

GENERAL REFERENCES FOR DRAWINGS:

REGION OF PEEL STANDARD DRAWINGS DELETED - MARCH 2017 REVISION:

DRAWING NUMBER	DRAWING TITLE	ORIGINAL DATE	REPLACED WITH NEW REGION OF PEEL STANDARD DRAWING	REPLACED WITH OPSD
SECTION 2-1	2-1-1	PRECAST MAINTENANCE HOLE 1200mm DIAMETER	2-5-3	
	2-1-2	PRECAST MAINTENANCE HOLE 1500mm AND 1800mm DIAMETER	2-5-4, 2-5-5	PRECAST CONC. BASE
	2-1-3	PRECAST MAINTENANCE HOLE TEES	2-7-6, 2-7-7, 2-7-8	
	2-1-4	MAINTENANCE HOLE BENCHING DETAILS	2-5-20	
	2-1-5	MAINTENANCE HOLE DROP STRUCTURE EXTERNAL ASSEMBLY	2-5-26	
	2-1-6	MAINTENANCE HOLE DROP STRUCTURE INTERNAL ASSEMBLY	2-5-27 ₅₀	
	2-1-7	MAINTENANCE HOLE VENTING DETAILS	2-5-22	
SECTION 2-2	2-2-1	SAFETY PLATFORM FOR 1200mm DIAMETER PRECAST M.H.	2-6-13, 2-6-14	EPDM COVER ABOVE
	2-2-2	STANDARD HEAVY DUTY FRAME AND COVER	2-6-1, 2-6-2, 2-6-3, 2-6-4	
	2-2-3A	DETAIL OF ANCHORING METHOD FOR WATER TIGHT M.H.	2-6-8	
	2-2-3B	DETAIL OF ANCHORING METHOD FOR WATER TIGHT M.H.	2-6-7	
	2-2-4	STANDARD MAINTENANCE HOLE STEPS ALUMINUM	2-6-11	

ONTARIO PROVINCIAL STANDARD DRAWING REFERENCES TO BE READ IN CONJUNCTION WITH REGION OF PEEL STANDARD DRAWINGS - MARCH 2017 REVISION:

DRAWING NUMBER	DRAWING TITLE	MODULOC ADJUSTMENT UNITS SHALL BE EXTERNALLY PARGED ALL AROUND
404.020	ALUMINUM SAFETY PLATFORM FOR CIRCULAR MAINTENANCE HOLES	FRAME COVER (STD. NO. 1-2-2)
404.022	ALUMINUM SAFETY PLATFORM FOR 1200mm CIRCULAR MAINTENANCE HOLES WITH SLOPE DIRECTLY OVER OPERATING UNIT	
405.020	MAINTENANCE HOLE STEPS SOLID WITHIN CHAMBER	APPROVED ADJUSTMENT UNITS (150 MIN., 450 MAX.)
406.010	ALUMINUM LADDER FOR MAINTENANCE HOLES	
701.021	MAINTENANCE HOLE BENCHING AND PIPE OPENING ALTERNATIVES	
1003.010	CAST-IN-PLACE MAINTENANCE HOLE DROP STRUCTURE	PRECAST CONC. ROOF SLAB
1003.020	CAST-IN-PLACE MAINTENANCE HOLE DROP STRUCTURE W/VE	
1003.030	INTERNAL DROP STRUCTURE FOR EXISTING MAINTENANCE HOLE	ALUMINUM RUNGS

NOTE: THIS LIST INCLUDES OPSD REFERENCES THAT APPLY DIRECTLY TO THE NEW AND REVISED REGION OF PEEL STANDARD DRAWINGS, BUT IT DOES NOT PRECLUDE THE APPROVED USE OF ANY AVAILABLE OPSD REFERENCES NOT LISTED ABOVE.

GENERAL NOTES FOR PRECAST CONCRETE MAINTENANCE HOLES AND CHAMBERS:

- ALL PRECAST CHAMBERS TO BE SUPPLIED BY A MANUFACTURER CERTIFIED UNDER THE OCPA PLANT PREQUALIFICATION PROGRAM - A.
- SUBMIT SHOP DRAWINGS TO THE CONTRACT ADMINISTRATOR FOR INFORMATION. ALL DRAWINGS SHALL BEAR THE SIGNATURE AND SEAL OF A PROFESSIONAL ENGINEER LICENSED TO PRACTISE IN ONTARIO.
- THE MANUFACTURER SHALL PROVIDE LETTERS SIGNED BY A PROFESSIONAL ENGINEER CERTIFYING THE FOLLOWING:
 - THAT THE DESIGN OF THE PRECAST UNITS MEETS THE REQUIREMENTS OF THE SPECIFICATIONS
 - THAT THE PRECAST UNITS HAVE BEEN MANUFACTURED AS PER DESIGN AND INSPECTED IN ACCORDANCE WITH THE PLANT PREQUALIFICATION PROGRAM
- PROVIDE CONCRETE WITH A MINIMUM STRENGTH OF 35 MPa UNLESS A HIGHER STRENGTH IS REQUIRED BY THE MANUFACTURER OR DESIGNER.
- REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CSA G30.18 WITH A MINIMUM YIELD STRENGTH OF $F_y=400$ MPa.
- IF CHAMBER (PRE-EXISTING) IS ANY OTHER CONFIGURATION OTHER THAN ROUND THE CONTRACTOR SHALL FIRST CAST-IN-PLACE SURROUND TO ROUND TRANSITION TO MATCH SPECIFICATIONS AND REQUIREMENTS OF REHABILITATION PRODUCTS BEING UTILIZED. CAST-IN-PLACE TRANSITION MUST BE ENGINEERED AND STAMPED AND PROVIDED WITH A WATERTIGHT CONNECTION BETWEEN EXISTING AND NEW SECTION.
- REFER TO STANDARD DRAWINGS IN SECTIONS 2-5 AND 2-6 AND ONTARIO PROVINCIAL STANDARD DRAWINGS FOR CHAMBER DETAILS RELATING TO WATER TIGHT OPENING JOINT SEALING, ADJUSTMENT UNITS, FRAME & COVERS, CHAMBER STEPS AND LADDERS AND FROST PROTECTED REINFORCED CONCRETE BASE SLAB.

NOTE: PRECAST COMPONENTS SHALL BE DESIGNED AND MANUFACTURED TO CSA STANDARD A23.3 AND CSA STANDARD A23.4. FURTHER, ALL PRECAST CHAMBER COMPONENTS, INCLUDING TOP SLABS, SHALL ALSO MEET THE

1. REQUIREMENT OF SUPPORT CONCRETE STRENGTH TO BE 20 MPa.
 2. FILL JOINTS AND LIFT HOLES WITH 1:3 NON SHRINK MORTAR MIX.
- GENERAL NOTES FOR PIPING**
3. APPROVED ADJUSTMENT UNITS INSTALLED AS PER MANUFACTURERS INSTRUCTIONS
 4. SUBMIT CONCRETE PRESSURE PIPE SHOP DRAWINGS TO THE CONTRACT ADMINISTRATOR FOR INFORMATION. ALL DRAWINGS SHALL BEAR THE SIGNATURE AND SEAL OF A PROFESSIONAL ENGINEER LICENSED TO PRACTISE IN ONTARIO.
 5. STEEL SHOWN IS TYPICAL ONLY, ACTUAL REINFORCEMENT AS PER SITE SPECIFIC REQUIREMENTS
 2. REFER TO STANDARD DRAWING 2-5-21 FOR MAXIMUM PIPE SIZES IN PRECAST MAINTENANCE HOLES OR CHAMBERS. AND AS PER THE DESIGNERS REQUIREMENTS



**PUBLIC WORKS
STANDARD DRAWING**

REV. DATE: ~~MARCH 2009~~ **MARCH 2017**

APPROVED BY

DRAWN BY

R.B.

WINLEY GROUP

STD. DWG. NUMBER

SCALE

2-0-1

N.T.S.

GENERAL NOTES FOR PRECAST CHAMBERS