

RFB 1805-0063

HYDRODYNAMIC SEPARATOR SPECIFICATION

The City of Goodlettsville is soliciting bids for a Water Quality Treatment Device (including delivery) with a treatment flow rate of 2.5 cfs for their Administrative Offices & Residential Solid Waste/Recycling Drop-off Center. The device must capture floatable trash and free oil, and remove 80% of the total suspended solids for the specified flow rate. The device will be installed in-line and must therefore have an internal bypass system. Please see the specifications listed below for more information. A site plan of the proposed installation is available upon request. Installation of the unit is not part of this bid. Installation specifications are included for informational purposes only.

1. Manufacturer shall be responsible for complete assembly of watertight hydrodynamic separator.
2. Manufacturer shall supply direct access to hydrodynamic separator via 30-inch ID riser(s). If necessary to accommodate field adjustments, Contractor may cut riser to match finish grade. If necessary to extend riser, Contractor should use adjusting rings to bring top of structure to grade.
3. Contractor shall supply pipe couplings to and from hydrodynamic separator, which shall have flexible boot with stainless steel tension bands and shear guard. Manufacturer shall supply minimum 12" long inlet/outlet stub-outs ($\leq \text{Ø}10"$ shall be smooth rolled and $\geq \text{Ø}12"$ shall be corrugated (with re-rolled ends)).
4. Contractor shall prepare excavation and off-load hydrodynamic separator. The maximum weight of any single component is 8,000 pounds. Contractor is responsible for bedding and backfill around hydrodynamic separator as detailed on site plan (see notes 7 and 8).
5. Manufacturer shall supply standard manhole frame(s) and cover(s) (Traffic rated HS-25).
6. Contractor shall supply concrete anti-floatation pad underneath and poured over the octagonal base plate of the hydrodynamic separator (see Anti-Floatation Base Detail) to prevent buoyancy and base plate deflection (details, if necessary, available upon request).
7. Excavation and Bedding - The trench and trench bottom shall be constructed in accordance with ASTM A 798 Sections 5, 6, and 7. The hydrodynamic separator shall be installed on a stable base consisting of at least 6- inches of fine, readily compacted soil or granular fill material, and compacted to 95% proctor density. Bedding shall not contain stones retained on a 3-inch ring, frozen lumps, highly plastic clay, organic material, corrosive material, or other deleterious foreign materials. All required safety precautions for hydrodynamic separator installation are the responsibility of the Contractor and shall be per OSHA approved methods.
8. Backfill Requirements - Backfill materials shall be fine, readily compacted soil or granular fill material, and compacted to 90% proctor density. Processed granular materials with excellent structural characteristics are preferred. Coarse grained soils of USCS Groups GW, GP, GM, GC, SW, and SP as described in ASTM D 2487 are generally acceptable materials when compacted to 90% proctor density. Backfill shall not contain stones retained on a 3-inch ring, frozen lumps, highly plastic clay, organic material, corrosive material, or other deleterious foreign materials. Backfilling shall conform to ASTM A 798, Section 10. Backfill shall be placed in 6 to 12 inch layers or "lifts" and compacted before adding the next lift. Backfill shall extend at least 18 inches outward from

hydrodynamic separator and for the full height of the hydrodynamic separator (including riser(s)) extending laterally to undisturbed soils.

The City may waive any informality and make a selection at its sole and absolute discretion, which it deems to be in its best interest.