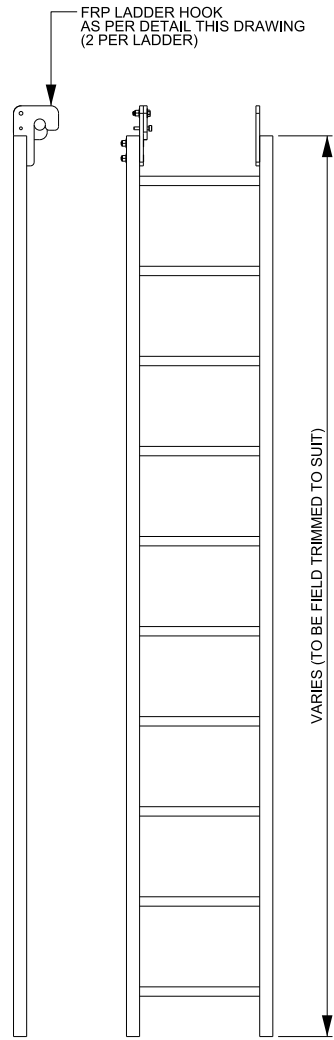
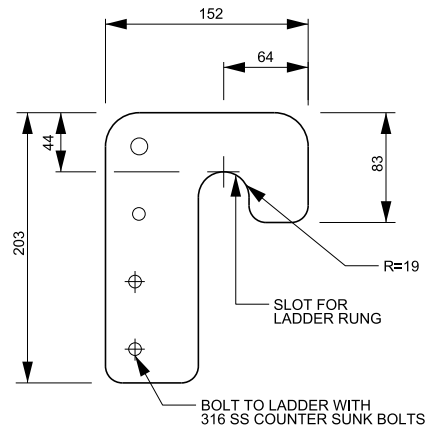


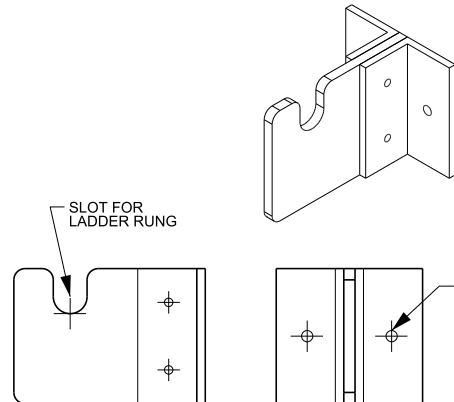
FRP LOCKING FEATURE FOR REMOVABLE FRP LADDER
(2 PER LADDER)



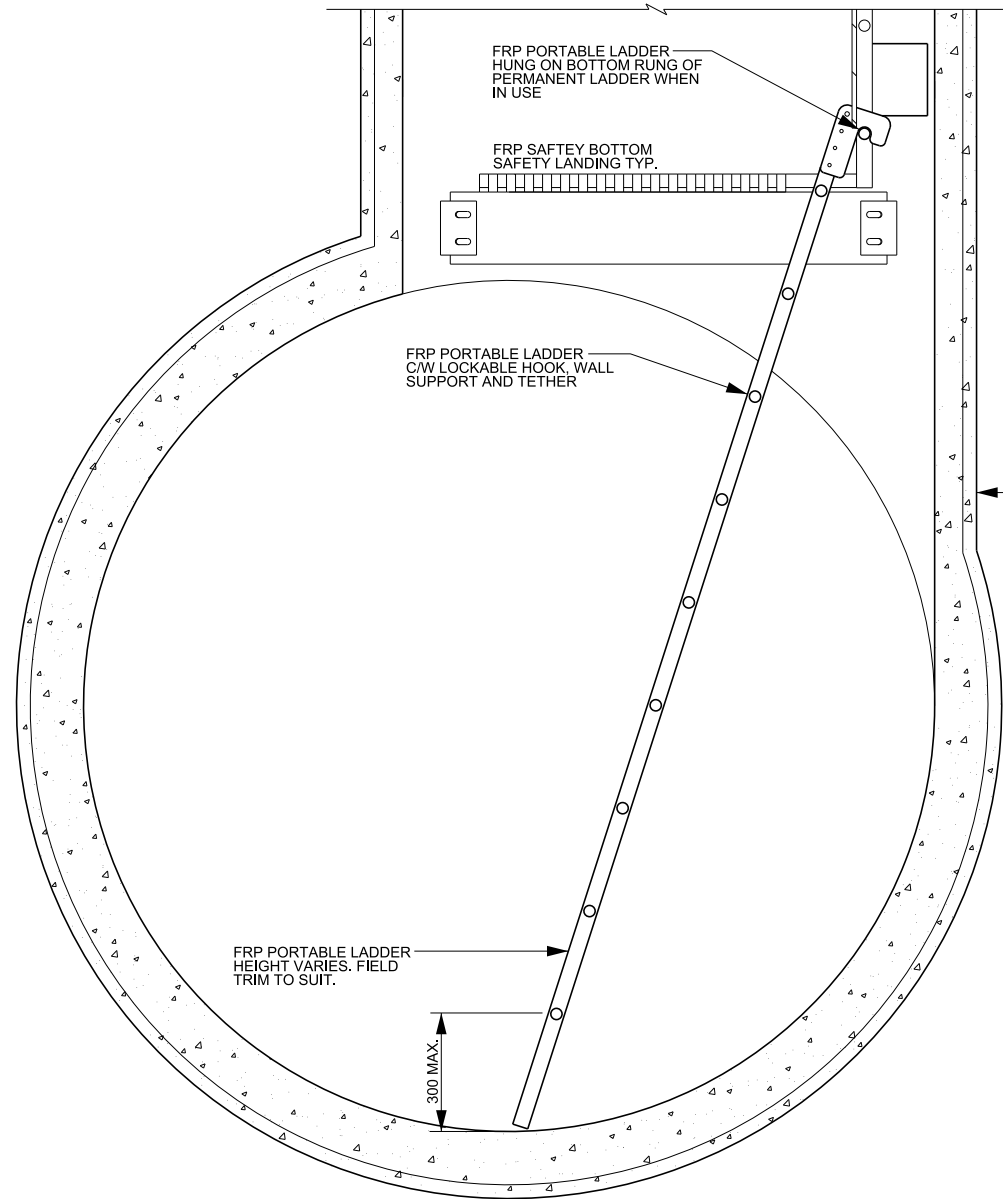
PORTABLE FRP LADDER
NOTE:
LADDER TO BE TETHERED TO WALL WITH 3mm DIAMETER 316 SS WIRE ROPE (SEE DETAIL THIS DWG.)



13mm THICK FRP LADDER HOOK



FRP WALL LADDER SUPPORT BRACKET



PORTABLE LADDER POSITION WHEN IN USE WITHIN LARGE DIAMETER CPP TANGENT TEE SEWER

3mm (MIN.) DIAMETER 316 SS WIRE ROPE TO BE ATTACHED TO THE LADDER USING A 316 SS WIRE ROPE CLAMP (McMASTER-CARR OR APPROVED EQUAL) TO LOOP THE WIRE AROUND THE FIRST RUNG. WIRE ROPE TO BE ANCHORED TO THE CHAMBER WALL WITH APPROPRIATE 316 SS HARDWARE. ANCHOR POINTS MUST BE INSTALLED AT FACTORY AS PART OF CHAMBER DESIGN.

FRP PORTABLE LADDER TO HAVE A 3mm (MIN.) DIAMETER 316 SS WIRE ROPE (McMASTER-CARR OR APPROVED EQUAL) RESTRAINING LINE ATTACHED TO THE TOP RUNG AT ONE END AND ANCHORED TO CHAMBER WALL AT THE OTHER. THE LENGTH OF THE WIRE ROPE SHOULD BE A LENGTH WHICH WILL ALLOW THE LADDER TO TRANSITION FROM THE STORAGE MOUNT TO THE DEPLOYED MOUNT WITH LITTLE SLACK REMAINING IN THE CABLE AND ITS TRAJECTORY DURING BOTH PHASES SHOULD BE DESIGNED IN SUCH A MANNER SO AS TO NOT CAUSE AN ISSUE WITH EGRESS. THIS RESTRAINT IS TO LIMIT THE POSSIBILITY OF THE LADDER BEING DISLODGED OR DROPPED INTO THE FLOW AND LOST DOWNSTREAM.

AWWA C300 SERIES (CPP) TANGENT TEE AS PER PROJECT DESIGN (REFER TO STD. DWG. SECTION 2-7 FOR DETAILS)

FRP PORTABLE LADDER TO BE ANCHORED TO WALL WHEN NOT IN USE SO THAT BOTTOM OF LADDER REMAINS ABOVE THE LEVEL OF SAFETY LANDING

FRP SAFTEY BOTTOM SAFETY LANDING TYP.

FRP PORTABLE LADDER TO BE LIFTED UP AND ANCHORED TO WALL WHEN NOT IN USE

FRP PORTABLE LADDER POSITION WHEN IN USE

FRP PORTABLE LADDER POSITION WHEN NOT IN USE

FRP WALL LADDER SUPPORT BRACKET (SEE DETAIL THIS DWG.)

FRP PORTABLE LADDER POSITION WHEN NOT IN USE

FRP PERMANENT LADDER BRACKETS TYP.

FRP PERMANENT LADDER TYP.

FRP PORTABLE LADDER HUNG ON BOTTOM RUNG OF PERMANENT LADDER WHEN IN USE

AWWA C300 SERIES (CPP) TANGENT TEE AS PER PROJECT DESIGN (REFER TO STD. DWG. SECTION 2-7 FOR DETAILS)

PORTABLE LADDER POSITION WHEN NOT IN USE WITHIN LARGE DIAMETER CPP TANGENT TEE SEWER

NOTE: FRP PRODUCTS TO BE PROVIDED BY ACCESS INDUSTRIAL OF MISSISSAUGA (OR APPROVED EQUAL)

NEW CONSTRUCTION		REHABILITATION
FULL EXCAVATION	PARTIAL EXCAVATION	NO EXCAVATION
INTERNAL		EXTERNAL
ROW	FLOOD PLAIN	EASEMENT
II/I	H2S	SECURITY

NOTE

- REFER TO STANDARD DRAWING 2-5-1, 2-7-1 AND 2-8-1 FOR GENERAL NOTES PERTAINING TO PRECAST OR AWWA C300 SERIES (CPP) MAINTENANCE HOLES.
- REFER TO STANDARD DRAWING 2-5-1, 2-7-1 FOR GENERAL NOTES PERTAINING TO ANCHORING REQUIREMENTS.
- ALL BOLTS, NUTS AND WASHERS SHALL BE 316 STAINLESS STEEL UNLESS SPECIFIED IN PROJECT DESIGN.
- ALL FRP BRACKETS SHALL BE MANUFACTURED IN ACCORDANCE WITH CAN/CGSB 41.22-93.
- SUBMIT SHOP DRAWINGS TO THE CONTRACT ADMINISTRATOR FOR REVIEW AND COMMENT. ALL DRAWINGS SHALL BEAR THE SIGNATURE AND SEAL OF A PROFESSIONAL ENGINEER LICENSED TO PRACTISE IN ONTARIO.



PUBLIC WORKS STANDARD DRAWING

MAINTENANCE HOLE APPURTENANCES

PORTABLE FRP LADDER DETAILS

REV. DATE: NOVEMBER 2019

REVISION NUMBER: 1 FOR REVISION TRACKING REFER TO STD. DWG. 2-0-2

APPROVED BY DRAWN BY

A.P. AINLEY GROUP

STD. DWG. NUMBER SCALE

2-6-12 N.T.S.