SECTION 22 1323 – SANITARY WASTE INTERCEPTOR (BMU)

PART 1.0 - GENERAL

1.1 SCOPE OF WORK

A. This section pertains to concrete, polyethylene, and metal sanitary waste interceptors used for the removal of grease and sediment from waste streams for installations within or adjacent to the building envelope.

1.2 SECTION INCLUDES

A. This Section includes the following:

1. Hydromechanical Grease Interceptor

1.3 RELATED REQUIREMENTS

A. SECTION 01 3000 – ADMINISTRATIVE REQUIREMENTS

B. SECTION 31 2319 – DEWATERING (BMU)

C. SECTION 31 2333 – TRENCHING AND UTILITY BACKFILLING (BMU)

D. SECTION 33 3100 – SANITARY SEWER UTILITIES (BMU)

1.4 PRIOR APPROVAL

A. Approval prior to bidding is necessary if it is intended to use materials and equipment other than those specifically named in Approved Manufacturers. Instructions for obtaining such approval are specified in the General Requirements. Prior approved manufacturers shall be named by Addendum.

1.5 CONTRACTOR LICENSE AND PERMITS

A. Any Contractor installing or repairing private water services, shall obtain a City of Brookings PLUMBING CONTRACTOR LICENSE as specified in Section 22-161-"Required" as found in Article III-PLUMBING of the City of Brookings Code of Ordinances.

B. When required by Section 74-141-"Permit Required" per Article IV-EXCAVATIONS of the City of Brookings Code of Ordinances, the Contractor shall obtain an "EXCAVATIONS PERMIT" issued at no charge from the Brookings City Engineering Office before any installation or repair of water/sewer commences.

C. The Contractor shall obtain any “DEWATERING PERMITS” required from local, state or federal agencies. The discharge area must be prior approved by the Engineer before initiating the dewatering.

D. The Contractor shall be required to obtain any other permits or license required by the project manual. It shall be the Contractor sole responsibility to determine which license and permits are needed for the completion of the project.

1.6 QUALITY CONTROL

A. Testing and/or retesting of materials because of nonconformance to the specified requirements shall be performed by an independent firm as per the instructions of the Engineer of Record.

B. Payment for retesting performed during the Contract period and during the warranty period will be the responsibility of the Contractor.

1.7 SUBMITTALS

A. The Contractor shall submit the number of copies that the contract requires plus one copy that the Engineer of Record will retain. The Contractor shall obtain shop drawing approval before any of the work related to that material is performed.

B. Shop drawings and data shall be submitted for, but not be limited to, the following items:

1. Grease Interceptor loading and sizing calculations
2. Manufacturer's Literature and Data Including:
    a. materials of fabrication,
    b. dimensions,
    c. rated capacities,
    d. retention capacities,
    e. operating characteristics,
    f. size and
    g. location of each pipe connection, furnished specialties, and accessories.

PART 2.0 - PRODUCTS

2.1 HYDROMECHANICAL GREASE INTERCEPTOR

A. Grease Interceptor shall be a hydromechanical grease Interceptor suitable of being installed below grade, outside of the structure and compliant with Uniform Plumbing Code and International Plumbing Code.

B. Grease Interceptor shall be made of seamless, rotationally-molded polyethylene. Interceptor shall be furnished for below grade installation. Interceptor shall be certified to ASME A112.14.3 (Type D) and CSA B481.1, with adjustable cover adapter, access restrictor built into cover adapter, and three outlet options.

C. Provide inlet diffuser that reduces turbulence, creates laminar flow and allows the entire tank volume to be utilized for efficient grease separation and minimal disturbance of existing grease and sediment layers. Inlet diffuser shall be attached to any of the three inlets provided to ease job site piping arrangements.

D. Grease Interceptor shall have integral air release/anti-siphon at the outlet diffuser to allow pressure stabilization within the unit during operation. The outlet diffuser shall be attached to any of the three outlets provided for ease of job site piping layouts.

E. Interceptor flow rate and capacity shall be designed based on the facility being services.

F. Covers for interceptor shall be water/gas tight seal and have minimum 16,000 lb (H-20) load capacity.

G. Grease Interceptor shall be Great Basin hydromechanical grease interceptor as manufactured by Schier, or prebid BMU Engineer approved equal.

PART 3.0 - EXECUTION

3.1 GREASE INTERCEPTOR HANDLING & STORAGE

A. Grease interceptor shall be loaded and unloaded by a means to prevent shock or damage. Under no circumstances shall such material be dropped.

B. Materials, if stored, shall be kept safe from damage. The interior of grease interceptor shall be kept free from dirt or foreign matter at all times.

C. Grease interceptor gaskets for push-on joints shall be stored in a cool location, out of direct sunlight. Gaskets shall not come in contact with petroleum products. Gaskets shall be used on a first-in, first-out basis.

3.2 INSTALLATION

A. Interceptors units shall be set level and plumb.

B. Install interceptor and grease/oil removal unit, including trapping, venting, and flow-control fittings according to the manufacture's installation instructions and with recommended service clearances.

C. Install interceptor and grease/oil removal unit with cleanout immediately downstream from unit that do not have integral cleanout on the unit.

D. Interceptor and grease/oil removal unit covers shall be set flush with finished surface in pavements and the tops shall be traffic-rated. Set tops 75 mm (3 inches) above finished surface elsewhere unless otherwise indicated.

3.3 CONNECTIONS

A. Piping connections shall be made between interceptor/grease/oil removal units and piping systems in accordance with manufacturer's written guidelines and local plumbing codes.

3.4 WARNING TAPE

A. Warning tape shall be placed over ferrous piping.

B. Detectable warning tape shall be used over nonferrous pipe and over the edges of underground structures.

3.5 STARTUP AND TESTING

A. Perform tests as recommended by product manufacturer and listed standards and under actual or simulated operating conditions and prove full compliance with design and specified requirements. Tests of the various items of equipment shall be performed simultaneously with the system of which each item is an integral part.

B. The tests shall include system capacity, control function, and alarm functions.

C. When any defects are detected, correct defects and repeat test at no additional cost or time to the Government.

3.6 TRENCH EXCAVATION

A. Reference Section 31 2333 – Trenching and Utility Backfilling, for trench excavation requirements.

3.7 DEWATERING

A. Reference Section 31 2319 – Dewatering, for trench dewatering requirements.

3.8 BEDDING, BACKFILL, COMPACTION AND COMPACTION TESTING

A. Reference Section 31 2333 – Trenching and Utility Backfilling, for trench excavation requirements

PART 4.0 - MEASUREMENT AND PAYMENT

4.1 XXX GALLON HYDROMECHANICAL GREASE INTERCEPTOR

A. Hydromechanical grease interceptors shall be measured for per each type and size of grease interceptor being furnished and installed. Payment shall be full compensation for grease interceptor, accessories, covers, piping, design/engineering for specific site consideration, labor, equipment, and incidentals necessary to complete the work necessary to furnish and install the grease interceptor.

END OF SECTION 46 2523