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COTE VILLAGE REDEVELOPMENT

Presented by:

Kenneth D. Boivin, CHMM
Jay L. Hodkinson, P.E.

“The right to a decent home is a moral imperative; housing is an essential human right.”

William H. Grogan, President
Planning Office for Urban Affairs

Cote Village Development, Boston, Massachusetts

Environmental Remediation, Geotechnical, Design Support, Demolition & Construction Services

Jay L. Hodkinson, P.E., Kenneth Boivin, CHMM
Dave Lamothe, P.E., Matthew Dion

Client: Planning Office for Urban Affairs, Inc.
Developers: Planning Office for Urban Affairs & Caribbean Integration Community Development
Architect: Davis Square Architects
Structural Engineer: Souza, True and Partners, Inc.
Site Civil Engineer: Nitsch Engineering
Landscape Architect: RBLA Design, LLC
Construction Manager: Built Rite Construction
Subcontractors: Amerphil Inc. Contractors, Chapman Waterproofing, Cyn Environmental Services, J.R. Vinagro Corporation



Environmental

- Former automobile service site developed to 4 story affordable housing residential development featuring 76 units
- A Contract to Closure (CTC) was used to remediate the site to allow for residential development.
- Hazardous building materials were remediated by abatement procedures
- Residual petroleum impacted soil was remediated by excavation and offsite disposal during both pre-construction and mid-construction timelines.
- Vapor intrusion barrier system consisted of a membrane and passive ventilation with the ability to go active should indoor air quality require activation.



Geotechnical & Site Civil

- On-site fills were of varying composition and densities with presence of ash/cinders
- Storm water recharge systems were relocated and modified given undulating bedrock conditions and multiple areas of residual petroleum contamination subject to Activity and Use Limitations.
- Excavated soil was tracked for proper reuse and disposal
- An existing parking garage beneath one of the buildings demolished prior to construction was retained and integrated into the final design with a mid-rise building built on top of the structure, posing unique geotechnical assessments and recommendations.
- Reuse of urban fills was maximized to reduce off-site disposal.



Demolition & Rebuild

- Demolition of two buildings began with abatement of asbestos containing materials and other hazardous materials.
- Preservation of the existing parking garage beneath one of the buildings required precise demolition techniques and structural monitoring.
- Onset of the Covid-19 pandemic during the construction phase posed unique challenges including workforce capacity limitations and unanticipated construction materials costs, directly impacting the projects schedule and budget.
- Conversion of the abandoned and distressed site into an affordable housing development was merely a vision in 2015. The efforts of the project team and specialty contractors revitalized the area, completing construction in 2022.

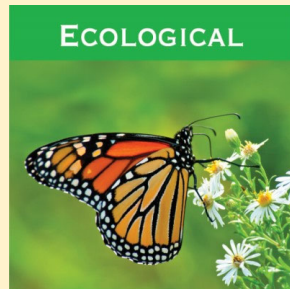
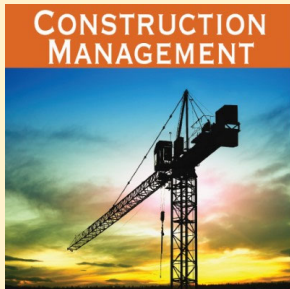
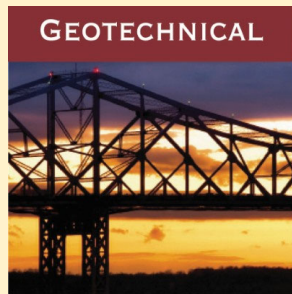




Established in 1969 by the Roman Catholic Archdiocese of Boston, the Planning Office for Urban Affairs, Inc. (POUA) is a non-profit social justice ministry that strives to create vibrant communities through the development of high quality affordable and mixed income housing, where people of modest means can live with dignity and respect in homes they can afford.



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- Upcoming projects in Charlestown, Roxbury, Boston, Wayland
- 150 River Street Mattapan, 2024 - 30 Elderly, Rental
- 48 Boylston Street, Boston, 2024 – 126 Family, Individual
- Harbor Place Phase 2, Haverhill, 2024 57 Family
- Morton Station Village, Mattapan, 2023 40 Family
- Cote Village, Mattapan, 2022 76 Family
- The Union at 48 Boylston, Boston, 2018, 46 Family, Individual
- Bethany Apartments, Hanover, 2018 -37 Family, Supportive Housing
- Safehaven (Sancta Maria House), Boston, 2017 – 9 Special Needs
- Harbor Place, Haverhill, 2016 – 80 Family
- The Apartments at 165 Winter, Haverhill, 2015, 12 Family
- Uphams Crossing, Dorchester, 2015 – 80 Family
- 135 Lafayette, Salem, 2013 – 51 Family
- Upton Street, Boston, 2011 – 19 Supportive Housing
- Hayes Building, Haverhill – 2010 57 Family, Rental

FROM COTE FORD TO COTE VILLAGE

TRANSFORMING NEGLECTED AND
CONTAMINATED PROPERTY...



... TO CREATE 76 NEW HOMES FOR MIXED INCOME
RESIDENTS OF MATTAPAN



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PROJECT TIMELINE



REDEVELOPMENT CONSIDERATIONS AND CONSTRAINTS

SITE

- First developed in 1908
- Long history of commercial / industrial use (i.e., automotive, trucking, and buses)
- Vacant for 25+ years
- Multiple historical petroleum UST/automotive releases
- Urban fill / limited reuse soil

MCP

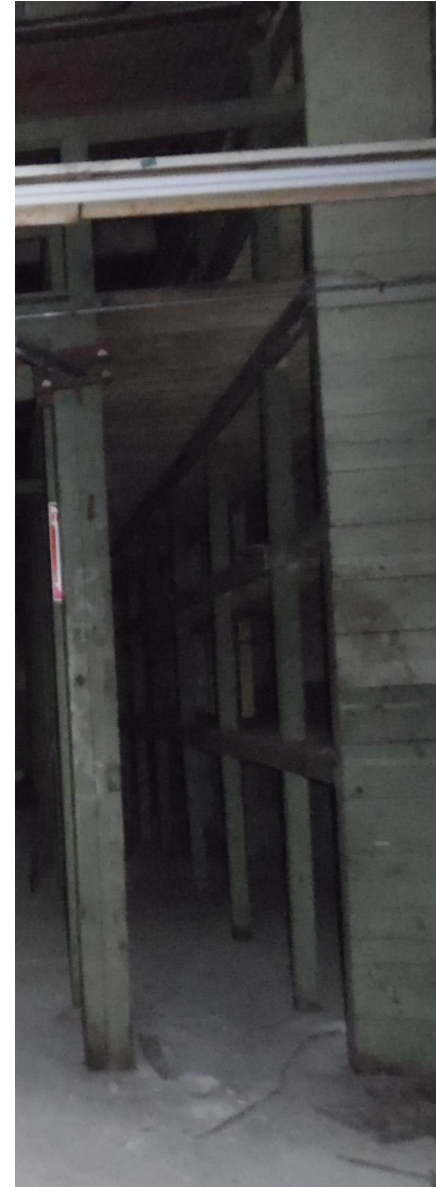
- Massachusetts Contingency Plan (MCP) release site
- Permanent Solution with Conditions – three AUL areas
- Potential for soil vapor intrusion
- Potential eVOC concerns: 2014 change to MCP GW-2 standard for TCE
- MCP regulated soil

PROJECT

- Design required reuse of existing foundation and basement
- Buildings constructed within three AUL areas
- Soil export (~4,600 tons)
- On-site stormwater infiltration

DUE DILIGENCE ASSESSMENTS AND SURVEYS:

- Phase I/II ESAs – Historical REC and BERs
- Building surveys for asbestos, polychlorinated biphenyls, lead paint, and other hazardous materials.
- Geotechnical study
- Options and cost estimates for MCP compliance
 - Amend or terminate AUL – data review, risk assessment, and supplemental data.
 - Manage and comply with AUL – Resolve uncertainties, soil and groundwater management plan, health and safety plan, Release Abatement Measures (RAM) Plan



SUPPLEMENTAL INVESTIGATIONS

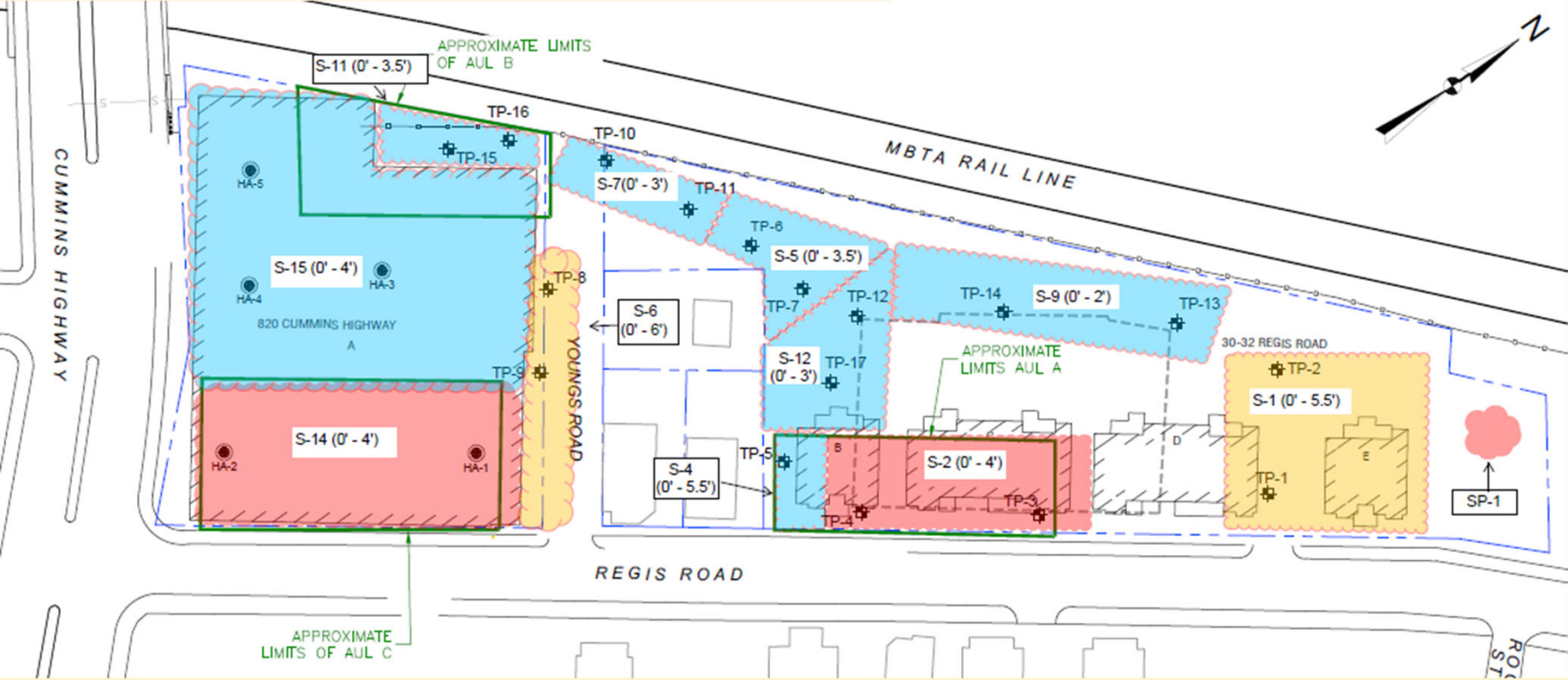
- Soil vapor monitoring
 - Buildings B & C planned within AUL Area A
 - AUL Areas B and C are beneath Building A
 - All monitoring results < residential screening values
 - Sub-slab depressurization for Buildings B – E
- Groundwater monitoring
 - cVOC concentrations in GW were isolated and met GW-3 standards
- Soil pre-characterization and LSP Letters for receiving facility approvals
- Supplemental geotechnical and infiltration rate assessment for SW recharge design



SOIL MANAGEMENT PLANNING

LEGEND:

- TP-5 TEST PIT EXCAVATED BY AMORPHIL INC. OBSERVED BY GZA ON JANUARY 8, 2020
- HA-1 HAND AUGER BORING ADVANCED BY GZA ON JANUARY 10, 2020
- APPROXIMATE LIMITS OF PROPOSED BUILDINGS
- Soil Disposal Classification:**
 - RCS - 1
 - Unlined Landfill
- APPROXIMATE LIMITS OF ALL
- APPROXIMATE LIMITS OF EXISTING 30-32 REGIS ROAD BUILDING
- APPROXIMATE PARCEL BOUNDARY
- Lined Landfill
- Out of State Landfill



SOIL PRE-CHARACTERIZATION AND LIVE LOADING



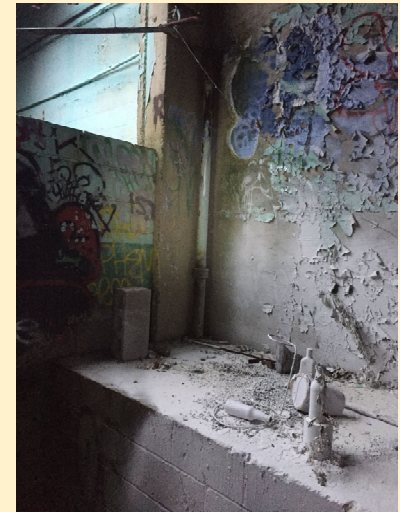
COST ESTIMATING, DESIGN, AND CONTINGENCY PLANNING:

- Soil export
- MCP planning and reporting
- RAM Plan, RAM status reports, RAM Completion Report
- Plans and specifications for abatement and removals
- Contingency planning for excavation dewatering
 - Remediation General Permit
 - Treatment system
- Sub-slab depressurization design
- Project monitoring and clearance testing/inspections
 - ACM / Hazardous materials abatement
 - Environmental
 - Geotechnical
 - SSDS Installation
 - Lead-based paint



HAZARDOUS MATERIAL ABATEMENT AND BUILDING DEMOLITION:

- Asbestos
- Lead Paint
- Hazardous Materials
- Select Demolition and Separation of Building







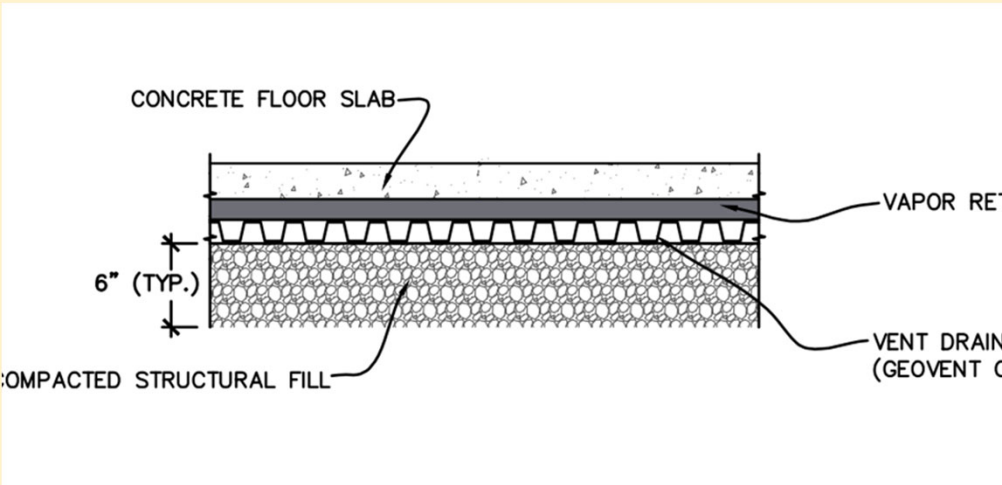
A FEW SURPRISES:





GEOTECHNICAL ASPECTS

- Loose Urban Fills
- Reuse of Urban Fills to Reduce Disposal
- Highly Variable Bedrock
- Reuse of Building A Foundations
- Stormwater Infiltration



The Results



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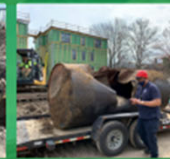
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