

GENERAL NOTES FOR AWWA C30X SERIES (CPP) PRESSURE DESIGN:

1. PRECAST MAINTENANCE HOLES AND PIPE TO BE SUPPLIED BY A MANUFACTURER CERTIFIED UNDER THE OCPA PLANT PREQUALIFICATION PROGRAM (STD. DWG. 2-0-1).
2. ALL MAINTENANCE HOLE AND PIPE DESIGNS SHALL ACCOMMODATE PRESSURE TESTING TO 50psi (345kPa) TEST PRESSURE AT SPRINGLINE OF PIPE AT HIGHEST PIPE INVERT POINT WITHIN PRESSURE TEST AREA. PROVIDE TESTABLE JOINTS AND TEMPORARY BULKHEAD AT TRANSITION FROM CPP TO PRECAST TAPER TOP SECTIONS AS PER STANDARD DRAWINGS. TEST PRESSURE MUST HOLD FOR MINIMUM OF TWO HOURS. MAKEUP WATER ALLOWANCE SHALL BE PER AWWA M9 CRITERIA.
3. AIR TESTING IS NOT PERMITTED.
4. DESIGN OF MAINTENANCE HOLE AND PIPE SHALL BE AWWA C30X SERIES, IN ACCORDANCE WITH AWWA STANDARDS INCLUDING AWWA C304 AND AWWA CONCRETE PRESSURE PIPE MANUAL M9.
5. PROVIDE RESTRAINED WELDED BASE SECTIONS FOR ALL MAINTANANCE HOLES UNLESS ALTERNATE APPROVED AND SPECIFIED ON PROJECT SPECIFIC REQUIREMENTS.
6. USE ALTERNATIVE BASE, TOP, PIPE SUPPORT OR CONNECTOR, STEPS, FRAME AND COVER AND/OR BENCHING ONLY WHERE APPROVED AND SPECIFIED ON PROJECT SPECIFIC REQUIREMENTS.
7. PROVIDE BASE EXTENSIONS FOR UPLIFT PREVENTION ON PRECAST MAINTENANCE HOLES WHERE REQUIRED. REFER TO CONTRACT DRAWINGS AND SPECIFICATIONS AND GEOTECHNICAL REPORT FOR PROJECT SPECIFIC REQUIREMENTS.
8. SPECIAL BASE DESIGN REQUIRED FOR DEPTHS GREATER THAN 9.0 m.
9. APPROVED ADJUSTMENT UNITS AND APPROVED FRAME AND COVER SYSTEMS TO BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS (STD. DWGS. SECTION 2-6) AND BASED ON PROJECT SPECIFIC REQUIREMENTS.
10. FILL LIFTING HOLES WITH 1:3 NON SHRINK MORTAR MIX.
11. FROST STRAPS SHALL BE INSTALLED AT ALL RCP RISER, TRANSITION, AND TOP SECTION MAINTENANCE HOLE JOINTS TO A MAXIMUM DEPTH OF 3.0m FROM FINISHED GRADE (STD. DWG. 2-6-16).
12. VENT PIPES SHALL BE REQUIRED AT EVERY THIRD MAINTENANCE HOLE ON SECTIONS OF SANITARY SEWERS WITH WATERTIGHT COVERS IN EASEMENTS. INSTALLATIONS WITHIN FLOOD PLAINS OR AREAS WITH HIGH LEVELS OF HYDROGEN SULFIDE. REFER TO PROJECT SPECIFIC REQUIREMENTS (STD. DWG. 2-5-22).
13. WATERPROOF MEMBRANE SHALL BE APPLIED EXTERNALLY AROUND ALL AWWA C30X SERIES (CPP) TO PRECAST RCP, RCP TO RCP, AND ADJUSTMENT UNIT JOINTS ON ALL MAINTENANCE HOLES. WATERPROOF MEMBRANE TO BE "MEL-ROL" BY W.R. MEADOWS OF MILTON ONTARIO OR APPROVED EQUAL. EXTEND COMPLETELY AROUND ALL JOINTS WITH A MINIMUM 300mm WIDE STRIP. WATERPROOF ABOVE GRADE SURFACES WITH "CEM-KOTE FLEX ST" BY W.R. MEADOWS OF MILTON ONTARIO OR APPROVED EQUAL (STD. DWG. 2-5-25). APPLY DETAIL STRIP ON ALL INSIDE OR OUTSIDE CORNER JOINTS BENEATH WATERPROOF MEMBRANE, C/W PRIMER AND SURFACE PREPARATION AS PER MANUFACTURER'S SPECIFICATIONS. DETAIL STRIP TO BE "MEL-ROL DETAIL STRIP" BY W.R. MEADOWS OF MILTON ONTARIO OR APPROVED EQUAL (STD. DWG. 2-5-25).
14. FRP SAFETY PLATFORMS (TYPICAL), OR ALUMINUM SAFETY PLATFORMS, WHERE APPROVED, TO BE INSTALLED IN MAINTENANCE HOLES (STD DWGS. SECTION 2-6). PLATFORMS TO BE ANCHORED IN PRECAST RCP SECTIONS USING 316 SS HILTI KWIK BOLTS OR APPROVED EQUAL.
15. FRP LADDERS (TYPICAL), OR ALUMINUM LADDERS, TO BE INSTALLED IN ALL MAINTENANCE HOLES (STD DWGS. SECTION 2-6). LADDERS TO BE ANCHORED IN PRECAST RCP SECTIONS USING 316 SS HILTI KWIK BOLTS OR APPROVED EQUAL.
16. ANCHORING IN AWWA C30X SERIES (CPP) RISER OR BASE SECTIONS SHALL UTILIZE FACTORY INSTALLED INSERTS PROVIDED DURING PIPE MANUFACTURING UNLESS OTHERWISE INDICATED BY AGENCY AS PER PROJECT SPECIFIC DESIGN. FIELD INSTALLED ANCHORS SHALL ONLY BE PERMITTED WITH APPROVAL BY AGENCY. SHALL NOT PENETRATE THE STEEL CYLINDER, AND SHALL MEET ALL LOAD REQUIREMENTS AS PER PIPE, LADDER, AND PLATFORM MANUFACTURER.
17. BENCHING TO BE CONSTRUCTED TO THE OBVERT OF THE PIPE IN ALL CASES. 15MPa CONCRETE UNLESS OTHERWISE INDICATED (STD DWG. 2-5-20). BENCHING AS PER OPSS PROV 1350, MATERIAL SPECIFICATION FOR CONCRETE MATERIALS AND PRODUCTION.
18. FOR RIGID PIPE, SUPPORT FROM MAINTENANCE HOLE TO FIRST PIPE JOINT WITH MIN. 15 MPa. CONCRETE CRADLE (STD. DWG 2-5-16).
19. WHEN LADDER SECTIONS ARE USED IN NEW PRECAST RISER SECTIONS, LADDERS SHALL NOT EXTEND BEYOND TOP OR BOTTOM PLANE OF PRECAST RISER SECTIONS TO FACILITATE INSTALLATION IN FACTORY. LADDER SECTIONS SHALL BE JOINED AS PER STD. DWGS. 2-6-9 & 2-6-10 WITH SPLICE. LADDER SHALL TERMINATE AT THE TOP PRECAST SECTION WITH A STEP TO BE INSTALLED TO MEET 300mm SPACING REQUIREMENT BETWEEN SURFACE AND TOP OF LADDER. IF COMPOSITE ADJUSTMENT UNIT IS UTILIZED THEN THE TOP PRECAST RISER SECTION SHALL HAVE LADDER INSTALLED AFTER INSTALLATION AND THE TOP OF LADDER SHALL EXTEND TO WITHIN 300mm OF SURFACE PLANE.
20. ALL CHAMBERS LOCATED OUTSIDE OF R.O.W. OR WITHIN PARK SETTINGS MUST HAVE A 1500mm HIGH SANITARY CHAMBER MARKING POST (GREEN IN COLOUR), WITHIN 600mm OF CHAMBER COVER (STD. DWG. 2-6-17).
21. ALL AWWA C30X SERIES (CPP) JOINTS SHALL BE DIAPERED, GROUTED AND INTERNALLY PARGED AS PER MANUFACTURER'S SPECIFICATIONS.
22. PIPE SHOP DRAWINGS AND PRESSURE TESTING PLAN TO BE SUBMITTED TOGETHER FOR REVIEW AND COMMENT.
23. WHEN NEW CONSTRUCTION IS BEING CONNECTED TO EXISTING STRUCTURES, CONNECTION POINTS AND JOINT RESTRAINTS NEED TO BE CONSIDERED DURING DESIGN.
24. NEW AWWA C30X SERIES (CPP) PRESSURE TESTED SANITARY SYSTEM DESIGN SHALL BE APPLICABLE WHEN PIPE 600mm OR GREATER SHALL BE UTILIZED (TYP.) OR ACCORDING TO PROJECT SPECIFIC DESIGN REQUIREMENTS.
25. ALL TYPICAL REQUIREMENTS SHOWN ON STANDARD DRAWINGS FOR NEW AWWA C30X SERIES (CPP) PRESSURE TESTED SANITARY SYSTEMS SHALL BE APPLICABLE TO ALL DESIGNS, PIPE SIZES AND CONFIGURATIONS.
26. IF RECTANGULAR POURED IN PLACE CHAMBERS ARE REQUIRED. CHAMBER DESIGN SHALL BE AS PER AMERICAN CONCRETE INSTITUTE (ACI) 350-06 CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES. FOR RECTANGULAR CHAMBERS, DESIGN SHALL ALSO MEET THE REQUIREMENTS AND INTENT OF STANDARD DRAWINGS 2-5-9, 2-5-10 AND 2-5-11.

NOTE

1. GENERAL NOTES TO BE READ IN CONJUNCTION WITH ALL STANDARD DRAWINGS PERTAINING TO PRECAST MAINTENANCE HOLES.



PUBLIC WORKS STANDARD DRAWING

REV. DATE: AUGUST 2020

REVISION NUMBER: 3

FOR REVISION TRACKING
REFER TO STD. DWG. 2-0-2

APPROVED BY

DRAWN BY

A.P.

AINLEY GROUP

STD. DWG. NUMBER

SCALE

2-7-1

N.T.S.

NEW AWWA C30X SERIES (CPP) PRESSURE TESTED SANITARY SYSTEMS

GENERAL NOTES FOR AWWA C30X SERIES (CPP)
PRESSURE DESIGN