Low Impact Silt Removal

What Is Silt?
What do you call it?

- Silt
- Slime
- Mud
- Sludge
- Mire
- Sediment
- Muck

Sediment/Silt From Construction

30 Years of Organic Deposits

Sediment/Silt Deposits

Poor Water Quality

Typical Problems with using ordinary excavation equipment to do <u>maintenance</u> sediment removal from ponds and basins:

- Site Accessibility for Heavy Equipment
- *Area Needs to be Dewatered*
- *Bottom Damage Can Occur if Not Dewatered When Working in the Blind*
- *Rainy Weather Stops Work*
- *Material Removal Messy*
- *Not Friendly to Aquatic Life*

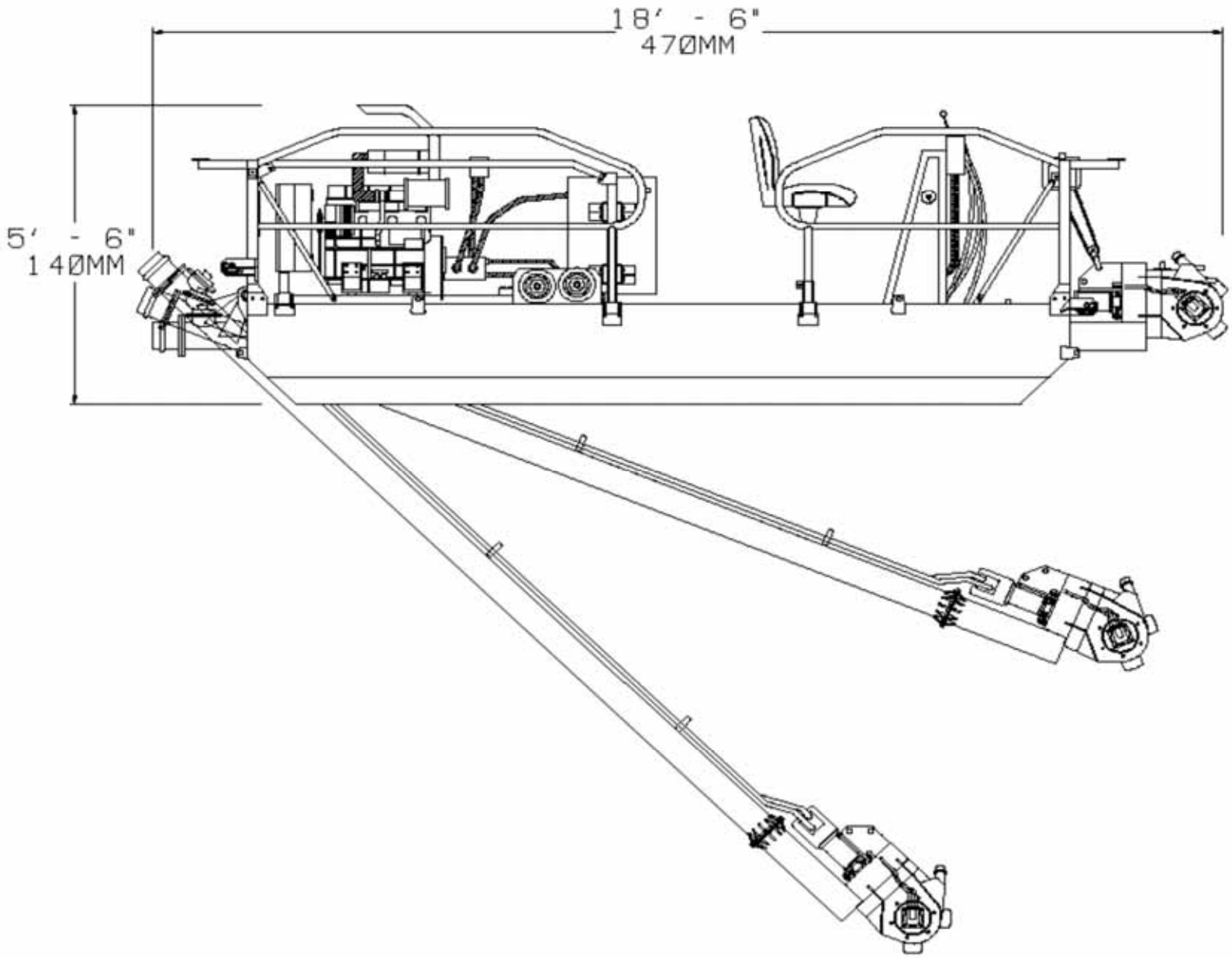
Traditional Sediment Removal

Traditional Sediment Removal

Low Impact Silt Removal

Sediment Removal For Maintenance of:

- *Lakes, Ponds, Reservoirs*
- *Coves & Inlets*
- *PVC, Rubber or Clay Lined Ponds*
- *Canals & Channels*
- *Marinas & Docks*
- *Golf Course Ponds*


18' - 6"
4700MM
5' - 6"
1400MM

Low Impact Silt Removal

Mini Dredge Solution

Low Impact Silt Removal

Easily Accessible to Confined Area

Low Impact Silt Removal

No Need for Dewatering Lake or Pond

Low Impact Silt Removal

Immediate Results

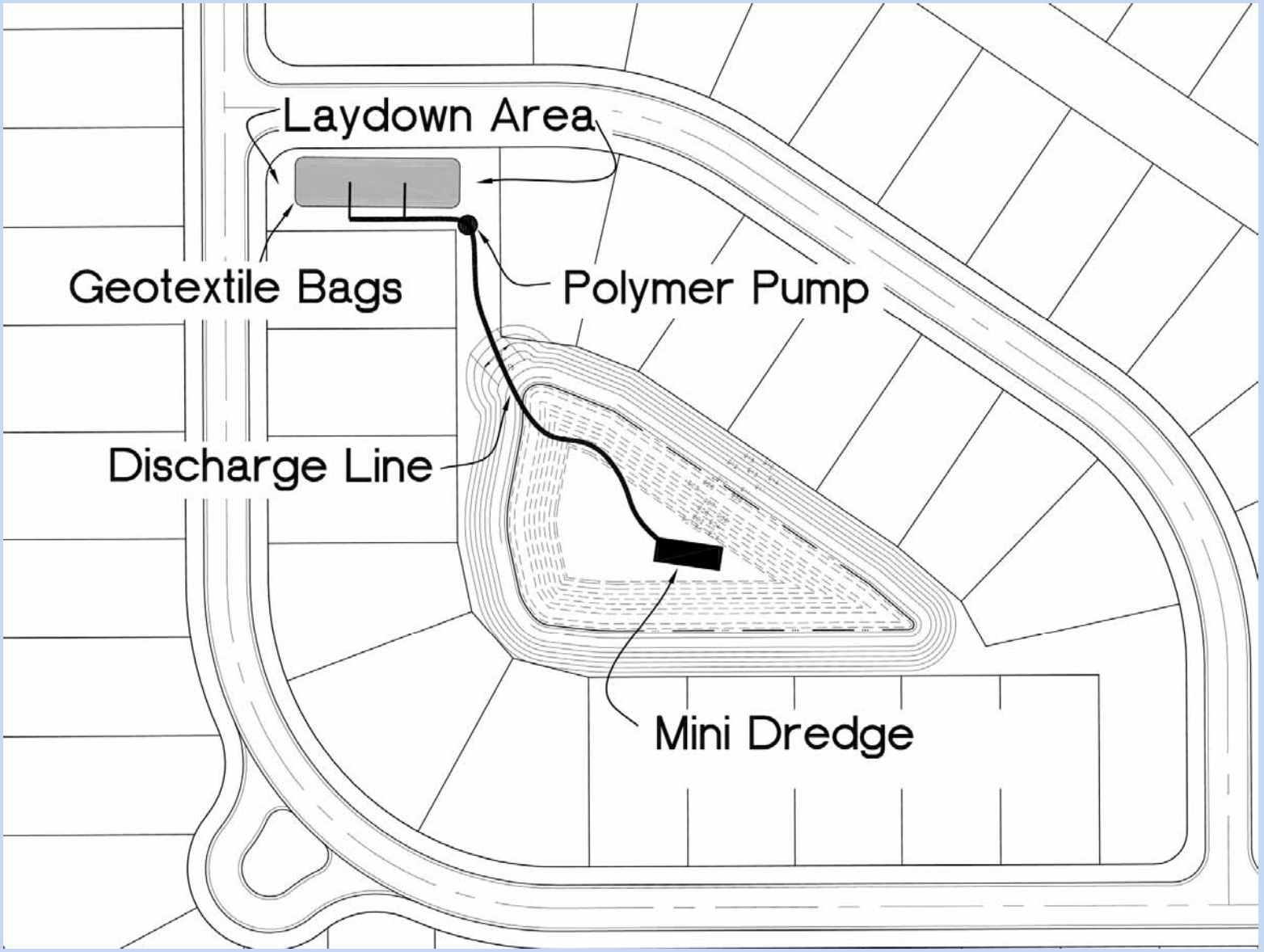
Low Impact Silt Removal

Fish Remain in Lake

Low Impact Silt Removal

Sediment Containment

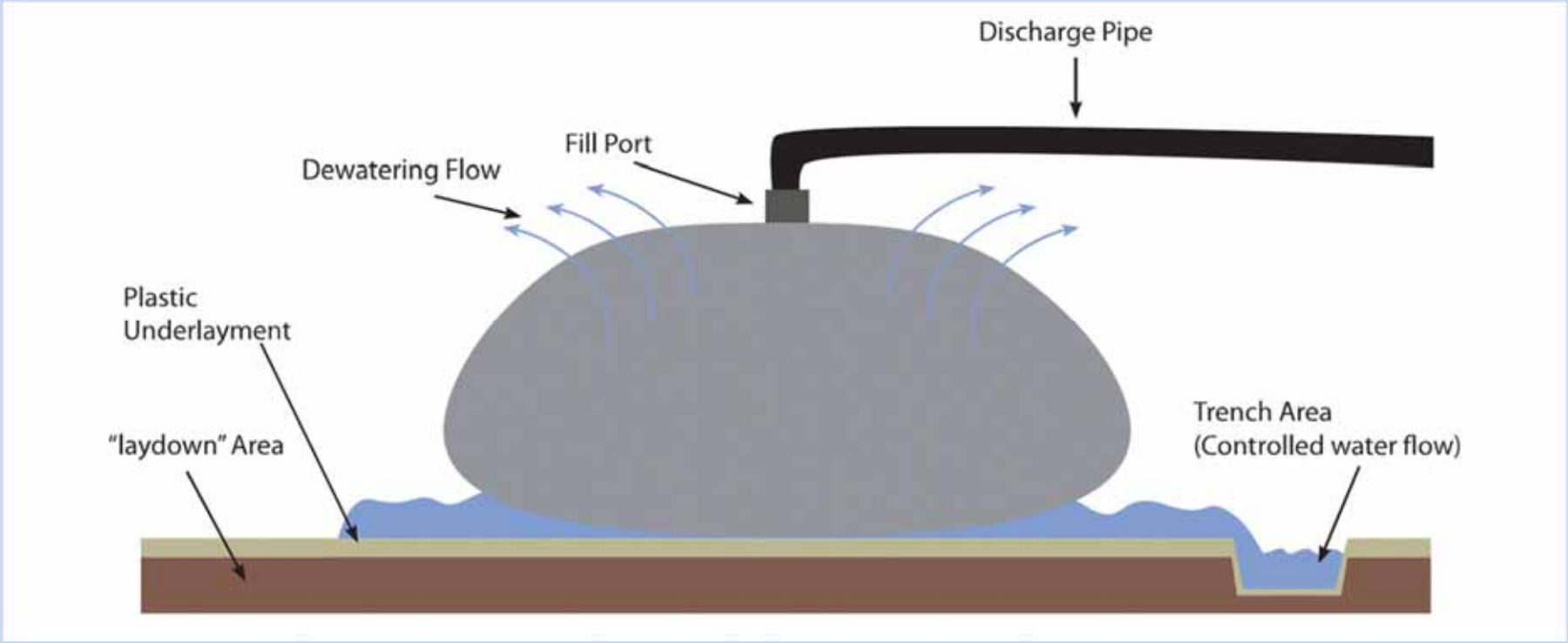
Typical Layout



Polymers

- Many different types
- Classified by the Affect on Partial Charge, Molecular Weight or Molecular Configuration
- Charges Cationic, Anionic and Non-Ionic
- High, Middle, or Low Molecular Weight
- *Organic or Metallic*
- *Matched to the type of Material to be Removed*
- *Typically 1-30 mg/l*
- *Allows for a 2 to 1 – 5 to 1 reduction in material*

Cross Section of Bag



Geotextile Tube Placement

Geotextile Tube Placement

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Industrial Application

Clean Water Returns to Waterway

Clean Water Returns to Waterway

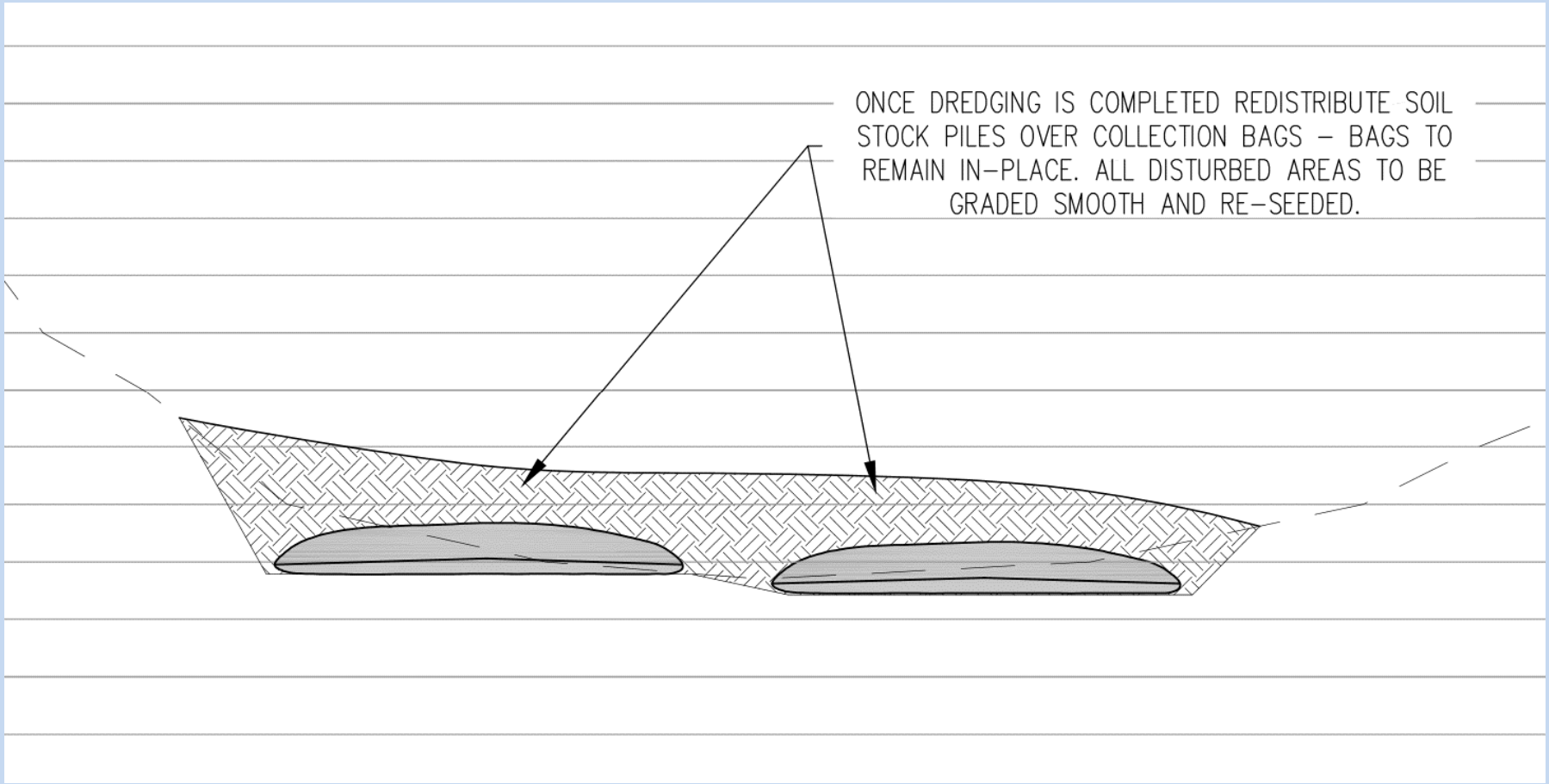
Silt Volume Reduction

Consolidated Material Removal

Low Impact Silt Removal

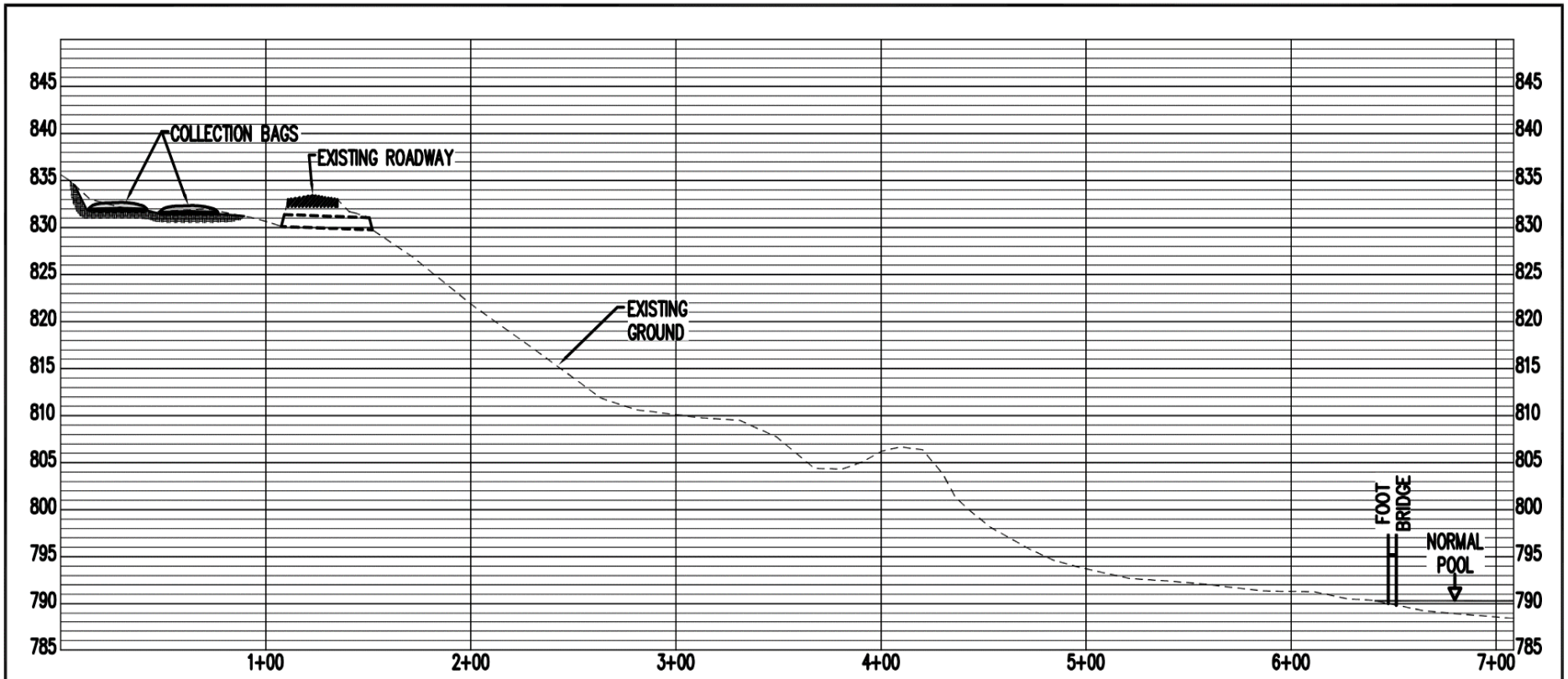
Onsite Use of Material

In Place Silt Disposal



Reservoir Project

Reservoir Project



Profile of Dredge Pump Line from Collection Bag Location to Normal Pool 650+' Long and 40+' of Elevation Change

Innovative Engineering & Consulting, Inc.
4937 Fieldstone Drive
Whitestown, IN 46075
317-769-2514
1-800-866-6922
Fax: 317-769-3890

Reservoir Project

Ohio River Landing Project

Water Return

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Benefits of Mini Dredge System

- Accessibility / Versatility
- *Minimal Restoration*
- *No Dewatering of Lake or Pond*
- *Immediate Results*
- *Sediment Containment & Reduction In Volume*
- *Maintains Water Quality*
- *More Environmentally Friendly*
- *Reduction in Carbon Footprint*

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QUESTIONS?