

Bellmawr Waterfront Development



BDA & Steering Committee
Meeting

April 28, 2016

Bellmawr Waterfront Development



View: Route 42 Sideslopes adjacent to Beaver Brook

REMEDIATION 2015 – PRESENT



View: Phase I Facing Big Timber Creek

Phase I

❖ Cap

- ❖ Scale House Relocated
- ❖ Fill to Subgrade 100% Complete
- ❖ 1 Foot Residential Cap 70% Complete
- ❖ Vertical Extension of Cutoff Wall 100% Complete



Previous Scale Location

Capped Areas

Cutoff Wall

Phase I



Swales/Berms



Drain Pipe

- ❖ Stormwater Management
 - ❖ Upgradient Pipe:
 - ❖ 100% Complete Feb 2016
 - ❖ Entire Length Phase I & II
 - ❖ Drainage Sideslopes 80% :
 - ❖ Riprap channels and Geodrain Conveyances
 - ❖ Swales/Berms In Progress
 - ❖ Directs Stormwater from top of plateau, prevents ponding and erosion

Phase I Modification

- ❖ Gas Collection System
 - ❖ Methane Yield Gas Test June 2014
 - ❖ Results indicated methane production volume not high enough or consistent enough to warrant active collection
 - ❖ DEP Approved Change to a Passive Collection System
 - ❖ Benefits:
 - ❖ Promotes Development- No Active Flares
 - ❖ Reduces Remedial and Post Closure Costs



Phase I



View: Slopes Facing Big Timber Creek



View: Top of Grade, Capped



View: Top of Grade, Capped



View: Slopes Facing Phase II

Phase II

❖ Cap

- ❖ Sideslopes 100%
 - ❖ Subgrade 95%
 - ❖ Bulkhead Tidal Overflow Impervious Cap 100%
 - ❖ Cutoff Wall Vertical Extension 100%
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- ❖ New Location of Scale House
 - ❖ Upgradient Stormwater Pipe 100%



Capped Slopes



Bulkhead Cap

Phase II Modifications

- ❖ Cap Elevations
 - ❖ Grade Raised in area between BWD and Adjacent Property
 - ❖ Enhance Engineering Controls
 - ❖ Optimize Developable Land
 - ❖ Updated County E & S Plans
 - ❖ Updated Stormwater Pipe Plan
 - ❖ Pipe Extension and Inlet
 - ❖ Revised Contours to Direct Stormwater to Inlets



Top of Subgrade



Stormwater Inlet

Phase II



View: New Scalehouse Location



View: Top Facing Creek Road/ NW



View: Top From Phase I Facing NW



View: Bulkhead Cap

Phase III

❖ Cap

- ❖ Wetlands Impervious 2 Foot Cap Layer 100%
- ❖ North-West (Rt 295 side) Sideslopes filled to Subgrade 100%
- ❖ South (Big Timber Creek side) Sideslopes to Subgrade 80%
- ❖ Rt 295 Ditch Subgrade 100%

❖ Stormwater Pipe

- ❖ 95% Construction Complete



Cap along Creek Edge



Route 295 Sideslopes

Phase III Modifications

- ❖ **Shallow Cutoff Wall**
 - ❖ Review 8 years worth of Groundwater Monitoring Data
 - ❖ Leachate Mound Declined
 - ❖ Leachate Constituents Declined
 - ❖ Releases to Creek No Concern
 - ❖ Eliminated Need for Cutoff Wall

- ❖ **Cap Elevations**
 - ❖ Grade Raised West Corner
 - ❖ Increased Residential Area



Area Proposed Cutoff Wall



West Corner Sideslopes

Phase III



View: Top Slope Facing Rt 295 N



View: Sideslopes Facing Rt 295 S



View: Stormwater Pipe Headwall



View: Stormwater Pipe Installation

PROJECTED REMEDIATION



View: Foreground Phase I Sideslopes, Background Phase II Sideslopes

Projected Remediation

❖ Spring 2016:

- ❖ Phase I Stormwater Controls
- ❖ Phase III Stormwater Pipe
- ❖ Deep Dynamic Compaction



❖ Summer 2016:

- ❖ Phase I Final Cap & Seed
- ❖ Phase I Gas Vents (Test Shown)
- ❖ Submit Closure Certification



Projected Remediation

- ❖ 2016 Year
 - ❖ Raise Phase II & III to Final Grade
 - ❖ Phase III Drainage Down Chutes
 - ❖ Cap Phase III sideslopes



Slopes Beaver Brook



Phase III Sideslopes

FUTURE USE



View: Foreground Phase II Slopes, Background Phase III Slopes

Future Use



Geotechnical Analysis Phase I

- ❖ Subsurface Investigation and Settlement Monitoring
 - ❖ 30 Shallow Borings
 - ❖ 6 Deep Borings
 - ❖ Below Ground Surface Monitors
 - ❖ 6 Settlement Plate Surcharge Areas

Geotechnical Analysis Phase I



Settlement Analysis

QUESTIONS & COMMENTS



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