

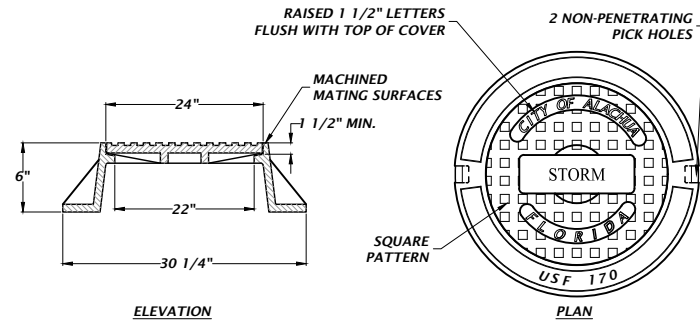
GROUT WITH EITHER 3:1 SAND CONCRETE MIXTURE OR ANY CLASS CONCRETE

GENERAL NOTE(S):

- UNLESS OTHERWISE NOTED, GROUT INVERTS OF ALL STORMWATER STRUCTURES.
- BASED ON FDOT INDEX 425-001, STANDARD PLANS, SUPPLEMENTARY DETAILS FOR DRAINAGE STRUCTURES

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GROUTING INVERTS OF STORMWATER STRUCTURES
NTS



ELEVATION

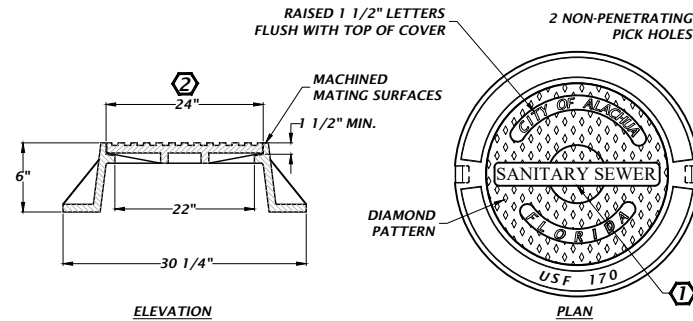
PLAN

GENERAL NOTE(S):

- USF 170 RING AND CE COVER
- LOAD CLASSIFICATION: HEAVY DUTY
- MATERIAL: GRAY CAST IRON, ASTM A48 CLASS 35B
- PAINT TOP AS PER **307**

211

CAST IRON STORM MANHOLE FRAME AND COVER
NTS



ELEVATION

PLAN

GENERAL NOTE(S):

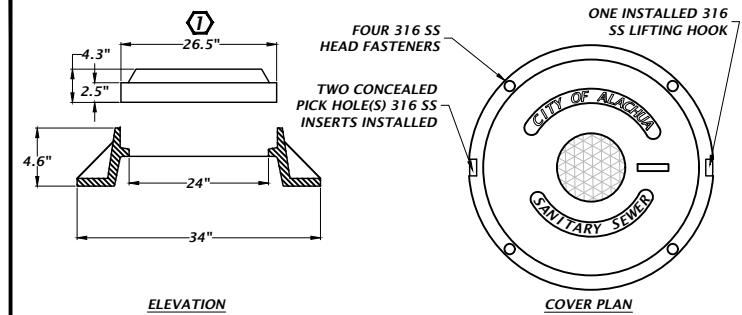
- USF 170 RING AND CE COVER
- LOAD CLASSIFICATION: HEAVY DUTY
- MATERIAL: GRAY CAST IRON, ASTM A48 CLASS 35B
- PAINT TOP AS PER **307**

KEYED NOTE(S):

- ① INSCRIBING "SANITARY SEWER" ON TWO LINES IS ACCEPTABLE.
- ② FOR A 72-INCH DIAMETER MANHOLE IN A TYPE 1 APPLICATION, PROVIDE A 30-INCH MANHOLE COVER.

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CAST IRON SANITARY SEWER MANHOLE FRAME AND COVER
NTS



ELEVATION

COVER PLAN

FRAME AND COVER SECTION WITH COVER SHOWN REMOVED FROM FRAME (ALL DIMENSIONS ARE NOMINAL)

KEYED NOTE(S):

- ① FOR A 72-INCH DIAMETER MANHOLE IN A TYPE 2 APPLICATION, PROVIDE A 36-INCH MANHOLE COVER. ADJUST PRODUCT CODE.

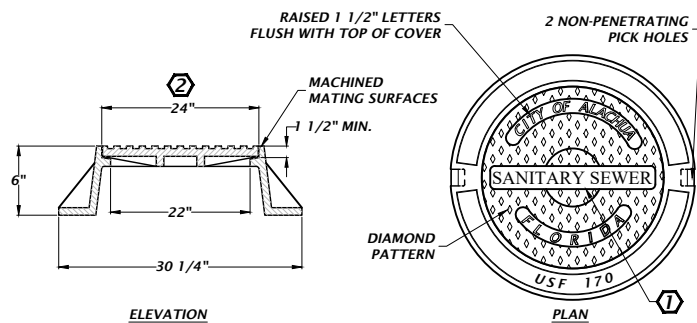
GENERAL NOTE(S):

- MATERIALS: COMPRESSION MOLDED THERMOSET COMPOSITE - NO METAL REINFORCEMENT.
- 316 SST HARDWARE.
- PASSES M306 H20/H25 PROOF LOAD.
- DETECTABLE BY STANDARD METAL DETECTORS.
- WATER TIGHT
- MANUFACTURER AND PRODUCT: COMPOSITE ACCESS PRODUCTS; MODEL: CAP ONE; PRODUCT CODE: A-1BK24X4-C02DMDSS-H1

- PRODUCT CODE CLASSIFICATIONS:**
- A = ASSEMBLY
 - 1 = CAP ONE
 - BK = BLACK
 - 24 = 24-INCH CLEAR OPENING
 - X4 = 4 BOLTS WITH 5/8" HEX HEAD
 - C02 = "CITY OF ALACHUA" TOP ARCH
 - DMD = BLANK DIAMOND TREAD
 - SS = "SANITARY SEWER" BOTTOM ARCH
 - H1 = ONE LIFTING HOOK

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COMPOSITE SANITARY SEWER MANHOLE FRAME AND COVER
NTS



ELEVATION

PLAN

GENERAL NOTE(S):

- USF 170 RING AND CE COVER
- LOAD CLASSIFICATION: HEAVY DUTY
- MATERIAL: GRAY CAST IRON, ASTM A48 CLASS 35B
- PAINT TOP AS PER **307**
- FACTORY COAT THE FOLLOWING WITH POR-15 RUST PREVENTIVE/ ANTI-CORROSIVE PAINT, P.O.R. PRODUCTS:
 - ENTIRE FRAME
 - BOTTOM AND SIDES OF COVER

KEYED NOTE(S):

- ① INSCRIBING "SANITARY SEWER" ON TWO LINES IS ACCEPTABLE.
- ② FOR A 72-INCH DIAMETER MANHOLE IN A TYPE 3 APPLICATION, PROVIDE A 30-INCH MANHOLE COVER.

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CAST IRON SANITARY SEWER MANHOLE, COATED FRAME AND MANHOLE COVER WITH UNDERCOAT
NTS

TABLE - MANHOLE LININGS AND COVERS			
APPLICATION TYPE	HYDROGEN SULFIDE GAS CONCENTRATION	MANHOLE LINING REQUIRED	MANHOLE COVER AND FLUME
TYPE 1: WASTEWATER DISCHARGE FROM RESIDENTIAL HOMES, EITHER DIRECTLY OR INDIRECTLY	LOW	YES ⑤	CAST IRON 212
TYPE 2: OFF-ROAD OR CITY ROAD, RECEIVES FORCE MAIN DISCHARGE, EITHER DIRECTLY OR INDIRECTLY	HIGH	YES ①	COMPOSITE 213
TYPE 3: COUNTY OR STATE ROAD, RECEIVES FORCE MAIN DISCHARGE, EITHER DIRECTLY OR INDIRECTLY	HIGH	YES ①	CAST IRON WITH COATING 214

GENERAL NOTE(S):

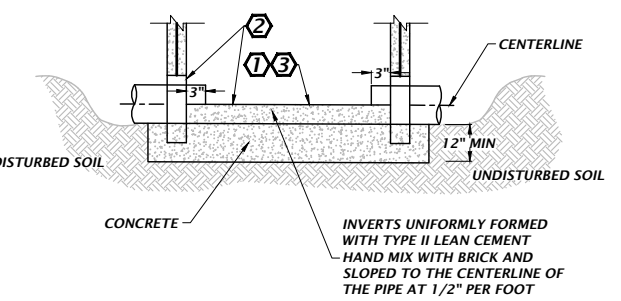
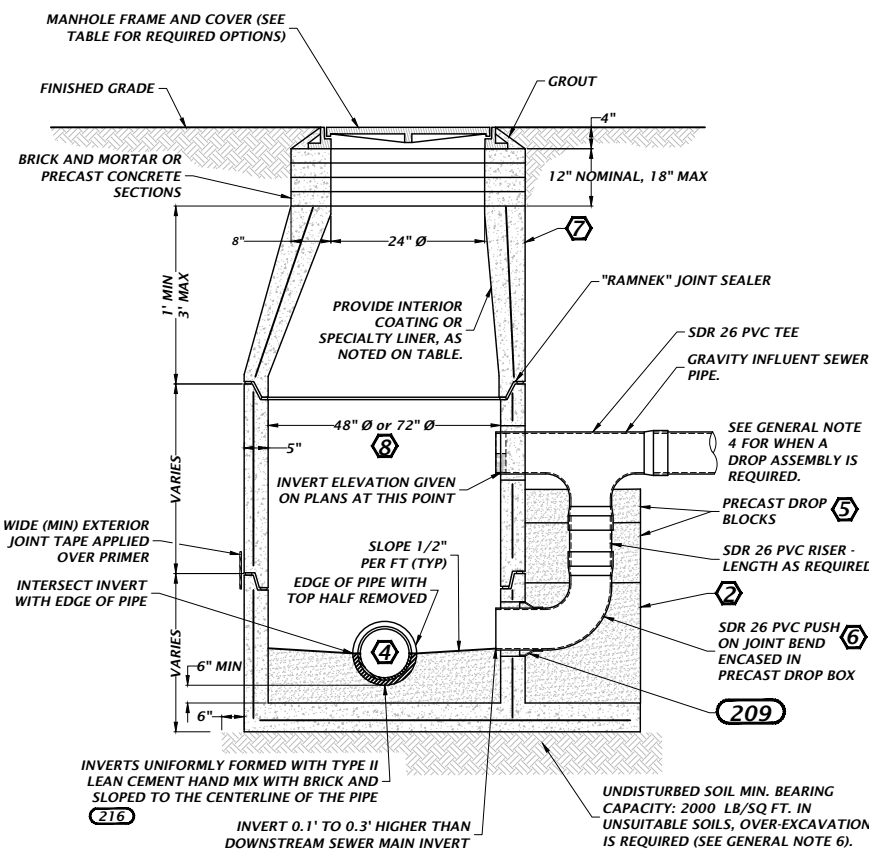
- MODIFY DETAIL AS NECESSARY IF DROP NOT REQUIRED.
- PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478-73 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND SEALED WITH "RAMNEK" SEALER.
- THE INTERIOR AND EXTERIOR OF MANHOLE AND THE INTERIOR OF THE ADJUSTMENT RINGS SHALL BE JOINED AND SEALED WITH "RAMNEK" SEALER.
- MANHOLE AND DROP ASSEMBLY SHALL BE REQUIRED FOR 4" OR LARGER INFLUENT PIPES WITH 2 FOOT OR GREATER INFLUENT DROP.
- ALL M/H JOINTS BELOW THE TOP CONE SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (W/PRIMER). TAPE ON THE CONE SECTION IS OPTIONAL.
- PRECAST BASE SECTIONS WITH A BOTTOM SHALL BE INSTALLED ON UNDISTURBED EARTH. BEDDING IS REQUIRED WHEN THE SOIL CONDITIONS ARE WET OR WHEN THE SOIL IS UNSUITABLE. FIELD DETERMINE REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION. IF UNDERCUTTING OCCURS, THE BOTTOM OF THE TRENCH SHALL BE BROUGHT UP TO THE ORIGINAL GRADE WITH APPROVED MATERIAL AND THOROUGHLY COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR.

KEYED NOTE(S):

- ① UNLESS OTHERWISE NOTED OR SHOWN, FOR NEW MANHOLES, PROVIDE AGRU SURE-GRIP YELLOW 3.0 MM THICK LINER. FOR EACH EXISTING MANHOLE THAT CONNECTS TO NEW FORCE MAIN, PROVIDE RAVEN 405 EPOXY COATING. FURNISH AND INSTALL THESE PRODUCTS AS PER LATEST VERSION OF CITY OF ALACHUA, PUBLIC SERVICES, REQUIREMENTS FOR DESIGN AND CONSTRUCTION.
- ② THIS CONCRETE BOX INCLUDES PIPING INTEGRALLY CAST AT THE FACTORY.
- ③ INTERIOR: TWO COATS WATER BASED EPOXY COATING. RED INITIAL COAT FOLLOWED BY GRAY FINAL COAT.
- ④ GRAVITY PIPE WITH TOP HALF REMOVED PASSES THROUGH MANHOLE AS PER **216**
- ⑤ FROM MANHOLE VENDOR. TYPICAL SIZES ARE 2'x2'x2' AND 2'x2'x1'.
- ⑥ FOR EXISTING MANHOLE, PROVIDE FLOWABLE FILL AROUND JOINT BEND INSTEAD OF PRECAST DROP BOX
- ⑦ FOR ALL MANHOLES, PROVIDE EXTERIOR COAT AS FOLLOWS: TWO COATS WATER BASED EPOXY COATING. RED INITIAL COAT FOLLOWED BY GRAY FINAL COAT.
- ⑧ MANHOLE (MH) HEIGHT = RIM ELEVATION MINUS FLOOR ELEVATION. WHEN MANHOLE HEIGHT LESS THAN 20 FEET, PROVIDE 48" DIAMETER. WHEN MANHOLE HEIGHT 20 FEET OR MORE, PROVIDE 72" DIAMETER WITH COVER SIZE AS PER DETAILS **212** **213** **214**

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STANDARD MANHOLE AND DROP, AS REQUIRED
NTS



GENERAL NOTE(S):

- GRAVITY PIPE PASSES THROUGH MANHOLE. REMOVE ITS TOP HALF.

KEYED NOTE(S):

- ① BEFORE CUTTING PIPE, INSTALL BRICK/MORTAR MIXTURE FROM MANHOLE BOTTOM TO PIPE CENTERLINE. SLOPE TO PIPE CENTERLINE.
- ② TYPES 2 OR 3 APPLICATION ONLY: BEFORE CUTTING PIPE, COAT BRICK/MORTAR MIXTURE WITH RAVEN 405 EPOXY COATING. ALSO COAT MANHOLE BOTTOM AND PIPE PENETRATIONS.
- ③ CUT AND REMOVE TOP HALF (CENTERLINE) OF (PVC) PIPE. START CUT 3-INCHES FROM MANHOLE WALL.

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GRAVITY PIPE THROUGH STANDARD MANHOLE, LONGITUDINAL VIEW
NTS

02B WASTEWATER DETAILS - SEE (151) FOR ABBREVIATIONS