

WASTEWATER

PVC NON-PRESSURE PIPE

4" - 16"
18" - 48"

Minimum Requirements:

4" -16":

- Meet or exceed ASTM D3034 for SDR-35 and ASTM D2241 for SDR-26 Class 160 PVC.
- Be **Green** in color.
- UV faded pipe will not be accepted
- Minimum pipe stiffness at 5% deflection shall be 46 psi unless otherwise specified.

18" - 48":

- Meet or exceed ASTM F679, D1784 and D2412.
- The Type shall be T-1A or T-2B
- Be **Green** in color.
- UV faded pipe will not be accepted
- Minimum pipe stiffness shall be 46 unless otherwise specified.



PRE-APPROVED MANUFACTURES:

4" - 16":

- JM Eagle
- NAPCO/ Westlake
- Diamond Plas-tics
- Certainteed
- Vinyl Tech
- Plastic Trends
- PipeLife Jet Stream
- Royal Pipe
- Sanderson Pipe
- TDR PVC Pipe
- ◆ SDR-26 PVC
- ◆ ASTM D2241
- ◆ Class 160 PVC

4" - 15":

- JM Eagle
- NAPCO/ Westlake
- Diamond Plas-tics
- PipeLife Jet Stream
- Vinyl Tech
- Plastic Trends
- Royal Pipe
- Sanderson Pipe
- TDR PVC Pipe
- ◆ SDR-35
- ◆ ASTM D3034

18" -48":

- ◆ ASTM D1784
- ◆ ASTM D2412
- ◆ ASTM F679
- JM Eagle "Perma-Loc"
- Vinyl Tech(18"-24")
- NAPCO
- PipeLife Jet Stream
- Diamond Plastic

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WW 1.0

Minimum Requirements:

HDPE:

- Meet or exceed ASTM:
 - F714
 - D3035
- Meet or exceed AWWA:
 - C901 (¾" - 2")
 - C906
- Fitting standards shall meet or exceed ASTM:
 - D3261
 - F1055
 - F1751
 - F2206
 - D2683
- Pipe shall be manufactured from approved pipe grade, PPI Listed, Extra High Molecular Weight, High Density PE3408 material.

PVC:

- Meet or exceed ASTM:
 - D2241
 - D1785
 - F1674
 - Cell Class 12454 per ASTM 1784
- Meet or exceed AWWA:
 - C900
 - C905
- Meets or exceed NSF 61-G to AWWA C900 and NSF-14 (NSF-pw) to AWWA C900

Combined:

- Meet or exceed ASTM:
 - D638
 - D2837
 - D638
 - D1505
 - D696
- Sewer pipe to have a **green** spline



PRE-APPROVED MANUFACTURES:

HDPE:

- ◆ PLEXCO P34CH PE3408 HDPE
- ◆ ASTM F714

PVC:

- ◆ Fusible C900®
- ◆ Fusible C-905®
- ◆ FPVC®

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WW 2.0

WASTEWATER

MANHOLES: NEW - EXTENSION RING(S) & RING & LID

Minimum Requirements:

Ring and Lid:

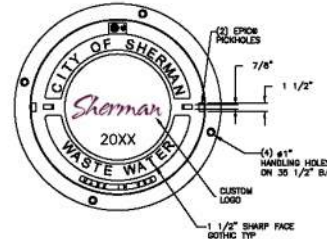
- Conform to HS-20 loading
- Materials conform to ASTM A48, Class 35B gray iron.
- Contain 2 - Epic® pick holes.
- Shall have City of Sherman logo.
- Domestic materials only.

Concrete Extension/Grade Rings:

- All concrete grade rings are to conform to ASTM C478.
- Conform to HS-20 load ratings.
- Includes a bead of ASTM C920, Type 'M', Grade NS, Class 25 sealant between each ring placed.
- 3 - 304 Stainless steel bolts, 3/4" diameter and the length to penetrate a minimum of 6" into the cone from the frame. Secured with epoxy.
- Extension/Grade ring to be from the same supplier as the pre-cast manhole sections and cone.

Steel Extension/Grade Rings:

- Extension/Grade rings required to be from the same manufacturer as the ring and lid assembly.
- Conform to ASTM A48, Class 35B gray iron.
- Material to be heavy duty rated, only.
- Domestic material only.
- Solid steel rings only.



PRE-APPROVED MANUFACTURES:

RING AND LID:

- ◆ Bass & Hays VRM-30®
- ◆ EJ - Product Number 001480081A01

CONCRETE EXTENSION/GRADE RING:

- ◆ America MAATCO - Grade Rings 30"
- ◆ Bass & Hays - Concrete Grade Rings, 30"
- ◆ Old Castle - Grade Rings, 30", to be **ONLY** used with Old Castle pre-cast components

CAST IRON EXTENSION/GRADE RING:

- ◆ Bass & Hays VRM-30® Series
- ◆ EJ Riser Rings, Type M1 Solid or Type M7 Solid.

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WW 3.0

WASTEWATER

**MANHOLES:
EXISTING MH CONE -
EXTENSION/GRADE RINGS**

Minimum Requirements:

Concrete Extension/Grade Rings:

- All concrete grade rings are to conform to ASTM C478.
- Conform to HS-20 load ratings.
- Includes a bead of ASTM C920, Type 'M', Grade NS, Class 25 sealant between each ring placed.
- 3 - 304 Stainless steel bolts, 3/4" diameter and the length to penetrate a minimum of 6" into the cone from the frame. Secured with epoxy.

Steel Extension/Grade Rings:

- Extension/Grade rings required to be from the same manufacturer as the ring and lid assembly.
- Conform to ASTM A48, Class 35B gray iron.
- Material to be heavy duty rated, only.
- Domestic material only.
- Solid steel rings only.



PRE-APPROVED MANUFACTURES:

CONCRETE EXTENSION/GRADE RING:

- ◆ America MAATCO - Grade Rings 30"
- ◆ Bass & Hays - Concrete Grade Rings, 30"

CAST IRON EXTENSION/GRADE RING:

- ◆ Bass & Hays VRM-30® Series
- ◆ EJ Riser Rings, Type M1 Solid
- ◆ EJ Riser Rings, Type M7 Solid.

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WW 4.0

WASTEWATER

MANHOLES:

PRE-CAST

Minimum Requirements:

Pre-Cast Manholes:

- Conforms to ASTM C478 and ASTM C443.
- Extension/Grades rings to be interlocking and shall be of the same manufacturer as the pre-cast manhole.
- Pipe connection to be with Kor-N-Seal.

Kor-N-Seal® I or II:

- Conforms to ASTM C923
- Attachment band to conform to ASTM A240, 300 series stainless steel.

Sealed Manholes:

- To be epoxy coated, a minimum of 200 mils.
- Product appropriate primers shall be applied prior to coating the manhole.
- To conform to ASTM G210 and ASTM D4227.

Precast manhole joint gaskets shall, at a minimum, conform to ASTM C443.



PRE-APPROVED MANUFACTURES:

PRE-CAST MANHOLE:

- ◆ Old Castle
- ◆ RINKER
- ◆ The Turner Co.
- ◆ Del Zotto Products of Texas

SEAL:

- ◆ Kor-N-Seal

EPOXY COATING:

- ◆ Raven 405
- ◆ Sprayroq

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Minimum Requirements:

Manhole Drop Appurtenances:

- Constructed from marine grade fiberglass and has an applied gel coat.
- Adjustable clamping brackets are to be in conformance with Type 304 Stainless steel, 11 GA.
- Bolts and washers used for attachment are to be Type 304 stainless steel.

Adaptors:

- Flexible - are to conform to ASTM C1173 and ASTM C425.
- Rigid (support) - are to conform to ASTM C1173 and ASTM C425.

Cleanout:

- Is to be HS-20 traffic rated, when properly installed.
- Uncoated cast gray iron to conform to ASTM A48, CI 30 or better and AASHTO M306.
- Attachment bolts to be Type 304 stainless steel.
- Words "Wastewater Lateral Cleanout" to be cast into the top.

Spacers:

- To be complaint with ISO 9001:2000.
- Made of HDPE



PRE-APPROVED MANUFACTURES:

MANHOLE DROP APPURTENANCES:

- ◆ RELINER (sewer drop)

ADAPTORS:

- ◆ INDIANA SEAL - SHEAR GUARDS®
- ◆ FERNCO - COUPLINGS

CLEANOUT:

- ◆ Bass & Hays - BH 404

CASING SPACERS:

- ◆ Raci
- ◆ Cascade - Phoenix Series CCSPL (Gold)
- ◆ Cascade Phoenix Series CCSPL (Silver)

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Minimum Requirements:

Lift Station Pump:

- Domestic Only.



PRE-APPROVED MANUFACTURES:

LIFT STATION PUMP:

- ◆ SULZER ABS PUMP
- ◆ GRUNDFOS PUMP
- ◆ EBARA PUMP

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