

BOLTED WATERPROOF CAST IRON MANHOLE COVER WITH BOLTED FRAME EQUAL TO EAST JORDAN NO. 1040 WITH PRESSURE TIGHT COVER.

1"x1" BUTYL RUBBER FLEXIBLE ROPE 2 EACH COURSE (OUTSIDE & INSIDE OF THREADED STUDS) CONFORMING TO FEDERAL SPECIFICATION SS-SS-Z10A AND AASHTO M-198

CONE SECTION WITH MODIFIED TONGUE AND GROOVE JOINTS AND WITH STUD INSERTS CAST IN PLACE. TOP TO HAVE FINISH SURFACE.

FOUR CADMIUM COATED 5/8" DIA. THREADED STUDS WITH 3/4" x 2" x 1/8" THICK METAL WASHER, 3/4" x 2" x 1/16" THICK NEOPRENE SEALING WASHER AND NUTS.

3" OR 6" CONCRETE GRADE RINGS WITH FINISH TOP AND BOTTOM SURFACES. MAXIMUM ADJUSTMENT = 18"

4'-0" DIAMETER ASTM C-478 RISER SECTIONS WITH MODIFIED TONGUE AND GROOVE JOINTS.

MANHOLE STEPS TO BE PLASTIC COATED STEEL MEETING THE REQUIREMENTS IN ASTM D-2146, TYPE II, GRADE 49108, M.A. INDUSTRIES P.S. I, POLYPROPYLENE, OR APPROVED EQUAL. STEPS TO BE INSTALLED DURING MANHOLE MANUFACTURE. PLACE AT 16" C. TO C, 45 DEGREES FROM CENTERLINE OF SEWER.

TRANSITION SECTION.

5'-0" DIAMETER ASTM C-478 RISER SECTIONS WITH MODIFIED TONGUE AND GROOVE JOINTS.

RES-SEAL, LINK-SEAL, PRESS WEDGE II, OR KOR-N-SEAL (WITH STAINLESS STEEL KORBAND) FLEXIBLE RUBBER MANHOLE JOINTS.

1/4" TO 1 1/2" ANGULAR GRADED STONE OR CAREFULLY AND UNIFORMLY TAMPED SAND IN MAXIMUM 6" LAYERS.

CONCRETE FLOW CHANNEL UP TO SPRINGLINE OF PIPE WITH 3/4" TO 1" GAP AT PIPE ENDS PROVIDED TO MAINTAIN JOINT FLEXIBILITY.

UNDISTURBED GROUND.

## STANDARD 5' MANHOLE

ON 21" THRU 24" DIAMETER SEWER

### REVISION BLOCK

Parcel Base / Source Date: N/A

Rev. No.:	Rev. By:	Rev. Date:	Description:
1	Iz	03/08/03	ADDED NEW TITLE BLOCK
2	RRH	8-31-10	REVISED "TONGUE & GROOVE"
3			
4			



WATER RESOURCES COMMISSIONER

Jim Nash

### STANDARD 5' MANHOLE DETAIL

ONE PUBLIC WORKS DRIVE, BLDG 95 WEST  
WATERFORD, MICHIGAN  
48328-1907

ORIG. DATE: 08/02/02  
SCALE: NONE

SHEET:  
1 of 1