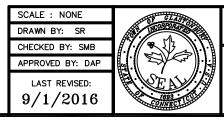


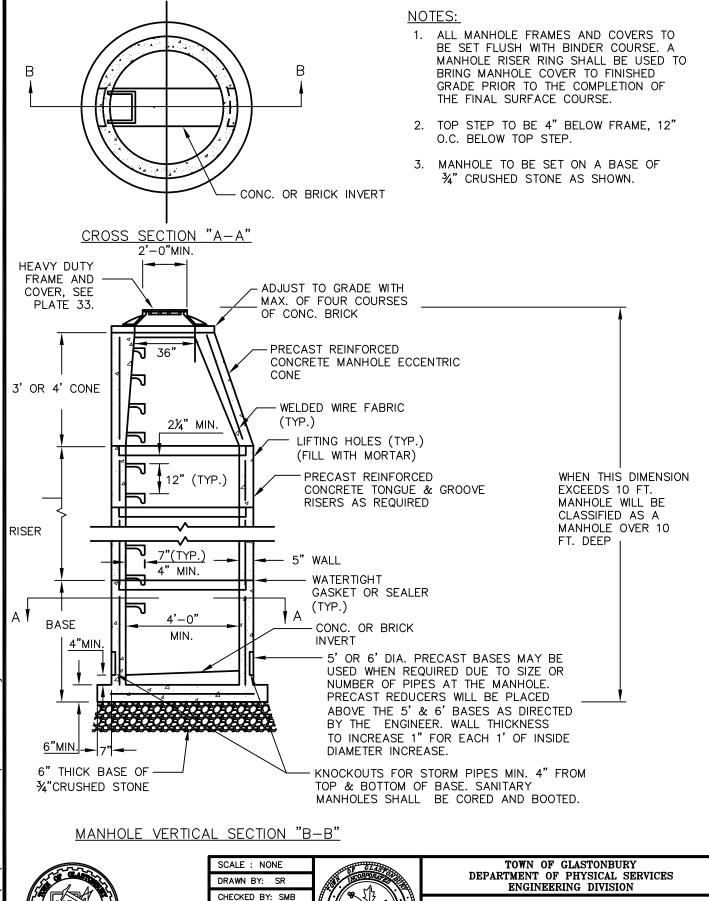
- 1. CRUSHED STONE FOUNDATION $\frac{3}{4}$ " MAXIMUM SIZE, SHALL BE PLACED 6" UNDER PIPE AND UP TO THE PIPE GRADE, THE PIPE LAID THEREON, AND THE CRUSHED STONE PULLED AGAINST THE PIPE SIDES TO FIRMLY HOLD THE PIPE IN PLACE.
- 2. CRUSHED STONE HAUNCHING, $\frac{3}{4}$ " MAXIMUM SIZE, SHALL BE BROUGHT TO A MINIMUM OF HALF WAY UP THE PIPE AND OUT TO THE TRENCH WALL AT THIS ELEVATION FOR ALL PIPE.
- ALL COSTS FOR THIS CRUSHED STONE SHALL BE INCLUDED IN THE PRICE BID FOR SANITARY SEWER OR SANITARY SEWER LATERAL.
- 4. WHEN PIPE IS LAID IN A WET OR SILTY CONDITIONS, THE CONTRACTOR SHALL EXTEND CRUSH STONE TO THE TOP OF SEWER PIPE AND WRAP ALL OF THE CRUSHED STONE WITH AN ACCEPTABLE GEOTEXTILE (TC MIRAFI 140N OR APPROVED EQUAL)





TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

TYPICAL TRENCH FOR SANITARY SEWERS



APPROVED BY: DAP

LAST REVISED:

9/1/2016

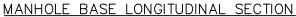
PRECAST

CONCRETE MANHOLE

(STORM & SANITARY)

PLATE NO. 31

H: \DWG\Details\TOG\Standard Detail Plates\Plate31—Manholes.dwg





H: \DWG\Details\TOG\Standard

SCALE: NONE

DRAWN BY: SR

CHECKED BY: SMB

APPROVED BY: DAP

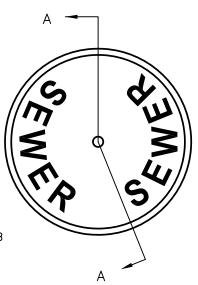
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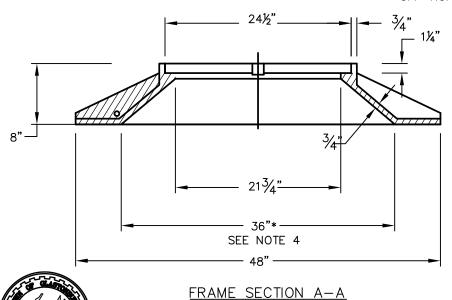
4/29/2008

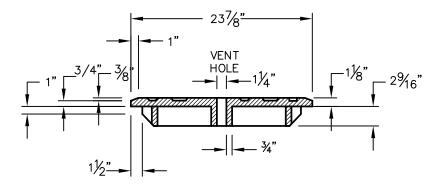
TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

PRECAST MANHOLE OVER EXISTING PIPE

- FRAME & COVER TO BE HEAVY DUTY TOTAL WEIGHT APPROX. 640LBS. ALL SURFACES TO BE MACHINE FINISHED.
- 2. FRAME AND COVERS SHALL BE CAMPBELL FOUNDRY #1221 5012 "METROPOLITAN DISTRICT COMMISSION" OR EAST JORDAN IRON WORKS #00220513 (FRAME) WITH #00220546 (SEWER COVER) OR #00220527 (STORM COVER) "HARTFORD MDC" OR APPROVED EQUAL.
- STORM COVER MUST HAVE "STORM" OR "DRAIN" EMBOSSED ON IT.
- 4. MANHOLE FRAMES WITH 24" I.D. FLANGES MAY BE USED ON STRUCTURES THAT ARE NOT MANHOLES (EG: SED. STRUCTURE, FIRE TANK, CB CONVERSIONS, ETC.)
- 5. BOLTED FRAMES AND COVERS SHALL BE PROVIDED FOR ALL MANHOLES INSTALLED IN OFF-ROAD LOCATIONS AS SHOWN ON PLATE 34.







COVER SECTION A-A

SCALE: NONE

DRAWN BY: SR

CHECKED BY: SMB

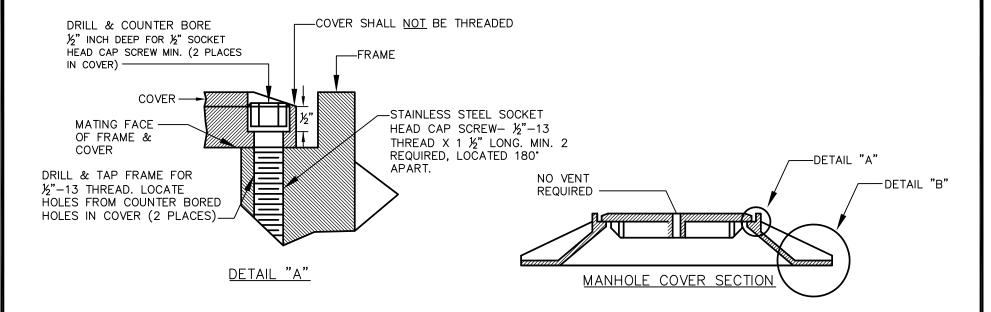
APPROVED BY: DAP

LAST REVISED:

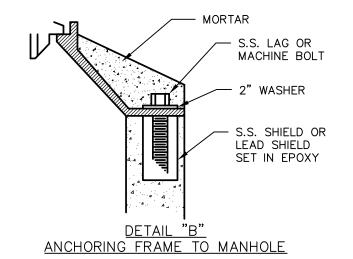
9/1/2016

TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

MANHOLE FRAME AND COVER



- BOLTED FRAME AND COVER SHALL BE INSTALLED IN ALL OFF-ROAD AREAS.
- 2. EACH FRAME & COVER SET WILL BE MARKED FOR IDENTIFICATION TO INSURE THAT THE PROPER COVER IS INSTALLED WITH ITS DRILLED AND TAPPED FRAME THE COVER IS NOT TO BE TAPPED.
- 3. BOLTED FRAME AND COVER SHALL BE FURNISHED WITH AN APPROVED RUBBER GASKET.
- 4. WHEN MANHOLES ARE TO BE LOCATED OUTSIDE OF TRAVEL WAYS AND THE TOP OF THE FRAMES ARE TO BE ABOVE TOP OF GROUND, THE MANHOLE IS TO BE BUILT WITHOUT BRICKS AND THE FRAME SHALL BE ANCHORED TO THE PRECAST MANHOLE CONE OR FLATTOP AS SHOWN.
- 5. THE SEAL BETWEEN THE BASE OF THE FRAME AND THE MANHOLE WALL SHALL BE MADE WITH MORTAR.
- THE WORK BETWEEN THE MANHOLE FRAME AND THE PRECAST SECTION SHALL BE WATERPROOFED WITH PARGING AND TWO (2) COATS OF ACCEPTABLE ASPHALT BASED COATING.



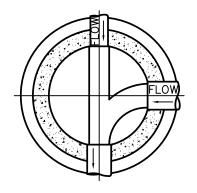
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APPROVED BY: DAP

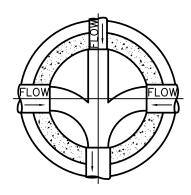
LAST REVISED:
9/1/2016

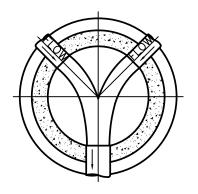
TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

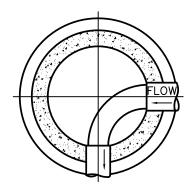
BOLTED MANHOLE FRAME AND COVER







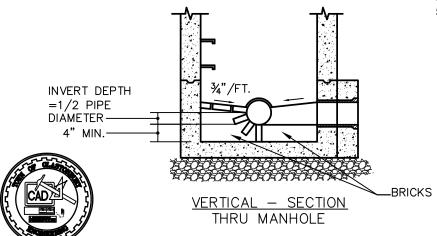




HORIZONTAL SECTIONS OF MANHOLE BASE

NOTES:

- 1. THE SURFACE OF THE WATER TABLE SHALL BE CONSTRUCTED OF APPROVED SEWER BRICKS LAID FLAT AND RUNNING PARALLEL TO THE CHANNEL WITH A MINIMUM CROSS SLOPE OF ¾"/L.F.
- 2. THE BRICKS THAT FORM THE CHANNEL SHALL BE LAID WITH THE SIDE OF THE BRICKS EXPOSED IN THE CHANNEL.
- 3. THE TOP COURSE OF BRICKS FORMING THE CHANNEL SHALL BE LAID PERPENDICULAR TO THE CHANNEL.
- 4. THERE SHALL BE A SMOOTH TRANSITION FROM INLET TO OUTLET.
- 5. PRECAST INVERTS ARE NOT ACCEPTABLE.

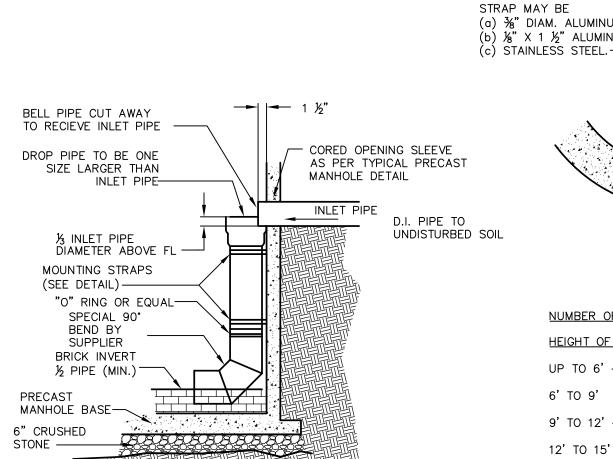


CHECKED BY: SMB
APPROVED BY: DAP

LAST REVISED:
9/1/2016

TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

MANHOLE INVERTS (STORM AND SANITARY)



(a) %" DIAM. ALUMINUM
(b) %" X 1 ½" ALUMINUM
(c) STAINLESS STEEL.

PIPE

STAINLESS STEEL

SHIELDS
OR LEAD
SHIELDS SET
IN EPOXY.

NUMBER OF STRAPS REQUIRED

STRAP DETAIL

HEIGHT OF DROP	STE	RAPS
UP TO 6'		2
6' TO 9'		3
9' TO 12'		4
12' TO 15'		5
15' TO 18'		6
18' TO 21'		7

NOTES:

- 1. ALL DROPS OVER 18" IN HEIGHT SHALL BE CONSTRUCTED PER THIS DETAIL.
- 2. INSIDE DROPS CONSTRUCTED WITHIN AN EXISTING SEWER MANHOLE CAN BE PLACED ON THE TABLE AND THE END OF THE PIPE CUT AT AN ANGLE TO MATCH INVERT CHANNEL.

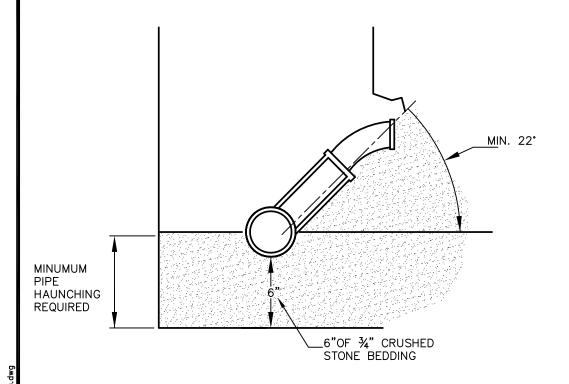


LAST REVISED: 9/1/2016



TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

INSIDE DROP FOR SANITARY SEWER MANHOLE



VERTICAL CL

THICKER WALL R.C.P. MAY HAVE PIPE

- 6" STUB

THICKER WALL R.C.P. MAY HAVE PIPE STUB COMPLETELY ENCLOSED IN PIPE.

TYPICAL R.C.P. INLET

EXCAVATE BY HAND INTO EDGE OF TRENCH & INSTALL WYE BRANCH & CAPPED 6" BEND BOTH BEDDED & HAUNCHED WITH ¾" CRUSHED STONE TAMPED IN PLACE UNDER AND AROUND THE WYE & BEND.

TYPICAL CAPPED BRANCH FOR SEWER MAIN 12" OR LARGER

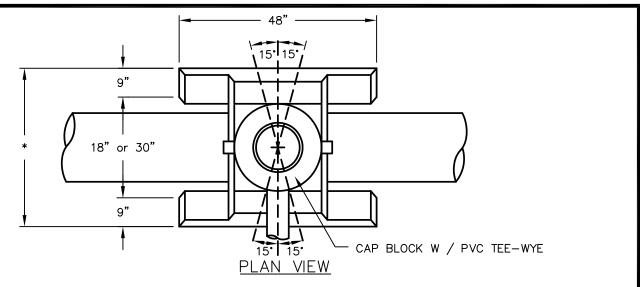


SCALE: NONE
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CHECKED BY: SMB
APPROVED BY: DAP

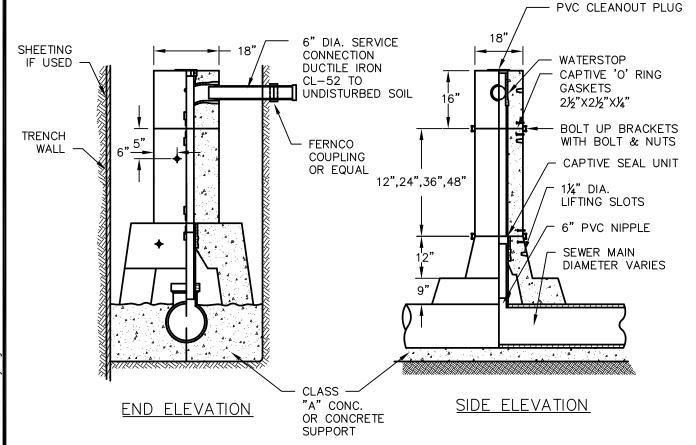
LAST REVISED:
4/29/2008

TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

INLET DETAILS FOR SANITARY SEWER



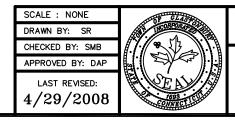
*36" BRIDGE SECTION FOR MAINLINE PIPE DIAMETER THRU 15". 48" BRIDGE SECTION FOR PIPE DIAMETER 18" AND LARGER.



DESIGN SPECIFICATIONS

- 1. CONCRETE STRENGTH 5,000 PSI @ 28 DAYS DENSITY 150 PCF.
- 2. CEMENT PER ASTM C150-81.
- 3. AIR ENTRAINING PER ASTM C233-82.
- 4. REINFORCING PER ASTM A615.
- 5. FILL VOID UNDER BRIDGE SECTION WITH SUITABLE BEDDING MATERIAL.

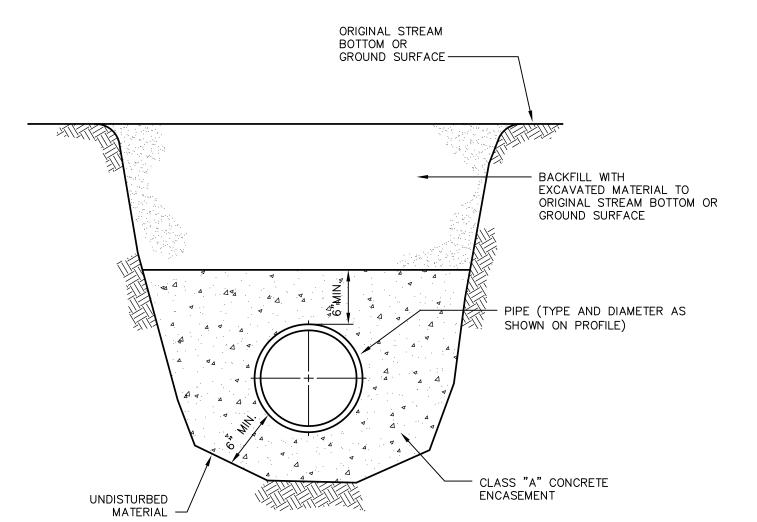




TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

PRECAST CONCRETE SEWER CHIMNEY





- 1. THE PIPE SHALL BE PROPERLY SECURED TO PREVENT DISPLACEMENT DURING THE POURING OF CONCRETE ENCASEMENT.
- 2. LIMIT OF CONCRETE ENCASEMENT SHALL BE SHOWN ON THE PROFILE OR AS DIRECTED.

SCALE : NONE
DRAWN BY: SR
CHECKED BY: SMB
APPROVED BY: DAP

LAST REVISED: 4/29/2008



TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

CONCRETE ENCASEMENT FOR SANITARY SEWER

APPROVED BY: DAP

LAST REVISED:

4/29/2008

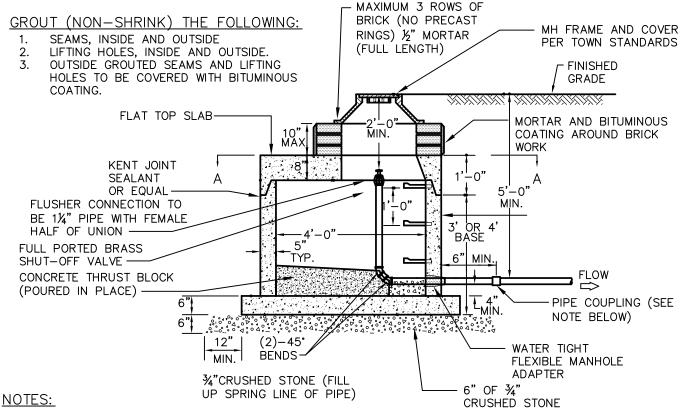
IMPERVIOUS

CLAY BARRIER FOR

SANITARY SEWER TRENCH

PLATE NO. 40

H: \DWG\Details\TOG\Standard Detail Plates\Plate40—Clayt



 BOTTOM STEP TO BE A MAXIMUM OF 1'-4" FROM FLOOR OF MANHOLE.

- CONCRETE BRICK AND/OR PORTLAND CEMENT MORTAR TO BE USED UNDER FRAME.
- PIPE AND FITTING SHALL HAVE PRESSURE RATING OF NO LESS THAN 300 P.S.I.
- PIPE COUPLINGS SHALL BE CAST DUCTILE IRON JCM MODEL 211, ROMAC MODEL 501 OR 511, FORD MODEL FC1 OR APPROVED EQUAL.
- ALL PIPE AND FITTINGS WITHIN MANHOLE STRUCTURE TO BE BRASS.

ELEVATION

SEE THE TOWN OF GLASTONBURY SPECIFICATIONS FOR ADDITIONAL INSTALLATION INFORMATION.



Detail

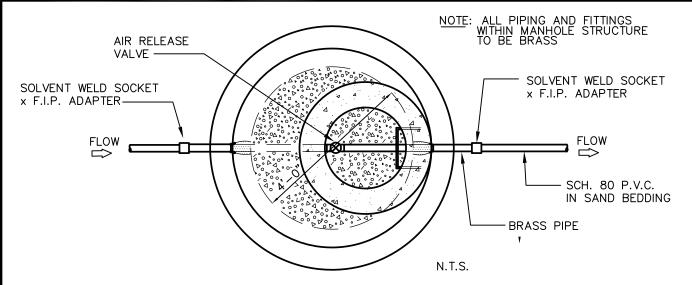
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APPROVED BY: DAP

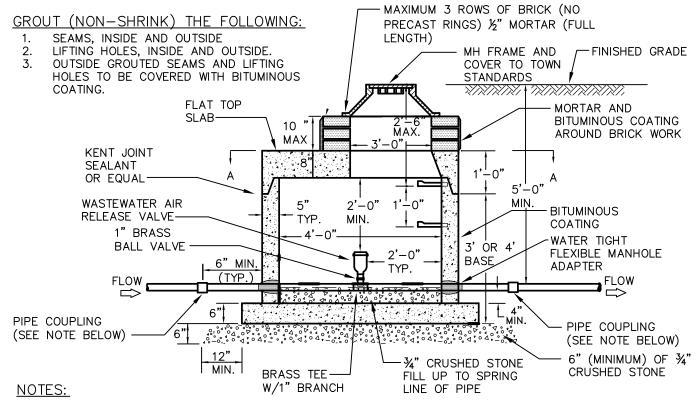
LAST REVISED:
4/29/2008

TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

DEAD END MANHOLE FOR FORCED SEWER MAINS



SECTION A-A

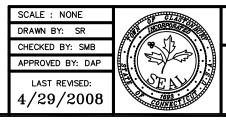


- BOTTOM STEP TO BE A MAXIMUM OF 1'-4" FROM FLOOR OF MANHOLE.
- CONCRETE BRICK AND/OR PORTLAND CEMENT MORTAR TO BE USED UNDER FRAME.
- PIPE AND FITTING SHALL HAVE PRESSURE RATING OF NO LESS THAN 300 P.S.I.
- PIPE COUPLINGS SHALL BE CAST DUCTILE IRON JCM MODEL 211, ROMAC MODEL 501 OR 511, FORD MODEL FC1 OR APPROVED EQUAL.
- 5. ALL PIPING AND FITTINGS WITH IN MANHOLE STRUCTURE TO BE BRASS.

ELEVATION

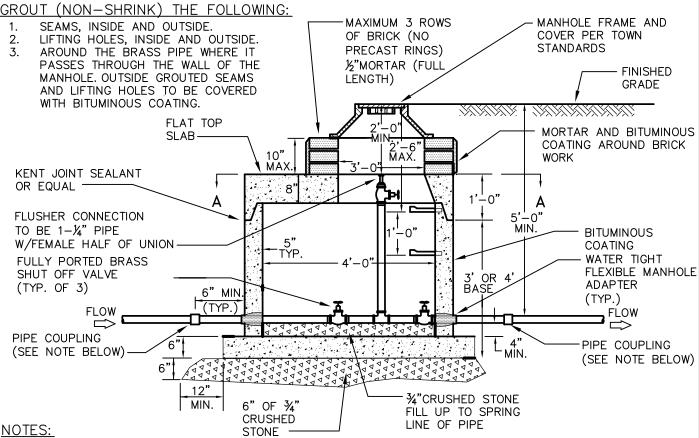
SEE THE TOWN OF GLASTONBURY SPECIFICATIONS FOR ADDITIONAL INSTALLATION INFORMATION.





TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

AIR RELEASE VALVE
MANHOLE
FOR FORCE SEWER MAINS



 BOTTOM STEP TO BE A MAXIMUM OF 1'-4" FROM FLOOR OF MANHOLE.

ELEVATION

- 2. CONCRETE BRICK AND/OR PORTLAND CEMENT MORTAR TO BE USED UNDER FRAME.
- PIPE AND FITTING SHALL HAVE PRESSURE RATING OF NO LESS THAN 300 P.S.I.
- PIPE COUPLINGS SHALL BE CAST DUCTILE IRON JCM MODEL 211, ROMAC MODEL 501 OR 511, FORD MODEL FC1 OR APPROVED EQUAL.
- ALL PIPING AND FITTINGS WITH IN MANHOLE STRUCTURE TO BE BRASS.

SEE THE TOWN OF GLASTONBURY SPECIFICATIONS FOR ADDITIONAL INSTALLATION INFORMATION.



Plates\Plate43-ForcedSewerInLineAccessMH.dwg

Detail

\DWG\Details\TOG\Standard

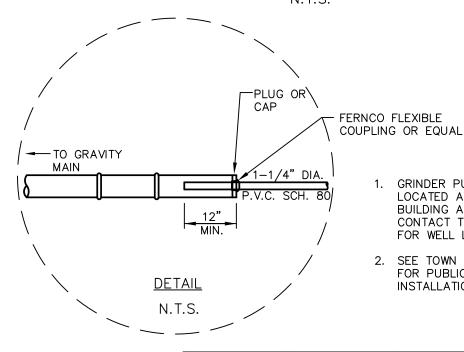
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APPROVED BY: DAP

LAST REVISED:
4/29/2008

TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

INLINE ACCESS MANHOLE FOR FORCE SEWER MAINS

FORCE LATERAL INSTALLATION (BUILDING TO GRAVITY MAIN) N.T.S.



NOTES

- . GRINDER PUMP CHAMBER SHALL BE LOCATED A MINIMUM OF 10 FEET FROM THE BUILDING AND 75 FEET FROM ANY WELL. CONTACT THE TOWN HEALTH DEPARTMENT FOR WELL LOCATION INFORMATION.
- SEE TOWN OF GLASTONBURY STANDARDS FOR PUBLIC IMPROVEMENTS FOR ADDITIONAL INSTALLATION REQUIREMENTS.



SCALE : NONE
DRAWN BY: SR

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APPROVED BY: DAP

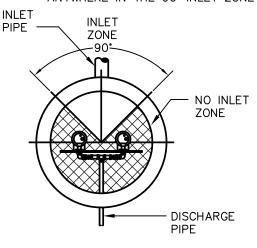
LAST REVISED: 9/1/2016



TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

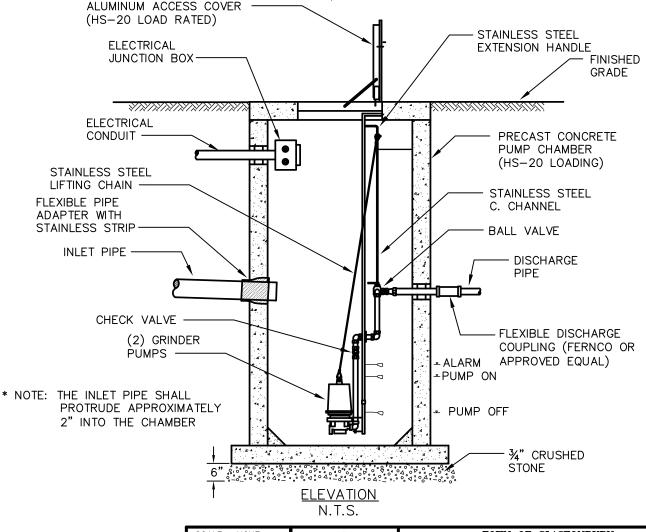
FORCE LATERAL CONNECTION TO GRAVITY SEWER

*NOTE: INLET PIPE MAY BE INSTALLED ANYWHERE IN THE 90° INLET ZONE



SECTION INLET PIPE LOCATIONS DETAIL NOTES:

- THE MINIMUM SIZE FOR FORCE BUILDING SEWERS AND PUMP
- DISCHARGE PIPING SHALL BE $1-\ \mbox{$\frac{1}{4}$}$ " NOMINAL DIAMETER. THE GRINDER PUMP AND DISCHARGE LINES SHALL BE SIZED BY THE OWNER'S ENGINEER TO ACCOMODATE PROJECTED USAGES.
- THE BALL POCKET OF THE CHECK VALVE MUST BE SET VERTICALLY ABOVE THE AXIS OF THE DISCHARGE PIPE.
- THE INLET PIPE MUST HAVE A MINIMUM OF 36" COVER AND BE A MINIMUM OF 30" FROM THE BOTTOM OF THE
- THE PUMP CHAMBER SHALL BE SET FLUSH WITH FINAL FINISHED GRADE IN PAVED AREAS. THE ACCESS COVER SHALL BE RATED FOR HS-20 LOADING, IN NON PAVED AREAS THE CHAMBER SHALL BE SET 6" ABOVE FINAL FINISHED GRADE.
- A MINIMUM STORAGE CAPACITY OF 300 GALLONS SHALL BE PROVIDED.
- 7. GRINDER PUMP CHAMBER SHALL NOT BE INSTALLED WITHIN 10' OF A BUILDING OR 75' OF AN EXISTING WELL.
- 8. ELECTRIC WORK SHALL BE PER ELECTRICAL PERMIT REQUIREMENTS FROM TOWN BUILDING DEPARTMENT. SECTION 5.11.3 OF THE TOWN STANDARDS FOR PUBLIC IMPROVEMENTS FOR ADDITIONAL INSTALLATION REQUIREMENTS.







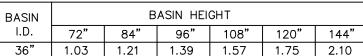
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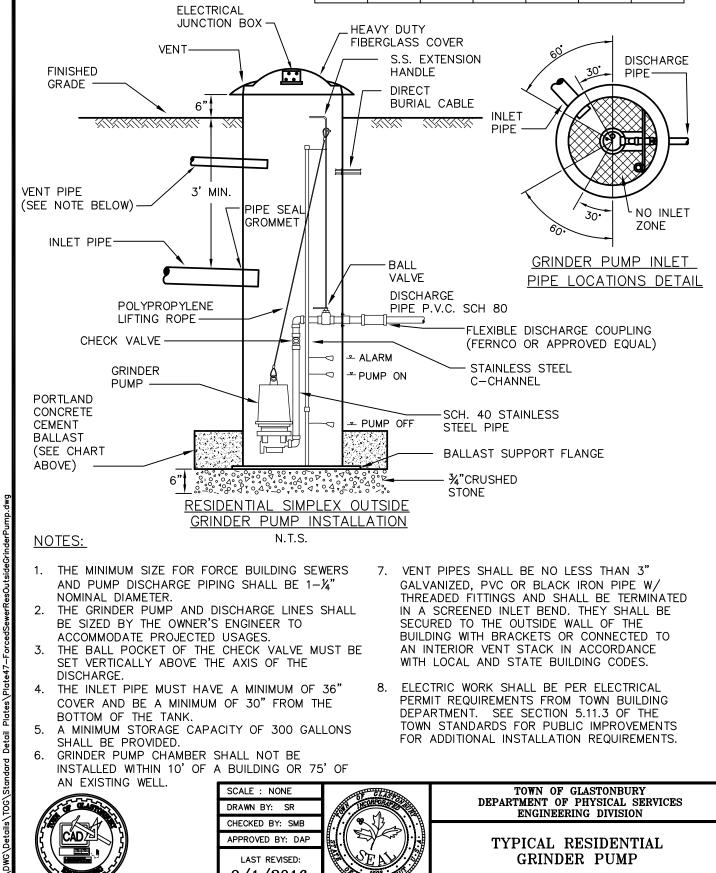
9/1/2016



TOWN OF GLASTONBURY DEPARTMENT OF PHYSICAL SERVICES ENGINEERING DIVISION

> TYPICAL DUPLEX GRINDER PUMP





- 1. THE MINIMUM SIZE FOR FORCE BUILDING SEWERS AND PUMP DISCHARGE PIPING SHALL BE 1-1/4" NOMINAL DIAMETER.
- 2. THE GRINDER PUMP AND DISCHARGE LINES SHALL BE SIZED BY THE OWNER'S ENGINEER TO ACCOMMODATE PROJECTED USAGES.
- 3. THE BALL POCKET OF THE CHECK VALVE MUST BE SET VERTICALLY ABOVE THE AXIS OF THE DISCHARGE.
- 4. THE INLET PIPE MUST HAVE A MINIMUM OF 36" COVER AND BE A MINIMUM OF 30" FROM THE
- BOTTOM OF THE TANK.
 A MINIMUM STORAGE CAPACITY OF 300 GALLONS SHALL BE PROVIDED.
- GRINDER PUMP CHAMBER SHALL NOT BE INSTALLED WITHIN 10' OF A BUILDING OR 75' OF AN EXISTING WELL.
- 7. VENT PIPES SHALL BE NO LESS THAN 3" GALVANIZED, PVC OR BLACK IRON PIPE W/ THREADED FITTINGS AND SHALL BE TERMINATED IN A SCREENED INLET BEND. THEY SHALL BE SECURED TO THE OUTSIDE WALL OF THE BUILDING WITH BRACKETS OR CONNECTED TO AN INTERIOR VENT STACK IN ACCORDANCE WITH LOCAL AND STATE BUILDING CODES.
- 8. ELECTRIC WORK SHALL BE PER ELECTRICAL PERMIT REQUIREMENTS FROM TOWN BUILDING DEPARTMENT. SEE SECTION 5.11.3 OF THE TOWN STANDARDS FOR PUBLIC IMPROVEMENTS FOR ADDITIONAL INSTALLATION REQUIREMENTS.



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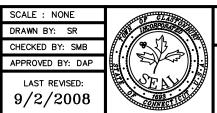
N.T.S.



TOWN OF GLASTONBURY DEPARTMENT OF PHYSICAL SERVICES ENGINEERING DIVISION

TYPICAL RESIDENTIAL GRINDER PUMP

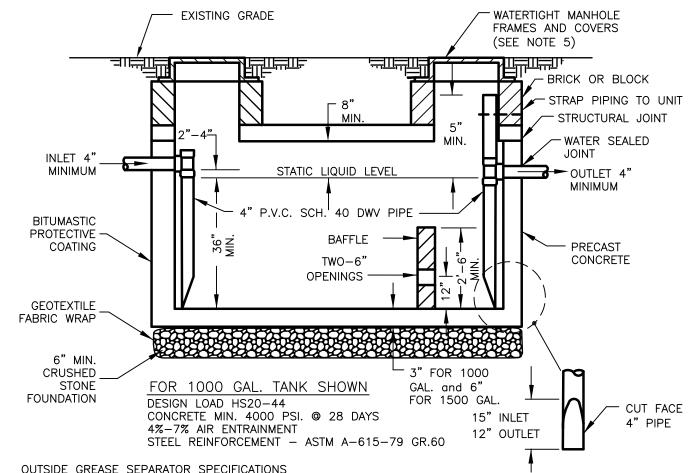




TOWN OF GLASTONBURY
DEPARTMENT OF PHYSICAL SERVICES
ENGINEERING DIVISION

TYPICAL SANITARY CURB BOX

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OUTSIDE GREASE SEPARATOR SPECIFICATIONS

- TANK SHALL HAVE A MINIMUM CAPACITY SUFFICIENT TO PRE—TREAT THE MAXIMUM DAILY FLOW PROPOSED WITH A RETENTION TIME OF AT LEAST 24 HOURS AND A CAPACITY OF NO LESS THAN 1000 GALLONS PER FOOD SERVICE ESTABLISHMENT. TANK SHALL BE WATERTIGHT AND CONSTRUCTED OF PRECAST CONCRETE.
- 2. EXTERIOR OF THE TANK AND EXTENSION GRADE MANHOLES SHALL BE COATED WITH A WATERPROOF FOUNDATION SEALANT. THIS INCLUDES THE TANK EXTERIORS TOP AND BOTTOM.
- 3. STRUCTURAL SEAM OF THE TANK SHALL BE FILLED IN WITH NON-SHRINKING CEMENT OR WATER PLUG AND COATED WITH A WATERPROOF SEALANT.
- VOIDS BETWEEN INLET AND OUTLET PIPING OF THE TANK SHALL BE GROUTED WITH NON-SHRINKING CEMENT AND COATED WITH A WATERPROOF SEALANT.
- THE TANK SHALL HAVE EXTENSIONS TO GRADE ABOVE THE INLET AND OUTLET PIPING. THE EXTENSIONS SHALL HAVE WATERTIGHT, GASKETED MANHOLE COVERS LABELED "SEWER" AND BE A MINIMUM OF 24 INCHES IN DIAMETER. MANHOLE FRAMES SHALL BE BOLTED TO THE EXTENSION UNLESS INSTALLED WITHIN PAVED AREAS.
- THE OUTLET PIPING SHALL UTILIZE A TEE-PIPE ON THE INTERIOR OF THE TANK. THE TEE-PIPE SHALL BE EQUIPPED WITH A STAND PIPE RISER EXTENDING UP THE EXTENSION TO GRADE BUT NO CLOSER THAN EIGHT (8) INCHES FROM THE MANHOLE COVER. THE TEE-PIPE SHALL EXTEND TO TWELVE (12) INCHES FROM THE BOTTOM OF THE TANK AND AT LEAST 5" ABOVE THE STATIC LIQUID LEVEL.
- 7. THE HORIZONTAL STRUCTURAL SEAM OF THE TANK SHALL BE LOCATED ABOVE THE STATIC LIQUID LEVEL OF THE TANK.
- THE INCOMING PIPE SHALL NOT INCLUDE ANY SOURCES OF DOMESTIC WASTEWATER OR STORM WATER. THE OUTLET PIPE SHALL BE CONNECTED TO THE SANITARY SEWER. THE OUTLET PIPE SHALL BE AT LEAST THE SIZE OF THE INLET PIPE OR GREATER AND AT A MINIMUM SHOULD BE 4.0 INCHES IN DIAMETER.
- 9. IF HEAVY PIPING, SUCH AS CAST IRON IS USED, ALL PIPING MUST BE STRUCTURALLY SECURED.
- 10. THE GREASE TRAP/FOG INTERCEPTOR SHALL BE SET LEVEL ON A CONSOLIDATED, STABLE BASE SO THAT NO SETTLING OR TIPPING OF GREASE TRAP/FOG INTERCÉPTOR CAN OCCUR.
- 11. GREASE TRAP / FOG INTERCEPTOR UNIT MUST COMPLY WITH CURRENT CONNECTICUT DEEP GENERAL PERMIT FOR THE DISCHARGE OF WASTEWATER ASSOCIATED WITH FOOD SERVICE ESTABLISHMENTS REQUIREMENTS FOR TREATMENT.
- 12. GREASE TRAP / FOG INTERCEPTOR UNIT SHALL BE LOCATED A MINIMUM OF 15 FEET FROM ANY BUILDING SERVED.
- 13. ADDITIONAL SEPARATION DISTANCES SHALL BE REFERENCED IN THE CONNECTICUT PUBLIC HEALTH CODE SECTION II—LOCATION OF SUBSURFACE SEWAGE DISPOSAL SYSTEMS—TABLE NO. 1.



SCALE: NONE DRAWN BY: SR CHECKED BY: SMB APPROVED BY: DAP LAST REVISED: 1/5/2017

TOWN OF GLASTONBURY DEPARTMENT OF PHYSICAL SERVICES ENGINEERING DIVISION

OUTSIDE GREASE **SEPARATOR** FOR KITCHEN WASTE LINES