

Public Meeting Ledge Road Landfill Closure

Construction Startup

Nathan Jones, P.E.,
PMP
Project
Manager/Design
Engineer

September 12, 2023



**CDM
Smith®**

Meeting Objectives and Overview

- Introduce Key Project Parties
- Project Status
- Initial Site Activities
- Schedule
- Upcoming Site Activities
- Construction Process
- Review Construction Period Mitigation Including:
 - Dust
 - Traffic
 - Good Neighbor Practices

Responsibilities

- Owner – Town of Andover

- Carlos Jaquez Deputy Director of Public Works
- Chris Cronin Director of Public Works

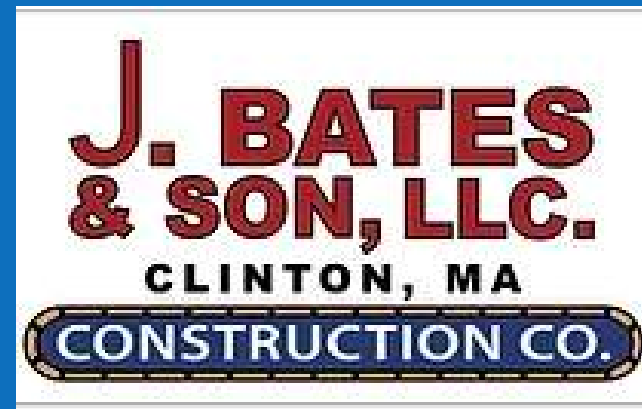
- Contractor – J Bates and Son

- Seth McNally Project Manager
- Michael Bates Site Superintendent

- Engineer – CDM Smith

- Myles Johnson Resident Project Representative
- Nathan Jones Project Manager/Engineer of Record
- Chandler Peterson Project Engineer

J Bates and Son



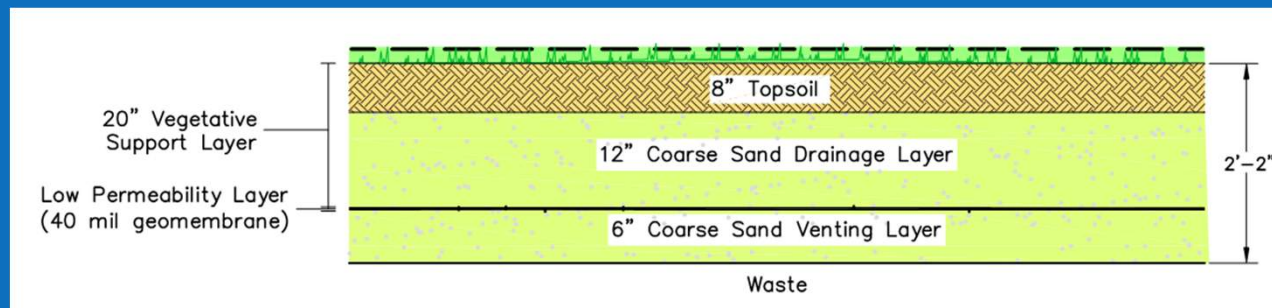
- Civil Site construction company
- Family legacy of civil site construction since the early 1900's
- Specializes in:
 - Landfill Cap, Cell, and Gas System Construction
 - Site Remediation and Development Projects
 - Other Civil Site Construction
- Recently completed similar projects:
 - Brookline Back Landfill Closure ->
 - Casella Final Closure Construction
 - Carver Landfill Phase VIII Stages 2A, 2B Expansion
 - South Meadow Road Landfill Cap Soils Removal



Ledge Road Landfill Closure – In Process

- Site Environmental Assessment
 - Interim Monitoring
- Select Corrective Actions for Closure
- Closure Design & Permitting
 - Permit Modifications to Remove Post-Closure Use DPW Materials Handling Area
- Bidding
- Construction
- Post-Closure Monitoring

- complete
- in process
- not started



Regulatory Permits and Updates

- Administrative Consent Order
 - Requires substantial completion of Landfill Cap by June 30, 2025
 - Submittal of Landfill Closure Completion Report by November 1, 2025
 - Immediate Response Action (IRA) Completion Report by January 1, 2026
- MassDEP Solid Waste Permit
- MassDEP Wetlands Superseding Order of Conditions
- MassDEP Water Quality Certificate
- Andover Conservation Commission Order of Conditions
- U.S. Army Corps of Engineers General Permit
- Massachusetts Contingency Plan (MCP) Site: RTN 3-27632
 - Recently submitted an IRA Plan Modification
 - 20 day comment period ending September 25th

Construction Activities to Date

- Construction Contract Execution: July 17th
- Pre-construction meeting: August 16th
- J Bates has been on site performing staking/flagging erosion control locations
 - Inspected and approved by Conservation Agent and Environmental Monitor
 - Erosion control installation this week
- Revised schedule of wetland soil excavation in winter approved by Andover Conservation Commission September 5th



Immediate Upcoming Activities

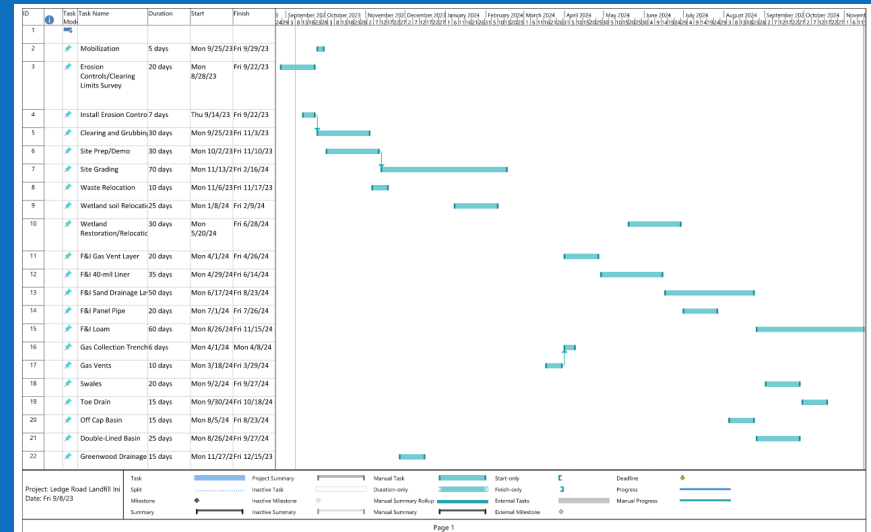
- Erosion control installation to proceed this week
 - To be approved by Environmental Monitor
- A MassDEP File Number sign will be installed at the Chandler Road entrance
- Clearing will begin in following erosion control acceptance, expected late September
- A jobsite trailer will be delivered to the site late September/early October
 - CDM Smith Resident Project Representative will be located in the trailer or on site
- Greenwood Road drainage improvement a priority



Source: wilmingtonmodular.com

Anticipated Construction Schedule

- Clearing and Site Prep
 - Late September-Mid November
- Greenwood Road Drainage
 - Late November-December 2023
- Site Grading
 - Mid November-March
- Wetland Soil Excavation and Relocation
 - Winter 2023-2024 when soil is frozen, dry, or otherwise stable to support equipment
 - Wetland restoration in Summer-Fall 2024
- Gas Collection System and Liner Installation
 - Spring-Early Summer 2024
- Landfill Cap Sand and Loam Installation
 - Summer-Early Fall 2024



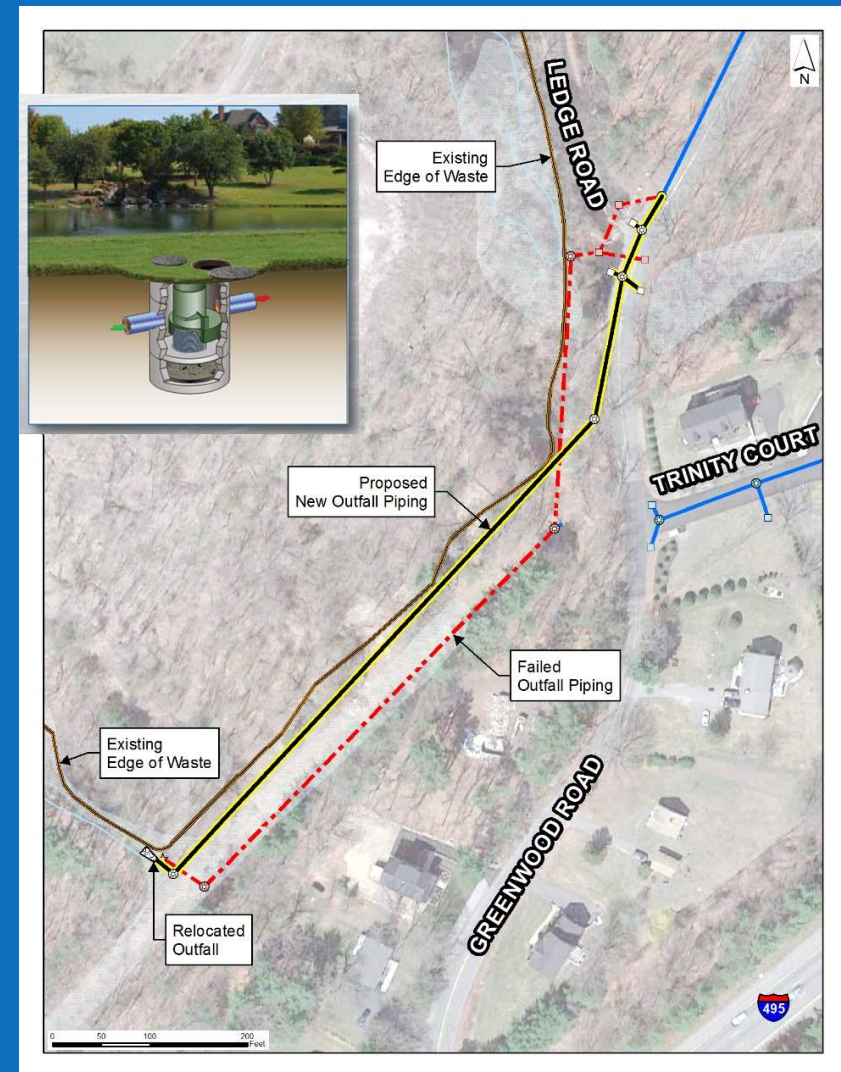
Erosion and Sedimentation Controls

- Erosion and sedimentation controls have been staked and approved by Conservation Agent and Environmental Monitor
- Erosion and sedimentation controls will be in place and monitored by Environmental Monitor – Horsley Witten
- J Bates and Son has submitted a Construction Stormwater Pollution Prevention Plan (CSWPPP)



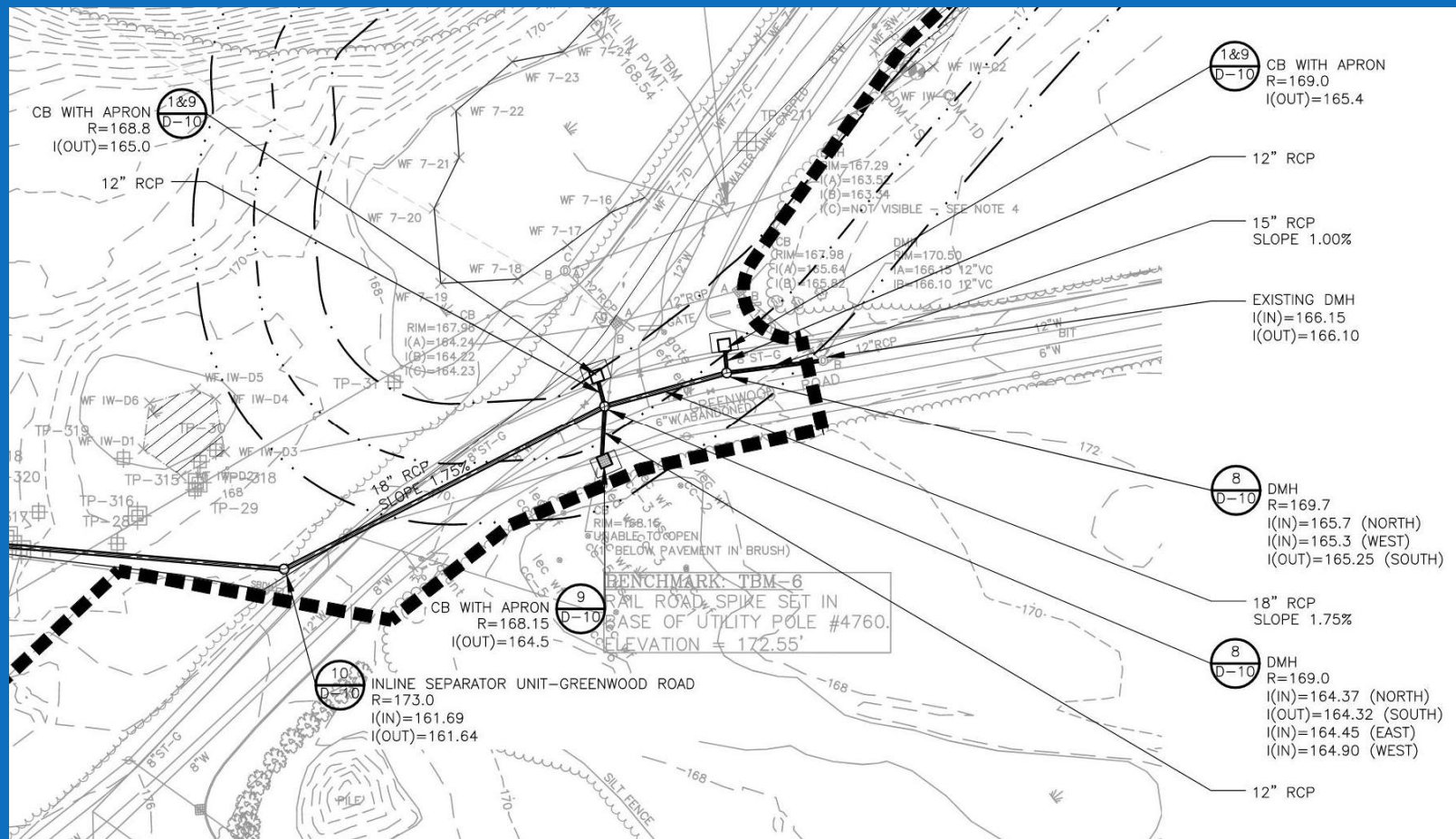
Greenwood Road Drainage Improvements

- Greenwood Road Drainage Outfall piping has failed resulting in flooding at intersection of Ledge Rd
 - Replace and upgrade outfall piping
 - Replace catch basins at intersection of Ledge Road with deep sump catch basins
 - New proprietary inline swirl separator to provide treatment prior to discharge to wetlands
 - Relocation of outfall to Town property
- Early in project



Work in Greenwood Road

- Work within Greenwood Road will require temporary lane closures
- J Bates to develop traffic control plan
- Police detail will be used during work in Greenwood Road



Coordination Challenges Related to Landfill Capping

- Chandler Road Development
 - Traffic pattern changes in area of development project
- Potential impacts to trucking routes
 - Schools/School Buses
 - Peak hour traffic
- Weather conditions
- Traffic Concerns

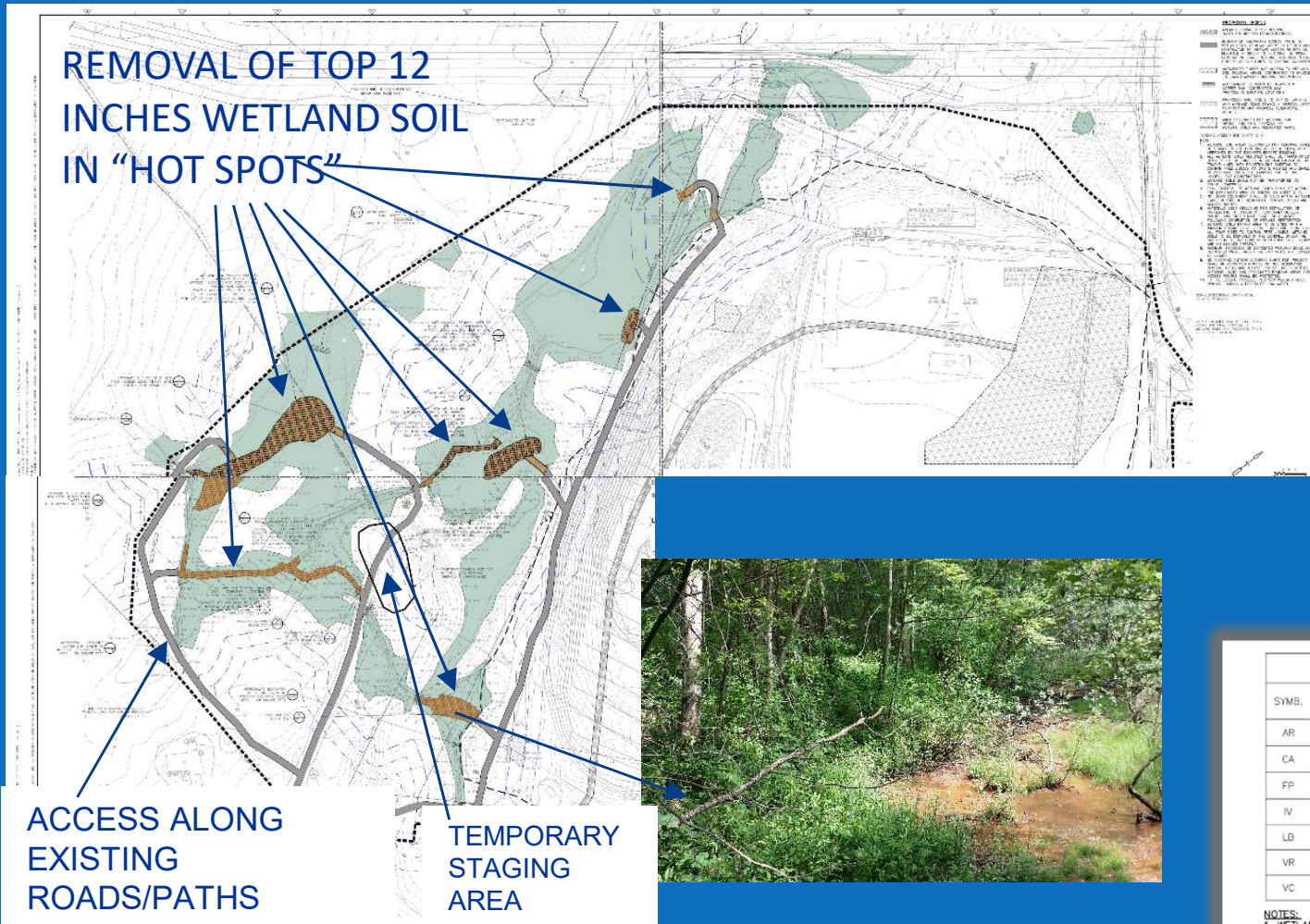


Former McGrath Driveway Removal

- J Bates will remove the pavement from the former McGrath Driveway on Pettingell Road.
- During this time, J Bates will access from Pettingell Road.
- This will be the only time equipment will enter or exit the site via Pettingell Road.



Removal of Arsenic Impacted Soil from 7 “Hot Spots”



- Access from Landfill
- Implement prior to capping
- Restore wetlands in-kind
- Achieve Condition of No Significant Risk for Wetland Soils

WETLAND RESTORATION PLANT SCHEDULE						
SYMB.	COMMON NAME	LATIN NAME	CONTAINER	APP. HEIGHT	COUNT	COMMENTS
AR	RED MAPLE	ACER RUBRUM	1.0-1.5" CALIPER			SPACE 15-FT OC
CA	SILKY DOGWOOD	CORNUS AMOMUM	#2	4'-5'		SPACE 10.5-FT OC
FP	GREEN ASH	FRAXINUS PENNSYLVANICA	1.0-1.5" CALIPER			SPACE 15-FT OC
IV	WINTERBERRY	ILEX VERTICILLATA	#2	4'-5'		SPACE 10.5-FT OC
LB	SPICEBUSH	LONICERA BENZOIN	#2	4'-5'		SPACE 10.5-FT OC
VR	NORTHERN ARROWWOOD	VIBURNUM RECOGNITUM	#2	4'-5'		SPACE 10.5-FT OC
VC	HIGHBUSH BLUEBERRY	VACCINIUM CORYMBOSUM	#2	4'-5'		SPACE 10.5-FT OC

NOTES:

1. WETLAND RESTORATION - PLANT 194 TREES PER ACRE AT APPROX. 15 FT. ON CENTER IN A RANDOM PATTERN. PLANT 400 SHRUBS PER ACRE APPROX. 10.5 FT. ON CENTER IN A RANDOM PATTERN.
2. AFTER PLANTING TREES AND SHRUBS, SOW WITH NEW ENGLAND WETLAND PLANTS INC., NEW ENGLAND WETMIX, OR EQUAL, IN ACCORDANCE WITH SECTION 02955 AT THE SPECIFIED RATE PER SUPPLIER.

WETLAND RESTORATION PLANTING

DETAIL 3
NOT TO SCALE D-S

Revised Schedule for Removal of Arsenic Impacted Soil

- Schedule impacted by extreme rainfall this summer
- Permission granted to do removal during winter
- Work will be completed when soil is sufficiently frozen, dry, or otherwise stable to support equipment for excavation
- Work areas will be stabilized until restoration in summer/fall 2024



Benefits of Excavating Arsenic Impacted Soil in the Winter

- Less chances of dust generation
- Reduction of noise
- Reduced impact to wetland resource areas
- Help maintain ACO schedule
- Ability to directly transport soil to landfill



Source: theutilityexpo.com

Removal of Arsenic Impacted Soil

- Sampling to confirm limits of arsenic prior to excavation
- Bottom samples will be collected following excavation to confirm removal complete
- Soil may be temporarily staged for drying at the former McGrath property if too wet to transport
- Soil will be ultimately placed under the landfill cap
- Soil will not be transported on public roads



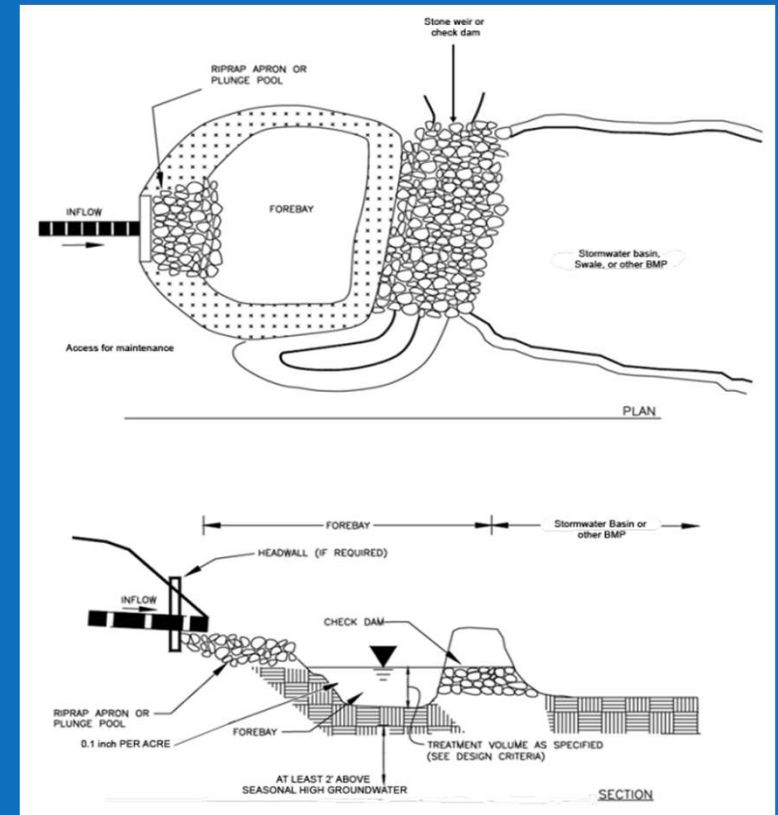
Environmental Restoration

- Cleanup of impacted wetland soils
- Former McGrath Property – Opportunity to improve degraded area (pavement and invasives) with new 18,000+ sf constructed wetland
- Protection of existing vernal pools
- Habitat Enhancements
- Removal of impervious pavement
- BVW bank restoration over exposed asbestos pipe (~ 135 lf)



Stormwater Management

- Two Basins – North and South
- Sediment forebays for TSS Removal
- J Bates will be responsible for providing and maintaining temporary stormwater controls as defined in their CSWPPP



Source: *Massachusetts Stormwater Handbook*

Landfill Gas Controls



- Landfill gas generated by anaerobic decomposition of remaining landfilled organic wastes
- Gas generation decreases significantly with time
 - Current quantities of landfill gas not viable for flaring or energy generation
- Passive landfill gas vents installed throughout capped areas
- Passive gas migration vent trenches to address potential migration



Environmental Monitoring During Construction

- Environmental Monitoring will continue during construction
 - Quarterly Landfill Gas
 - Semi-Annual Groundwater and Surface Water



Source: fieldsink.com

Construction Mitigation

- Minimize impact to surrounding residents
- Minimize:
 - Noise
 - Dust and emissions
 - Traffic
- No construction access from Pettingell
- Access to Ledge Road via Chandler only
- Obey approved truck routes



Noise

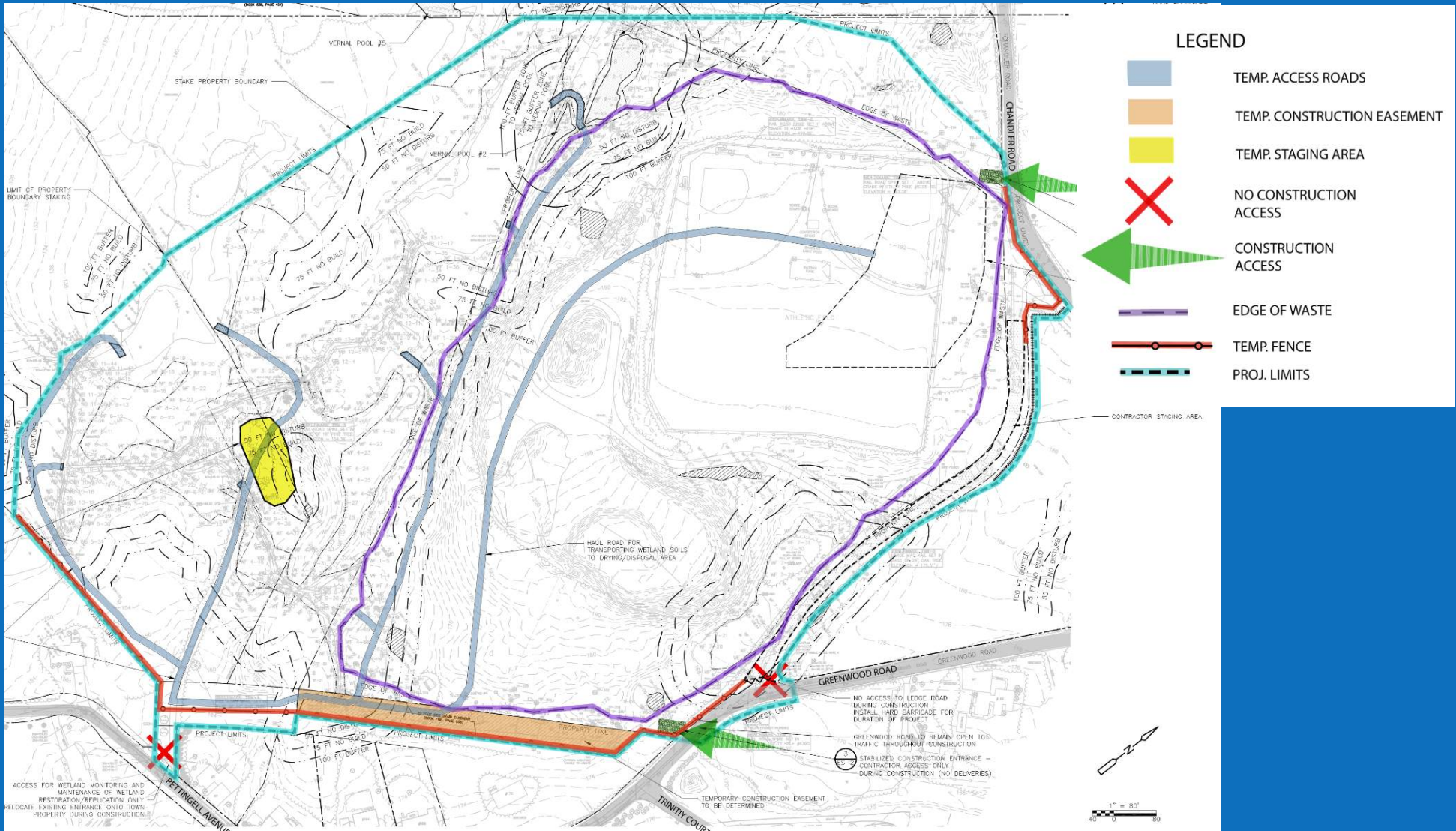
- Bates schedule:
 - M-Th 7 AM to 5 PM
 - Fri as needed: 7 AM to 5 PM
 - Equipment will not be running outside of those times
- Deliveries:
 - M-F 7 AM to 5 PM (no later than 7 PM)
 - Sat. with advance Town approval (7 AM to 3 PM)
 - Drivers will be instructed to not use “Jake” brakes
 - 5 minute idle rule

Dust

- J Bates responsible for controlling dust during construction
- Methods include:
 - Dust suppression water trucks
 - Wetland soil excavated while wet/frozen
 - Daily covering of soil stockpiles
- Stabilized construction entrances to prevent tracking of dust onto public roads
 - Town street sweepers available as needed

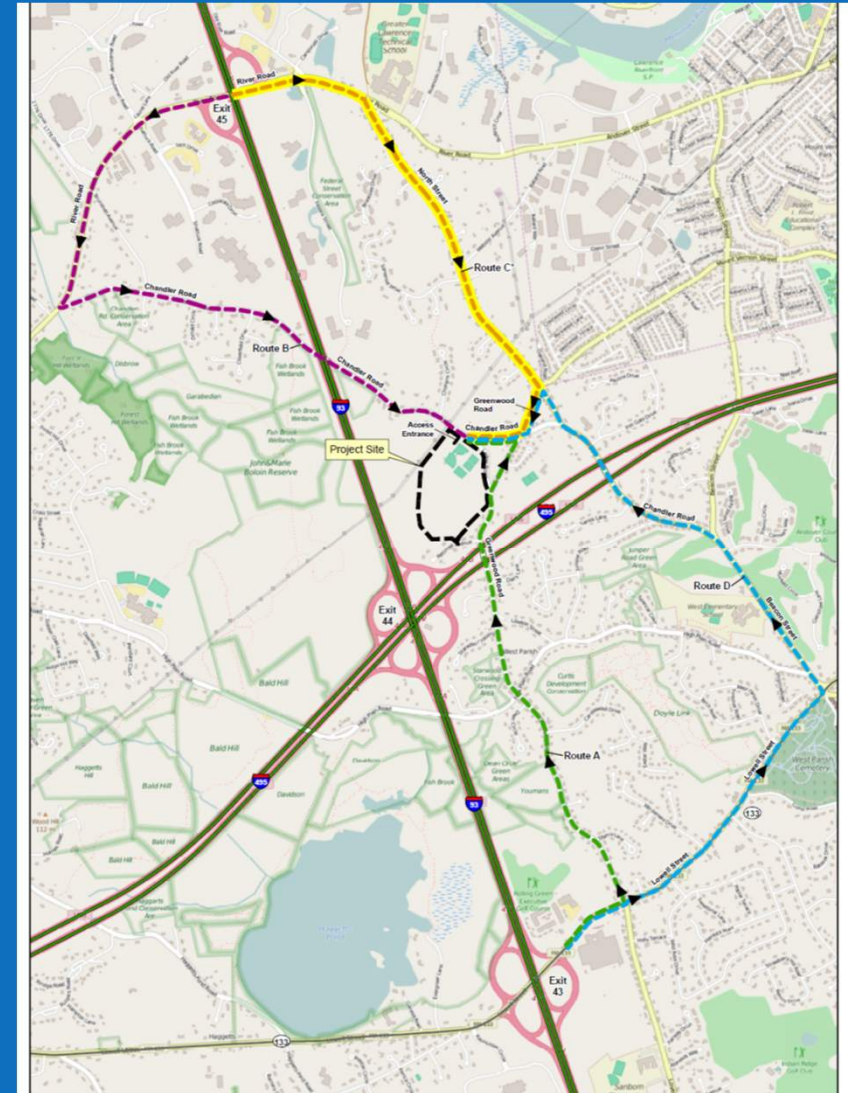


Construction Access and Staging Plan



Truck Routes - During Construction

- Primary “Route C” (in yellow)
- Routes A, B, D available off peak (9 AM to 3 PM)
- Deliveries:
 - M-F 7 AM to 5 PM (no later than 7 PM)
 - Sat., upon request (7 AM to 3 PM)
- Employ “good neighbor” practices



Good Neighbor Practices

- Street sweeping and stabilized construction entrances to minimize dust and dirt on public roads
- Obey posted speed limits
- Be aware of schools, playgrounds, bus stops, bus routes, etc.
- No idling (noise & air emission reduction)
- Dust suppression
- CDM Smith Resident Project Representative will be on site to address any concerns



Traffic Mitigations Requests

- The following temporary traffic mitigation measures to be implemented at request of residents:
 1. Additional 25 mph signage on Greenwood Road approaching the intersection with Chandler.
 2. Additional 25 mph signage on Chandler approaching the intersection with Greenwood.
 3. Installation of a temporary radar speed sign on Greenwood, south of the intersection with Chandler.
 4. Relocation of Fire Station signage to be more visible traveling north.
 5. DPW to coordinate with Fire Chief to discourage drivers from passing through fire station parking lot.
- Town looked into adding 4-way stop at Chandler and Greenwood, not recommended by public safety
 1. Would require additional study

Public Question Process

- During construction, contact Myles Johnson, CDM Smith Resident Project Representative
 - Cell Phone: 617-592-5823
 - [Email: JohnsonMF@CDMSmith.com](mailto:JohnsonMF@CDMSmith.com)
- Myles will be on site throughout construction
- Chris Cronin/ Carlos Jaquez
 - 978-623-8715
- DPW Main Line
 - 978-623-8700
- Please note that in accordance with OSHA regulations, members of the general public are not permitted to enter the site



How to Access Site Information

- Site Related Documents are available at:

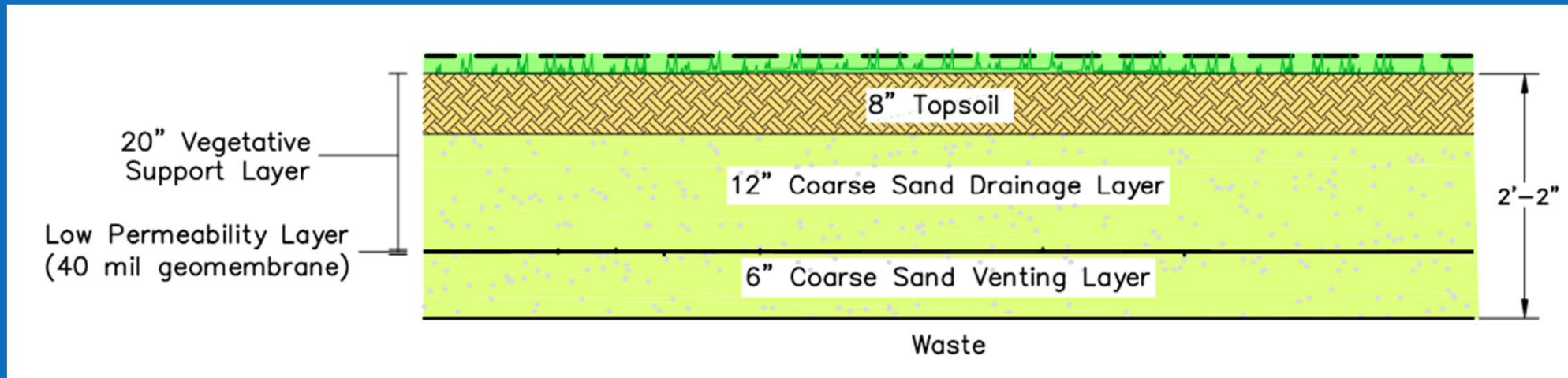
Memorial Hall Library <i>2 North Main St.</i> <i>Andover, MA 01810</i> <i>Hours: M - Th, 9am to 9pm;</i> <i>Fri & Sat, 9am to 5pm</i> <i>Sun, 1pm to 5pm</i>	Andover Health Division <i>36 Bartlet Street</i> <i>Andover, MA 01810</i> <i>Hours: M – F, 8am to 3pm</i>	SharePoint <i>Contact: Nathan Jones</i> <i>Email:</i> <i>JonesNE@cdmsmith.com</i>
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- Future notifications: PIP Mailing List and SharePoint



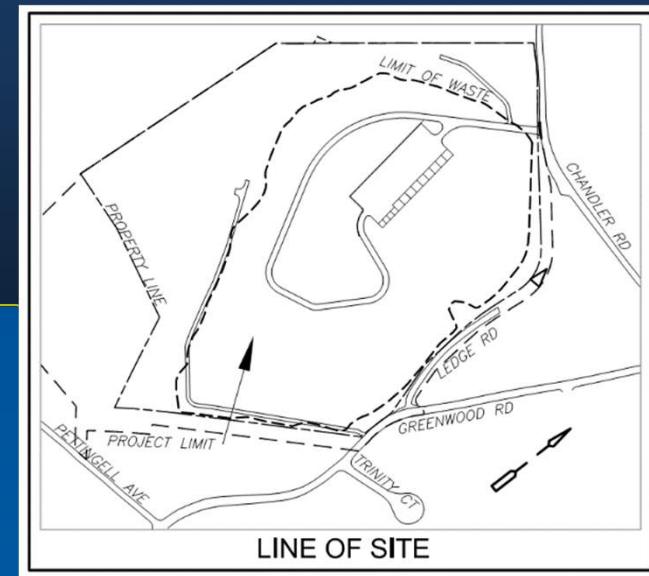
Questions?

Landfill Cap Cross-Sections



Proposed Cap (Grass)

Rendering – View From South



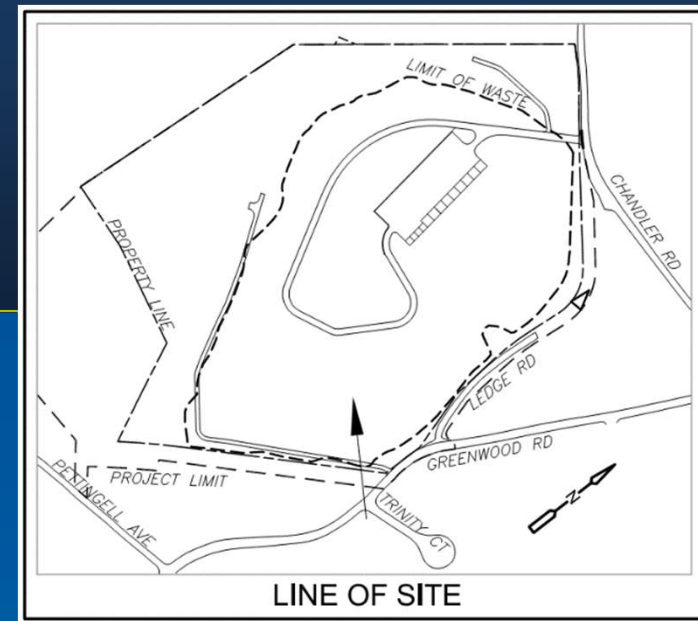
Existing View

- Trees in foreground on private property
- Does not show potential future solar array



Simulated Future View

Rendering – View from Trinity Ct.



Existing View

- Does not show potential future solar array



Simulated Future View