FOR PRESSURE TIGHT LIDS, USE MINIMUM 4-3/4" DIA. STAINLESS STEEL THREADED INSERTS

TO BE FLUSH WITH FINISHED GRADE OF ROADWAY. IN EASEMENTS,...ETC. THE RIM SHALL BE SET SLIGHTLY ABOVE SURROUNDING GRADE, BUT NOT MORE THAN 4" ABOVE GROUND IN NON-PAVED AREAS.

ADJUST HEIGHT WITH 2"x 8"x 24" DIA. PRECAST REINFORCED CONCRETE GRADE RINGS AND CEMENT MORTAR

MANHOLE RING & COVER REQUIRED
GROUT FRAME IN PLACE OR ANCHOR AS REQUIRED

CLASS "C" CONCRETE COLLAR AROUND RING & CONE CONNECTION

EXISTING GROUND

STANDARD CONCENTRIC MANHOLE TOP
A.S.T.M. C-478

PRECAST MANHOLE RISERS
A.S.T.M. C-478

COMPACTED BACKFILL ON ALL SIDES AT ONE TIME IN LAYERS NOT MORE THAN 12"

PREFABRICATED RUBBER GASKET AT ALL JOINTS

D" = 4' MIN OR AS SHOWN IN PLANS

CUT OUT

CONCRETE BASE - CLASS "A" CONCRETE.

NO. 5 BARS @12" C-C BOTH WAYS

MANHOLE NOTES:
1. PIPE DIA. TO BE THE SAME AS LINE CONSTRUCTION.
2. APPROVED PREFABRICATED RUBBER GASKET OR O-RING SHALL BE USED AT ALL JOINTS.
3. FOR MANHOLES IN PAVEMENT, A 6'x6' MIN. SIZE BLOCKOUT REQUIRED.
4. PIPE TO MANHOLE CONNECTORS SHALL BE KOR-N-SEAL OR APPROVED EQUAL.
5. D" = 5' FOR MANHOLE DEPTH > 15'
STD RING & COVER

24" MAX HEIGHT

ADJUST HEIGHT WITH
2" x 8" x 24" DIA. PRECAST REINFORCED
CONCRETE GRADE RINGS AND
CEMENT MORTAR

CLASS "C" CONCRETE
MONOLITHIC POUR

*5 BARS AT 12" C-C BOTH WAYS
TYPICAL ALL BASES

NOTE: AT 90 DEG INTERSECTION MAX PIPE SIZE 24"

STANDARD CAST-IN-PLACE MANHOLE

*5 BARS AT 12" C-C BOTH WAYS

CAST-IN-PLACE TYPE S MANHOLE

WATER TIGHT CREEK BED M H COVER

*5 AT 8" C-C BOTH WAYS

ALTERNATE CONE

CAST IN PLACE MANHOLE DETAIL
MANHOLE NOTES:
1. PIPE DIAMETER TO BE THE SAME AS LINE CONSTRUCTION.
2. APPROVED PREFABRICATED RUBBER GASKET OR O-RING SHALL BE USED AT ALL JOINTS.
3. FOR MANHOLE IN PAVEMENT, A 6' X 6' MIN. SIZE BLOCKOUT REQUIRED.
4. PIPE TO MANHOLE CONNECTORS SHALL BE KOR-N-SEAL OR APPROVED EQUAL.

FOR PRESSURE TIGHT LIDS, USE MINIMUM 4-3/4" DIA. STAINLESS STEEL Threaded INSERTS.

TO BE FLUSH WITH Finished GRADE OF ROADWAY. IN EASEMENTS... ETC. THE RIM SHALL BE SET SLIGHTLY ABOVE SURROUNDING GRADE, BUT NOT MORE THAN 4" ABOVE GROUND IN NON-PAVED AREAS.

ADJUST HEIGHT WITH 2" X 8" X 24" DIA. PRECAST REINFORCED CONCRETE GRADE RINGS AND CEMENT MORTAR.

MANHOLE RING & COVER REQUIRED.

GROUT FRAME IN PLACE OR ANCHOR AS REQUIRED.

CLASS "C" CONCRETE COLLAR AROUND RING & CONE CONNECTION.

SAW CUT HOLE IN TOP OF TEE. MIN. 4" DIAMETER.

STAINLESS STEEL HANGER BOLTED TO SIDE WALL.

STANDARD CONCENTRIC MANHOLE TOP A.S.T.M. C-478

PREFABRICATED RUBBER GASKET AT ALL JOINTS.

COMPACTED BACKFILL ON ALL SIDES AT ONE TIME IN LAYERS NOT MORE THAN 12".

PREC casts MANHOLE RISERS A.S.T.M. C-478

45° BEND

CUT OUT

CONCRETE BLOCKING BEHind BEND

CONCRETE BASE - CLASS "A" CONCRETE

NO. 5 BARS Ø 12" C-C BOTH WAYS

WALL

STAINLESS STEEL RISER ANCHOR

1. BOLT SIZE: 3/8" DIAMETER, LENGTH: NOT TO EXCEED 1" PAST ANCHOR WHEN INSTALLED.
2. TYPE: 304 OR 316 STAINLESS.
3. BOLT ANCHOR DEPTH: 2" MIN., EPOXY SEAL NOT TO PROTRUDE THROUGH MANHOLE WALL.
4. ANCHOR SPACING: 4" MAX. (MIN. NUMBER OF ANCHORS - 2 PER DROP: 1-6" BELOW TEE, 1-6" ABOVE 45° BEND AT BOTTOM OF M.H.)
5. DROP PIPE TYPE: SDR-35 (BELL & SPIGOT)
6. BOTTOM BEND NOT TO BE GREATER THAN 45°, BEND NOT TO BE MORE THAN 4" FROM BENCH OF MANHOLE.
MH. TO BE REMOVED A MIN. OF 3'-0" BELOW GRADE.

EXISTING PAVEMENT

CEMENT STABILIZED SAND OR CRUSHED STONE.

TO BE PLUGGED PRIOR TO POURING CONCRETE.

CONC. TO A POINT ABOVE TOP OF PIPE.

EXISTING CONC. BASE

TO BE PLUGGED PRIOR TO POURING CONCRETE
Manhole cover and frame shall be called PAMREX or approved equal. Cover and frame shall be manufactured from Ductile Iron.

Covers shall be hinged and incorporate a 90 degree blocking system to prevent accidental closure. Covers shall be one man operable using standard tools and shall be capable of withstanding a test load of 80,000 lbs.

Frames shall be circular, incorporate a seating ring and a fitted plug in the hinge housing, and be available in a 24 inch clear opening. The frame depth shall not exceed 4 inches, and the flange shall incorporate bedding slots, bolt holes, and lifting eyes.

All components shall be black coated.

Frame weight: 73 lbs.
Cover weight: 122 lbs.
Total weight: 195 lbs.

PAMREX is available from Jim Cox Sales, Inc. (800) 838-7377.

<table>
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<tr>
<th>DIMENSIONS (INCHES)</th>
<th>WEIGHT (lbs)</th>
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<tr>
<td>A 33 1/2&quot;</td>
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<tr>
<td>COVER AND FRAME</td>
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<tr>
<td>195</td>
<td>122</td>
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CONCRETE CONE

PRESSURE-TYPE M.H.
FRAME & COVER TO BE PAMTIGHT 24" M.H.
M.H. FRAME CAST IN ROOF W/ CONTINUOUS POUR FROM BASE.

FOR 5' & 6' DIA. M.H.'S
SEE TRANSITION DETAIL

CRUSHED ROCK EMBEDMENT

CLASS "C" CONCRETE
MONOLITHIC POUR

TRANSITION DETAIL FOR
5' & 6' DIA. M.H.'S

NOTE: IF PRE-CAST MANHOLE IS USED,
PRE-CAST SECTIONS TO BE TIED
TOGETHER WITH ENGINEERED
STAINLESS STEEL STRAPING.

Revision Date: 09/05

Scale: N/A Date: 06/01/05
Design: 
Drawn: JMK
Dwg. File: MHL_005.DWG
Project No.: STANDARD-DETAILS

WASTEWATER MANHOLE
PRESSURE-TYPE

PAGE 7

GARLAND
STANDARD DETAILS
Manhole cover and frame shall be called PAMTiGHT or approved equal. Cover and frame shall be manufactured from Ductile Iron.

Covers shall be fastened to the frame by six clamping claws held by stainless steel bolts. Covers shall incorporate a sealed handling box and be one man operable using standard tools, and shall be capable of withstanding a test load of 80,000 lbs.

Frames shall be circular and be available in a 24 inch clear opening. The frame depth shall not exceed 4 inches, and the flange shall incorporate bedding slots and bolt holes.

Cover and frame shall incorporate a seating ring to prevent the ingress and escape of air and water to 1 bar positive or negative rating.

Cover and frame shall be black coated.


PAMTiGHT is available from Jim Cox Sales, Inc. 800-838-7377

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<tr>
<th>DIMENSIONS (INCHES)</th>
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