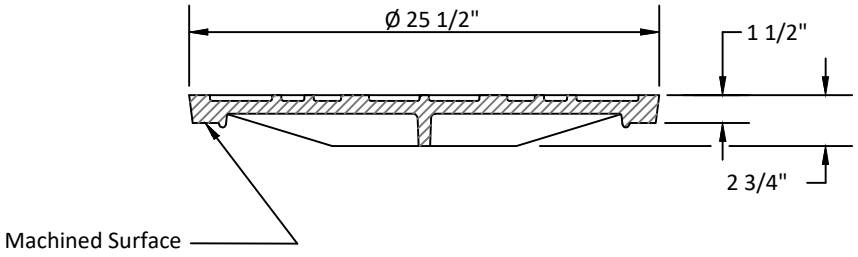
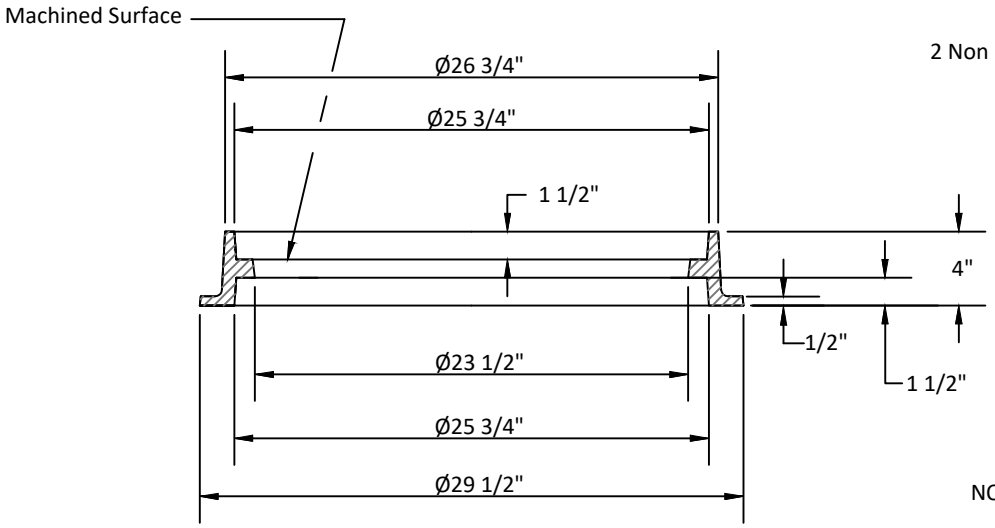
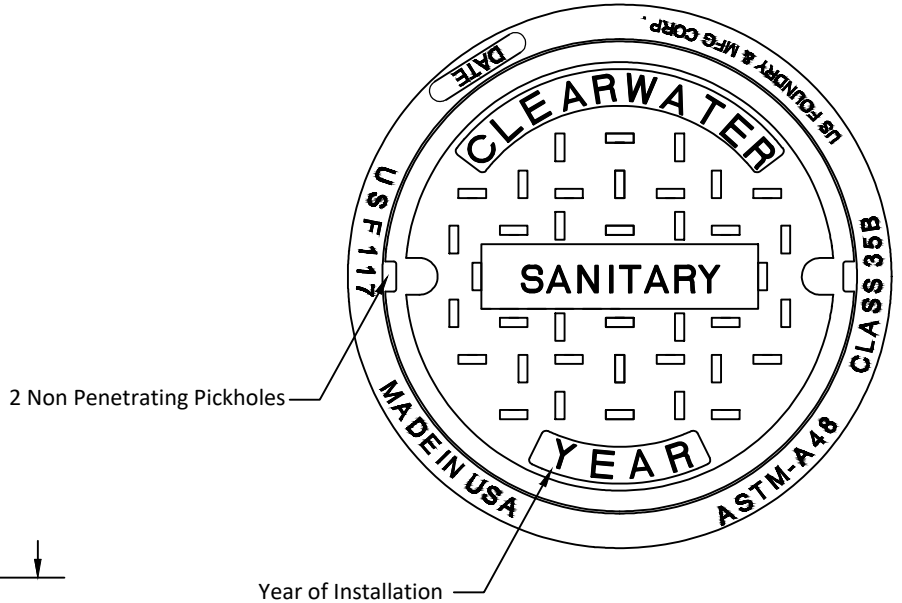


SOLID COVER SECTION
N.T.S.



RING SECTION
N.T.S.

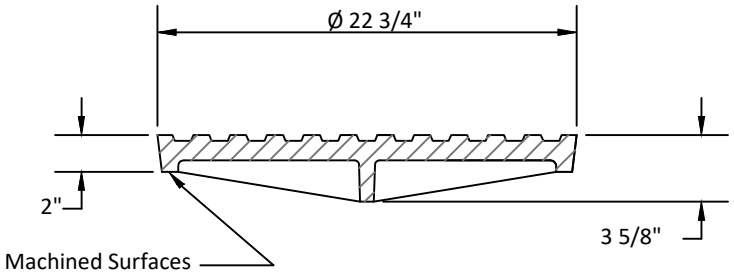


SOLID COVER
N.T.S.

NOTES:

1. U.S. Foundry No. 117 Ring and BL Cover, or Equal, if Approved by City of Clearwater Engineer
2. Private manhole covers must not say "Clearwater" on them
3. Ring must be Centered on Opening
4. Install 18 Gauge 304 Stainless Steel Manhole Stormwater Inflow Abatement Insert (Dish/Pan)
5. See also City of Clearwater's Technical Specification Section IV

CITY OF CLEARWATER PUBLIC WORKS - ENGINEERING 2022 DESIGN STANDARDS	300 SERIES: SANITARY SEWER DETAILS	SANITARY SEWER MANHOLE COVER NON-ROADWAY APPLICATION	INDEX NO. 301 / PAGE NO. 1 OF 3 LATEST REVISION 03/20/2020



SOLID COVER SECTION

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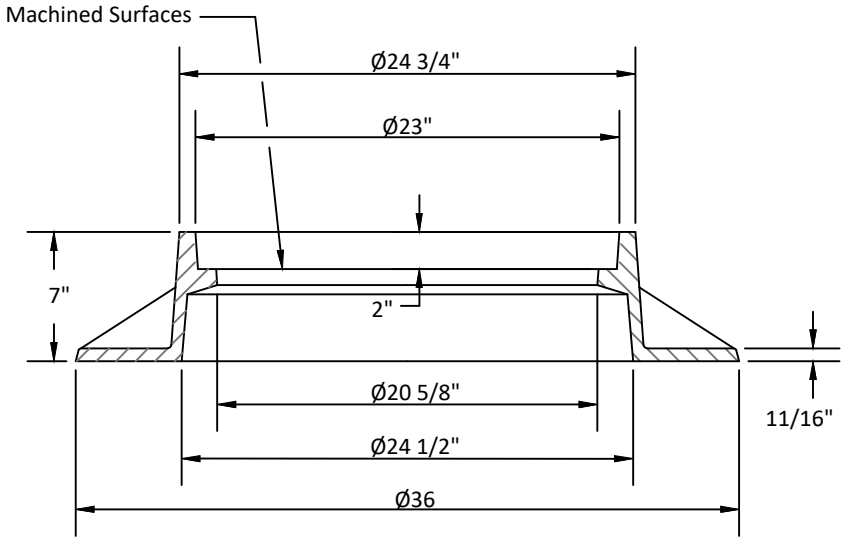

RING SECTION

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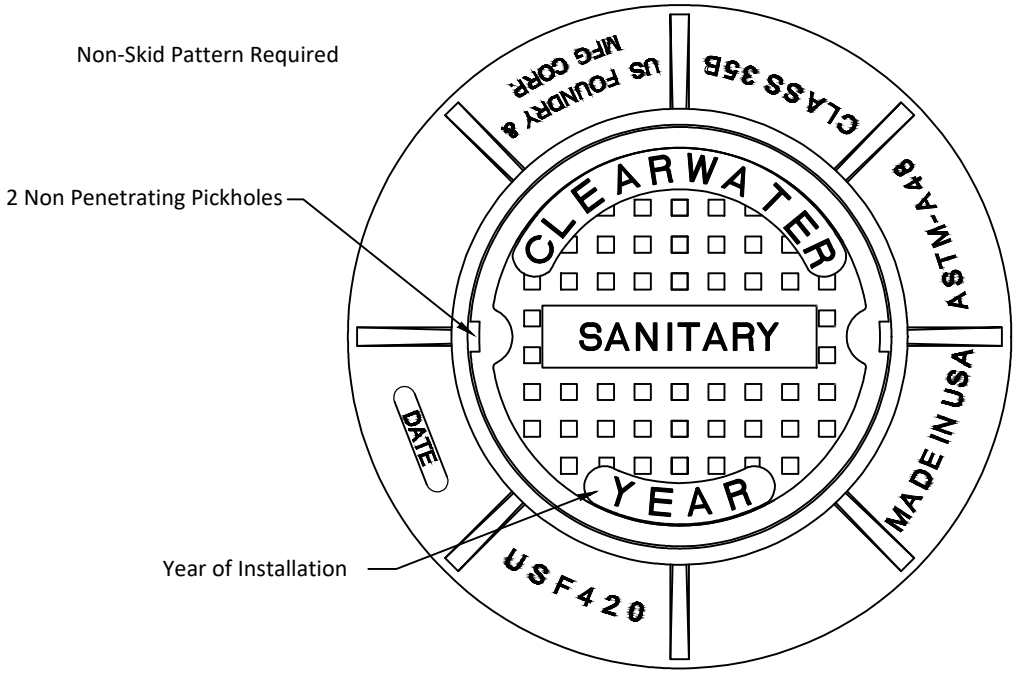
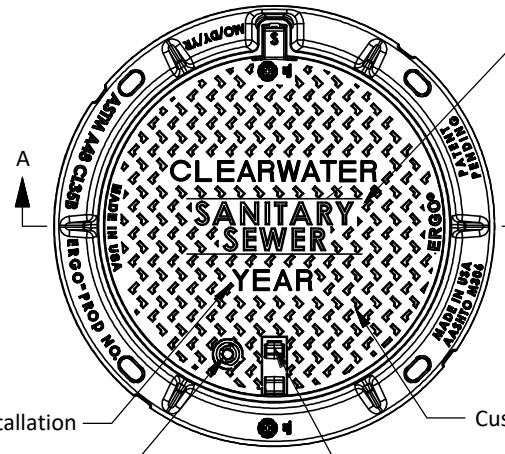


SOLID COVER

N.T.S.

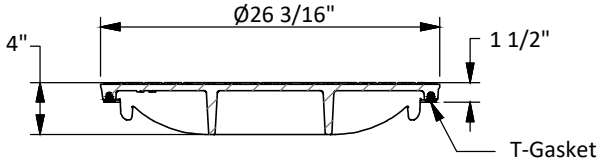
NOTES:

1. Where Roadway Base is 8" or Thicker, use 9" Ring
2. Manufacturer's Model USF 420 Ring & G Cover, or Equal, if Approved by City of Clearwater Engineer
3. Heavy Traffic (Multi-lane) with Cover Located in Travel Lane will Require Ring and Cover by EJ Group ERGO Assembly, Product Number 00104083L0 or Equal - See Index 301 Page 3 of 3
4. Private Manhole Covers must not say "Clearwater" on them
5. Ring must be Centered on Opening
6. Install 18 Gauge 304 Stainless Steel Manhole Stormwater Inflow Abatement Insert (Dish/Pan)
7. See also City of Clearwater's Technical Specification Section IV



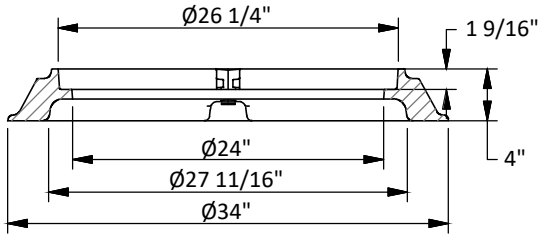
SOLID COVER

N.T.S.



SOLID COVER SECTION

N.T.S.

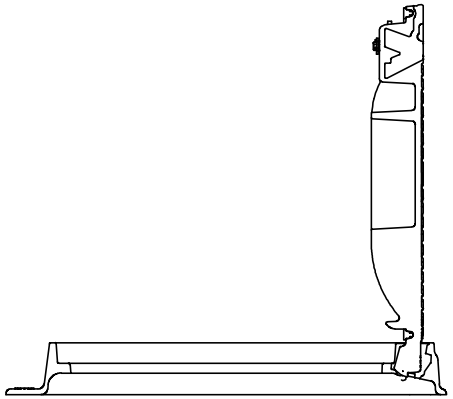


RING SECTION

N.T.S.

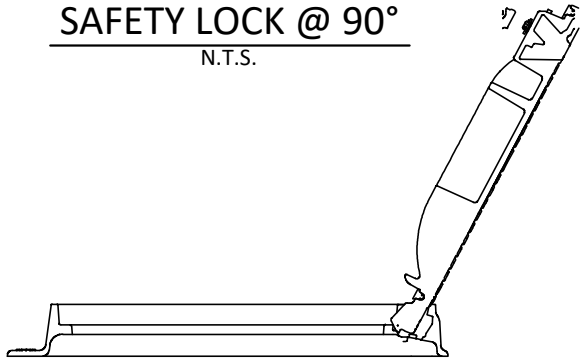
NOTES:

1. Manufacturer's Model: EJ Group ERGO Assembly, Product Number 00104083L01 or Equal, if Approved by City of Clearwater Engineer
2. See also City of Clearwater's Technical Specification Section IV



SAFETY LOCK @ 90°

N.T.S.



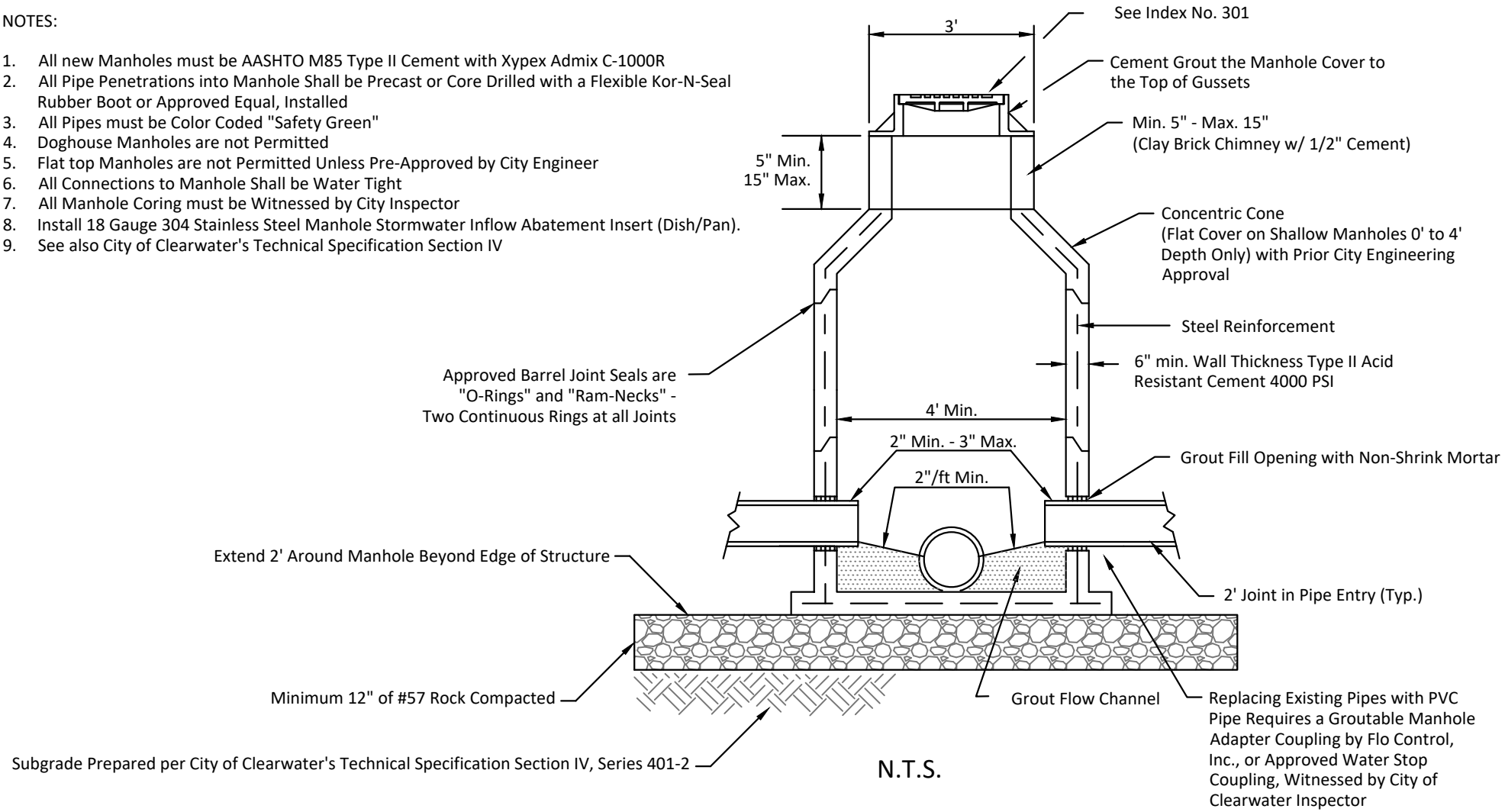
FULLY OPENED @ 120°

N.T.S.

CITY OF CLEARWATER PUBLIC WORKS - ENGINEERING 2022 DESIGN STANDARDS	300 SERIES: SANITARY SEWER DETAILS	SANITARY SEWER MANHOLE COVER FOR ROADWAY APPLICATION - FDOT ROADWAY	INDEX NO. 301 PAGE NO. 3 OF 3 LATEST REVISION 03/23/2020

NOTES:

1. All new Manholes must be AASHTO M85 Type II Cement with Xypex Admix C-1000R
2. All Pipe Penetrations into Manhole Shall be Precast or Core Drilled with a Flexible Kor-N-Seal Rubber Boot or Approved Equal, Installed
3. All Pipes must be Color Coded "Safety Green"
4. Doghouse Manholes are not Permitted
5. Flat top Manholes are not Permitted Unless Pre-Approved by City Engineer
6. All Connections to Manhole Shall be Water Tight
7. All Manhole Coring must be Witnessed by City Inspector
8. Install 18 Gauge 304 Stainless Steel Manhole Stormwater Inflow Abatement Insert (Dish/Pan).
9. See also City of Clearwater's Technical Specification Section IV

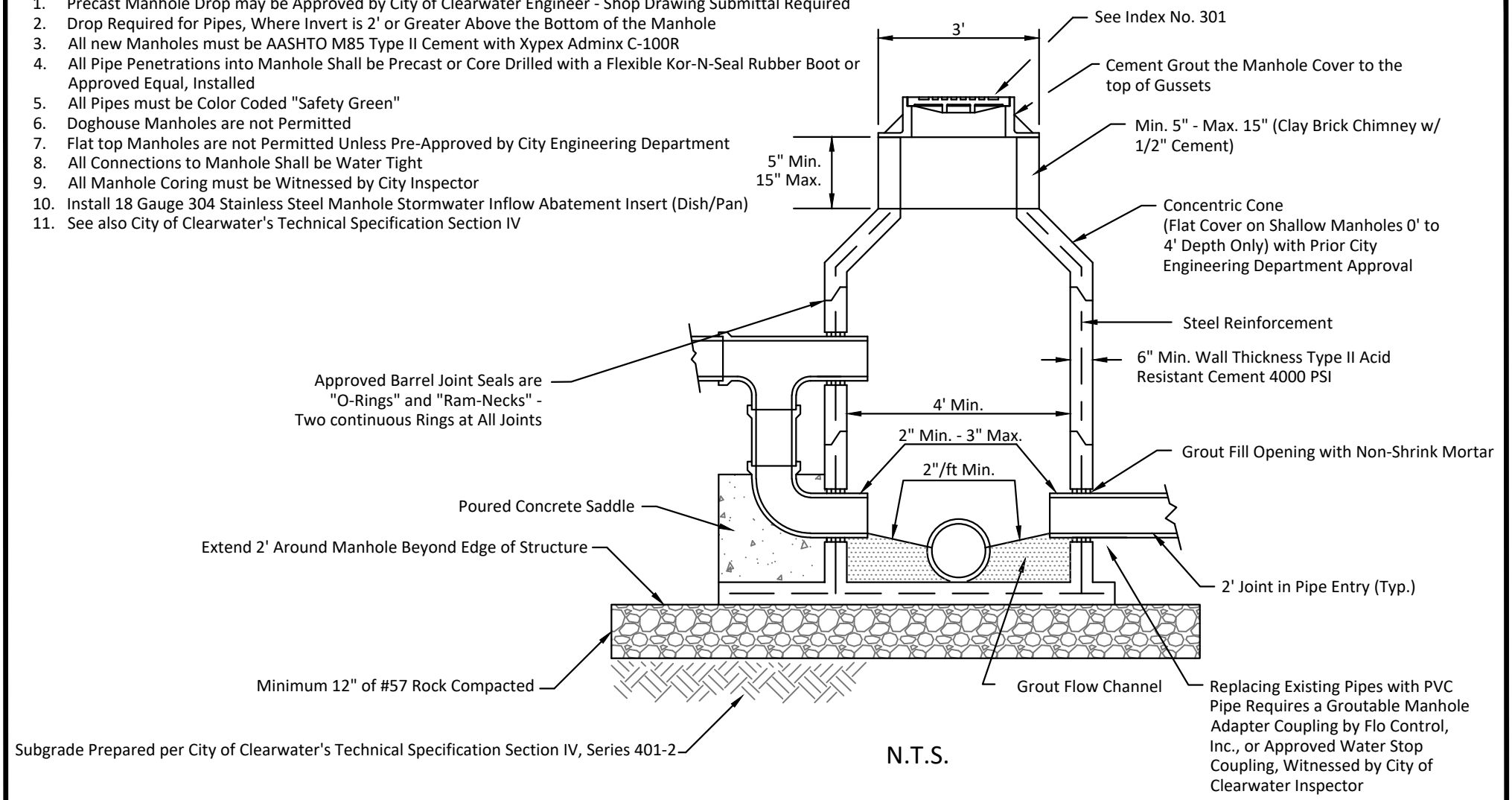


N.T.S.

CITY OF CLEARWATER PUBLIC WORKS - ENGINEERING 2022 DESIGN STANDARDS	300 SERIES: SANITARY SEWER DETAILS	NEW PRECAST SANITARY MANHOLE DETAIL	INDEX NO. 302 / PAGE NO. 1 OF 3 LATEST REVISION 10/21/2019

NOTES:

1. Precast Manhole Drop may be Approved by City of Clearwater Engineer - Shop Drawing Submittal Required
2. Drop Required for Pipes, Where Invert is 2' or Greater Above the Bottom of the Manhole
3. All new Manholes must be AASHTO M85 Type II Cement with Xypex Adminx C-100R
4. All Pipe Penetrations into Manhole Shall be Precast or Core Drilled with a Flexible Kor-N-Seal Rubber Boot or Approved Equal, Installed
5. All Pipes must be Color Coded "Safety Green"
6. Doghouse Manholes are not Permitted
7. Flat top Manholes are not Permitted Unless Pre-Approved by City Engineering Department
8. All Connections to Manhole Shall be Water Tight
9. All Manhole Coring must be Witnessed by City Inspector
10. Install 18 Gauge 304 Stainless Steel Manhole Stormwater Inflow Abatement Insert (Dish/Pan)
11. See also City of Clearwater's Technical Specification Section IV

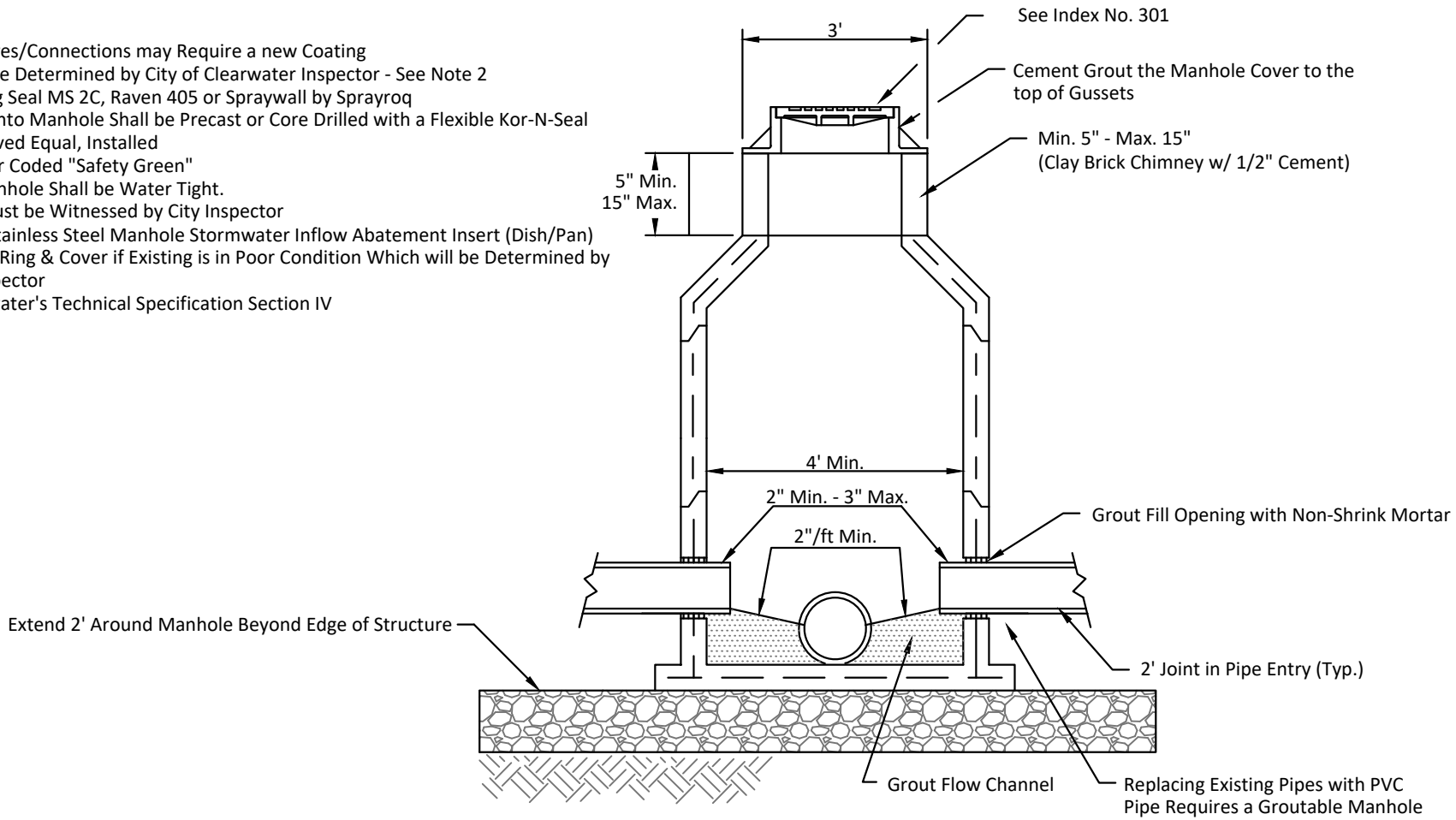


N.T.S.

CITY OF CLEARWATER PUBLIC WORKS - ENGINEERING 2022 DESIGN STANDARDS	300 SERIES: SANITARY SEWER DETAILS	NEW PRECAST SANITARY MANHOLE DETAIL OUTSIDE DROP	INDEX NO. 302 / PAGE NO. 2 OF 3 LATEST REVISION 10/21/2019

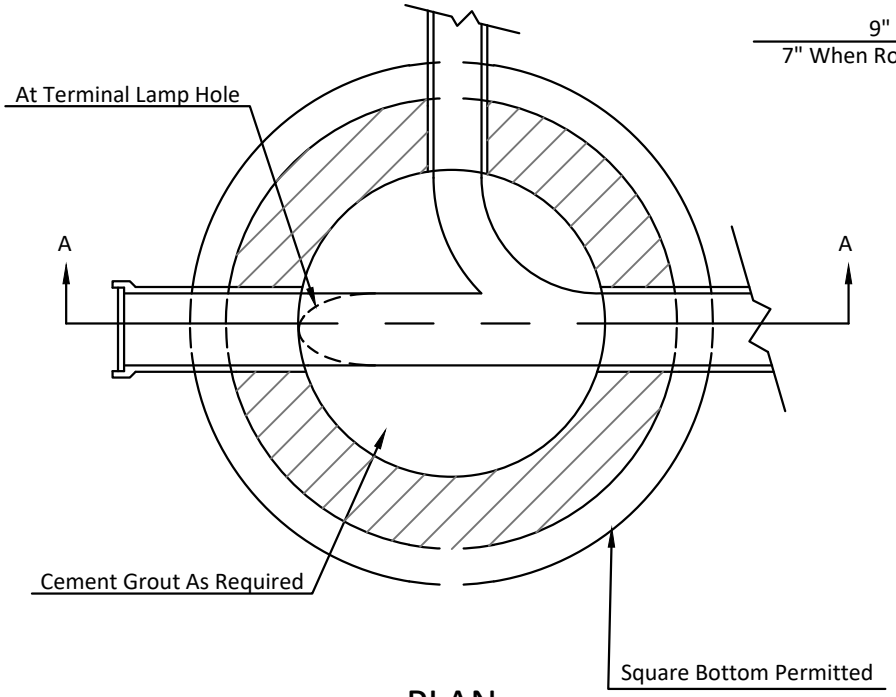
NOTES:

1. Any New Manhole Cores/Connections may Require a new Coating
   The new Coating will be Determined by City of Clearwater Inspector - See Note 2
2. Interior Shall be Strong Seal MS 2C, Raven 405 or Spraywall by Sprayroq
3. All Pipe Penetrations into Manhole Shall be Precast or Core Drilled with a Flexible Kor-N-Seal Rubber Boot or Approved Equal, Installed
4. All Pipes must be Color Coded "Safety Green"
5. All Connections to Manhole Shall be Water Tight.
6. All Manhole Coring must be Witnessed by City Inspector
7. Install 18 Gauge 304 Stainless Steel Manhole Stormwater Inflow Abatement Insert (Dish/Pan)
8. Contractor to Replace Ring & Cover if Existing is in Poor Condition Which will be Determined by City of Clearwater Inspector
9. See also City of Clearwater's Technical Specification Section IV

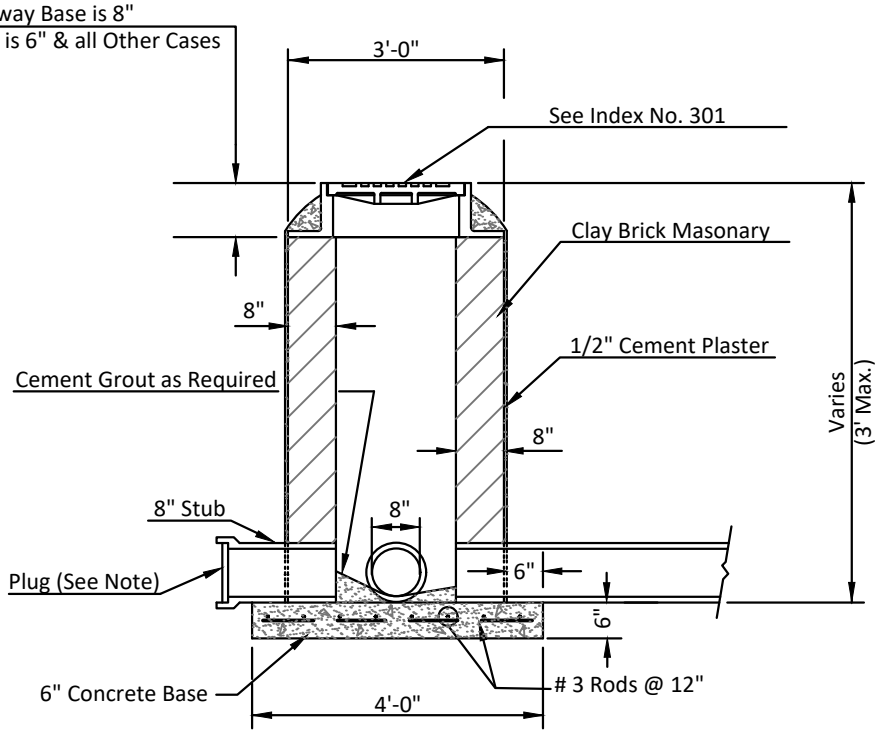


N.T.S.

CITY OF CLEARWATER PUBLIC WORKS - ENGINEERING 2022 DESIGN STANDARDS	300 SERIES: SANITARY SEWER DETAILS	EXISTING SANITARY MANHOLE DETAIL	INDEX NO. 302	PAGE NO. 3 OF 3
			LATEST REVISION	10/21/2019



PLAN
N.T.S.



SECTION A-A
N.T.S.

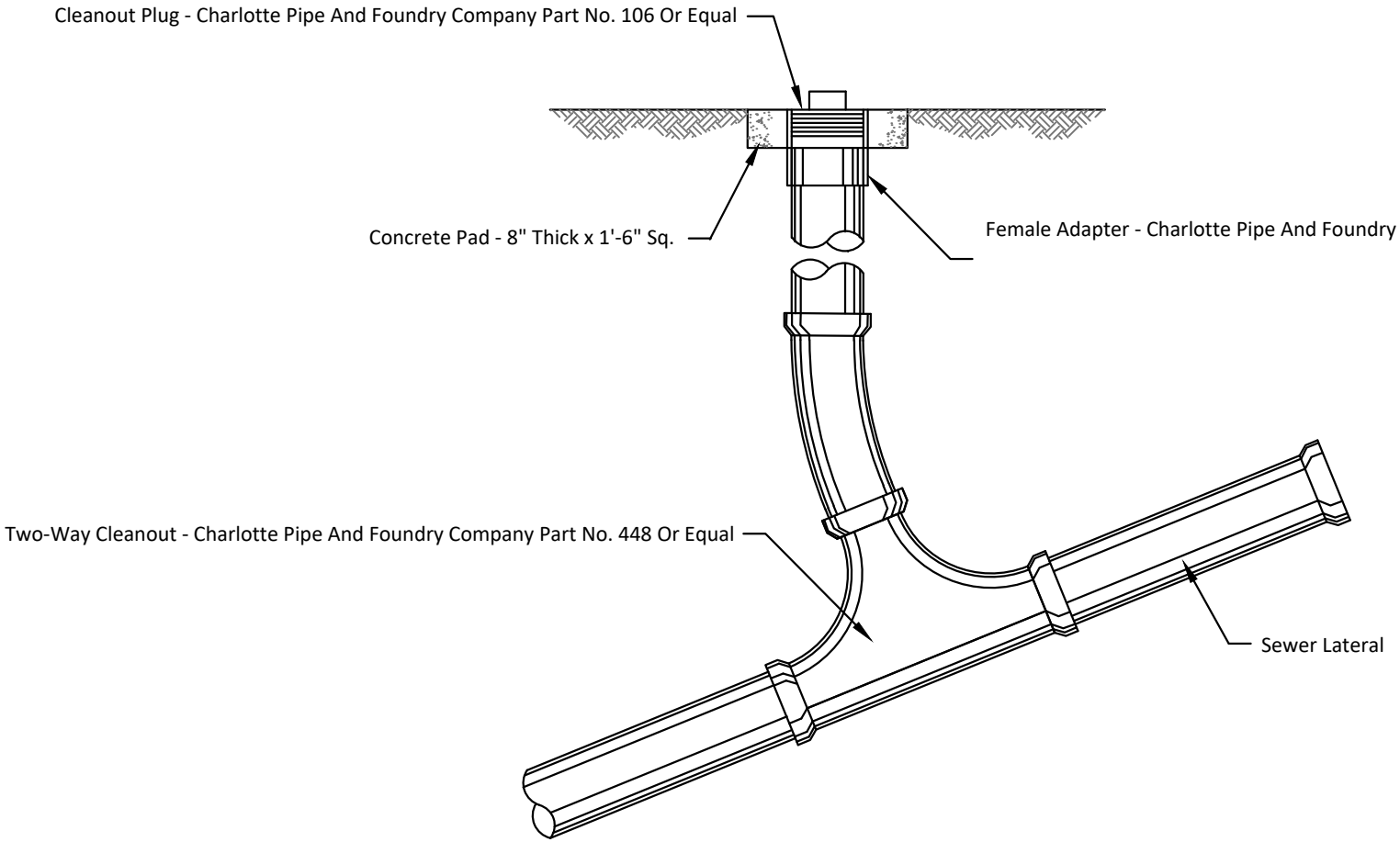
NOTES:

1. Lamp Holes Shall have a Waterproof Bituminous Coating on the Exterior, Koppers Bitumastic Black 300M, or Equivalent
2. Plug to be Plastic with "O" Ring or VC with "O" Ring
3. PVC Pipe Entry Requires Transite Manhole Coupling Accessory by Johns Manville or Equal Approved Water Stop Coupling

CITY OF CLEARWATER PUBLIC WORKS - ENGINEERING 2022 DESIGN STANDARDS	300 SERIES: SANITARY SEWER DETAILS	SANITARY SEWER LAMP HOLE	INDEX NO. 303 / PAGE NO. 1 OF 1 LATEST REVISION 2/22/2016

NOTE:

Cleanout Plug Cover for Traffic Areas to be U.S. Foundry 7623 Or Equal

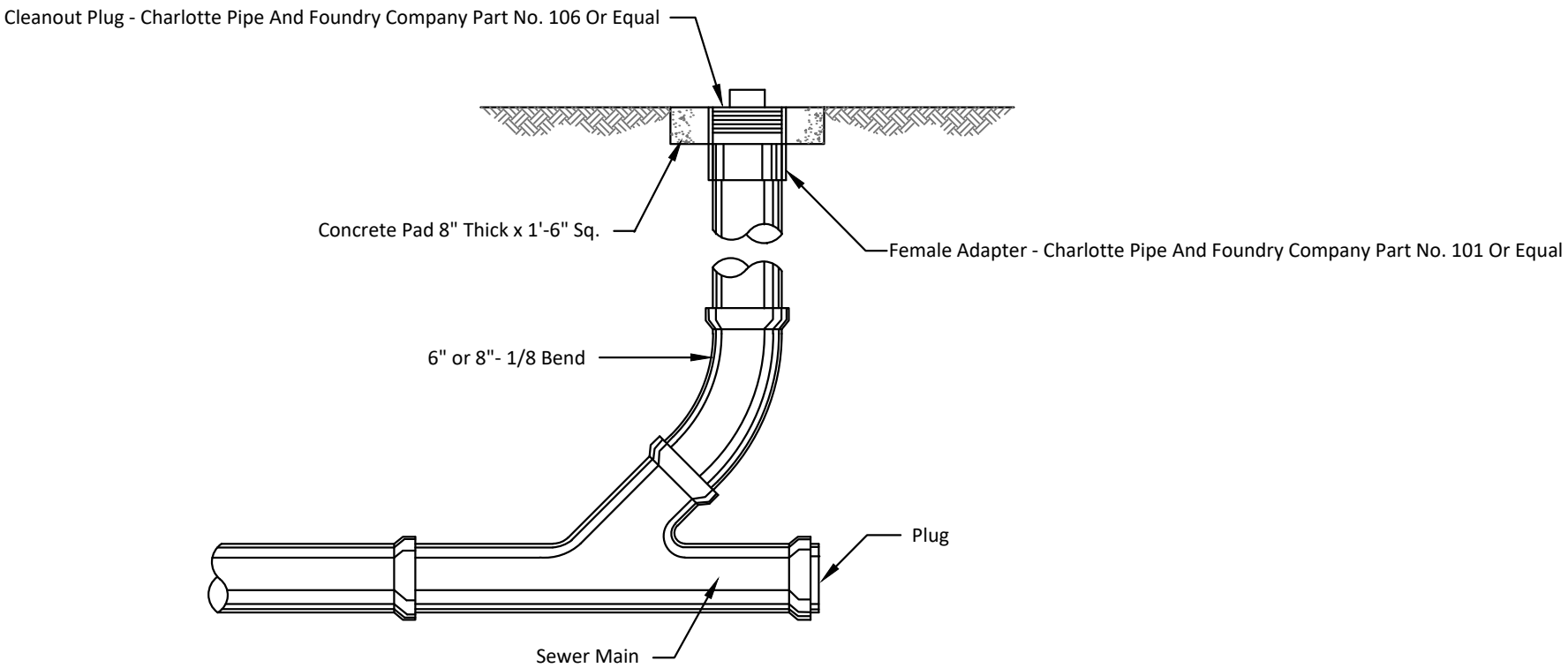


N.T.S.

CITY OF CLEARWATER PUBLIC WORKS - ENGINEERING 2022 DESIGN STANDARDS	300 SERIES: SANITARY SEWER DETAILS	STANDARD CLEANOUT - SANITARY	INDEX NO. 304 / PAGE NO. 1 OF 2 LATEST REVISION 2/22/2016

NOTE:

Cleanout Plug Cover for Traffic Areas to be U.S. Foundry 7623 Or Equal



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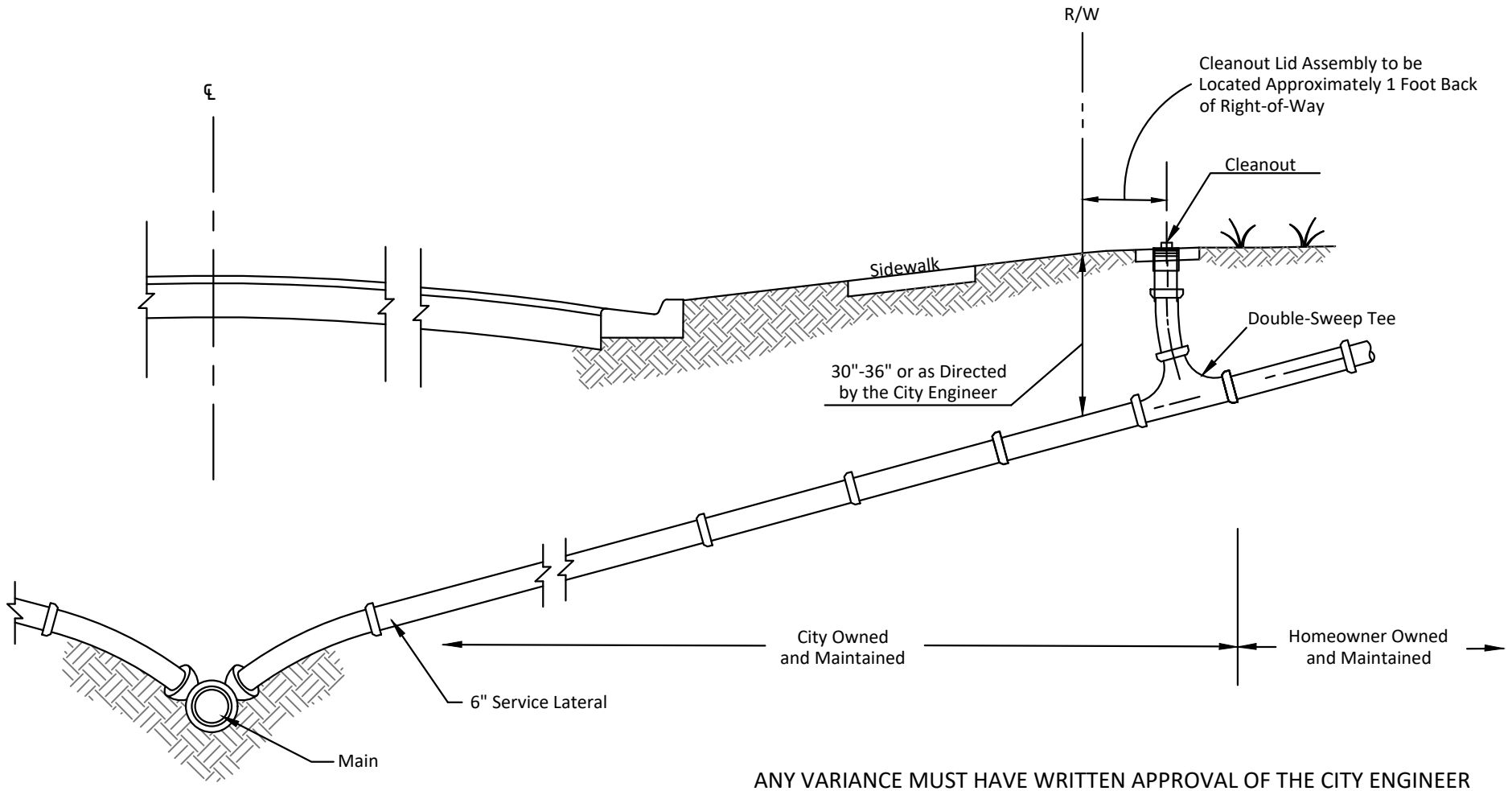
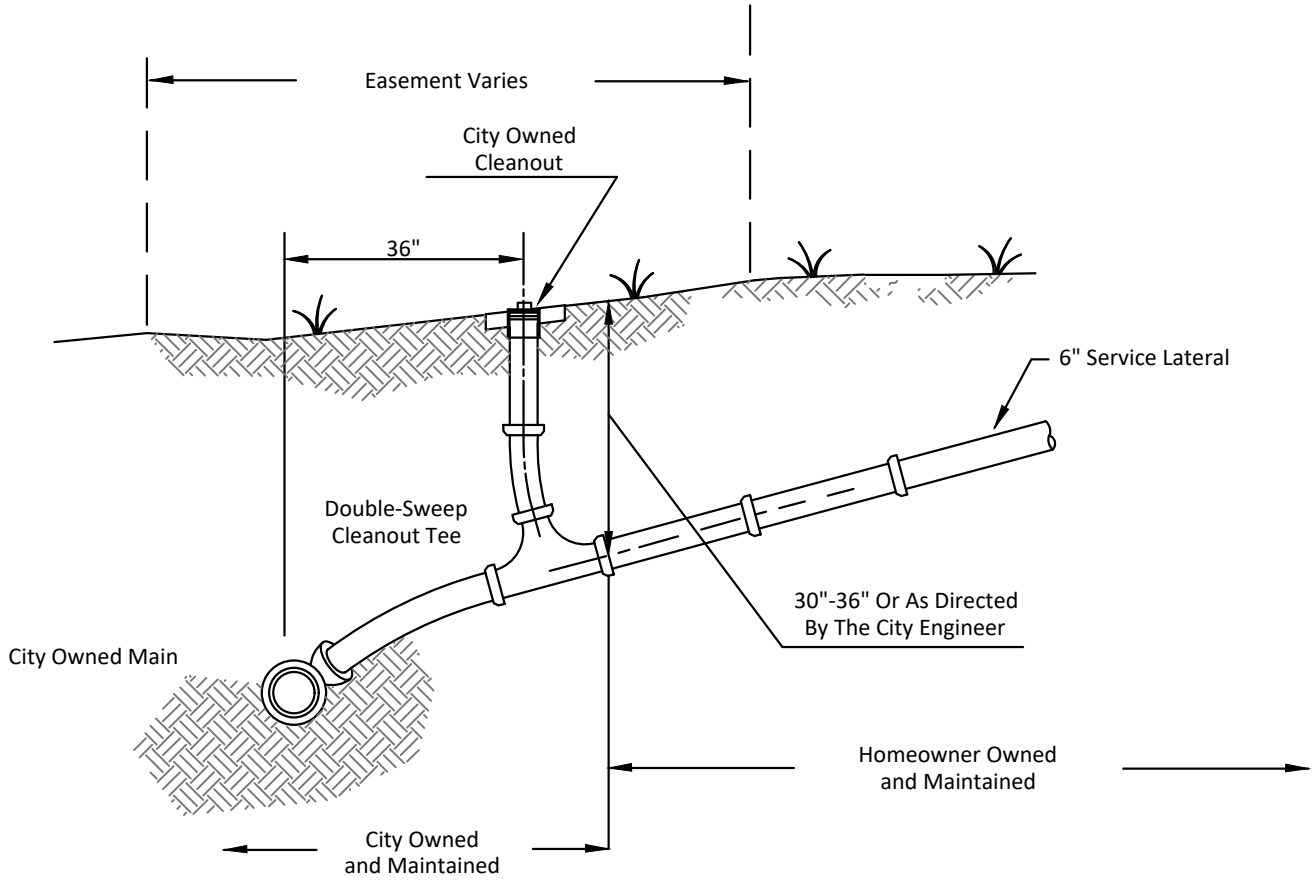
CITY OF CLEARWATER PUBLIC WORKS - ENGINEERING 2022 DESIGN STANDARDS	300 SERIES: SANITARY SEWER DETAILS	STANDARD TERMINAL END CLEANOUT - SANITARY	INDEX NO. 304 / PAGE NO. 2 OF 2 LATEST REVISION 2/22/2016



ANY VARIANCE MUST HAVE WRITTEN APPROVAL OF THE CITY ENGINEER

N.T.S.

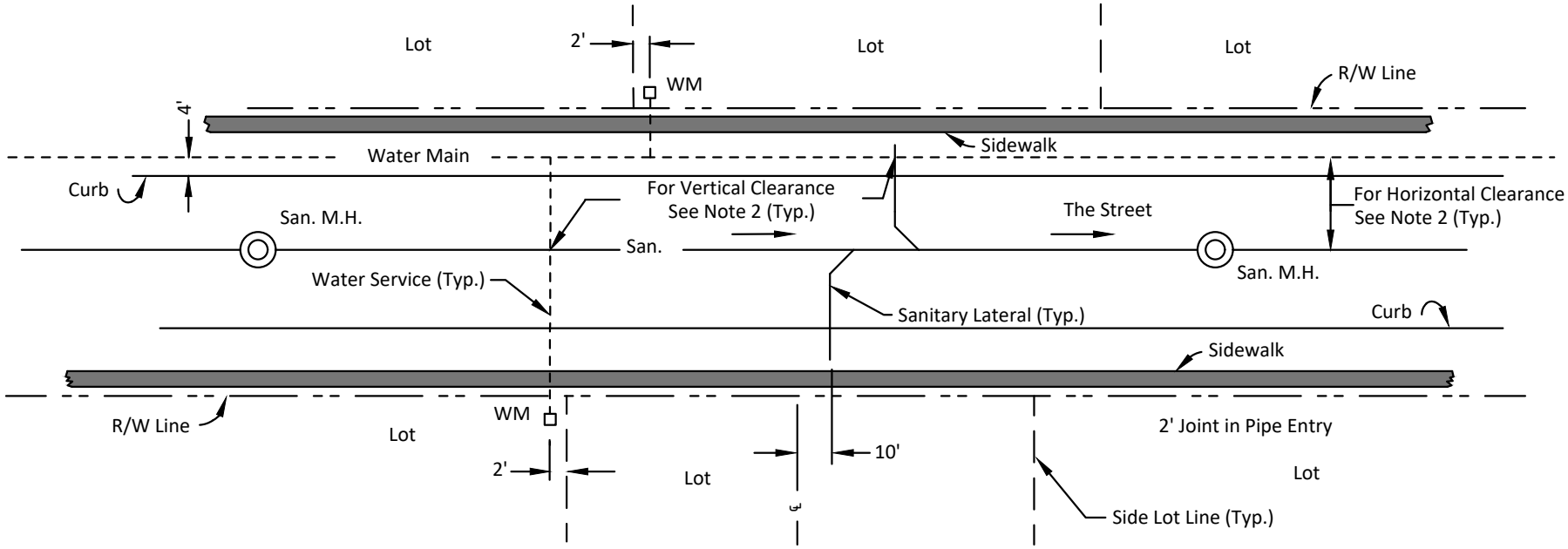
CITY OF CLEARWATER PUBLIC WORKS - ENGINEERING 2022 DESIGN STANDARDS	300 SERIES: SANITARY SEWER DETAILS	STREET LATERAL DETAIL	INDEX NO. 305 / PAGE NO. 1 OF 3 LATEST REVISION 2/22/2016



ANY VARIANCE MUST HAVE WRITTEN APPROVAL OF THE CITY ENGINEER

N.T.S.

CITY OF CLEARWATER PUBLIC WORKS - ENGINEERING 2022 DESIGN STANDARDS	300 SERIES: SANITARY SEWER DETAILS	EASEMENT AREA LATERAL DETAIL	INDEX NO. 305 / PAGE NO. 2 OF 3 LATEST REVISION 2/22/2016



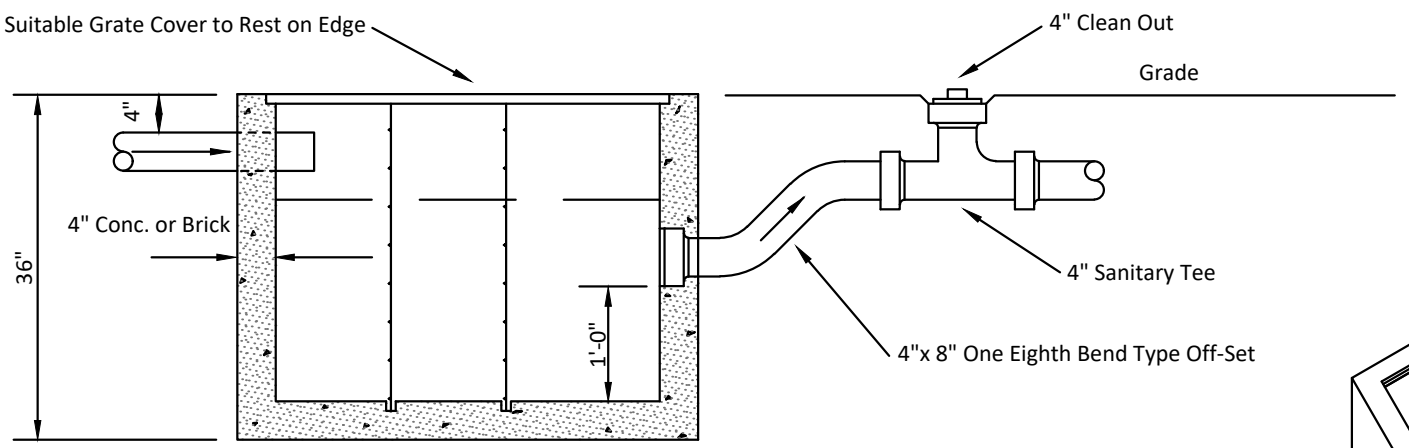
PLAN VIEW

N.T.S.

NOTES:

1. Sanitary Laterals to be Within 10' of Center of Lot on Downhill Side of Center of Lot
2. Vertical and Horizontal Clearance Between Potable Water Main and Sanitary Sewer Lateral at each Intersection to be per FDEP Requirements (See F.A.C. Rule 62-555)

CITY OF CLEARWATER PUBLIC WORKS - ENGINEERING 2022 DESIGN STANDARDS	300 SERIES: SANITARY SEWER DETAILS	SANITARY LATERAL LOCATIONS	INDEX NO. 305 / PAGE NO. 3 OF 3 LATEST REVISION 2/22/2016



SECTION
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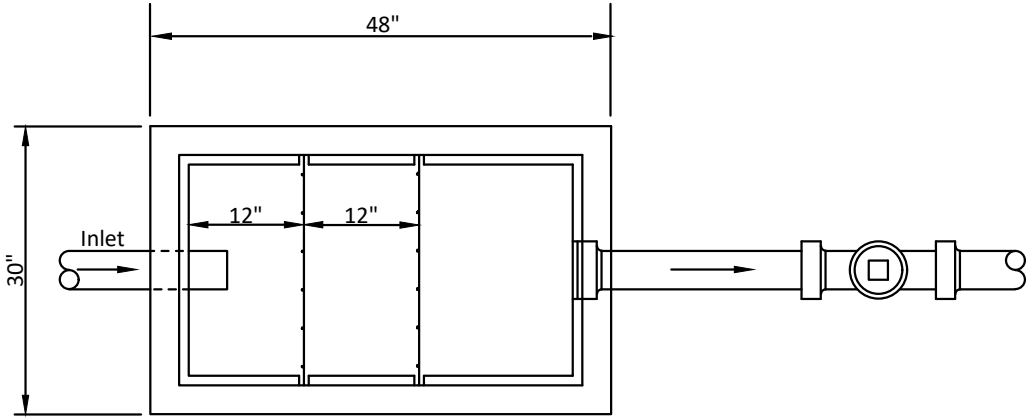
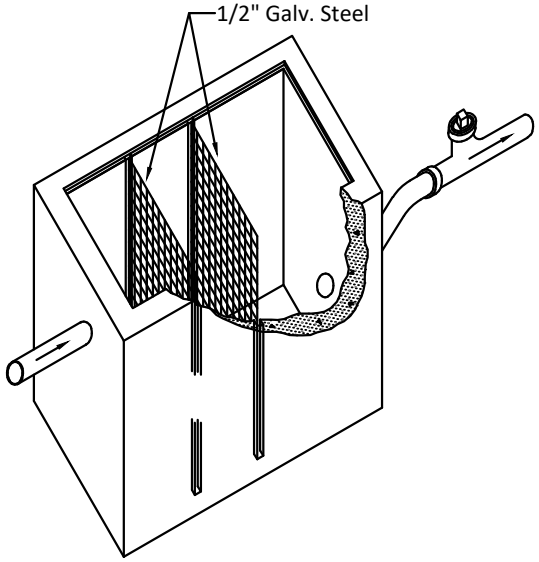
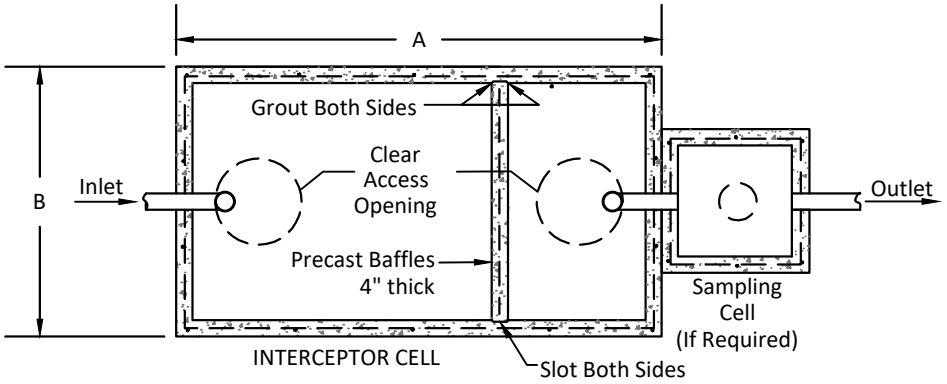


PLAN
N.T.S.



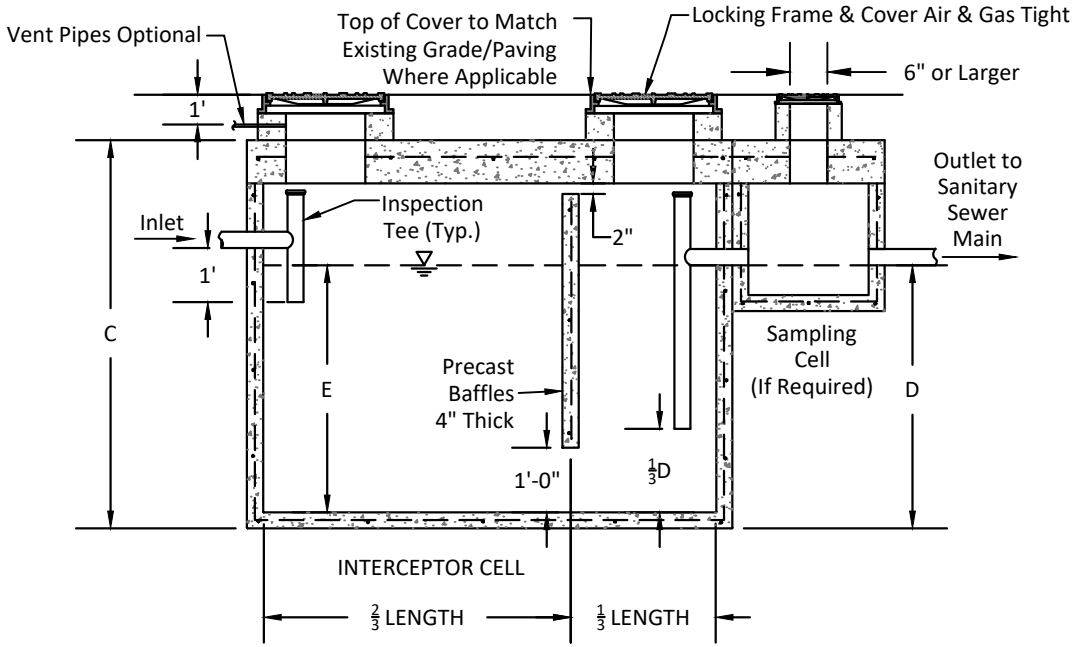
ISOMETRIC VIEW
N.T.S.

CITY OF CLEARWATER PUBLIC WORKS - ENGINEERING 2022 DESIGN STANDARDS	300 SERIES: SANITARY SEWER DETAILS	SAND OR LINT TRAP FOR LAUNDROMATS OR SERVICE STATIONS	INDEX NO. 306 / PAGE NO. 1 OF 1 LATEST REVISION 2/22/2016



PLAN VIEW

N.T.S.



SECTION VIEW

N.T.S.

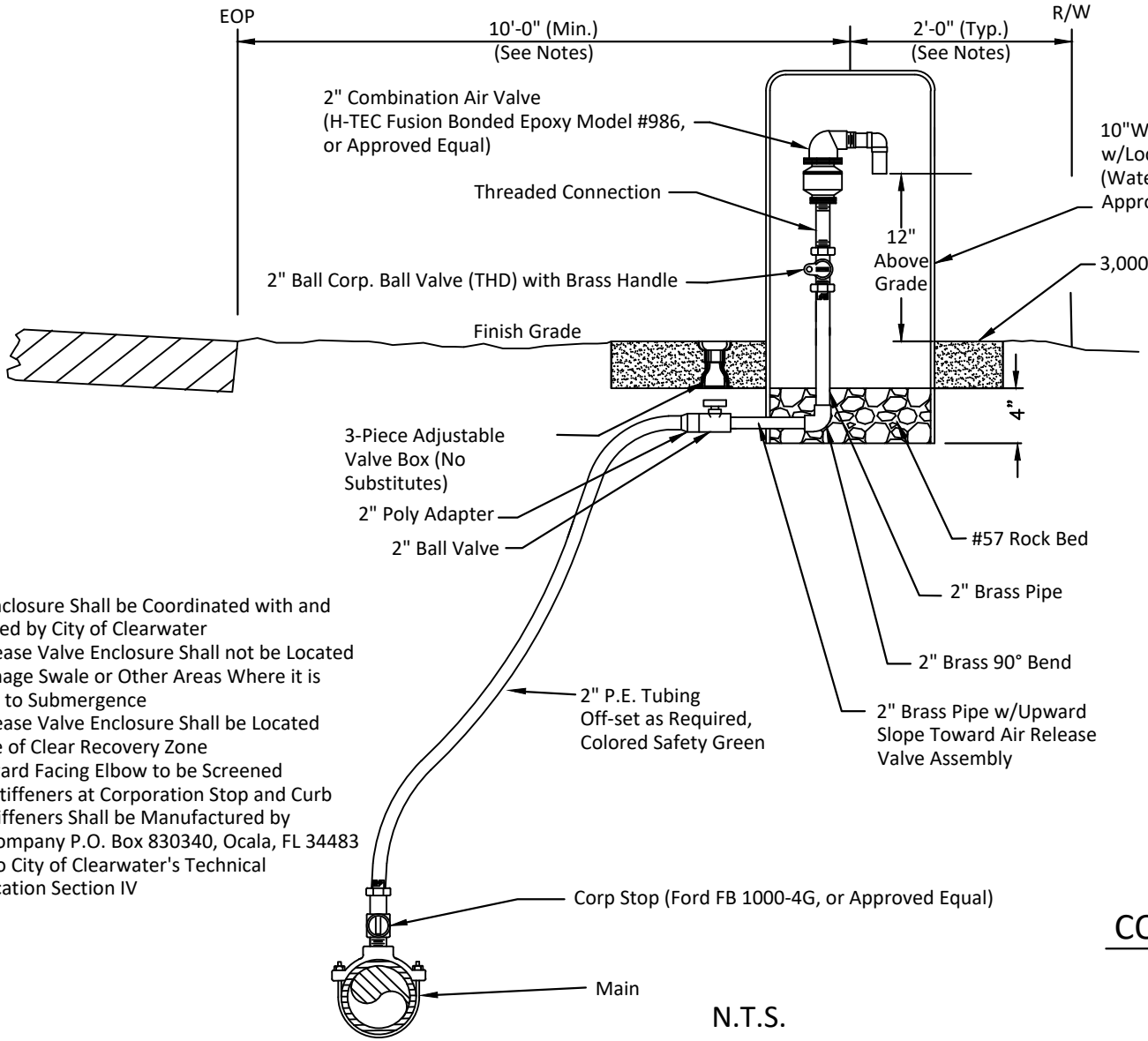
INTERCEPTOR CELL SIZING CHART					
GALLON CAPACITY	A	B	C	D	E
750	7'-0"	4'-8"	7'-0"	4'-3"	3'-11"
1000	9'-0"	5'-0"	7'-2"	4'-2"	3'-10"
1250	9'-0"	5'-0"	7'-2"	5'-2"	4'-10"

GENERAL NOTES:

1. The Interceptor System may Consist of Multiple Interceptor Cells, if Required Greater than 1250 Gallon Capacity
2. One Sampling Cell per System Shall be Installed at Outfall to Main, only if Required
3. Concrete Wall Coating Taking into Consideration the Water-Oil Mix
4. Contractor to Supply & Install all Piping and Sanitary Tee's, Clean-Outs for Cleaning Toward and Away from Interceptor (Alternate Dual Sweep Clean-Outs)
5. Contractor Shall Assure 2,500 PSI Minimum Soil Bearing Capacity at Bedding Elevation

NOTES:

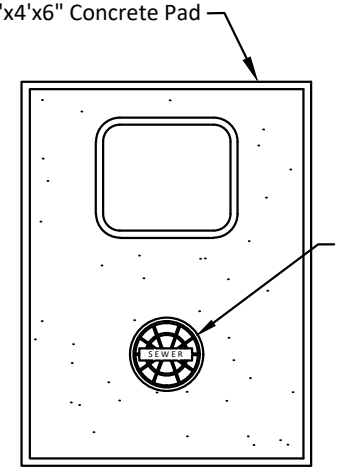
1. Concrete: 4500 PSI at 28 Day
2. Rebar: ASTM A615 Grade 60
3. Mesh: ASTM A815 Grade 65
4. Design: ACI3 18-83 Building Code ASTM C857 Minimum Structural Design Loading for Underground Precast Concrete Utility Structures
5. Loads: H-20 Truck Wheels w/30% Impact per AASHTO
6. Fill w/Clean Water Prior to Start up of System
7. Gray Water only, Black Water Shall be Carried by Separate Sewer



N.T.S.

NOTES:

1. Final Enclosure Shall be Coordinated with and Approved by City of Clearwater
2. Air Release Valve Enclosure Shall not be Located in Drainage Swale or Other Areas Where it is Subject to Submergence
3. Air Release Valve Enclosure Shall be Located Outside of Clear Recovery Zone
4. Downward Facing Elbow to be Screened
5. Insert Stiffeners at Corporation Stop and Curb Stop Stiffeners Shall be Manufactured by Mars Company P.O. Box 830340, Ocala, FL 34483
6. See also City of Clearwater's Technical Specification Section IV



AIR RELEASE VALVE
CONCRETE PAD PLAN VIEW

N.T.S.

CITY OF CLEARWATER PUBLIC WORKS - ENGINEERING 2022 DESIGN STANDARDS	300 SERIES: SANITARY SEWER DETAILS	TYPICAL AIR RELEASE VALVE SANITARY SEWER APPLICATION

INDEX NO.	PAGE NO.
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LATEST REVISION	10/21/2019