

Stormwater Analysis and Narrative

- 1) Stormwater Management Report, prepared by Boundaries, LLC dated May 2022.
- 2) Work to be performed in North Subarea 1, Middle Subarea 1 and CBE Subarea.
- 3) No increase in impervious areas are proposed.
- 4) Stormwater runoff from within 24,407 square feet of Storage Bins will be collected and diverted to storage in an onsite 21,000 gallon capacity frac tank. Stormwater will be recycled and used for process water in stabilization treatment.
- 5) Outfalls 2, 3 and 4 to be protected with existing HydroStorm units for sediment collection. Monitor and maintain according to manufacturer recommendations. Catch basin inserts for sediment control shall be installed and maintained during active material handling.
- 6) Protect swale and down hill areas as shown using 6-inch diameter hay waddles, or equivalent.
- 7) Deploy 8 inch high secondary containment in transloading areas on dock and ramp.
- 8) Deploy Best Management Practices for material handling onsite to minimum spillage.

- Inspect and collected spilled sediment minimally daily and more frequently during rain events.

- Storage bins will be maintained with a minimum of 1-foot freeboard.
- 9) The E&S controls shall include protection of catch basin inlets, riprap swales, drainage inlet units. Access to the catch basins and hydrodynamic separators must maintained to be free and clear. Contractor to place additional waddles as necessary along the perimeter of the site.

Note:
Additional Details on Sheet 08

FLOW

4" VERTICAL FACE

SYMBOL

BEDDING DETAIL
NOT TO SCALE

DRAINAGE AREA NO MORE THAN 1/4 ACRE PER 100 FEET OF STRAW WATTLE DIKE FOR SLOPES LESS THAN 25%.

FLOW

BOUND WATTLE PLACED ON CONTOUR

2" RE-BARS, STEEL PICKETS OR 2" X 2" STAKES PLACED 1' TO 2' IN GROUND

DRIVE STAKES 4" ABOVE WATTLE

ANCHORING DETAIL
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. WATTLES SHALL BE PLACED AT THE TOP OF A SLOPE OR ON A CONTOUR AND IN A ROW WITH ENDS SLIGHTLY OVERLAPING THE ADJACENT WATTLE

2. EACH WATTLE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF TWO INCHES, AND PLACED SO THAT THE ENDS OVERLAP

3. WATTLES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER 5" TO STAKES OR RE-BARS DRIVEN THROUGH THE WATTLE. THE FIRST STAKE IN EACH WATTLE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID WATTLE AT AN ANGLE TO FORKE THE WATTLES TOGETHER. STAKES SHALL BE DRIVEN EXPOSING 4" ABOVE THE WATTLE

4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED

5. WATTLES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,
CONNECTICUT STATE DEPARTMENT OF TRANSPORTATION,
CONNECTICUT STATE SOIL & WATER CONSERVATION COMMITTEE

STRAW WATTLE
DIKE

The main site plan illustrates the stormwater management infrastructure. Key features include:
- **Swales and Outfalls:** Multiple swales (e.g., SW1, SW2, SW3, SW4, SW5, SW6, SW7, SW8, SW9, SW10, SW11, SW12, SW13, SW14, SW15, SW16, SW17, SW18, SW19, SW20, SW21, SW22, SW23, SW24, SW25, SW26, SW27, SW28, SW29, SW30, SW31, SW32, SW33, SW34, SW35, SW36, SW37, SW38, SW39, SW40, SW41, SW42, SW43, SW44, SW45, SW46, SW47, SW48, SW49, SW50, SW51, SW52, SW53, SW54, SW55, SW56, SW57, SW58, SW59, SW60, SW61, SW62, SW63, SW64, SW65, SW66, SW67, SW68, SW69, SW70, SW71, SW72, SW73, SW74, SW75, SW76, SW77, SW78, SW79, SW80, SW81, SW82, SW83, SW84, SW85, SW86, SW87, SW88, SW89, SW90, SW91, SW92, SW93, SW94, SW95, SW96, SW97, SW98, SW99, SW100) and outfalls (Outfall #1, Outfall #2, Outfall #3, Outfall #4) are shown with their respective elevations and flow directions.
- **Storage and Containment:** An 8'x20' Cargo Box with 55-Gallon Emergency Spill Kit and E/S Supplies is located near the top left. An Office Trailer with First Aid Supplies is near the top center. A 21,000-gallon capacity frac tank is located near the top right. A Portland Cement Batch Plant is near the top right. A Cement Silos is near the top right. A Splash Guard is near the bottom right.
- **Other Features:** Existing Hydroworks Hydrostorm 6, Existing Rip Rap Swale, Existing Concrete Blocks to Remain, Above-Ground Storage Tank, Existing Catch Basin, Existing Rip Rap Swale, Existing Hydroworks Hydrostorm 10, and Secondary Spill Containment (Deployed as Needed) are also shown.
- **Topography and Infrastructure:** The plan includes contour lines, spot elevations, and various infrastructure elements like roads, parking areas, and utility lines.

A north arrow pointing towards the top right of the sheet. Below it is a graphic scale bar labeled "GRAPHIC SCALE" with markings for 0, 20, 40, and 80 feet. Below the scale bar is the text "(IN FEET) 1 inch = 40 ft."

Date	Legend
October 10, 2023	<div><div></div>Waddles</div>
Version	<div><div></div>Subdrainage Basins Onsite per Boundaries 2022 Survey</div>
1.7	
Scale	
1"=40'	

General Notes:

Best Management Practices

1) Housekeeping

2) Hay bales and silt fence

3) Separators

4) Collecting Stormwater that goes into bins

No increase in impervious area

No change in the grades

Stormwater and water inside basins to be collected into 20k Gal frac tank

Erosions & Sedimentation Control, Spill Prevention and Safety Plan Detail

M3

MARINE MATERIALS MANAGEMENT

TIERING POINT

RESOURCES GROUP

STATE OF CONNECTICUT

ALFRED N. KAYE, JR.

REGISTERED PROFESSIONAL ENGINEER

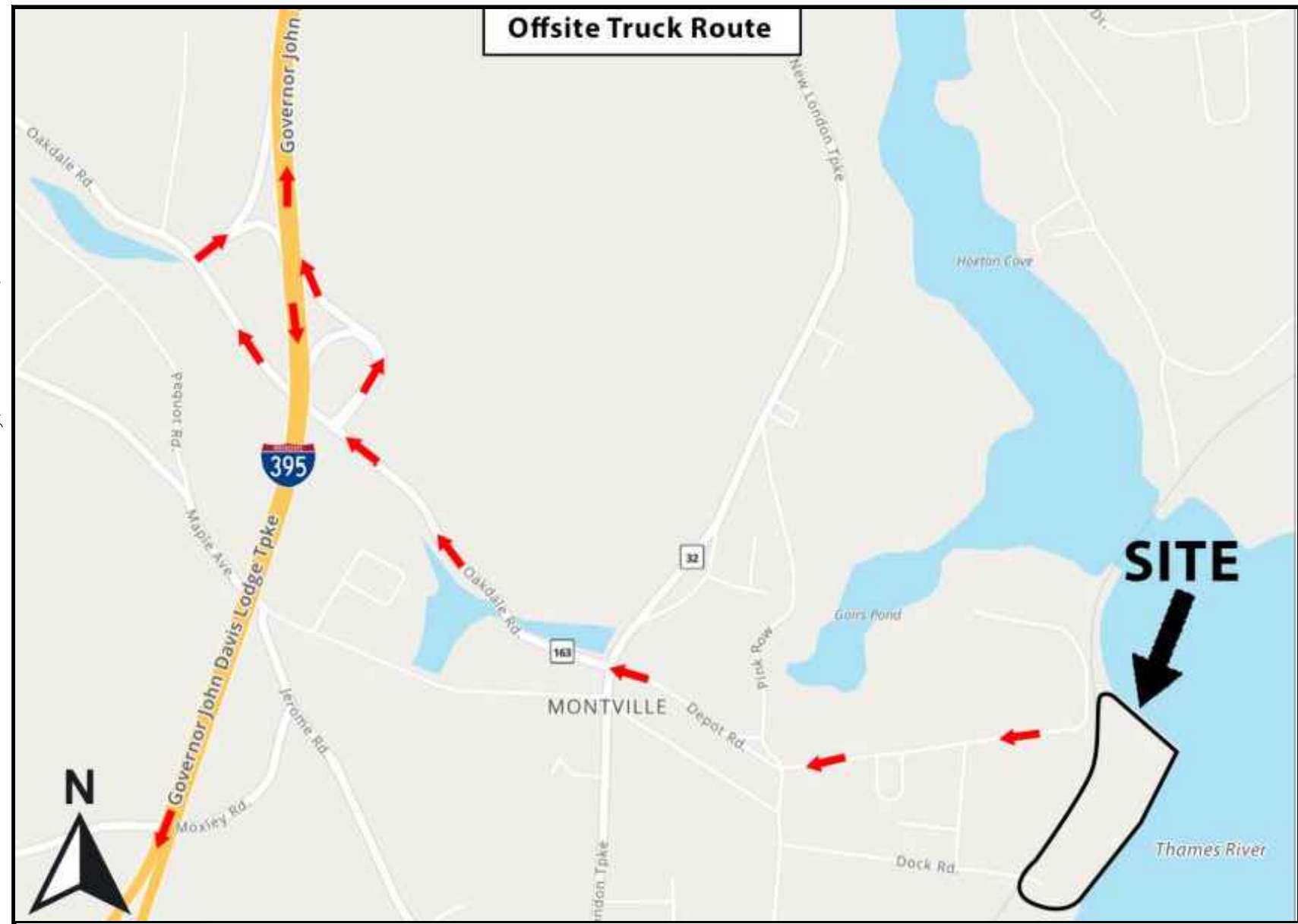
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04 September 2023

DATE

231012-1B.DWG

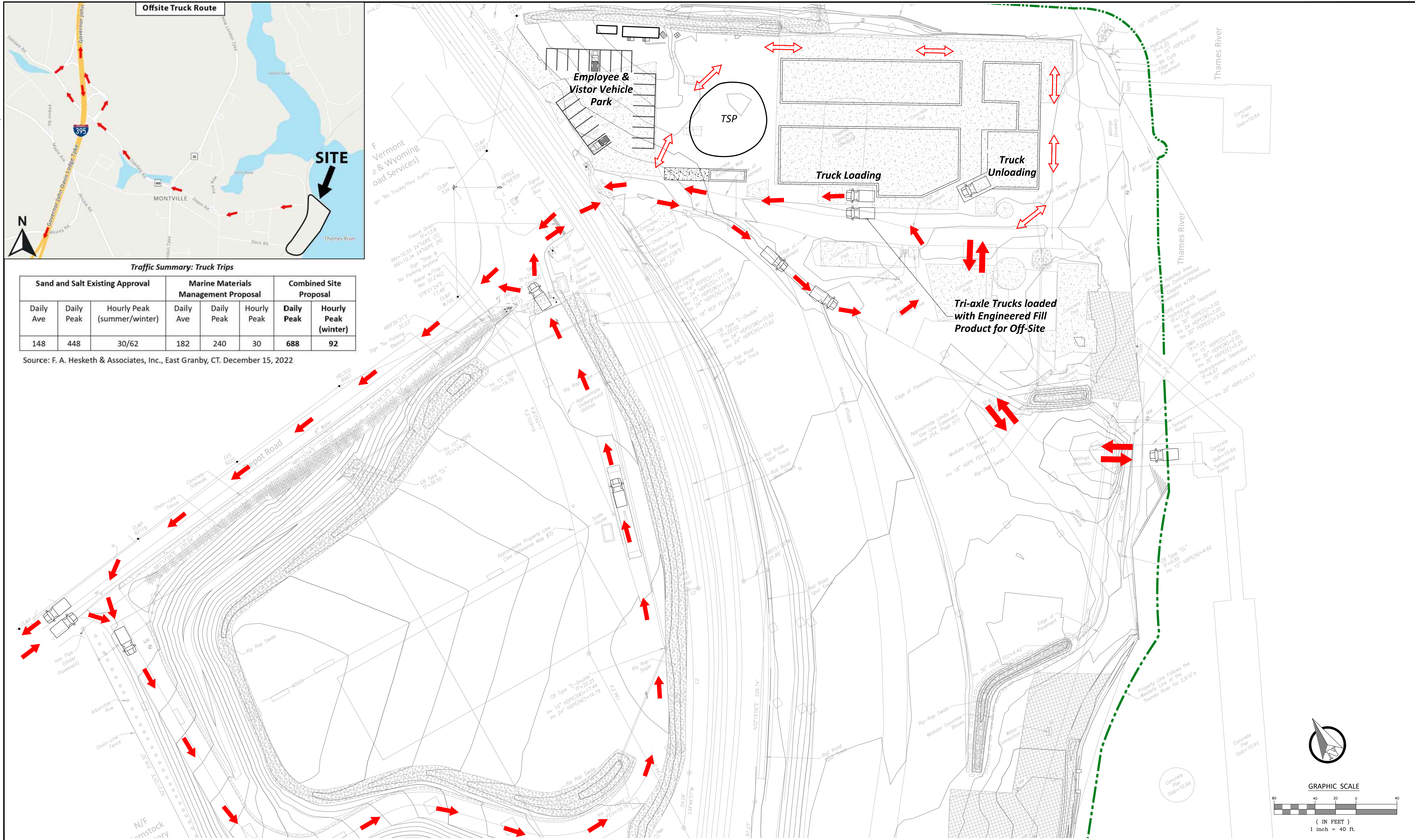
05



Traffic Summary: Truck Trips

Sand and Salt Existing Approval			Marine Materials Management Proposal			Combined Site Proposal	
Daily Ave	Daily Peak	Hourly Peak (summer/winter)	Daily Ave	Daily Peak	Hourly Peak	Daily Peak	Hourly Peak (winter)
148	448	30/62	182	240	30	688	92

Source: F. A. Hesketh & Associates, Inc., East Granby, CT. December 15, 2022



Date October 10, 2023	Legend Onsite Heavy Equipment Triaxle Offloading and Transfer Option (Water-tight trucks to be fitted with noise reducing impact damper on tailgates) Onsite/Offsite Vehicle Transportation Route Maintain Access To/From Equipment and Supplies	Description: 22 Ton Tri-Axle Dump Trucks will transport engineered fill off-site via Depot Rd. Trucks will enter the property via Depot Road and continue east to the designated queueing area. Trucks will then proceed to the South side of the Engineered Fill Storage Area to be loaded by a Material Handler. Loaded trucks will exit the property West-bound via Depot Rd.	Traffic Plan Detail		
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1

02'

06'

Signage Legend

MARINE MATERIALS MANAGEMENT

Thames River

125 Depot Road

Uncasville, CT

M3

Affiliate: BlueTech Innovation Hub

All PPE Required, Visitors check in at office

Date	Lighting Legend
October 10, 2023	 Emergency Lighting with Backup Power
Version	 Vertical Mast Lighting Tower (typ, 6kW - Diesel)
1.6	
Scale	 Vertical Mast Lighting Tower (typ, 6kW - Diesel)
1"=40'	

General Notes:

All lights shall be directed downward to work area, minimizing spill and disruption to neighboring properties.

Lights shall be used as necessary during permitted working hours only.

Lighting and Signage Plan Detail

**M3**

MARINE MATERIALS MANAGEMENT



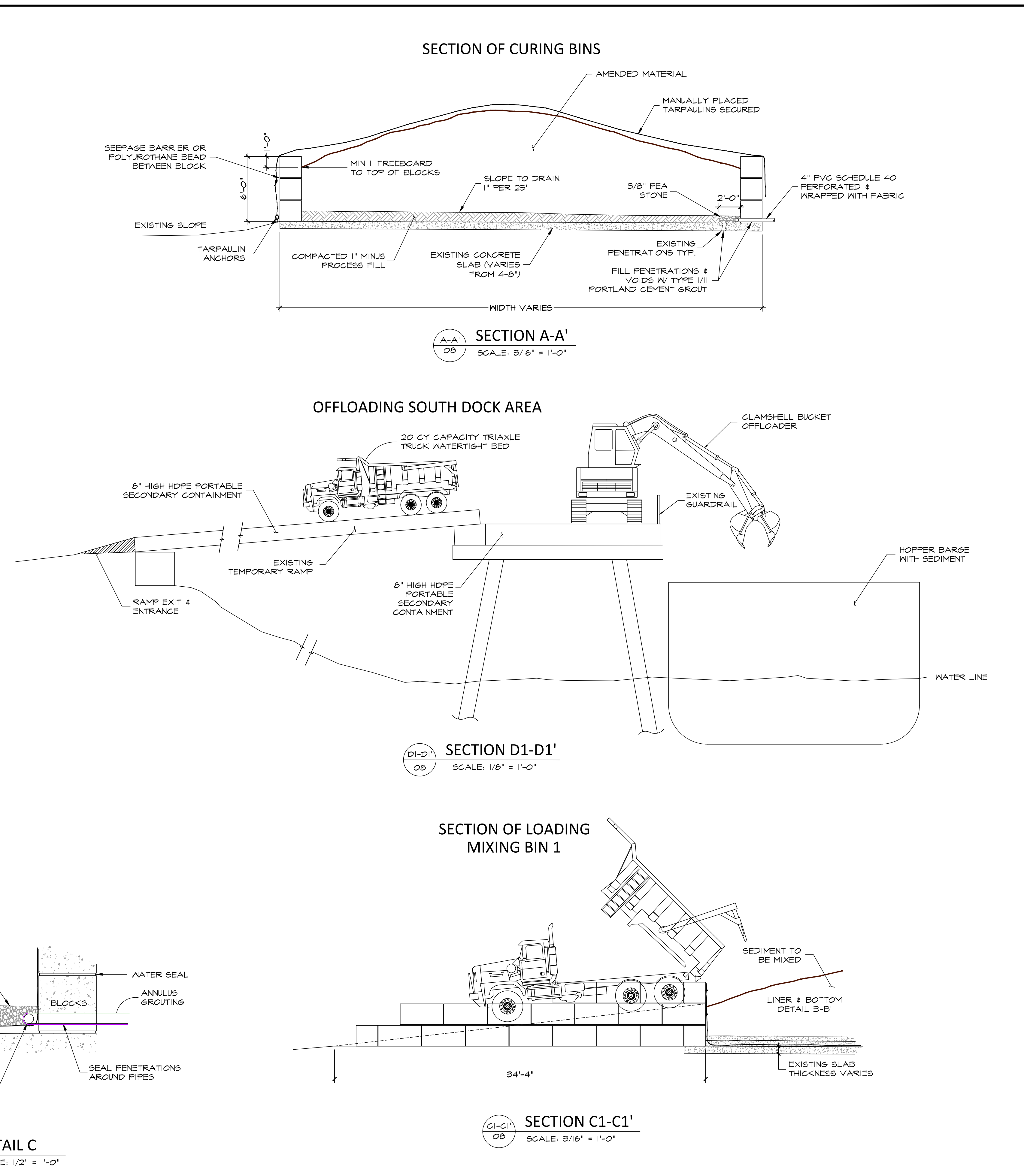
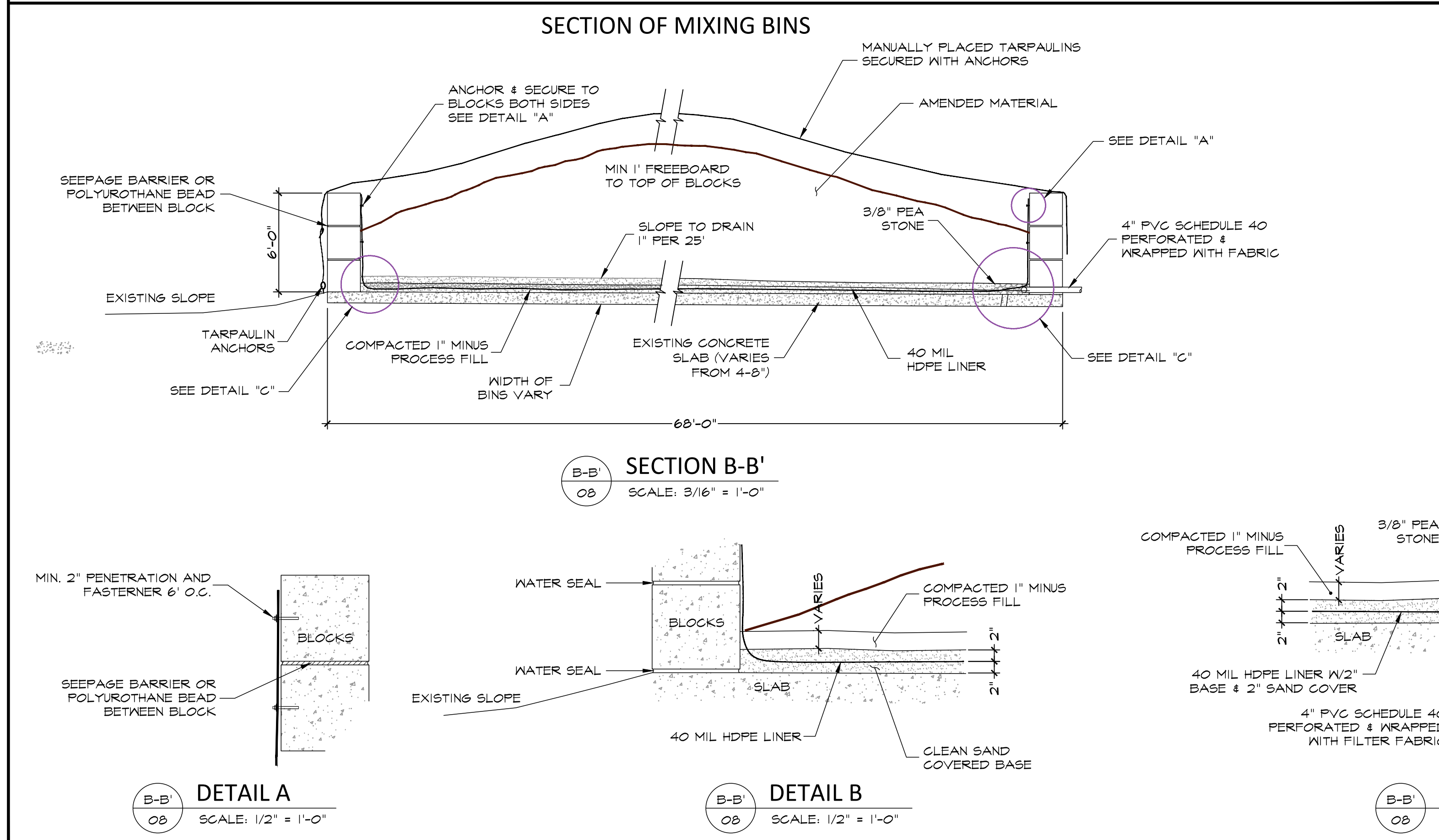
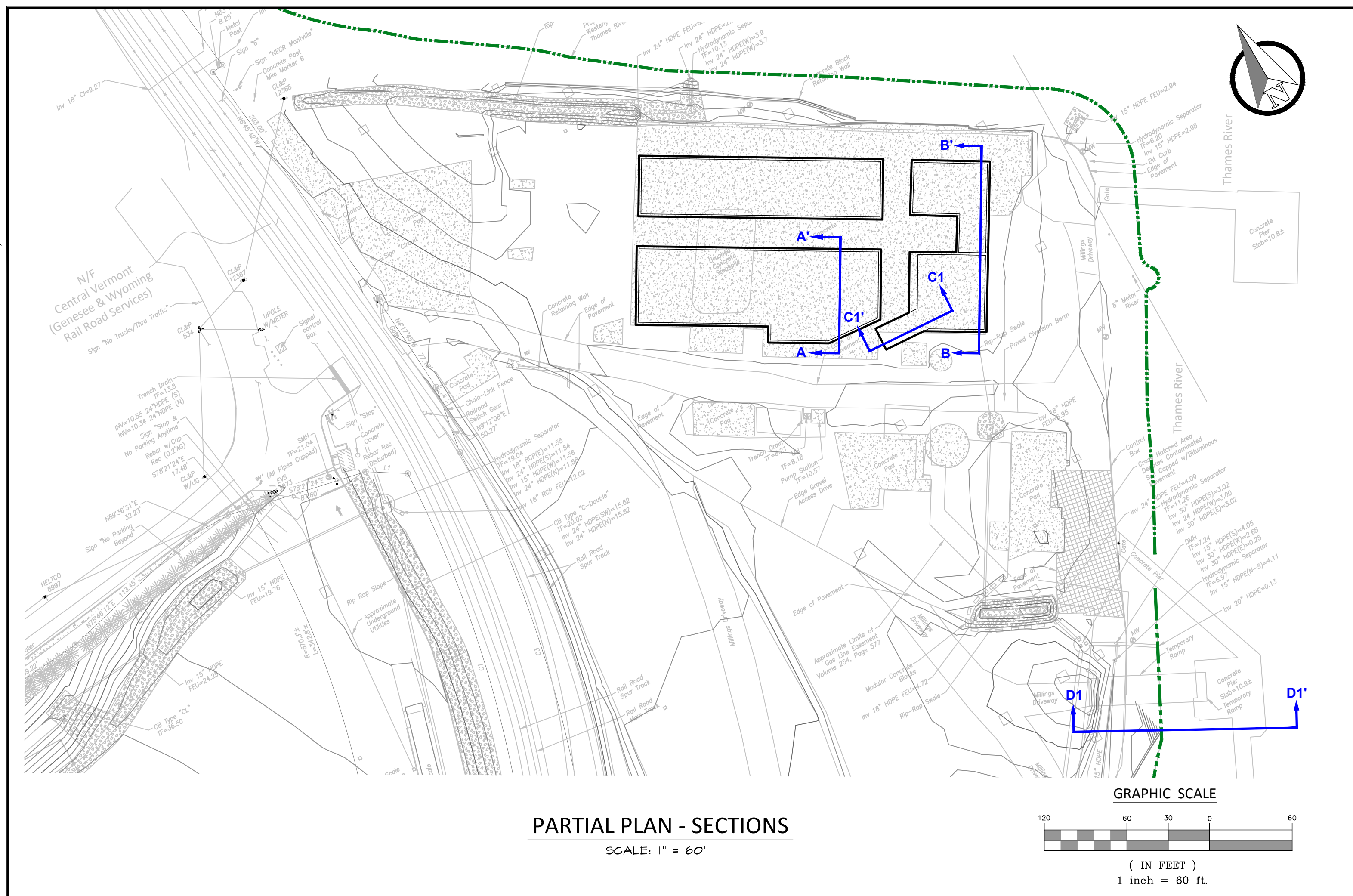


Alfred N. Kovach, P.E.
License NO. 19765

04 September 2023

DATE

07



Date		General Notes:	Plan Details	 	 <p>19765 04 September 2023 License NO. DATE</p>
October 10, 2023					
Version					
1.6					
Scale					
1"=40'					