



Former Gorham Manufacturing Site

Phase II, Phase III and Parcel C Activities



Gregory Simpson, Textron
David Heislein, AMEC Foster Wheeler

February 5, 2015

Agenda

- **Purpose of Meeting**
- **Brief Site History and Summary of Completed Remediation Work**
- **Summary of Investigation Activities**
- **Proposed Remediation Plan Details**
- **Schedule**
- **Proposed City of Providence Development**
- **Instructions For Submittal of Comments**
- **Questions**

Purpose of Tonight's Meeting

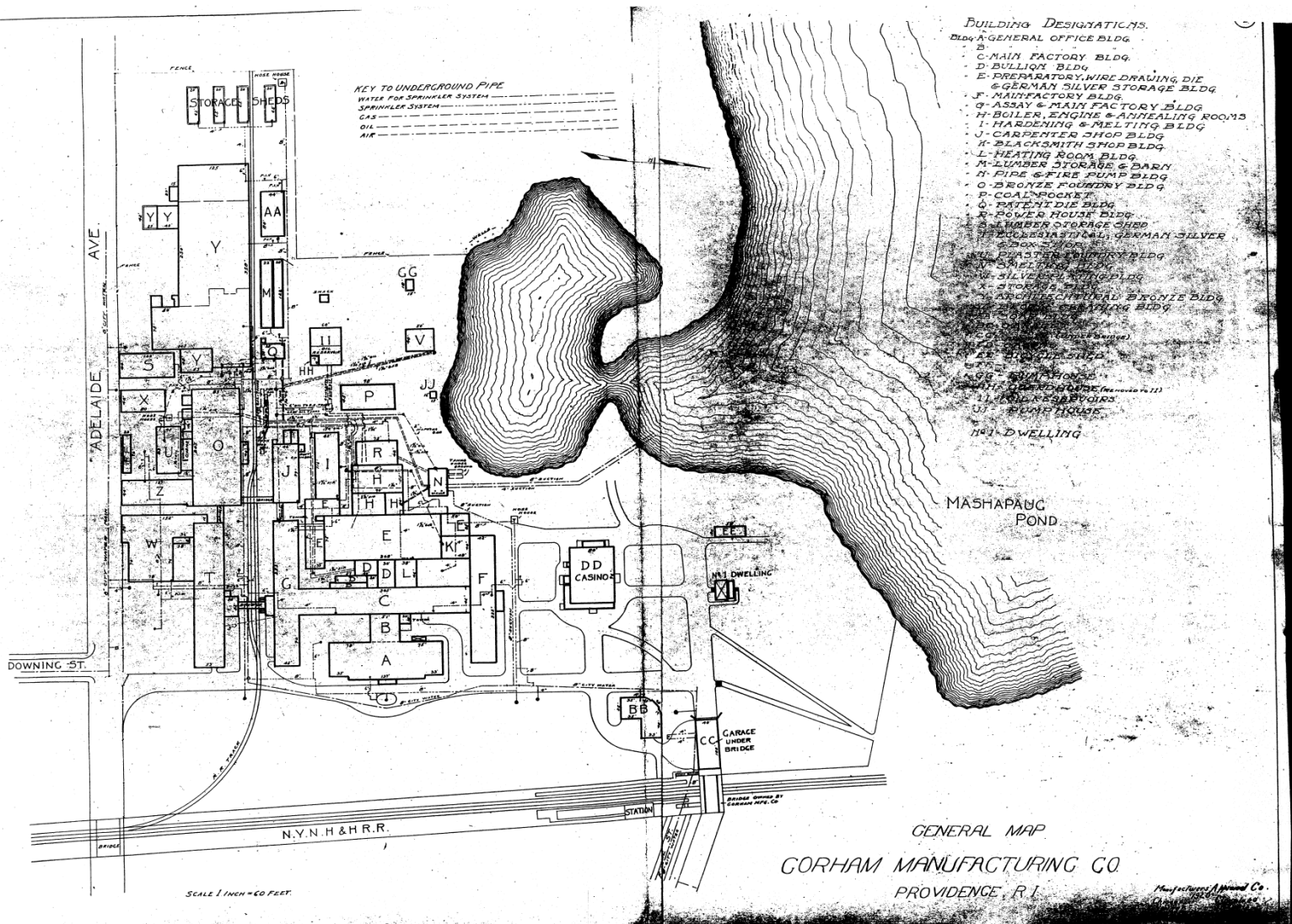
- **Review site history and completed remediation activities**
- **Review Cove (Phase II) and Upland (Parcel C and Phase III) investigation activities**
- **Provide clear understanding of planned remediation activities and associated schedule**
- **Provide instructions to submit comments on planned remediation activities**

Historical photos of the former Gorham facility



- Constructed late 1890's;
Closed 1985
- Silver flatware, Bronze
statuary
- Over 1,000,000 SF of floor
space
- Peak employment – 2,000+





1920
 Facility
 Index
 Drawing of
 the Former
 Gorham
 Facility

Former Gorham Manufacturing Site



Completed Remediation Activities

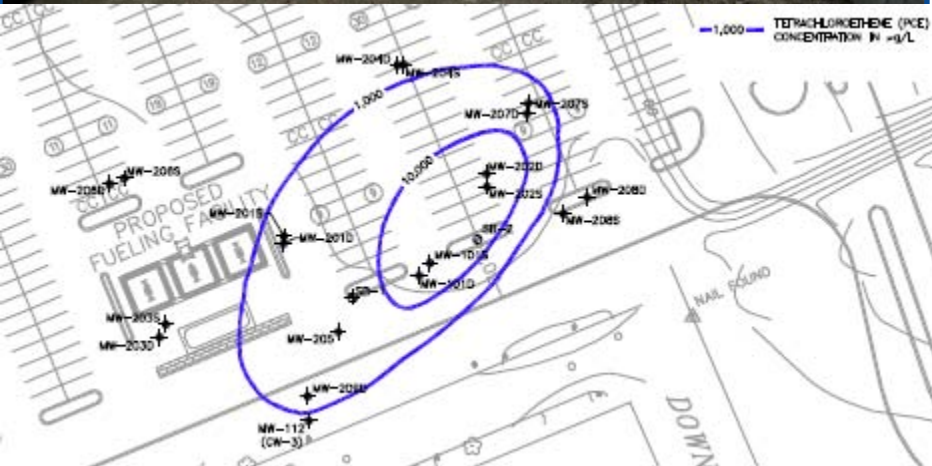
- **Groundwater Remediation Activities**

- In-situ injections (2002, 2004)
- Groundwater Extraction & Treatment (2013 – present)

- **Upland Remediation Activities**

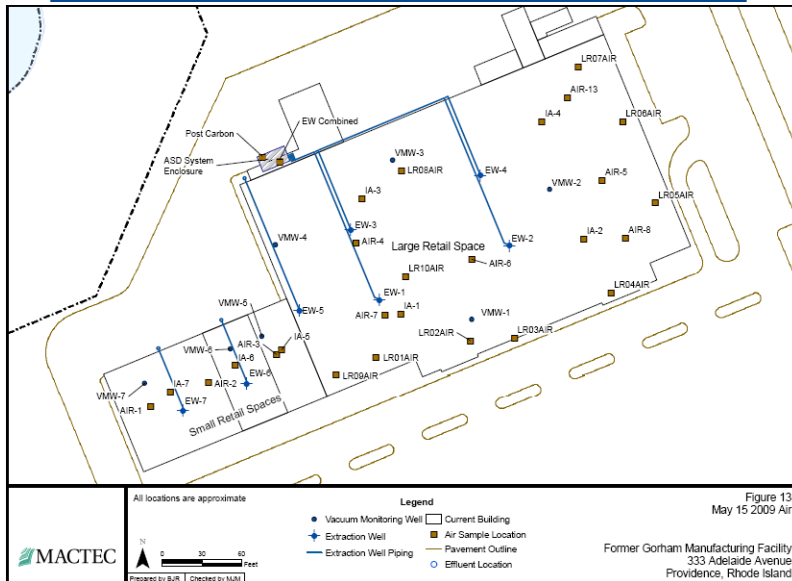
- Parcel A – 2001 (Cap – soil, asphalt and building) - Retail
- Parcel B – 2006 (Cap - soil, asphalt and building) – High school
- Phase I, Parcel C-1 – (Slag Removal – 2006, Cap 2012) - Undeveloped

Completed Remediation Activities – Groundwater Injection Events



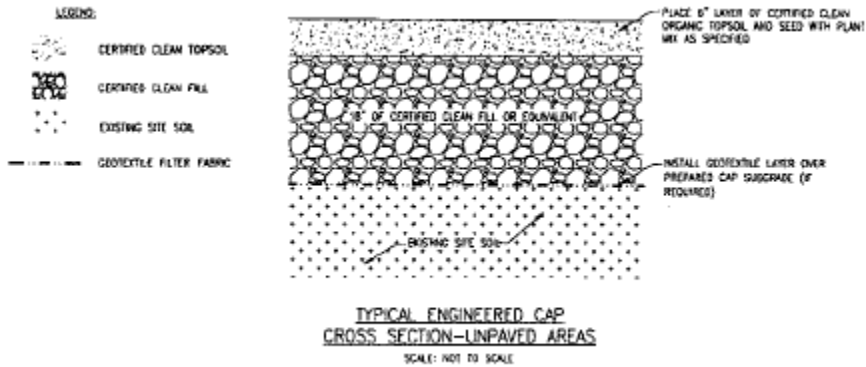
- Parcel A
- Two Injection Events – 2002, 2004
- Source Area was targeted and treated with an oxidant
- Chlorinated solvents – Tetrachloroethylene (PCE) and Trichloroethylene (TCE)
- Reduced impacts by over 50%

Completed Remediation Activities – Parcel A Soil Remediation



- Work completed in 2001 to allow for retail development
- 18,600 tons of petroleum impacted soil treated
- Treated material reused on site
- Capping accomplished with asphalt, soil and buildings
- Industrial/Commercial criteria
- Ongoing monitoring of cap integrity
- Sub-slab mitigation systems

Completed Remediation Activities – Parcel B Soil Remediation (City of Providence)



- Parcel B

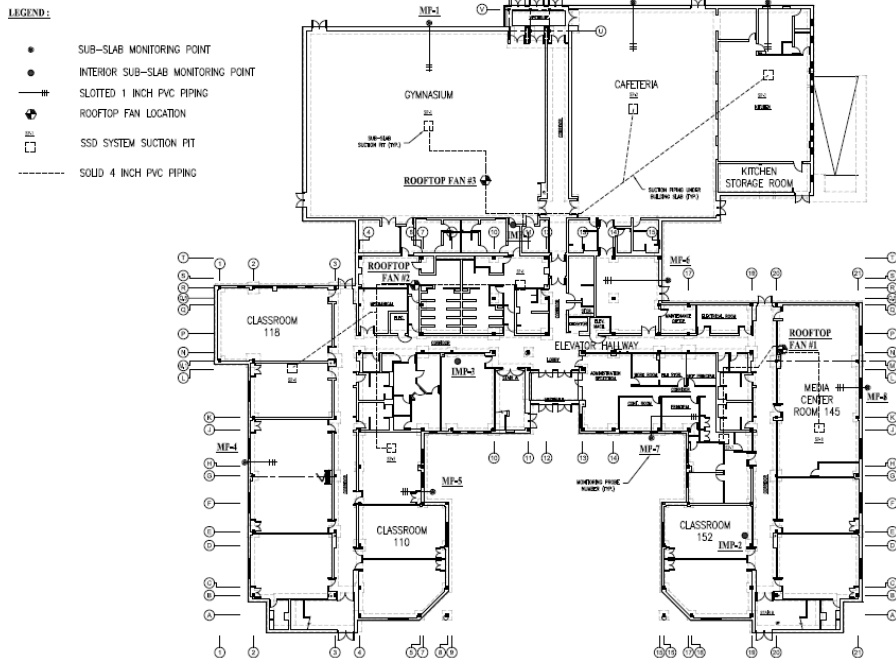
- Work completed by City of Providence in 2007

- Soil, asphalt and building caps

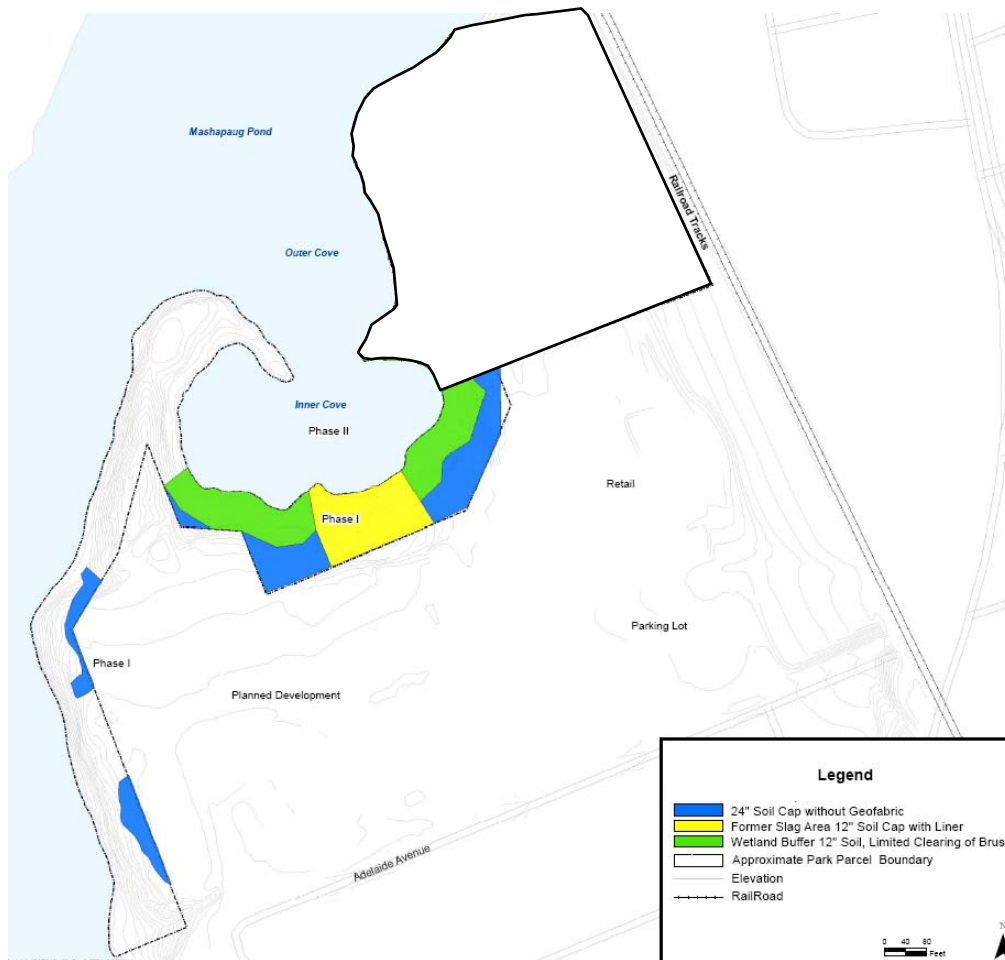
- Residential/unrestricted criteria

- Sub-slab vapor extraction system

- Ongoing monitoring



Completed Remediation Activities – Parcel C-1 - Phase I - Soil Remediation



- Parcel C-1 (Park Parcel)
- Former slag pile addressed in 2006
- Work completed in 2012
- Soil cap – location specific
- Fill areas addressed
- Residential criteria
- Ongoing monitoring

Completed Remediation Activities – Parcel C-1 - Phase I - Soil Remediation



Slag Excavation



Slag material ready for disposal

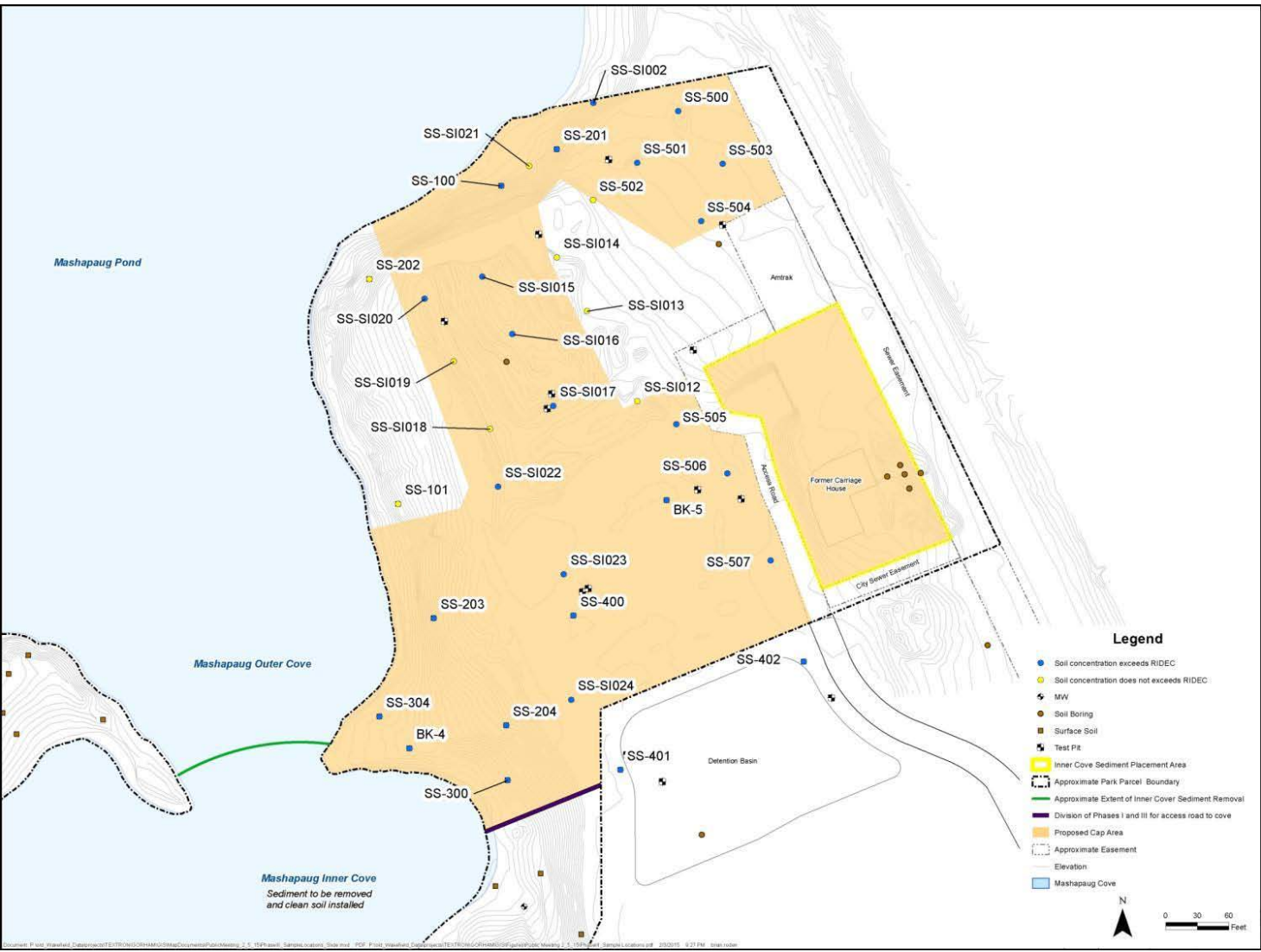
Completed Remediation Activities – Parcel C-1 - Phase I - Soil Remediation



Summary of Parcel C and Phase III Soil Investigations

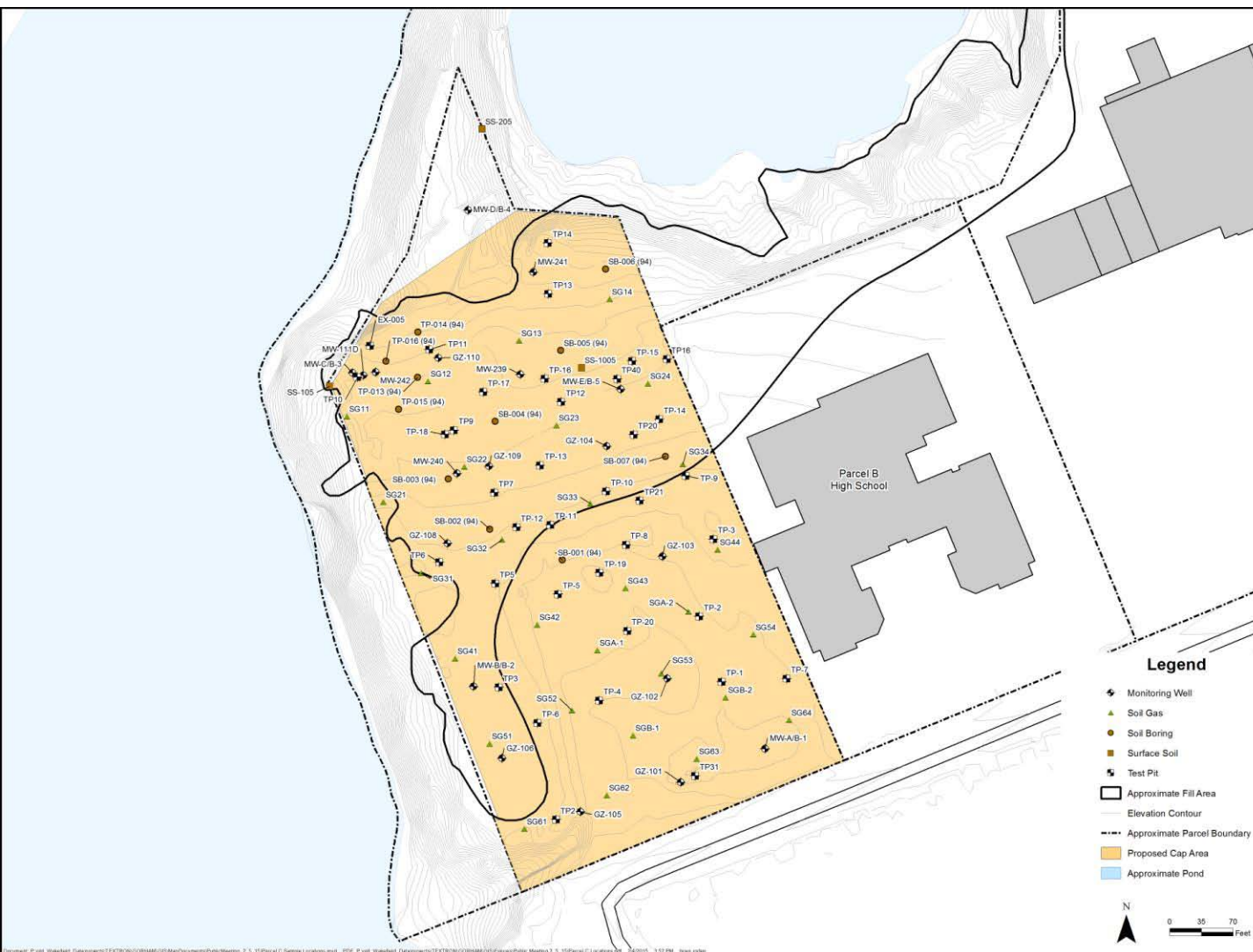
- **Historical Use of Parcel C and Phase III Areas**
 - Passive, Non-manufacturing, Storage, “Casino”
 - Fill zones
- **Many phases of investigations**
- **Soil sampling results**
 - Metals, PAHs, Dioxin
 - Fill Material

Summary of Parcel C and Phase III Soil Investigations



- Phase III Area
- Multiple soil sampling events
- Exceedances of Residential Direct Contact Standards

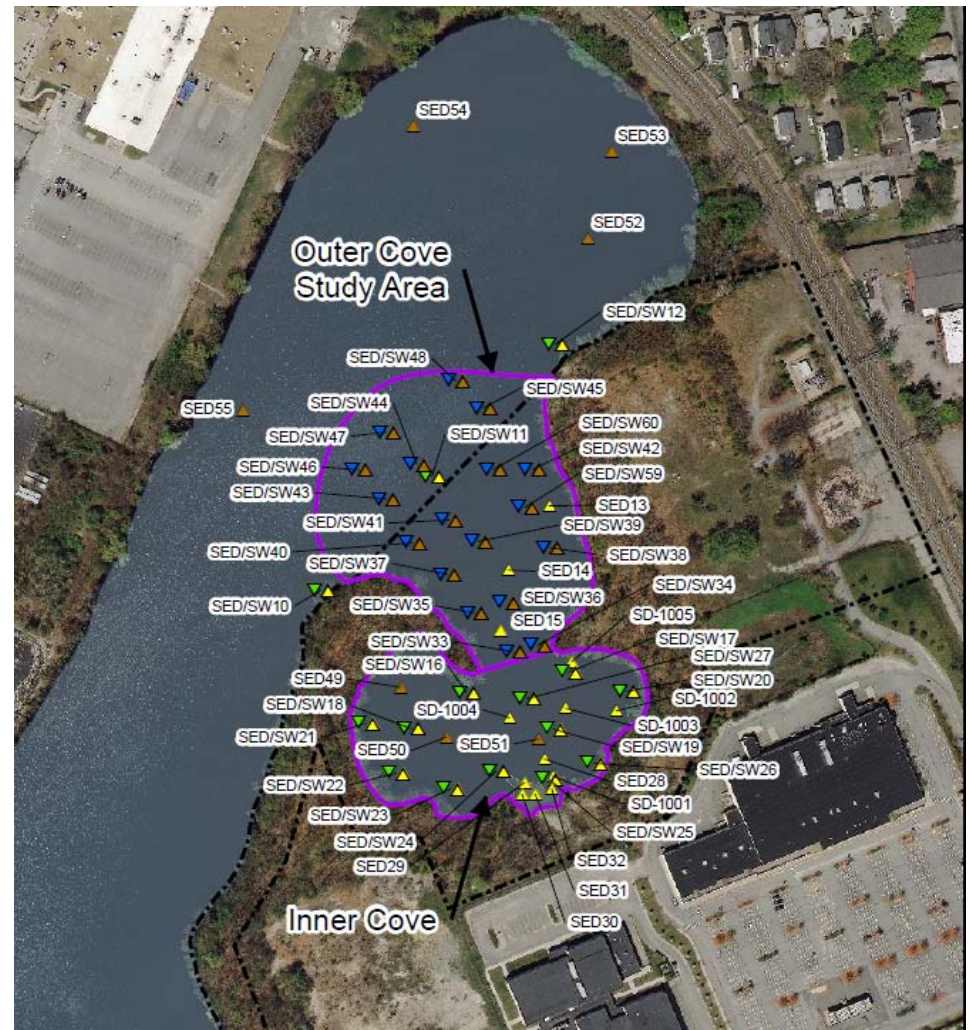
Summary of Parcel C and Phase III Soil Investigations



- Parcel C Area
- Multiple soil sampling events
- Exceedances of Residential Direct Contact Standards
- Fill Material
- Soil/Debris Pile

Summary of Sediment Investigation Activities

- Multiple Sediment Sampling Events
- Bathymetric Survey
- Magnetometer Survey
- Analysis performed for site-related compounds
- Physical property analysis on sediments
- Difference between Inner and Outer Cove
- Background impacts in Pond – Urban runoff
- Risk Assessment
- Surface water Sampling

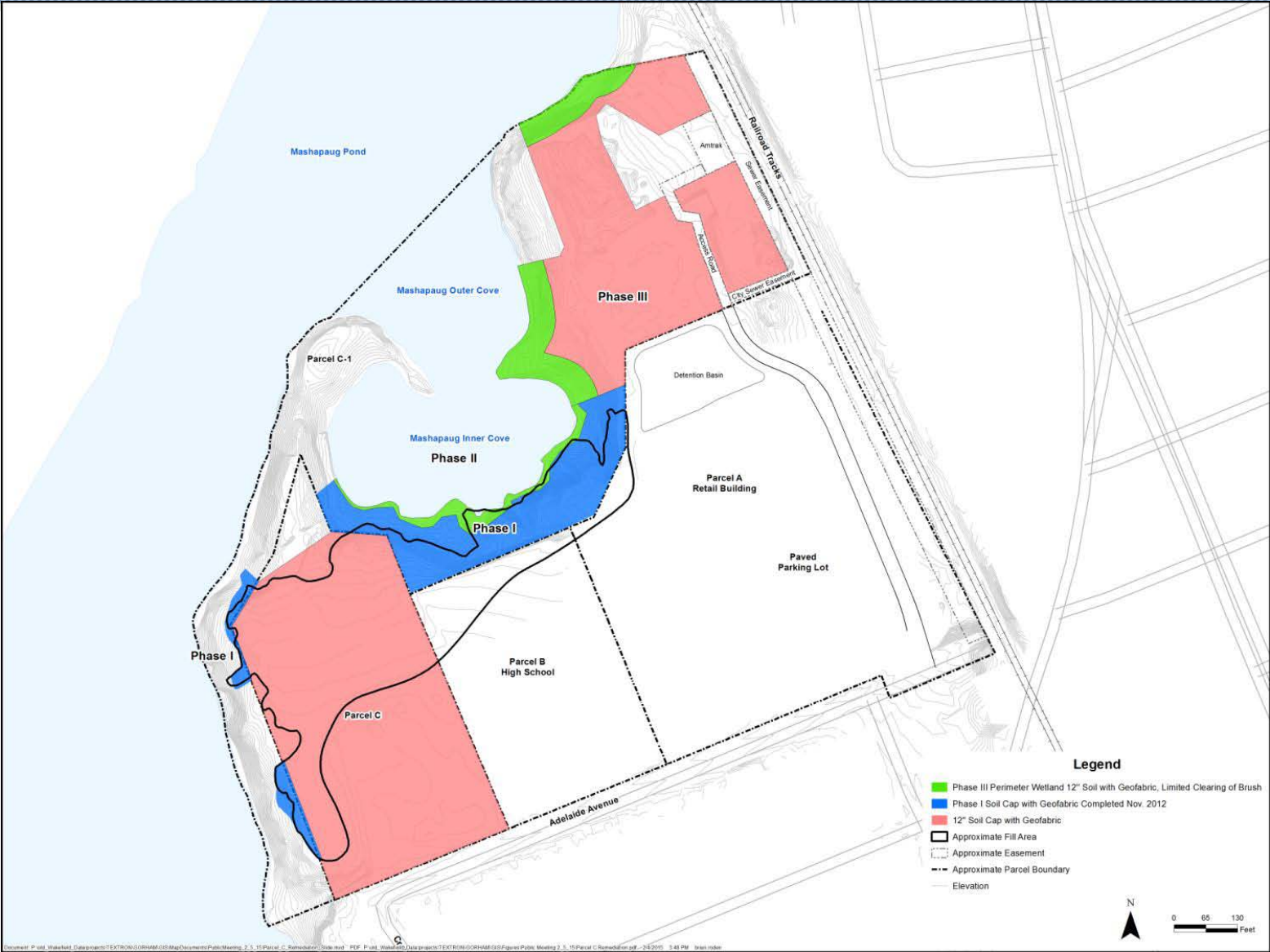


Summary of Sediment Investigation Activities



Photos of Mashapuag Cove Sediment Sampling Activities

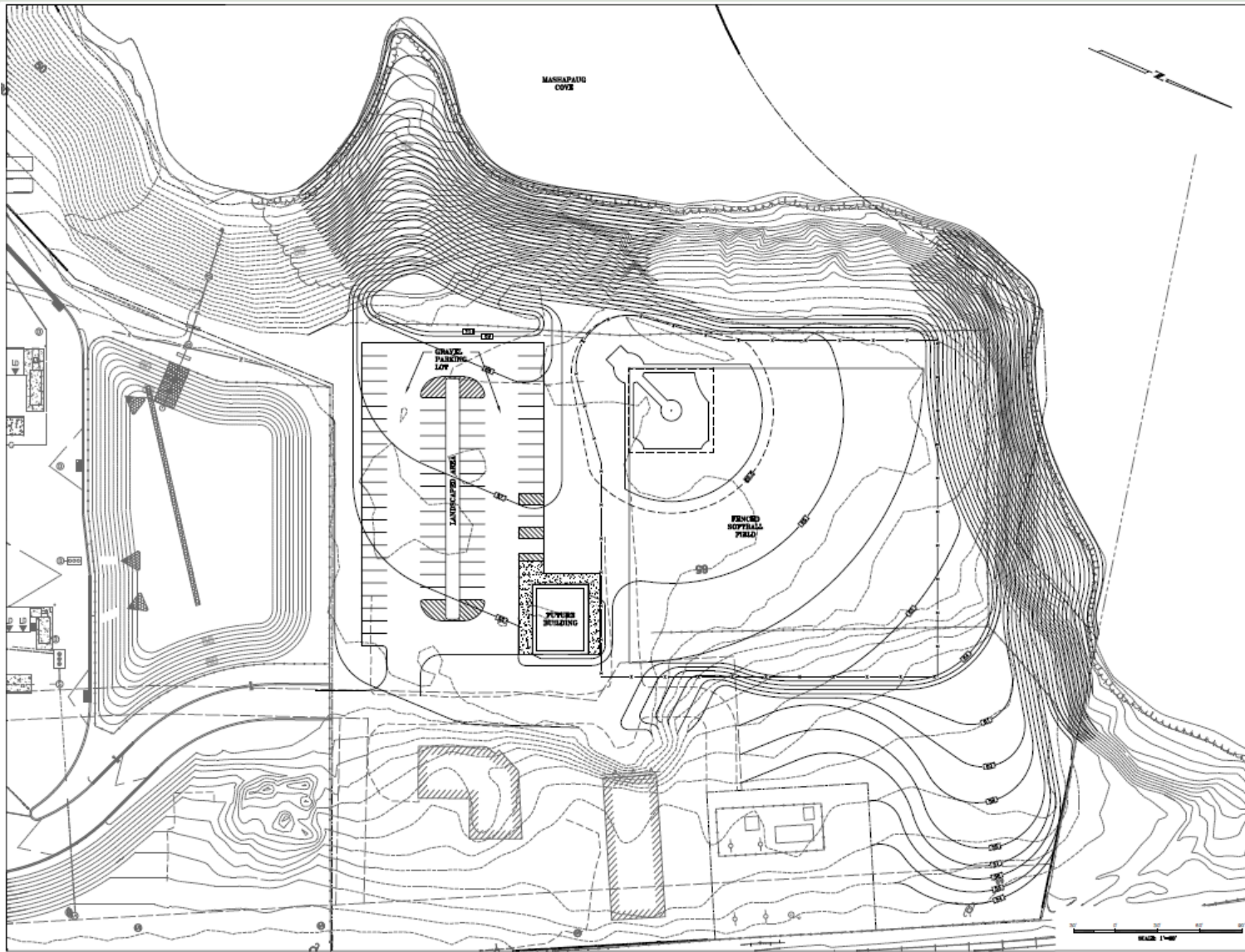
Planned Remediation Activities



Tentative Schedule of Remediation Activities

- **February 20, 2015 – Public Comments due to RIDEM**
- **March 2015 – Draft Remedial Action Work Plan to RIDEM**
- **March 2015 – Submit federal permit application**
- **May 2015 – Final Remedial Action Work Plan/Permit Approvals**
- **June 2015 – Construction contractor selected**
- **July 2015 – Start construction**
- **November 2015 – Complete construction**
- **January 2016 – Construction Completion Reports**

Proposed City of Providence Development



CHERENZIA & ASSOCIATES, LTD.
Civil Engineers
 Land Planners
 Environmental Engineers

40 Main Street, Providence, RI 02903
 Tel: 401-851-0100 Fax: 401-851-7100
 225 South Main Street, Providence, RI 02903
 Tel: 401-851-0100 Fax: 401-851-7100
 www.cherenzia.com

PLAN REVISIONS

DATE	DESCRIPTION	BY	CHK

SCALE: 1"=40'
 JOB NO. 223000
 DATE: 9-04-14

DESIGNED BY: CSH/ARD
 CHECKED BY: CSH

**ISSUED FOR CLIENT REVIEW
 NOT FOR CONSTRUCTION**

CONCEPTUAL SITE PLAN 1

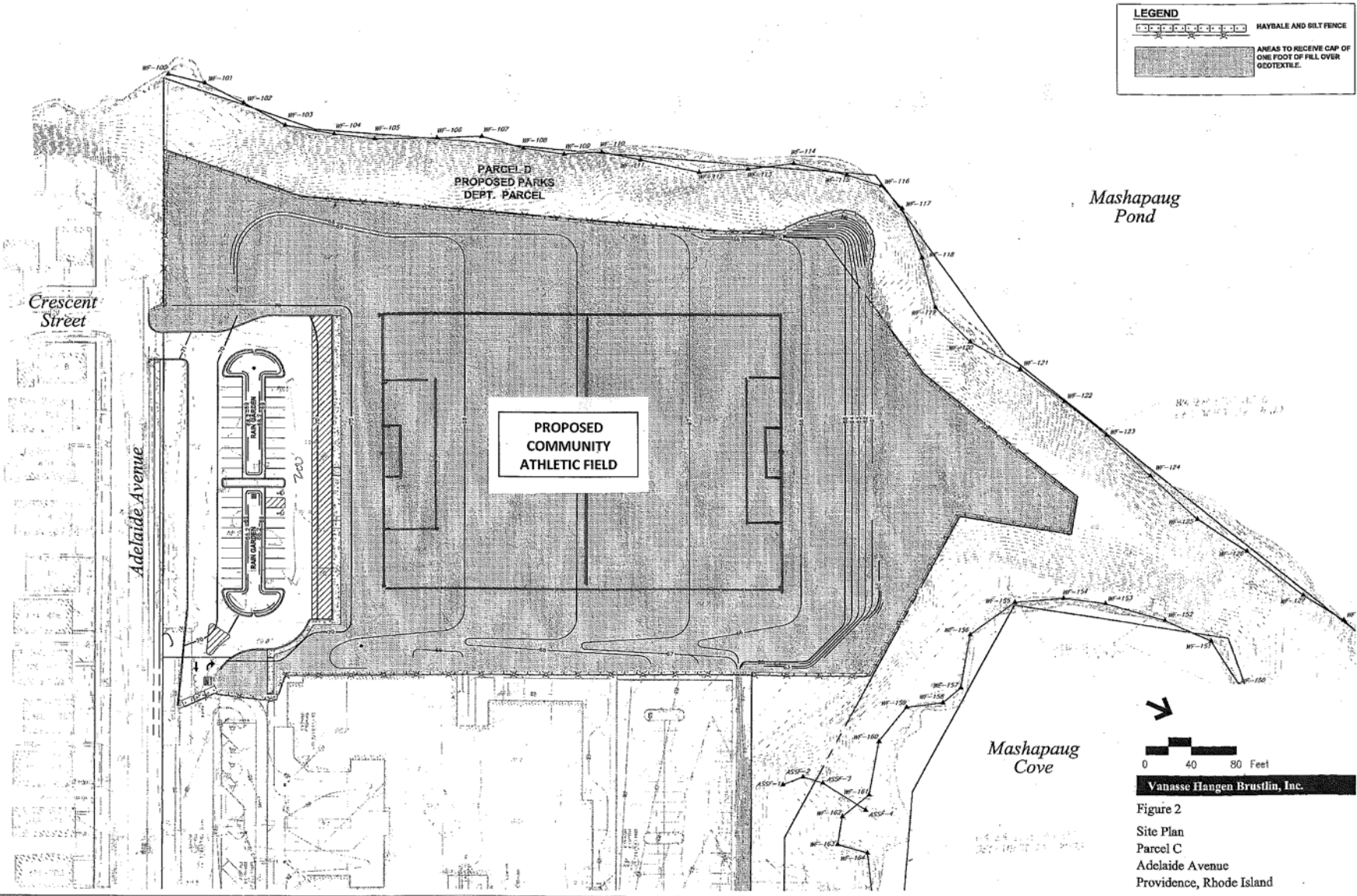
**PROPOSED SOFTBALL FIELD
 ADELAIDE AVENUE
 PROVIDENCE, RHODE ISLAND**

**PREPARED FOR
 PROVIDENCE REDEVELOPMENT
 AGENCY**

C-1

SHEET 1 OF 1
 CHERENZIA & ASSOCIATES, LTD.

Proposed City of Providence Development



LEGEND

HAYBALE AND SILT FENCE
 AREAS TO RECEIVE CAP OF ONE FOOT OF FILL OVER GEOTEXTILE.

0 40 80 Feet
Vanasse Hangen Brustlin, Inc.

Figure 2
 Site Plan
 Parcel C
 Adelaide Avenue
 Providence, Rhode Island

Instructions for Submitting Comments

- *Comments relative to the technical feasibility of the proposed Phase II, Phase III and Parcel C Remedy*
- **Written:**
Joseph T. Martella II, Senior Engineer
RI Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, RI 02908-5767
- **Electronic:**
joseph.martella@dem.ri.gov
- Comments need to be received by February 20, 2015 before 4:30PM to be valid

Questions
