1. A prefabricated 5’ diameter fiberglass metering manhole, (Plasti-Fab or equal) meeting the requirements of ANSI/ASTM D-3753 standard specifications for fiber-reinforced manholes.

2. The top opening shall be a full opening hinged lid. The hinge shall be positioned parallel to the flow through the metering manhole.

3. The top rim of the prefabricated metering manhole shall not exceed 18 inches above ground level.

4. Two four inch FRP (Fiberglass Reinforced Polyester) taps with plugs, one above grade, and one below grade, are to be placed through the side wall above the inlet pipe.

5. A nine by ten foot concrete pad five inches thick and two inches above grade shall be constructed surrounding the manhole. The slab shall be positioned such that the manhole is centered in the nine foot dimension and offset in the ten foot dimension such that a three-foot section of the slab is oriented over the inlet pipe and a two foot section is over the outlet pipe.

6. Allowable slope entering and exiting the metering manhole shall be limited to a specific maximum and minimum as per the following table:

PIPE SIZE	MIN. % SLOPE	MAX. % SLOPE
6”	2.00	2.2
8”	0.70	2.0
10”	0.50	1.8
12”	0.40	1.6
15”	0.30	1.5
18”	0.24	1.4
21”	0.19	1.4

7. No bends, drop manhole, flow junctions, etc. shall be located within 25 pipe diameters upstream of the center of the manhole.

8. Downstream slope shall be greater than or equal to upstream slope. There shall be no obstruction downstream of the manhole that will cause flow to backup in manhole.

9. 6’ long, 4” I.D. Cast Iron guard posts shall be installed as directed by the engineer, to prevent vehicular damage to the metering manhole. Guard Posts shall be filled with concrete and installed 2’ deep set in concrete.

10. The flume (Plasti-Fab or equal) shall be appropriately sized according to manufacturer’s specifications with one 3/8” stainless steel sample line and any other attachments needed for the type of flow meter selected. (Note: Minimum and Maximum flow rates must be determined to select an appropriately sized flume).

11. A two outlet GFCI, 110 Volt, AC Electrical Supply shall be supplied for exclusive use by BCWS at the concrete pad, or within fifty feet so that the route of an extension cord will not cross a traffic zone. A flow meter suitable for site specific conditions and flow patterns shall be installed at the metering manhole, and maintained according to manufacturer’s specifications and the BCWS Industrial Wastewater Flow Metering Agreement and Requirements. If the flow meter is going to be used for billing purposes, the flow meter shall be installed in a (Plasti-Fab or equal) enclosure to protect the flow meter from weather or any other unsatisfactory conditions.

12. Any locking mechanism shall utilize dual locks. One BCWS supplied lock in addition to any placed by the user.

13. The accuracy of the flow meter for open channel flow must be within +/-5% as outlined in the BCWS Wastewater Flow Measurement Device Criteria.

14. BCWS must approve the manhole and metering system prior to installation, and all other terms and conditions of the BCWS Industrial Wastewater Flow Metering Agreement and Requirements must be met.

BCWS INDUSTRIAL WASTEWATER METERING MANHOLE REQUIREMENTS

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