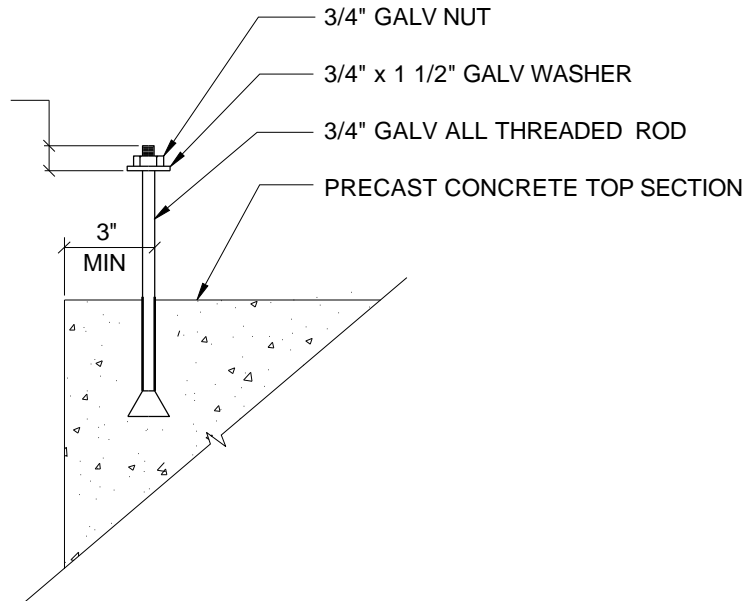
PROJECT NO.  
4152.14

SCALE:  
NONE






2 1/2" MIN PROJECTION  
ABOVE FINAL COURSE OF  
CONCRETE OR RUBBER  
RISER GRADE RINGS

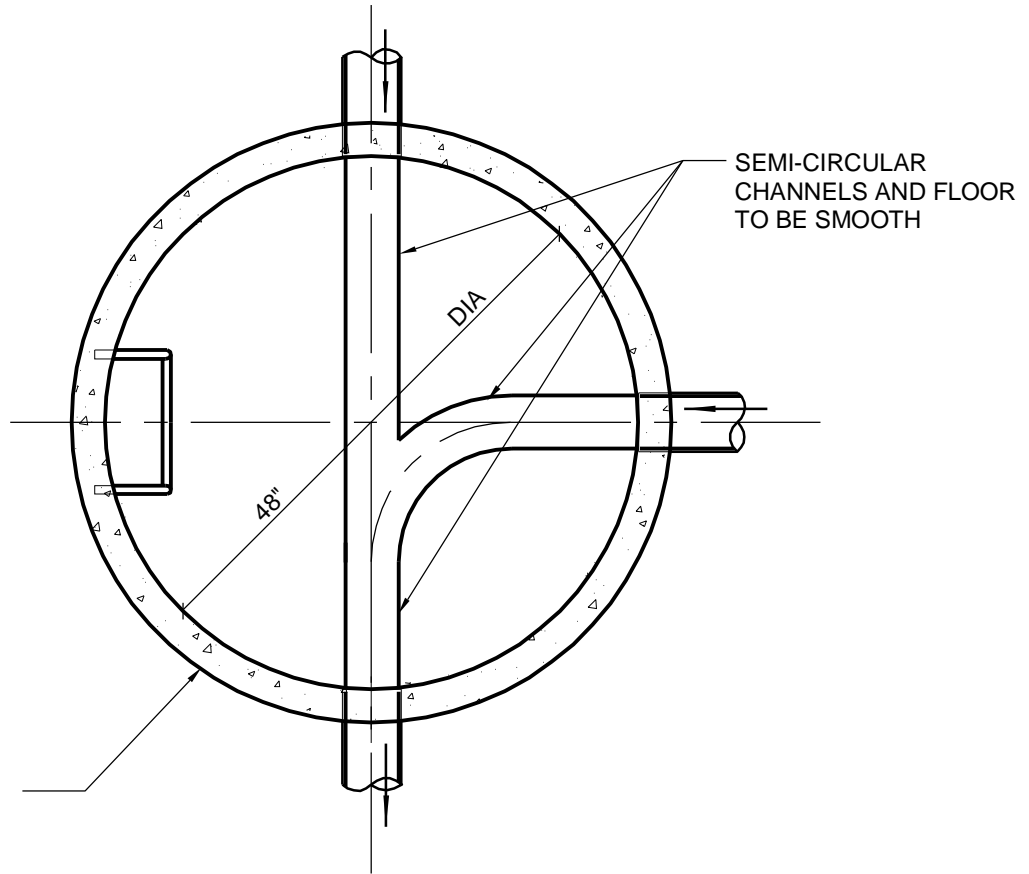


NOTE: FOUR (4) BOLTS REQUIRED PER MANHOLE.

## MANHOLE FRAME - ANCHOR BOLT DETAIL

SCALE: NONE

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PREPARED BY <b>DYH</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	SCALE: NONE	



PRECAST CONCRETE  
MANHOLE SECTIONS

**NOTE:**

1. ALL FLOW CHANNELS SHALL BE PRE-CAST BY MANUFACTURER UNLESS AUTHORIZED BY ENGINEER/AUTHORITY.

**MANHOLE BASE**  
**TYPICAL CHANNEL CONFIGURATION**

SCALE: NONE



**ENTECH**

**Entech Engineering, Inc.**

Engineering Architecture Construction

Corporate Office:

4 S. Fourth Street Reading, PA 19602  
ph: 610.373.6667 fx: 610.373.7537

Pottsville, PA  
Mountaintop, PA  
Lititz, PA  
www.entecheng.com

ph: 570.628.5655  
ph: 570.868.0275  
ph: 717.626.6666  
1.800.825.1372

**WAYMART AREA AUTHORITY**  
**MANHOLE BASE TYPICAL CHANNEL CONFIGURATION**

DATE:  
7/20/10

DRAWING NO.

**S-17**

PREPARED BY  
DYH

CHECKED BY  
BAK

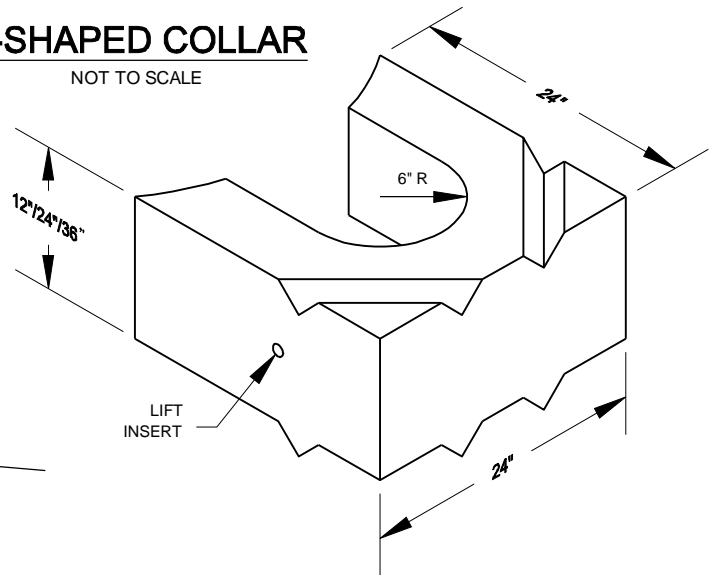
APPROVED BY  
EJP

PROJECT NO.  
4152.14

SCALE:  
NONE

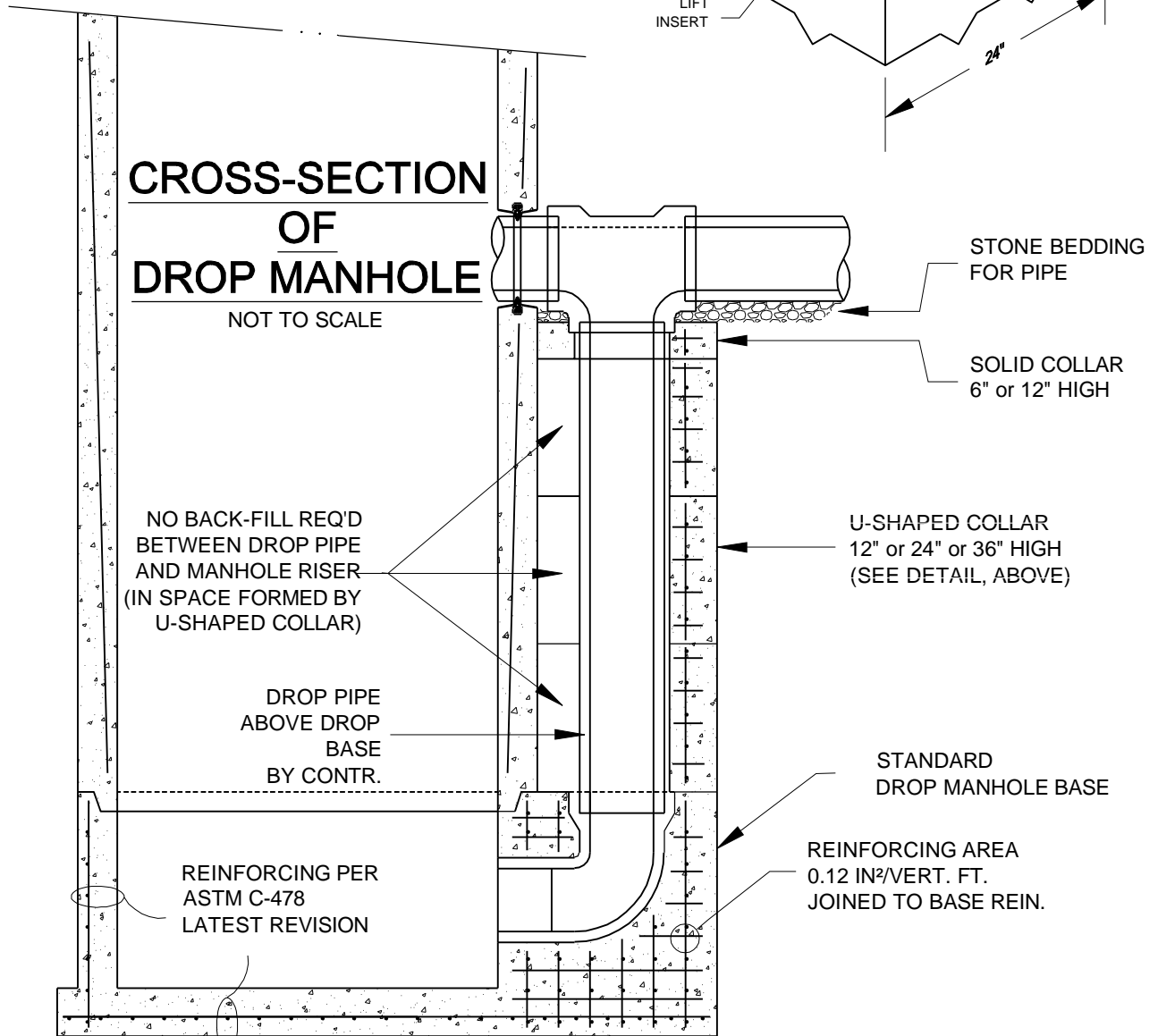
### U-SHAPED COLLAR

NOT TO SCALE



### CROSS-SECTION OF DROP MANHOLE

NOT TO SCALE



## TYPICAL OUTSIDE DROP MANHOLE DETAIL

SCALE: NONE



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### WAYMART AREA AUTHORITY TYPICAL OUTSIDE DROP MANHOLE DETAIL

DATE:

7/20/10

DRAWING NO.

**S-18**

PREPARED BY

MBD

CHECKED BY

BAK

APPROVED BY

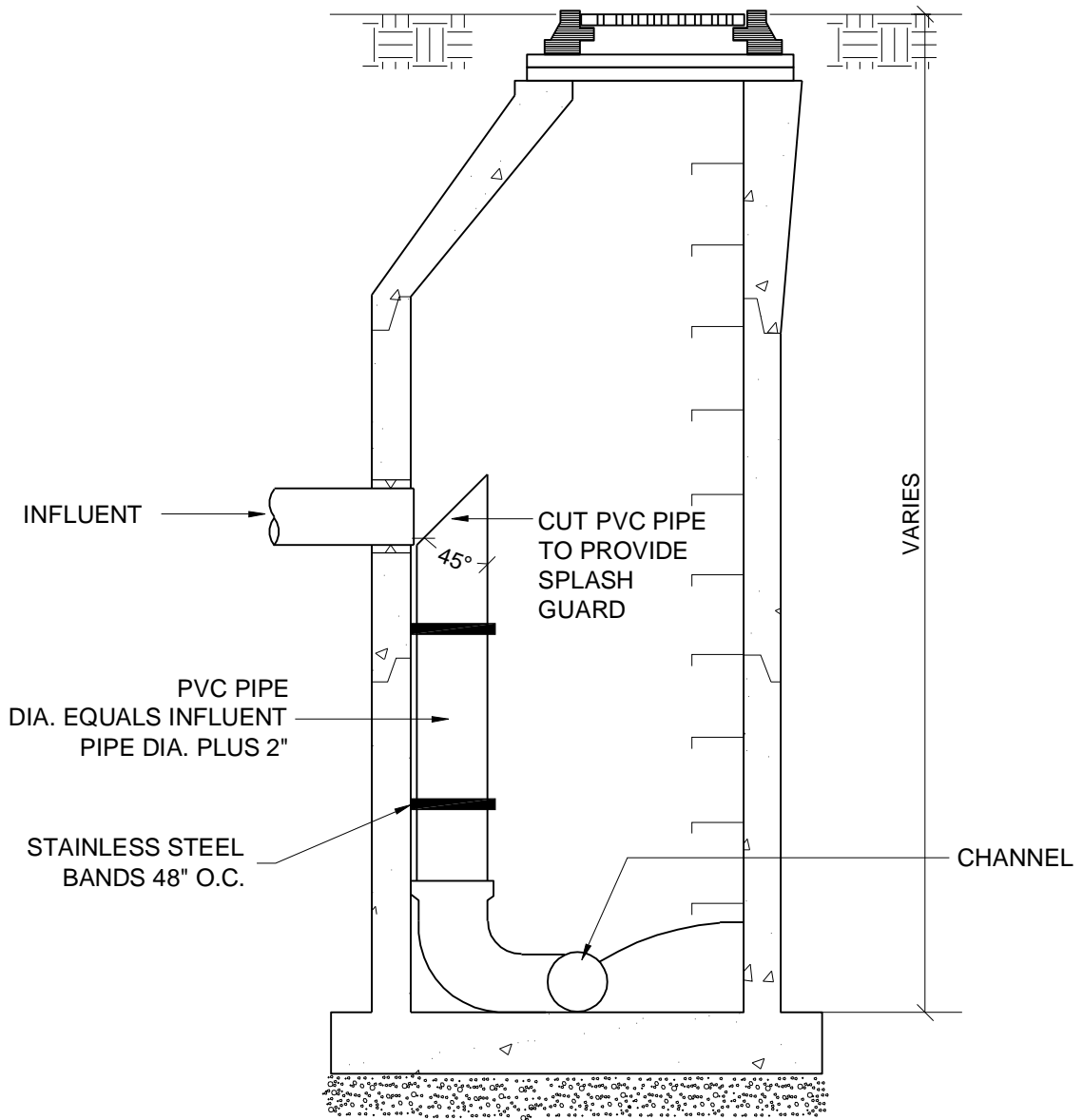
EJP

PROJECT NO.

4152.14

SCALE:

NONE



## TYPICAL INSIDE DROP MANHOLE DETAIL

SCALE: NONE



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Mountaintop, PA ph: 570.868.0275  
Lititz, PA ph: 717.626.6666  
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### WAYMART AREA AUTHORITY TYPICAL INSIDE DROP MANHOLE DETAIL

DATE:  
7/20/10

DRAWING NO.

**S-19**

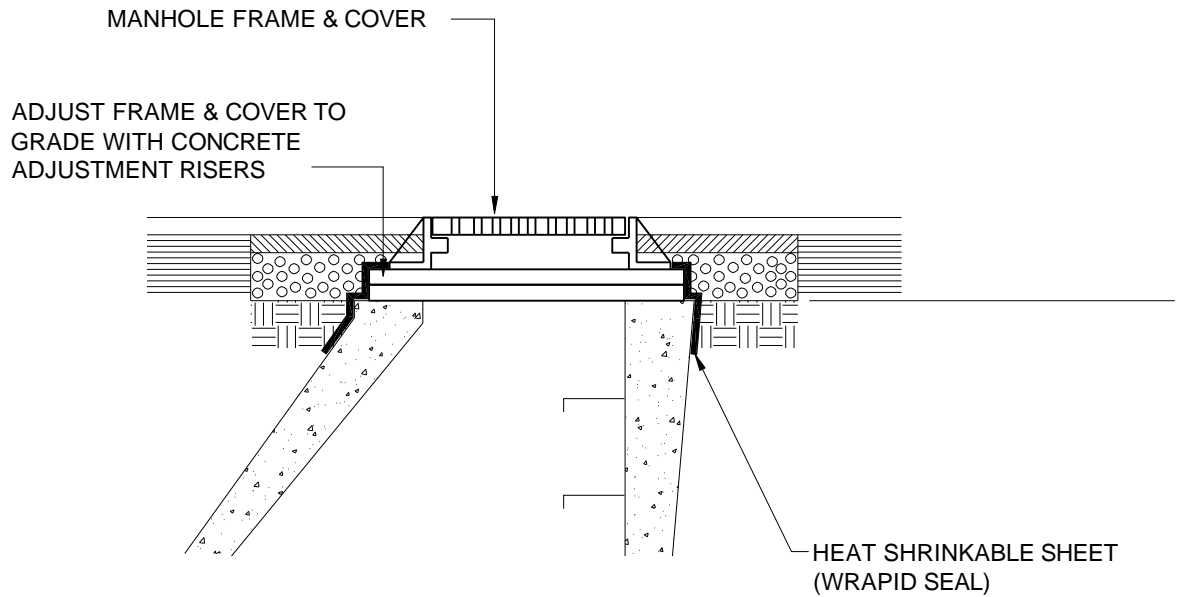
PREPARED BY  
MBD

CHECKED BY  
BAK

APPROVED BY  
EJP


PROJECT NO.  
4152.14

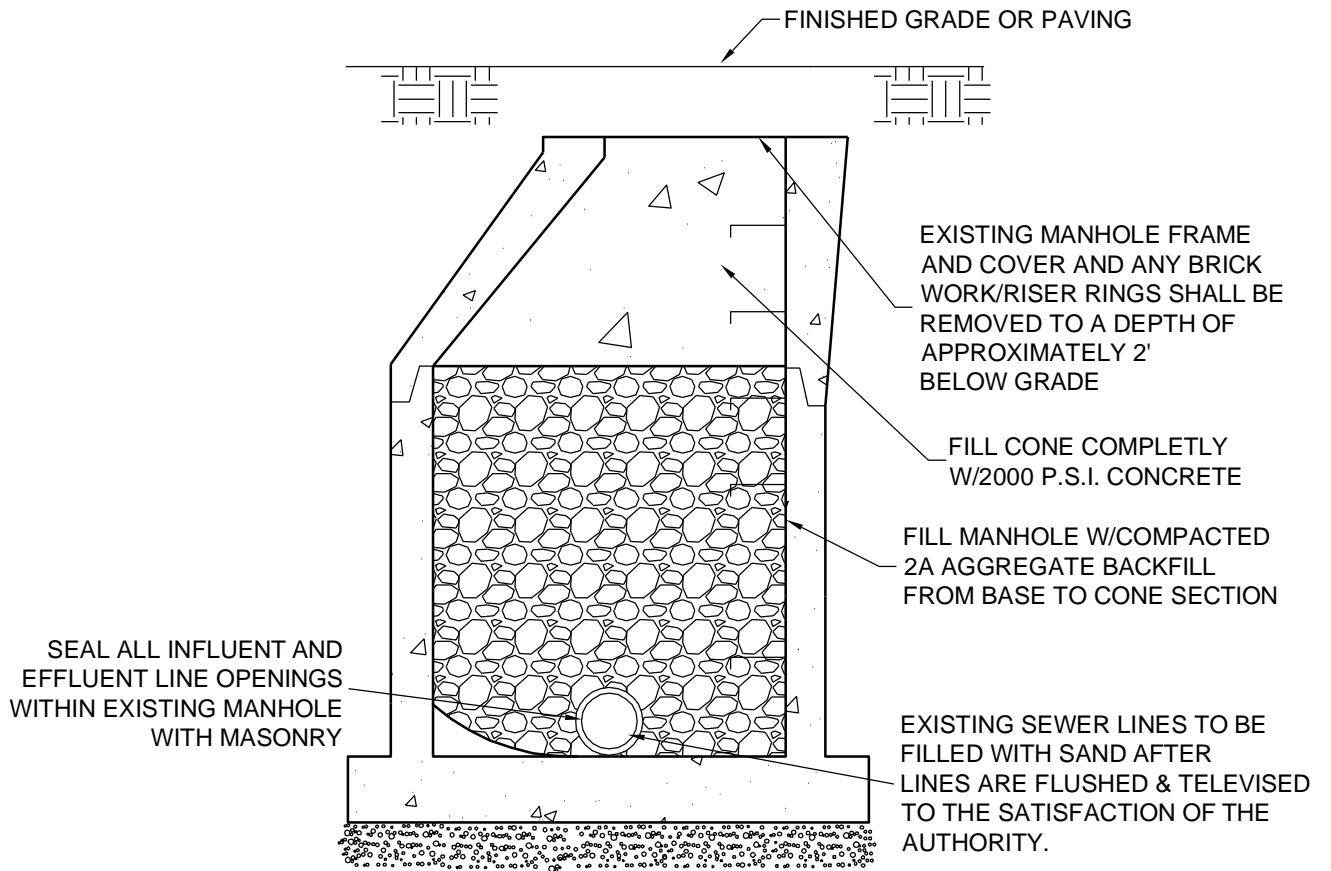
SCALE:  
NONE



## MANHOLE FRAME AND COVER ADJUSTMENT DETAIL

SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> <small>Engineering Architecture Construction</small> Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>MANHOLE FRAME AND COVER ADJUSTMENT DETAIL</b>	
	Pottsville, PA ph: 570.628.5655 Mountaintop, PA ph: 570.868.0275 Lititz, PA ph: 717.626.6666 www.entecheng.com 1.800.825.1372			DATE: <b>7/20/10</b>	DRAWING NO. <b>S-20</b>
PREPARED BY <b>DYH</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	SCALE: <b>NONE</b>	



## MANHOLE ABANDONMENT DETAIL

SCALE: NONE



**ENTECH**

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ph: 570.868.0275

ph: 717.626.6666

1.800.825.1372

WAYMART AREA AUTHORITY  
MANHOLE ABANDONMENT DETAIL

DATE:

7/20/10

DRAWING NO.

**S-21**

PREPARED BY

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CHECKED BY

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APPROVED BY

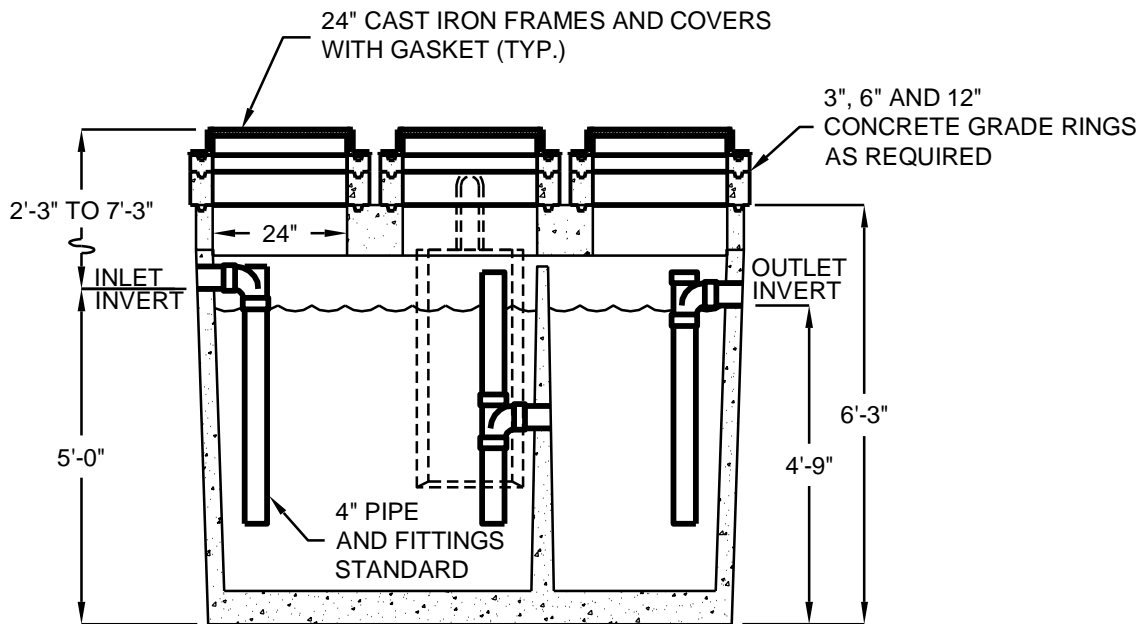
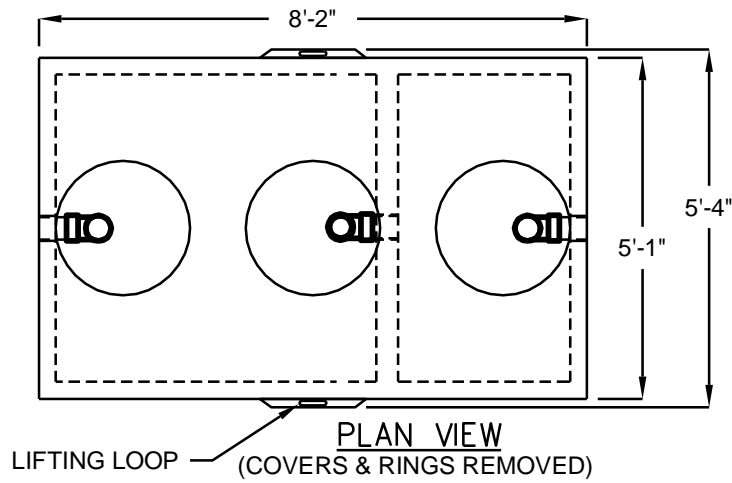
EJP

PROJECT NO.

4152.14

SCALE:

NONE



**NOTES:**

1. DETAIL DEPICTS A 1,000 GALLON OPERATING CAPACITY GREASE INTERCEPTOR. THE ACTUAL TYPE AND CAPACITY MUST BE DETERMINED BY OWNER AND APPROVED BY AUTHORITY.
2. DESIGN LOAD: H-20 TRAFFIC WITH DRY SOIL CONDITIONS (WATER LEVEL BELOW TANK) AND 1'-6" EARTH COVER.
3. SUITABLE SUB-BASE BEDDED WITH GRANULAR MATERIAL SHALL BE PREPARED TO HANDLE ANTICIPATED LOADS.
4. FOR KITCHEN USE ONLY NOT TO BE USED WITH SEWAGE SYSTEM.
5. INTERCEPTOR TO CONTAIN WATER TIGHT JOINTS.

## **1000 GALLON GREASE INTERCEPTOR**

SCALE: NONE



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ph: 570.868.0275  
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1.800.825.1372

**WAYMART AREA AUTHORITY**  
**1000 GALLON GREASE INTERCEPTOR**

DATE:  
7/20/10

DRAWING NO.

# S-22

PREPARED BY  
**MBD**

CHECKED BY  
**BAK**

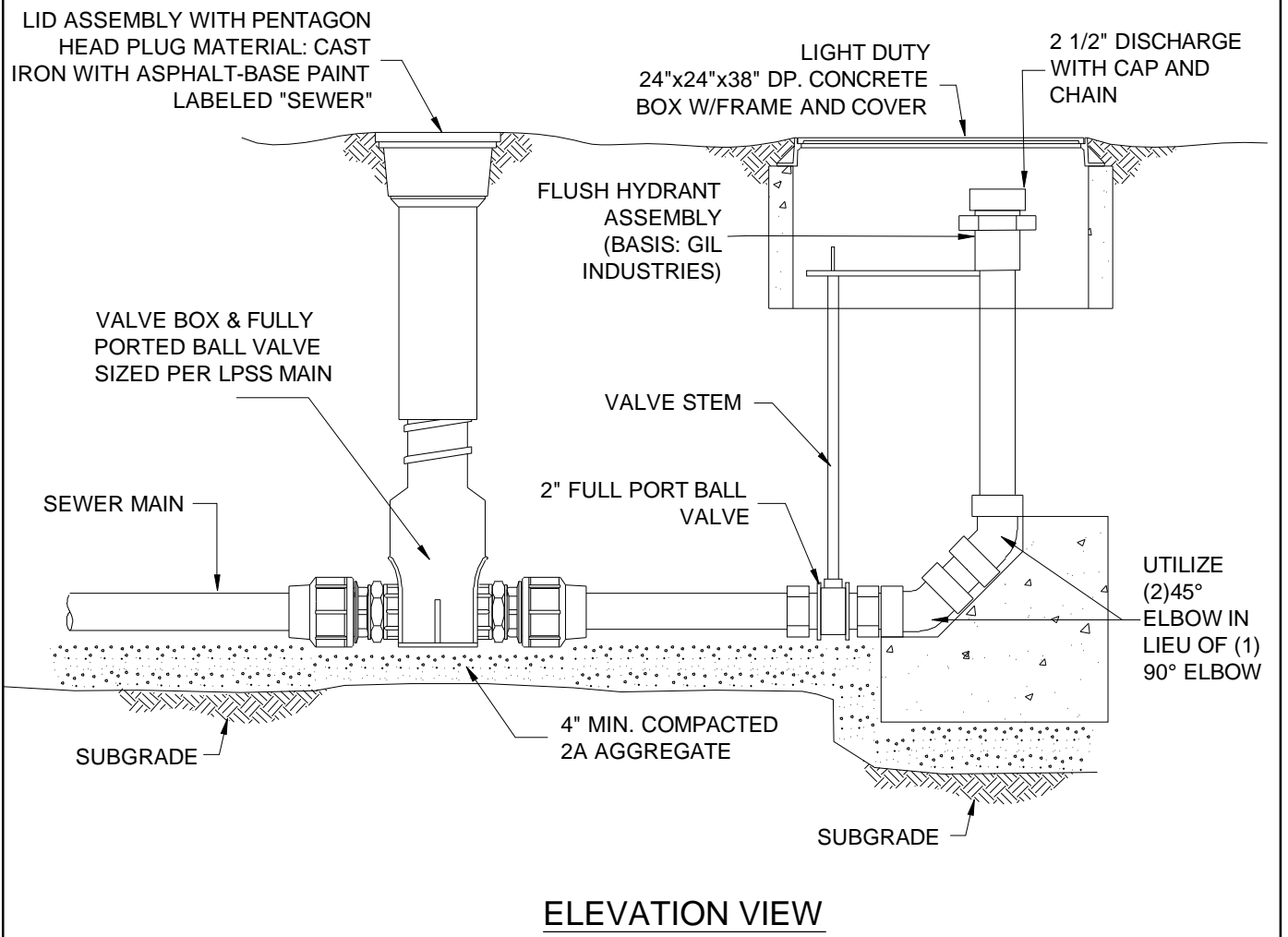
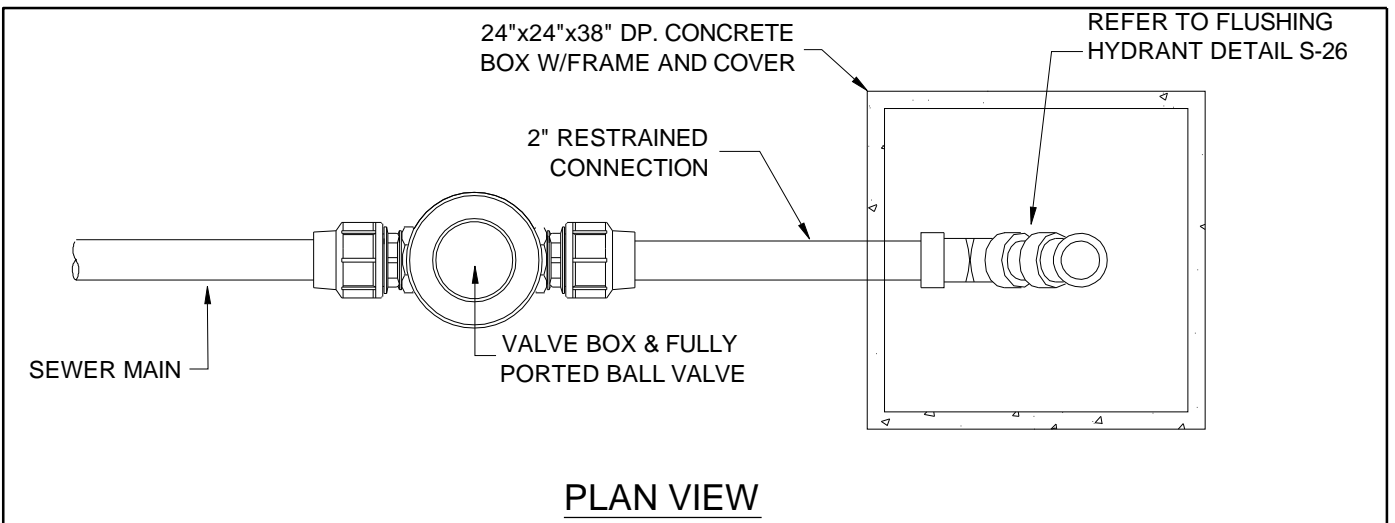
APPROVED BY  
**EJP**

PROJECT NO.  
**4152.14**

SCALE:  
**NONE**




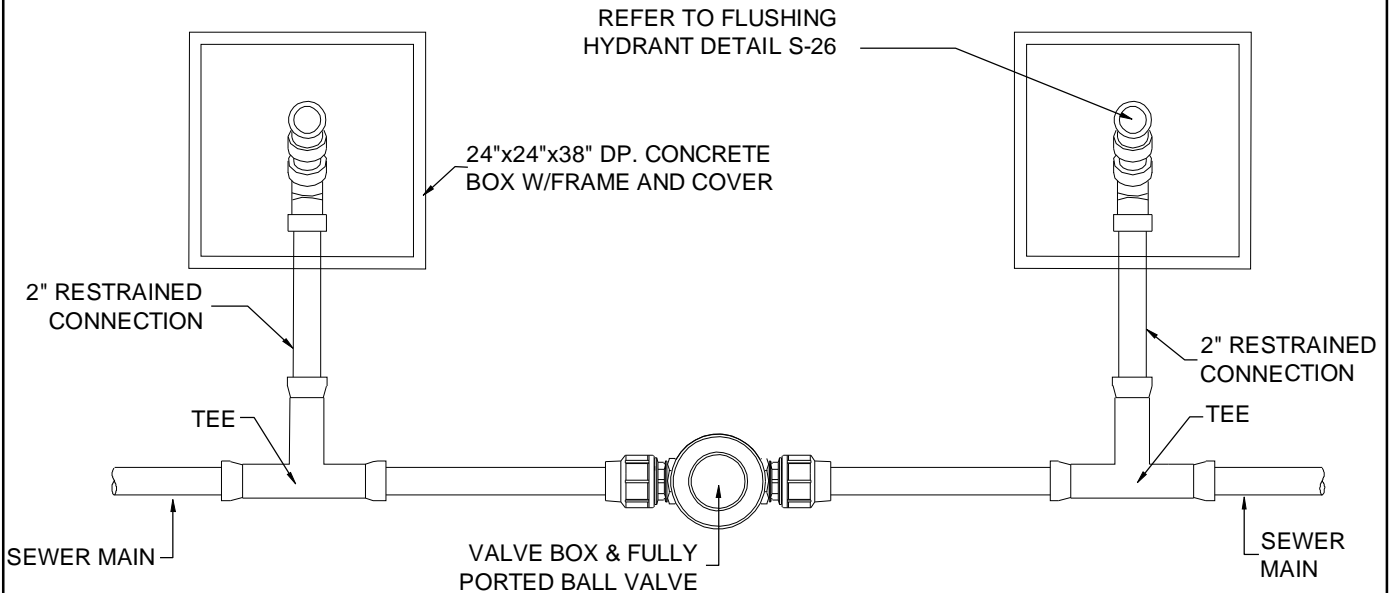




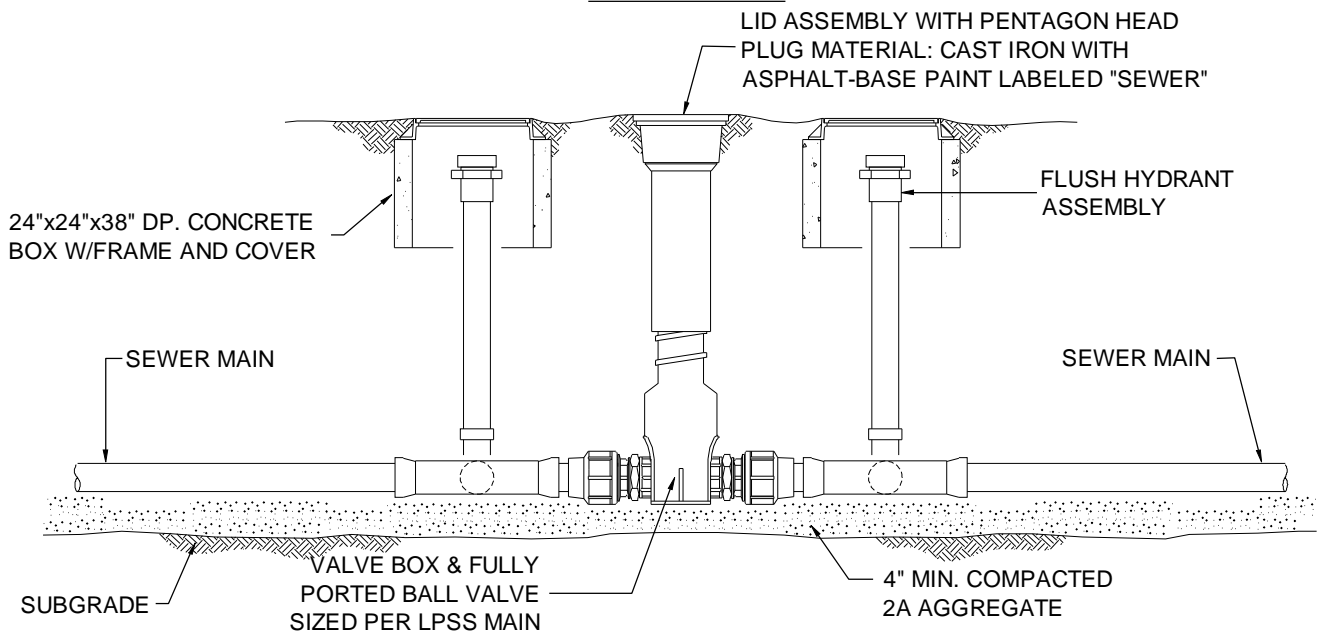
**TERMINAL CLEANOUT ASSEMBLY**

SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> Engineering Architecture Construction Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>TERMINAL CLEANOUT ASSEMBLY</b>	
	PREPARED BY <b>MBD</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	DATE: <b>7/20/10</b>




**PLAN VIEW**

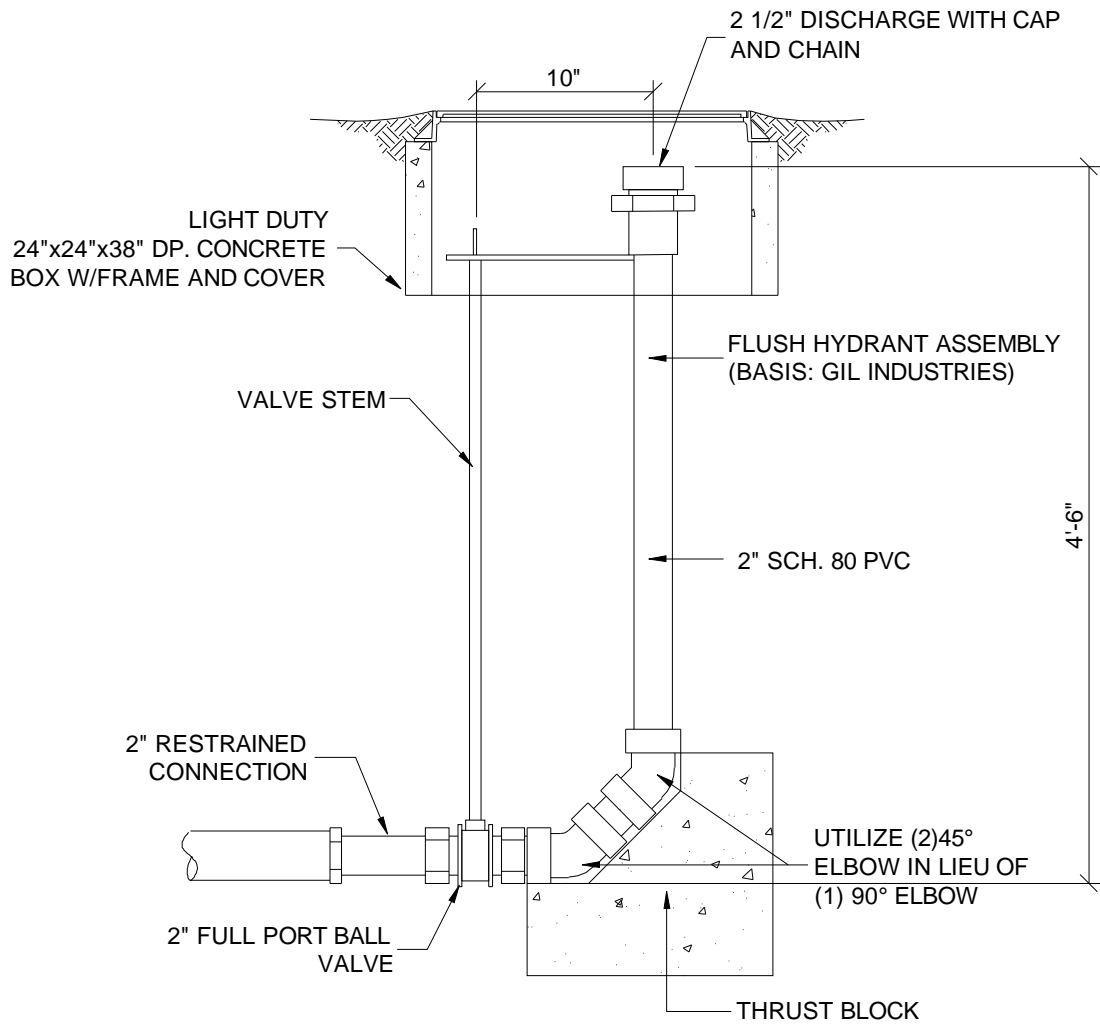


**ELEVATION VIEW**

**INTERMEDIATE CLEANOUT ASSEMBLY**


SCALE: NONE

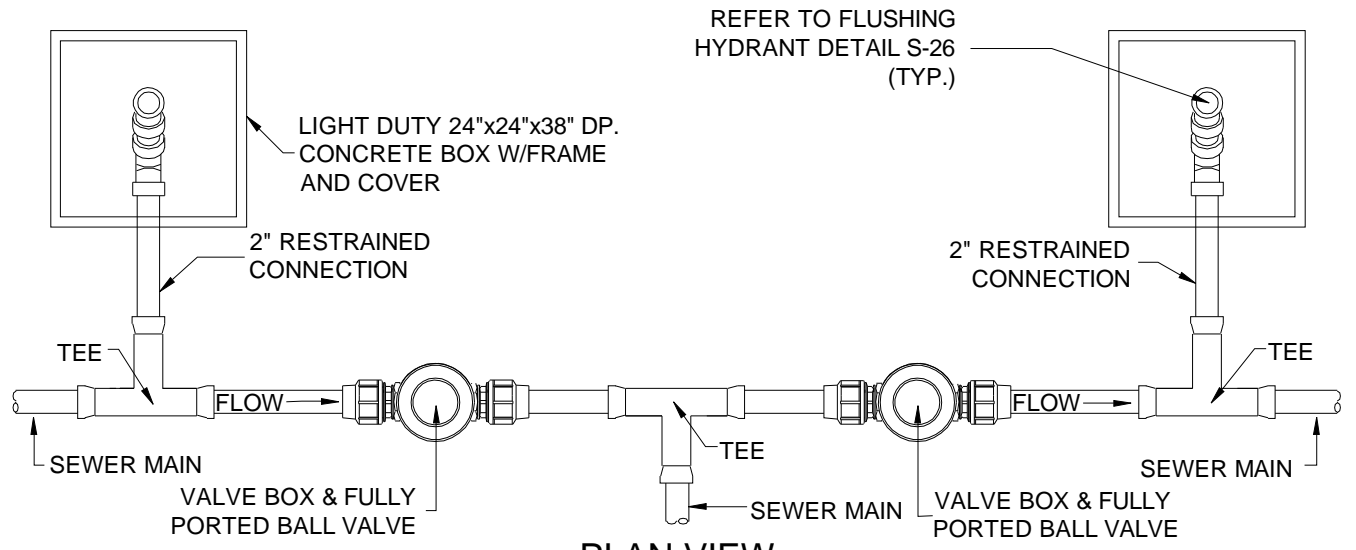
 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> Engineering Architecture Construction Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>INTERMEDIATE CLEANOUT ASSEMBLY</b>	
	PREPARED BY <b>MBD</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	DATE: <b>7/20/10</b>



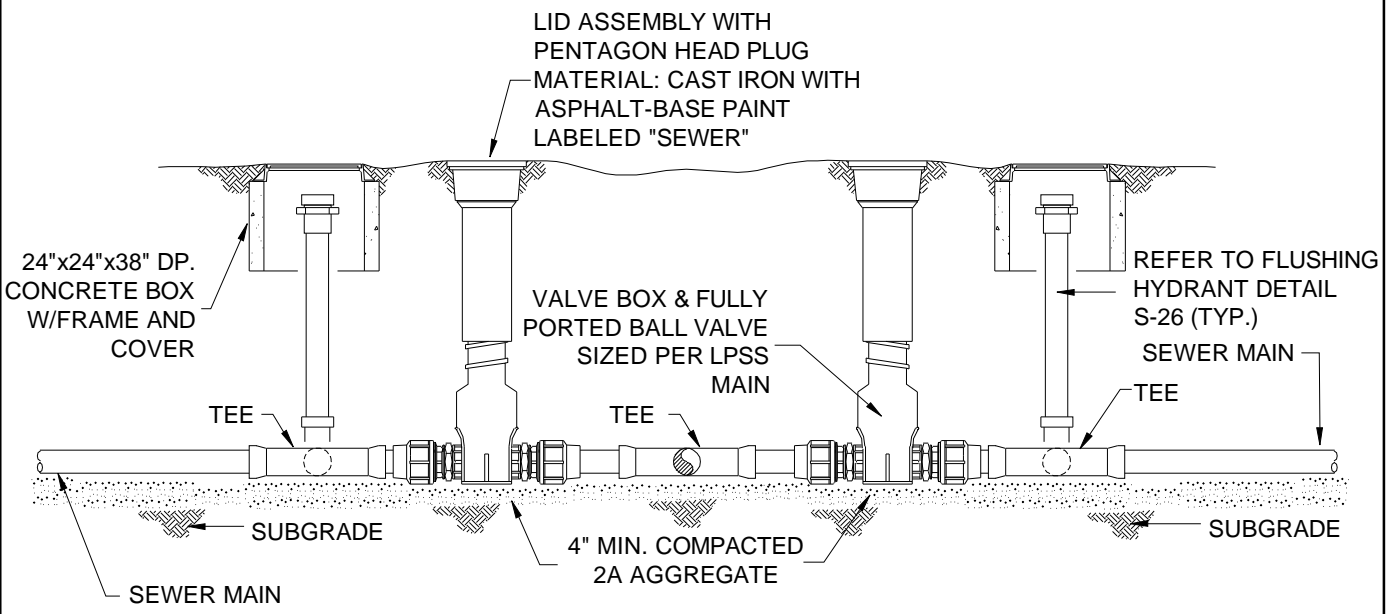
## FLUSHING HYDRANT DETAIL

SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> <small>Engineering Architecture Construction</small> Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>FLUSHING HYDRANT DETAIL</b>		
	Pottsville, PA ph: 570.628.5655 Mountaintop, PA ph: 570.868.0275 Lititz, PA ph: 717.626.6666 www.entecheng.com 1.800.825.1372	PREPARED BY <b>MBD</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	DATE: <b>7/20/10</b>
SCALE: NONE						




**PLAN VIEW**

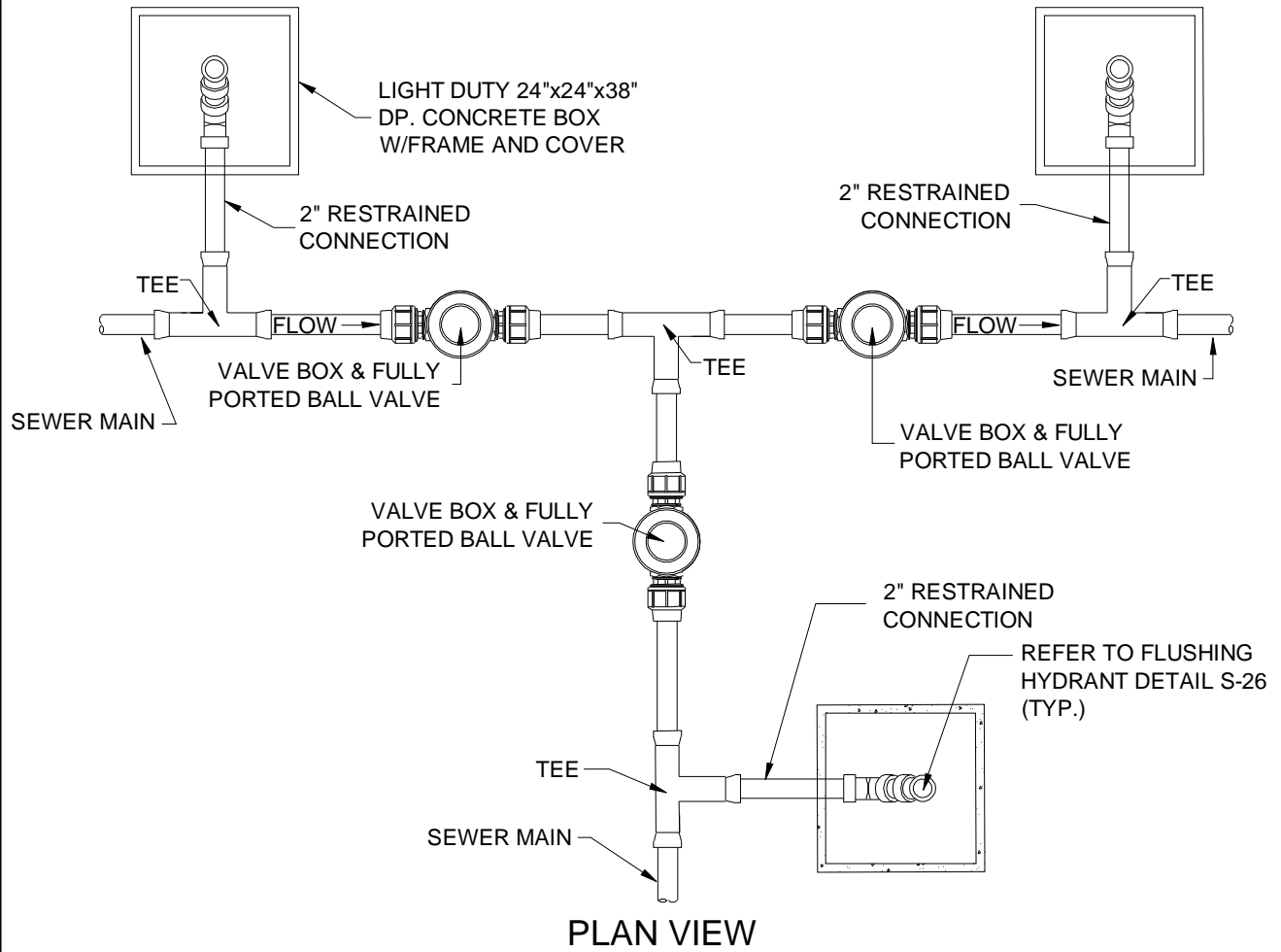


**ELEVATION VIEW**

**2 WAY BRANCH CLEANOUT ASSEMBLY**

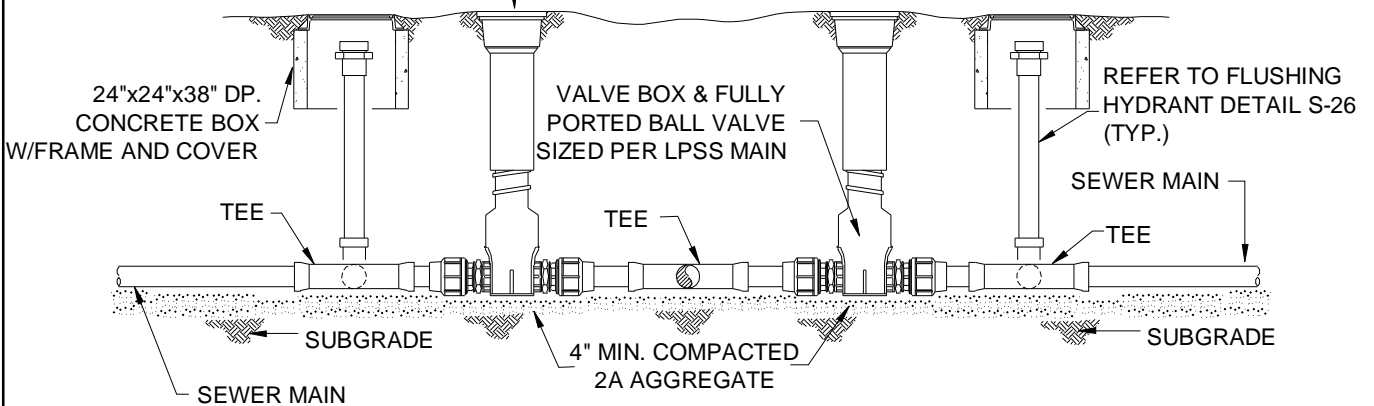
SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> Engineering Architecture Construction Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>2 WAY BRANCH CLEANOUT ASSEMBLY</b>	
	PREPARED BY <b>MBD</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	DATE: <b>7/20/10</b>



**PLAN VIEW**


LID ASSEMBLY WITH PENTAGON HEAD  
 PLUG MATERIAL: CAST IRON WITH  
 ASPHALT-BASE PAINT LABELED "SEWER"

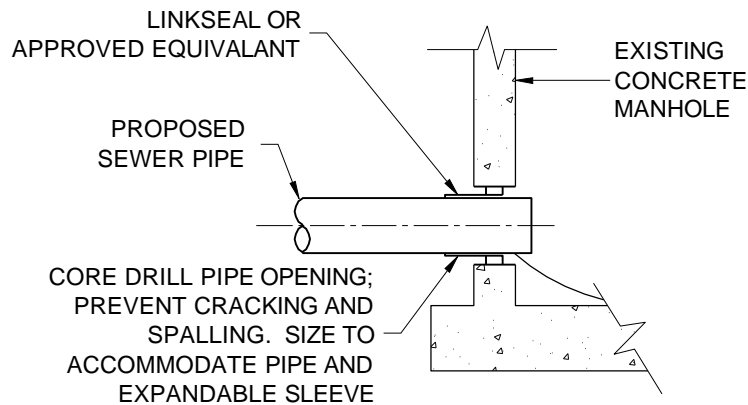


**ELEVATION VIEW**

**3 WAY BRANCH CLEANOUT ASSEMBLY**

SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> Engineering Architecture Construction Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>3 WAY BRANCH CLEANOUT ASSEMBLY</b>	
	PREPARED BY <b>MBD</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	DATE: <b>7/20/10</b>




**NOTES:**

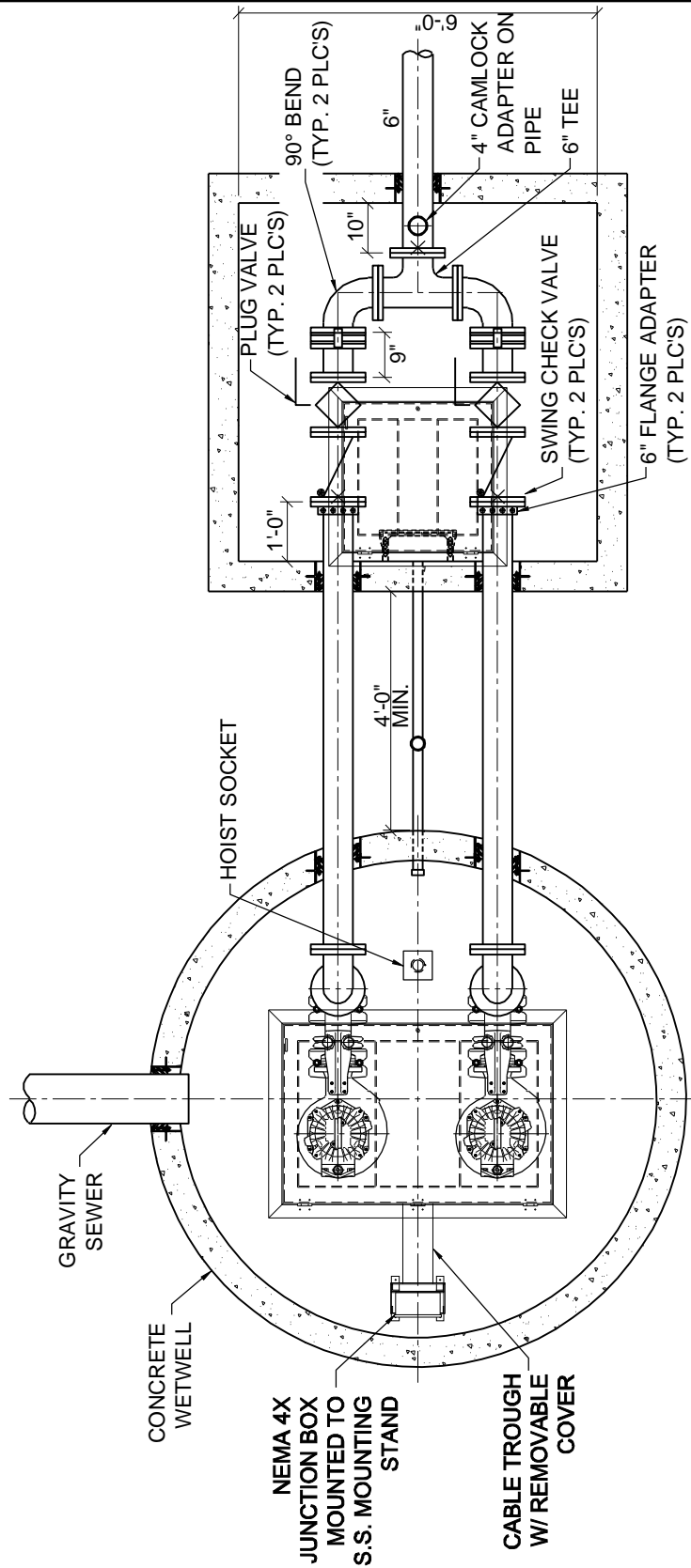
1. PROPOSED SEWER PIPE INVERT ELEVATION SHALL NOT BE BELOW EXISTING SEWER INVERT ELEVATION.
2. PROPOSED SEWER PIPE SHALL BE LOCATED A MINIMUM OF 8" ABOVE OR BELOW EXISTING MANHOLE JOINT.
3. AFTER CONNECTION OF PIPE TO MANHOLE, REMOVE CONCRETE CHANNEL AS REQUIRED AND RECONSTRUCT CHANNEL.
4. KEEP GROUNDWATER, SURFACE WATER AND DEBRIS FROM ENTERING EXISTING FACILITIES.
5. MAINTAIN EXISTING FLOW DURING CONSTRUCTION.
6. DROPS OVER 2 FT WILL REQUIRE AN INSIDE DROP CONNECTION.

**TYPICAL TIE-IN TO EXISTING MANHOLE DETAIL**

SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> <small>Engineering Architecture Construction</small> Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> TYPICAL TIE-IN TO EXISTING MANHOLE DETAIL	
	Pottsville, PA ph: 570.628.5655 Mountaintop, PA ph: 570.868.0275 Lititz, PA ph: 717.626.6666 www.entecheng.com 1.800.825.1372			DATE: 7/20/10	DRAWING NO. <b>S-29</b>
PREPARED BY <b>MBD</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	SCALE: <b>NONE</b>	

**FOR GENERAL ARRANGEMENT ONLY DETAIL  
PLANS TO BE SUBMITTED FOR REVIEW.**



**PLAN VIEW - PUMP STATION**

SCALE: NONE



**Entech Engineering, Inc.**

Engineering Architecture Construction

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Mountaintop, PA ph: 570.868.0275  
Lititz, PA ph: 717.626.6666  
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**WAYMART AREA AUTHORITY  
PLAN VIEW - PUMP STATION**

DATE: 7/20/10

DRAWING NO.

**S-30**

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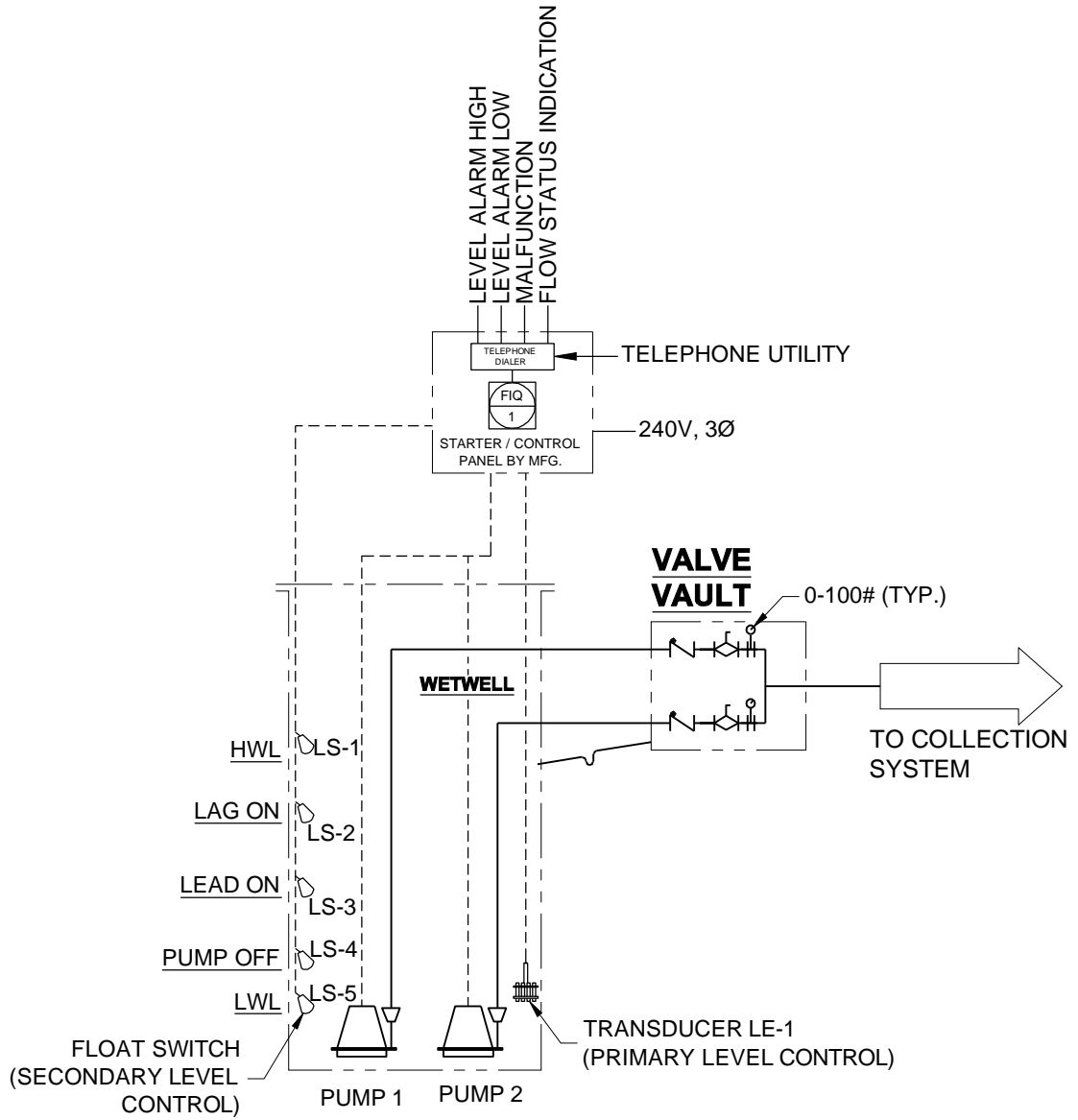
PROJECT NO.  
4152.14

SCALE:  
NONE






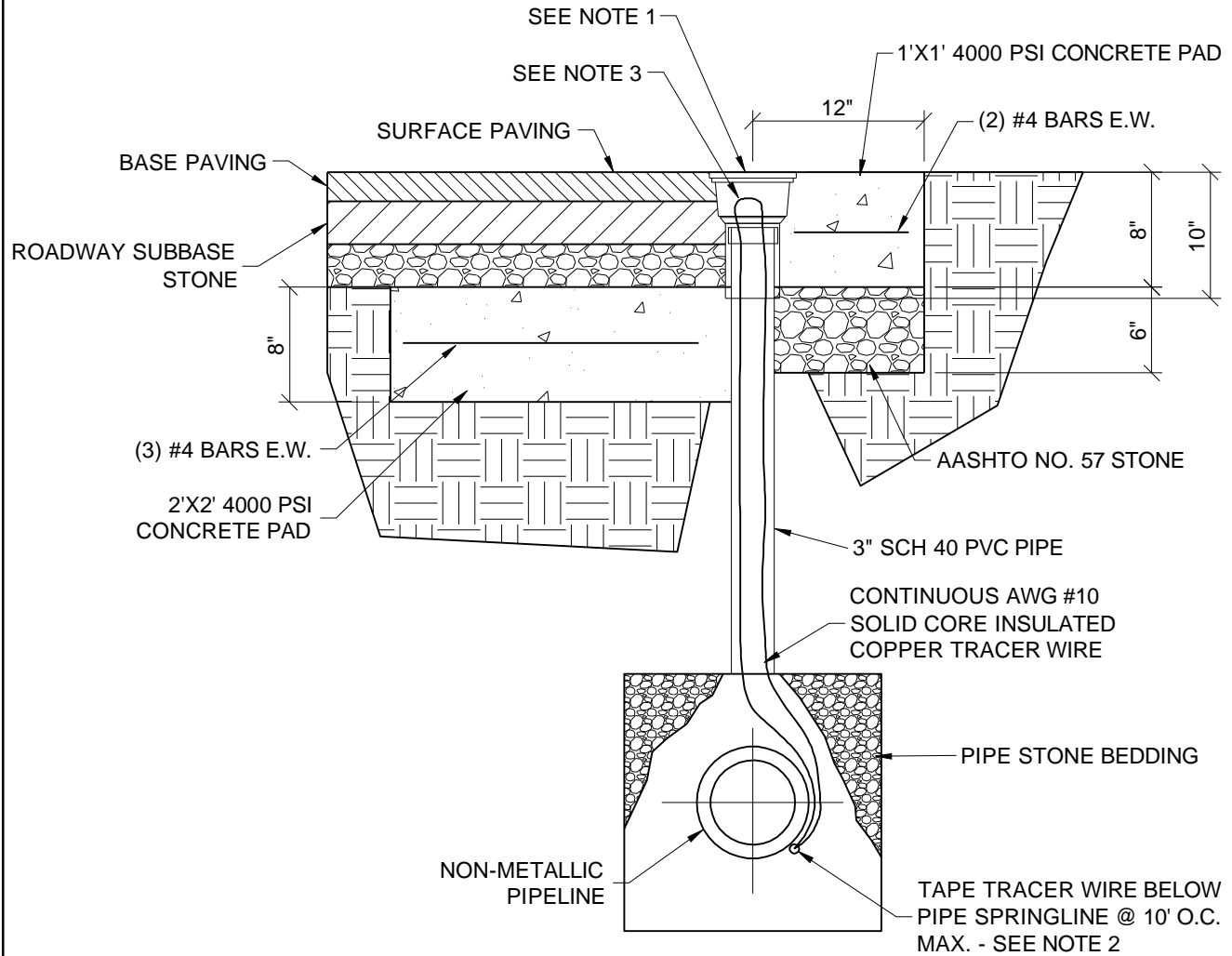
**FOR GENERAL ARRANGEMENT  
ONLY DETAIL PLANS TO BE  
SUBMITTED FOR REVIEW.**



**PUMP STATION**  
**PROCESS & INSTRUMENTATION DIAGRAM**

SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> Engineering Architecture Construction Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>PUMP STATION PROCESS &amp; INSTRUMENTATION DIAGRAM</b>	
	PREPARED BY <b>MBD</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	DATE: <b>7/20/10</b>




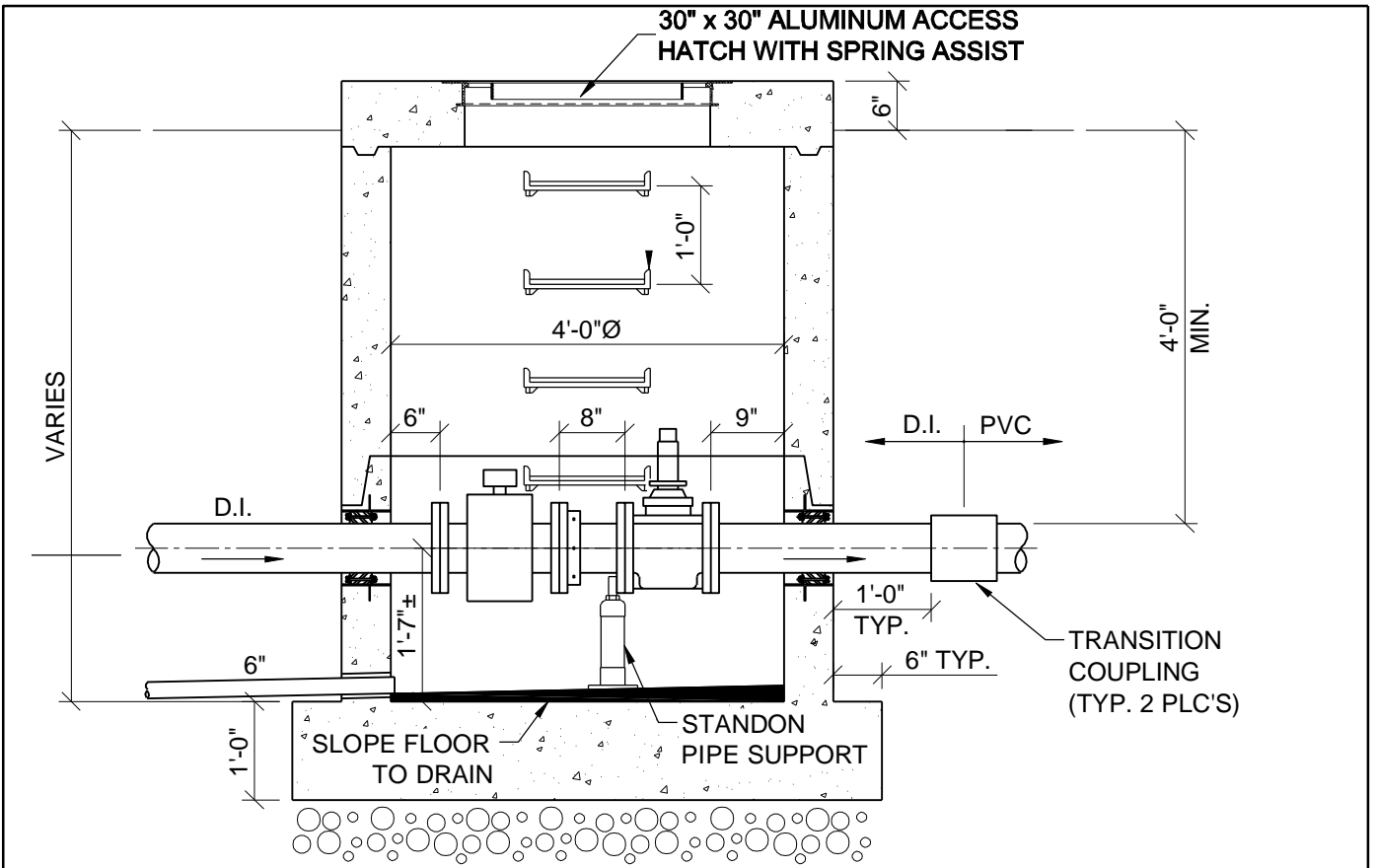
**NOTES:**

1. C.I. BOX SHALL BE TYLER 10" C.I. VALVE BOX TOP SECTION SLIP MODEL 10T-A WITH 5 1/4" DROP LID MODEL 14549 MARKED "SEWER"
2. DO NOT SPICE TRACER WIRE UNDERGROUND.
3. PROVIDE 3 FEET OF LOOPED WIRE WITHIN TEST STATION BOX.
4. SPACE TEST STATIONS 500 FEET MAX. AND AT ALL CHANGES IN FORCE MAIN DIRECTIONS
5. PROVIDE METALLIC CAUTION TAPE CENTERED ON FORCE MAIN 12" BELOW FINISHED GRADE.

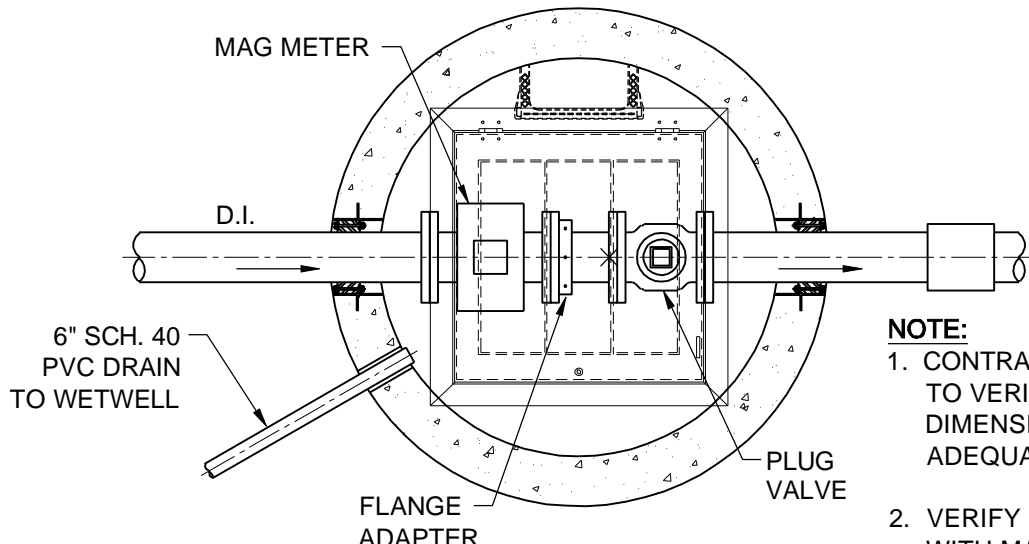
**FORCE MAIN TRACER WIRE TEST STATION**

SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> Engineering Architecture Construction Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>FORCE MAIN TRACER WIRE TEST STATION</b>	
	Pottsville, PA ph: 570.628.5655 Mountaintop, PA ph: 570.868.0275 Lititz, PA ph: 717.626.6666 www.entecheng.com 1.800.825.1372			DATE:	DRAWING NO.
PREPARED BY	CHECKED BY	APPROVED BY	PROJECT NO.	SCALE:	<b>S-33</b>
MBD	BAK	EJP	4152.14	NONE	



**SECTION**




- NOTE:**
1. CONTRACTOR IS RESPONSIBLE TO VERIFY EXISTING DIMENSIONS AND PROVIDE FOR ADEQUATE WORKING SPACE.
  2. VERIFY METER CONFIGURATION WITH MANUFACTURER.

**PLAN**

**FORCE MAIN METERING MANHOLE DETAIL**

SCALE: NONE

 <b>ENTECH</b>	<b>Entech Engineering, Inc.</b> <small>Engineering Architecture Construction</small> Corporate Office: 4 S. Fourth Street Reading, PA 19602 ph: 610.373.6667 fx: 610.373.7537			<b>WAYMART AREA AUTHORITY</b> <b>FORCEMAIN METERING MANHOLE DETAIL</b>	
	PREPARED BY <b>MBD</b>	CHECKED BY <b>BAK</b>	APPROVED BY <b>EJP</b>	PROJECT NO. <b>4152.14</b>	DATE: <b>7/20/10</b>