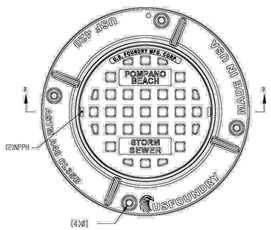
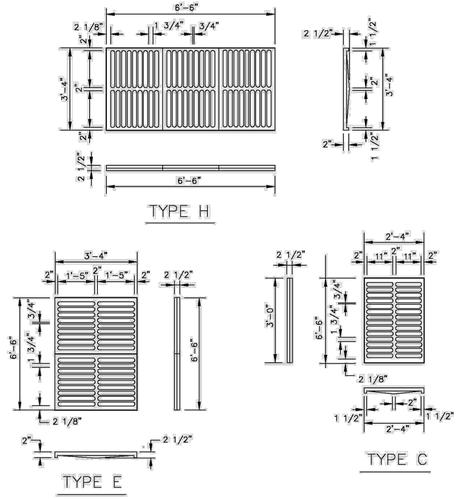


ENGINEERING STANDARDS 2025

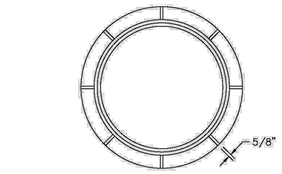
REVISIONS BY	DATE	ENGINEERING DIVISION CITY OF POMPANO BEACH	COVER FOR MANHOLES AND INLETS
A.S.	12/22	SCALE: N.T.S.	DATE: DEC 2022 DWG. NO. 409-1



CAST IRON GRATES

ENGINEERING STANDARDS 2025

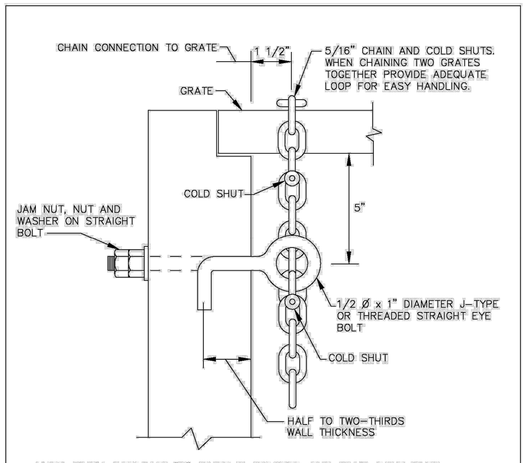
REVISIONS BY	DATE	ENGINEERING DIVISION CITY OF POMPANO BEACH	CAST IRON GRATES
		SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 410-1



CAST IRON FRAME FOR MANHOLES

ENGINEERING STANDARDS 2025

REVISIONS BY	DATE	ENGINEERING DIVISION CITY OF POMPANO BEACH	CAST IRON FRAME FOR MANHOLES
		SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 411-1



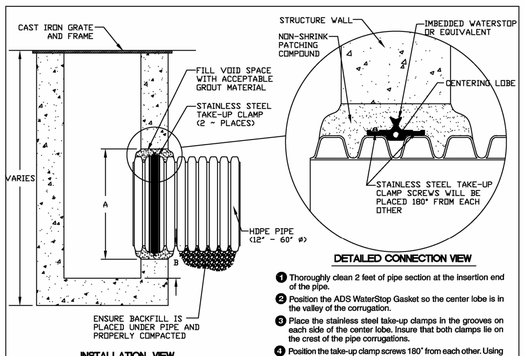
NOTE: WHEN ALTERNATE "G" GRATE IS SPECIFIED, THE CHAIN, BOLT, NUTS, WASHER AND COLD SHUTS SHALL BE GALVANIZED IN ACCORDANCE WITH THE SPECIFICATIONS FOR THE GRATE.

COST OF EYE BOLT AND CHAIN TO BE INCLUDED IN THE CONTRACT UNIT PRICE FOR INLETS.

EYE BOLT AND CHAIN FOR LOCKING GRATES

ENGINEERING STANDARDS 2025

REVISIONS BY	DATE	ENGINEERING DIVISION CITY OF POMPANO BEACH	EYE BOLT AND CHAIN
		SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 413-1



INSTALLATION VIEW

DETAILED CONNECTION VIEW

1. Thoroughly clean 2 feet of pipe section at the insertion end of the pipe.
2. Position the ADS WaterStop Gasket so the center lobe is in the valley of the corrugation.
3. Place the stainless steel take-up clamps in the grooves on each side of the center lobe. Insure that both clamps lie on the crest of the pipe corrugations.
4. Position the take-up clamp screws 180° from each other. Using a torque ratchet or torque wrench, gradually tighten both screws of each clamp to 60 lbs./inch torque. Do not overtighten. A screw driver will not tighten clamps adequately.
5. Apply a good quality concrete bonding agent to the structure opening.
6. Insert pipe into the structure opening. Make sure that the ADS WaterStop is fully within the plane of the structure's wall. **If mortaring in place,** apply and compact non-shrink grout around the ADS WaterStop and between the pipe and the opening, taking care to fill the voids. Make sure that the ADS WaterStop Gasket does not contact the bare structure walls. **If pouring in place,** use concrete of sufficient slump to permit complete flow around the pipe and ADS WaterStop. Thoroughly vibrate all around the pipe and ADS WaterStop Gasket to complete compaction and to release any trapped air.
7. Allow concrete or mortar to fully cure before testing or backfilling. If the system is to be tested, testing should be completed prior to backfilling around the structure, following all recommendations and requirements of the test system manufacturer. Plug any vent holes in the N-12 pipe prior to testing.
8. Backfill the N-12 pipe following recommendations in ADS Product Note 3.115, *Installing N-12 Storm, Sanitary Sewer and Culvert Pipe.*

INSTALLATION RECOMMENDATIONS

PIPE SIZE CINO	PIPE OD CINO	"A" MIN. "B" MIN. DISTANCE PIPE INVERT	
	A-PROFILE	B-PROFILE	HOLE # TO STRUCTURE INVERT CINO
12	14.5	14.2	19.50 3.7
15	17.6	17.8	23.00 4.0
18	21.6	21.5	28.50 4.5
24	27.8	28.4	33.25 4.5
30	35.1	35.5	40.50 5.0
36	41.1	41.4	47.00 5.5
48	47.7	48.0	53.00 5.7
48	53.6	54.0	59.00 5.7
60	66.3	67.3	72.00 6.4

WATER STOP SEAL

ENGINEERING STANDARDS 2025

REVISIONS BY	DATE	ENGINEERING DIVISION CITY OF POMPANO BEACH	WATER STOP SEAL
TCW	04-08	SCALE: N.T.S.	DATE: MAY 2022 DWG. NO. 414-1

DRC
PZ25-12000028
01/07/2026

No.	REVISIONS	DATE	BY

Kimley»Horn
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PHONE: 954-535-5100 FAX: 954-739-2247
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

GIOVANNI VALERON POMPA LICENSE No 97495 STATE OF FLORIDA PROFESSIONAL ENGINEER
DATE: 11/21/2025

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY GIOVANNI VALERON POMPA ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

KHA PROJECT	043175014
DATE	11/6/2025
SCALE	AS SHOWN
DESIGNED BY	GVF
DRAWN BY	EA
CHECKED BY	GVF

PAVING GRADING & DRAINAGE DETAILS

MODERA POMPANO BEACH
PREPARED FOR
MCRT INVESTMENTS LLC
POMPANO BEACH FLORIDA

SHEET NUMBER
C-306

Plotted By:Fernandez, Gilovatis Sheet Set:MILLCREEK POMPANO 1 Layout:C-306 PAVING GRADING & DRAINAGE DETAILS Xrefs:Model: 21/2026, 12:04:39pm -K:\FTL_Civil\043 Jobs\043175\Rpts\Sheets\C-PGD-DET1.dwg
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