I-81 VIADUCT PROJECT

SECTION 6-4-10
HAZARDOUS WASTE AND CONTAMINATED MATERIALS

Transportation projects that include the acquisition of right-of-way, construction easements, and/or the excavation or other disturbance of soils have the potential to encounter hazardous and/or contaminated (non-hazardous) materials as a result of:

- Planned construction activities,
- Relocation of utilities, and/or
- Structure demolition or modification.

The presence or release of these materials on construction sites can expose workers, members of the public, and the environment to these materials. In addition, the unexpected encounter of either known or suspect hazardous and/or contaminated materials during construction can lead to project delays and add substantial cost to a project.

Established environmental regulations must be followed during the removal and disposal of identified hazardous waste, non-hazardous solid waste, and construction and demolition (C&D) debris. Hazardous wastes are listed wastes that are ignitable, corrosive, reactive, or toxic. This can include lead-based paint wastes. Non-hazardous solid waste does not contain those characteristics and includes materials such as general trash, both friable\(^1\) and non-friable asbestos-containing materials, most petroleum contaminated soil, and empty drums and tanks. C&D debris includes uncontaminated concrete, asphalt pavement, brick, glass, soil, and rock.

The storage, transportation, and disposal of contaminated and hazardous materials are regulated at the Federal level by USEPA. At the state level, most of the environmental regulations are promulgated and enforced by either NYSDEC, NYSDOH, or the NYSDOL. NYSDEC manages most New York State mandated environmental cleanups (Brownfield, Petroleum Spills, State Superfund, and Voluntary Cleanup), provides guidance on environmental cleanup levels, issues permits to waste transporters, and approves licenses for various disposal and treatment facilities. The NYSDOH assists the NYSDEC with the development of cleanup standards, assists the public with the communication of right-to-know and public health issues, and grants certain environmental training certificates (e.g., asbestos and mold). The NYSDOL manages New York State's Asbestos Control Bureau, project notifications, licensing of Contractors, and the coordination of pre-demolition asbestos surveys.

The management of subsurface contamination is subject to various regulatory programs, including the Federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, commonly referred to as “Superfund”) and Resource Conservation and Recovery Act (RCRA), as well as the State Inactive Hazardous Waste Disposal Site Remedial Program, Brownfield Cleanup Program, New York State Environmental Conservation Law, and Article 12 of the New York State Navigation Law (relating to petroleum spills). NYSDEC’s Technical Guidance for Site Investigation and

\(^1\) Able to be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand.
Remediation (DER-10) establishes methods for site investigation and clean up, and the Solid Waste Management Facilities Regulations control disposal of excavated materials (6 NYCRR Part 360). NYSDOT requires that a Hazardous Waste/Contaminated Materials (HW/CM) Screening Assessment (referred to as “HW/CM Assessment” within this section) be performed to identify the potential for encountering hazardous and non-hazardous contaminated materials during the planned construction work. The HW/CM Assessment involves a screening of each of the properties under review for possible contamination, focusing on current and previous activities, a review of available environmental records and files for that property, historical maps and photos, and a review of the surrounding land use.


As part of the screening to identify sites of potential environmental concern based on existing and past property uses, sites within and/or adjacent to the project study areas were reviewed using Federal and State database records obtained from Environmental Data Resources Inc. (EDR) in 2010. Additional information was obtained from EDR in 2016, 2017, 2018, 2019, and 2021 for the expanded study areas and areas that were identified as missing from the earlier records. These adjustments were made to account for changes in the project limits including noise walls that are under consideration. The search radii varied by database, but included the databases shown in Table 6-4-10-1.

Other records and sources of information were also used for the review, including historical topographic maps, historical land use maps, Sanborn Fire Insurance maps, city directories, historical aerial photographs, and public records held by the City of Syracuse, Town of Dewitt, Village of East Syracuse, Town of Cicero, and Onondaga County. In addition, NYSDEC’s website was reviewed to identify additional environmental (i.e., spills, remediation, and bulk storage) database records. Work also included a sidewalk reconnaissance inspection and the collection of photographs to identify sites of potential environmental concern based on existing and past property uses and the potential to have contaminated materials and/or hazardous substances. Contacts were made with a number of local municipalities during the research of the study areas; however, no individual property owners were interviewed during the walkover of the corridor.
As described in Section 6-1, Introduction, the Project Area includes portions of I-81, I-690, I-481, and adjacent streets that may be altered by one or both of the project alternatives. The Project Area is divided into four study areas: Central Study Area, I-481 South Study Area, I-481 East Study Area, and I-481 North Study Area (see Figure 6-1-1). A HW/CM Assessment was completed for the Project Area, which identified over 250 sites of potential concern. Additional detail on each site of potential concern is found in the HW/CM Screening Assessment Report located in Appendix L and in Figures 6-4-10-1 to 6-4-10-19.
1. I-81: Sutton Dr - I-481 Interchange & I-81 Interchange - Northern Blvd
2. Drivers Village Inc: 5947 Circle Dr
3. Drivers Village Inc: 5857-5927 Circle Dr

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Note: Number is prefixed by 3.1.
1. I-81: Sutton Dr - I-481 Interchange & I-481: I-81 Interchange - Northern Blvd
4. National Grid: 7496 Round Pond Rd
5. Swift Transportation: 7470 Round Pond Rd
6. Monroe Tractor & Implement: 7300 Eastman Rd
7. Lan-Co Companies: 7330 Eastman Rd

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Note: Number is prefixed by 3.1.
Figure 2c: Sites of Potential Environmental Concern - I-481 East Study Area

1. I-481: I-90 - Route 592 Interchange
2. Inficon Inc: 2 Technology Pl
4. Ultra Dairy: 6750 Benedict Rd

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Note: Number is prefixed by 3.2.
1. I-481: I-90 - Route 592 Interchange
2. CSX: Dewitt Railroad Yard
3. Penske Truck Rental: 6755-6773 Manlius Center Rd
4. 84 Lumber: 6801 Manlius Center Rd
5. Allied Spring & Services Inc: 6800 Manlius Center Rd
6. B&C Self-Storage: 5991 Drott Dr

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Note: Number is prefixed by 3.2.
Figure 2e: Sites of Potential Environmental Concern - I-481 East Study Area

10. I-481 Route 5 and 92 Interchange
11. State Farms Insurance: 5005 E. Genesee St
12. Shopping Plaza: 6789-6837 E. Genesee St
13. Vacant Retail Plaza: 6810-6816 E. Genesee St.
15. Law Office: 6832 E. Genesee St
17. Shopping Plaza: 6901-6903 E. Genesee St.
18. Speedway: 6906 E. Genesee St.
19. Industrial Color Lab: 6890 Highbridge Rd.

[Note: Number is prefixed by 3.2.]

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Sites of Potential Environmental Concern — I-481 East Study Area

Figure 6-4-10-5
1. I-81/I-690 Corridor
2. Brian Farmer's Auto Sales: 2230 Park St
3. Storefronts: 2083 Park St
4. Babies R Us: 2027 Park St
5. Destiny USA: 1 Destiny USA Dr
6. Vacant Lot: 2802-12 Lodi St/101-103 Wolf St

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Note: Number is prefixed by 3.3.
1. I-81/I-690 Corridor
7. Destiny USA Parking Lots: 301-401 W. Hiawatha Blvd
8. Vacant Lot: 2615-2717 Lodi St/111 Bear St
9. Brink's Inc: 2616 Lodi St
10. Vacant Lot: 300 W. Bear St
11. Vacant Lot: 301 W. Bear St
12. Vacant Lot: 470 Solar St
13. Vacant Lot: 998-1000 N. Clinton St
14. Vacant Lot: 967 N. Clinton St
15. Harbor View Liquors: 936 N. Clinton St
16. Sedgwick Business Interiors: 100 W. Court St
17. Vacant Lot: 931 N. Clinton St
18. Andy's Produce: 651 Genant Dr
19. Vacant Lot: 901 N. Clinton St
20. DTS Truck Service: 647 Genant Dr
22. Cerio's Auto Electric: 1425 N. State St
23. DJB Fleet & Auto: 101 Sunset Ave
24. Former Manufacturing Facility: 128 Spencer St
25. Former Manufacturing Facility: 800 N. Clinton St
26. P.A. Leone & Sons Inc: 1207 N. State St
27. RSG Automotive: 1201 N. State St
28. Marinich Builders/Mike's Appliance: 1121 N. State St
29. Clinton Street Commons: 721 N. Clinton St
30. Office Building: 706-716 N. Clinton St
31. Adirondack Furniture: 1025 N. State St
32. County Wide Appliance Service: 1001 N. State St
33. Hiawatha Used Cars: 931 N. State St

Figure 6-4-10-7

Sites of Potential Environmental Concern — Central Study Area

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Note: Number is prefixed by 3.3.
34. Iron Pier Apartments: 710-750 Van Rensselaer St
35. Vacant Lots: 800-801 Van Rensselaer St
36. Vacant Lot: 401 Bear St W
37. C.O. Falter Construction Co: 403 Bear St W
38. Vacant Lot: 430 Bear St W
39. Former Asphalt Plant: 450-60 Bear St W
40. Sheet Metal Workers Local 58: 303 Pulaski St
41. Rumetco Sales: 630 Bear St W
42. Universal Sales & Accessories: 223 Pulaski St
43. Mirabito Energy Products: 650 Bear St W
44. Office Building: 906 Spencer St
45. Dwyer Fire Protection Co: 901 Spencer St
46. Fleet Pride: 805 Spencer St
47. L'Arche Syracuse: 920 Spencer St
48. Lincare Inc: 922 Spencer St
49. Syracuse City Ballet: 932 Spencer St
50. HVAC Distributors: 938 Spencer St
51. Clark Rigging & Rental Corp: 945 Spencer St
52. Skyworks Equipment Rental: 955 Spencer St
53. C&D LaFace Granite Shop: 971 Spencer St
54. Planet Self Storage: 901 Hiawatha Blvd W

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga
Figure 6-4-10-9

Sites of Potential Environmental Concern — Central Study Area

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga
1. I-81/I-690 Corridor
2. Performance Auto Body: 820-826 W. Belden Ave
4. Nick Orso's Body Shop: 638 W. Genesee St
5. Former Office Building: 600-608 W. Genesee St
6. Mr. Tire Auto Center: 524 W. Genesee St
7. City Electric Co: 514 W. Genesee St
8. Iron Workers Local 60: 500-508 W. Genesee St
9. Parking Lot: 440 W. Genesee St
10. Parking Lot: 215 Wallace St
11. City of Syracuse Fire: 400 W. Genesee St
12. American Red Cross: 344 W. Genesee St
13. Parking Lot: 304-316 Herald Pl

102. Krell Building: 200-212 Herald Pl/316 N. Franklin St
103. Krell Distributing Co: 203-219 Herald Pl
104. Parking Lot: 106-24 Herald Pl
105. Parking Lot: 214 N. Salina St
106. Post Standard: 101-239 N. Salina St
107. Office Building: 101 N. Clinton St
108. Niagara Mohawk Power Corp: 300-320 Erie Blvd W
109. City Electric Co: 501 W. Genesee St
110. Maguire Auto Sales: 523 W. Genesee St
111. Brownstone Apartments: 601-605 W. Genesee St
112. Parking Lot: 313 N. West St.
113. Poor O 'Jim's Used Car Lot: 103 Park Ave

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Sites of Potential Environmental Concern — Central Study Area

Figure 6-4-10-10
1. I-81/I-690 Corridor

114. Former Ice Cream Factory Building: 400-30 Erie Blvd W
115. Syracuse Office Environments: 376 Erie Blvd W
116. Creekwalk Commons: 324 Erie Blvd W
117. Apartments and Retail: 208 W. Water St
118. James Hanley Federal Building: 100-34 S. Clinton St
119. Atrium Associates: 100 S. Salina St
120. Pen & Trophy Center/Parking Lot: 200-12 N. Salina
121. Parking Lot: 130-36 N. Salina St
122. Parking Lot: 126-56 James St
123. The Grainary: 126-34 N. Warren St
124. Parking Lot: 101 Oswego St
125. Doctor's Office: 207-33 E. Water St
126. Apartments and Retail: 243-49 E. Water St
127. Erie Canal Museum: 311-17 E. Water St
128. Office Building: 327-35 E. Water St
129. Apartments: 112-16 Burnet Ave
130. CabFab: 122-24 Burnet Ave
131. Tom's Mechanical Emporium: 204 Burnet Ave
132. Midtown Auto Body Services Corp: 210-14 Burnet Ave
133. Hansen QP: 216 Burnet Ave
134. Speedway Gas Station: 603 E. Fayette St
135. M&T Bank: 421 E. Water St
136. Smith Restaurant Supply: 500 Erie Blvd E
137. Parking Lot: 401-13 E. Washington St
138. Goodyear Auto Service: 110-20 S. Townsend St
139. Former Manufacturing Facility: 105-15 S. Townsend St
140. Parking Lot: 516 E. Water St
141. United Uniform & Law Office: 506-18 E. Washington St
142. Parking Lot: 530 E. Washington St
143. Former Gas Station: 500 E. Clinton St
144. Syracuse U./McMahon Ryan Child Advocacy 601 E. Genesee St
145. Upstate Medical University: 600 E. Genesee St
146. Jefferson Tower Apartments: 507-17 S. Townsend St
147. Jefferson Tower Apartments: 601 S. Townsend St
148. University Health Care Center: 513-27 Harrison St

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Note: Number is prefixed by 3.3.
1. I-81/I-690 Corridor
149. Warehouse: 306 Burnet Ave
150. Thermax of Syracuse: 308 Burnet Ave
151. Ace Garage: 323 Burnet Ave
152. L&G Machining/Jennie’s Auto Sales: 400 Burnet Ave
153. Bon-Ton Glass Co: 457-459 Burnet Ave
154. Fradon Lock Co: 467-471 Burnet Ave
155. Joseph Dauccio & Son Auto Repair: 503-505 Burnet Ave
156. Xtreme Custom Car Care: 547-549 Burnet Ave
157. Former Auto Sales Shop: 546-548 Burnet Ave
158. Syracuse Transmission Service: 610-616 Burnet Ave
159. TLC Medical Transportation Services Inc: 628-640 Burnet Ave
160. Vacant Storefront/Warehouse: 650-654 Burnet Ave
161. Raulli & Sons: 658-660 Burnet Ave
162. Industrial Color Labs: 152-154 Lodi St
163. Babbit Bearings Inc: 734-760 Burnet Ave
164. National Carpet Outlet: 808-822 Burnet Ave

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Sites of Potential Environmental Concern — Central Study Area

Figure 6-4-10-12
1. I-81/I-690 Corridor
176. Firestone Complete Auto Care: 711-721 Erie Blvd E
177. Time Warner Cable: 815 Erie Blvd E
178. The Art Store: 911-943 Erie Blvd E
179. Park: 627 E. Water St
180. Vacant Lot: 701-709 E. Water St
182. Office/Medical Building: 910 Erie Blvd E
183. Vacant Lot: 870 E. Water St
184. Vacant Lot: 820 E. Water St
185. Syracuse Center of Excellence: 727 E. Washington St
186. Dunkin Donuts: 110 Almond St
187. Parking Lot: 622 E Washington St
188. Former Gas Station: 701-703 E. Fayette St
189. Central New York Biotech Accelerator: 801-915 E. Fayette St
190. Vacant Storefront: 1014-1016 E. Fayette St
191. Foot Specialists of CNY: 313-323 S. Crouse Ave
192. Vacant Lot: 938 E. Fayette St
193. First Fruit Ministries: 310-314 Irving Ave
194. Syracuse Blue Print Co: 825 E. Genesee St
195. Residential and Storefront: 827-833 E. Genesee St
196. Crowne Plaza Syracuse: 701-705 E. Genesee St
197. Parking Lot: 700-716 E. Genesee St
198. Hutching Psychiatric Center: 601-607 Almond St
199. The Hill Medical Center: 1000 E. Genesee St
200. McCarthy Manor: 501-515 S. Crouse Ave
201. Institute for Human Performance: 505 Irving Ave
202. Hutching Psychiatric Center: 701-757 Almond St

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Note: Number is prefixed by 3.3.
<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>1.</td>
<td>I-81/I-690 Corridor</td>
</tr>
<tr>
<td>203.</td>
<td>Parking Ramp: 601-677 S. Warren St</td>
</tr>
<tr>
<td>204.</td>
<td>Syracuse Building: 224 Harrison St</td>
</tr>
<tr>
<td>205.</td>
<td>Parking Lot: 618-632 Montgomery St</td>
</tr>
<tr>
<td>206.</td>
<td>The Oncenter Convention Center: 800 S. State St</td>
</tr>
<tr>
<td>207.</td>
<td>City of Syracuse Fire Station #1: 900 S. State St</td>
</tr>
<tr>
<td>208.</td>
<td>Parking Lot: 805 S. State St</td>
</tr>
<tr>
<td>209.</td>
<td>Parking Ramp: 817-835 S. State St</td>
</tr>
<tr>
<td>211.</td>
<td>Center for Forensic Sciences: 701-809 E. Adams St</td>
</tr>
<tr>
<td>212.</td>
<td>Pioneer Homes: 901-1055 S. McBride St</td>
</tr>
<tr>
<td>213.</td>
<td>Upstate Medical Children's Hospital: 700-786 E. Adams St</td>
</tr>
<tr>
<td>214.</td>
<td>Crouse Irving Memorial Hospital: 722-748 Irving Ave</td>
</tr>
<tr>
<td>215.</td>
<td>Crouse Prompt Care: 739 Irving Ave</td>
</tr>
<tr>
<td>216.</td>
<td>Syracuse VA Medical Center: 800 Irving Ave</td>
</tr>
<tr>
<td>217.</td>
<td>Syracuse Univ. Brewster/Boland Halls: 401 Van Buren St</td>
</tr>
<tr>
<td>218.</td>
<td>Syracuse University Steam Station: 500 E. Taylor St</td>
</tr>
<tr>
<td>219.</td>
<td>Syracuse Housing Authority: 516 Burt St</td>
</tr>
<tr>
<td>220.</td>
<td>Vacant Lot: 512 Burt St</td>
</tr>
<tr>
<td>221.</td>
<td>Vacant Land: 308 Van Buren St</td>
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<td>222.</td>
<td>Warehouse: 500 Renwick Ave</td>
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<td>223.</td>
<td>Residential Property: 1423 S. McBride St</td>
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<td>224.</td>
<td>Residential Property: 1425 S. McBride St</td>
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<td>225.</td>
<td>Residential Property: 1427 S. McBride St</td>
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<tr>
<td>226.</td>
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<tr>
<td>227.</td>
<td>Residential Property: 1435 S. McBride St</td>
</tr>
</tbody>
</table>

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Note: Number is prefixed by 3.3.
1. I-81/I-690 Corridor
2. Dr King Magnet Elementary School: 416 Raynor Ave
3. Vacant Land: 436 Martin Luther King E

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Note: Number is prefixed by 3.3.
1. I-81/I-690 Corridor
230. New York, Susquehanna & Western Railroad Corp: 420 Colvin Rd E
231. Hueber-Breuer Construction Co: 148 Berwyn St

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Sites of Potential Environmental Concern — Central Study Area

Figure 6-4-10-16
Figure 2: Sites of Potential Environmental Concern - I-481 South Study Area

1. I-81/I-481 South Interchange
2. New York, Susquehanna & Western Railway Corp.

Note: Number is prefixed by 3.4.

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga

Figure 6-4-10-17

Sites of Potential Environmental Concern — I-481 South Study Area

I-81 Viaduct Project
1. I-81/I-481 South Interchange
2. New York, Susquehanna & Western Railway Corp.
3. Loretto Health & Rehabilitation Center: 700 E. Brighton Ave
4. Jaquith Industries Inc: 600 E. Brighton Ave
5. Warehouse: 621 E. Brighton Ave
6. Milton CAT: 238-294 Ainsley Dr
7. Uncle Bob's Storage: 314-316 Ainsley Dr
8. Milton CAT: 336 Ainsley Dr
10. Syracuse University - Hawkins Building: 1600 Jamesville Ave

Note: Number is prefixed by 3.4.

Source: Syracuse-Onondaga County G.I.S. on the Web
http://www.fsihost.com/onondaga
Sites of Potential Environmental Concern - Noise Wall 16 A & B

I-81 Viaduct Project

Figure 6-4-10-19
6-4-10.2 NO BUILD ALTERNATIVE

The No Build Alternative would maintain the highway in its existing configuration with ongoing maintenance and repairs to ensure safety of the traveling public. As such, the No Build Alternative would not have adverse effects related to hazardous and/or contaminated materials.

6-4-10.3 ENVIRONMENTAL CONSEQUENCES OF THE VIADUCT ALTERNATIVE

6-4-10.3.1 PERMANENT/OPERATIONAL EFFECTS

The Viaduct Alternative would affect a total of approximately 52 bridge and ramp structures, 24 buildings, and one building-associated structure (a smokestack). A detailed inspection of each property and any building structure on that site would be completed as the design advances. Additional information on the individual property acquisitions is provided in Section 6-3-1, Land Acquisition, Displacement, and Relocation. Sixty-eight (68) of the 119 sites on the full or partial property acquisition list for this alternative were identified as sites that have a potential to exhibit signs or have a history of contamination.

Prior to demolition, asbestos and lead-based paint surveys would be required to identify, locate, and quantify asbestos and lead containing materials for these structures. In addition, the buildings likely contain mercury fluorescent light bulbs and polychlorinated biphenyl (PCB) light ballasts, batteries, refrigerators/freezers that contain ozone depleting refrigerants, and miscellaneous operational and maintenance equipment, chemicals, and products. These items represent a business environmental risk and must be removed prior to demolition and reclaimed/salvaged or transported off-site for proper disposal. Environmental concerns for the demolition and replacement of the various bridges, ramps, and connecting roadways include asbestos-containing materials, lead-based paint, high intensity discharge lighting, and the possibility of encountering subsurface soil and groundwater contamination during excavation work.

The potential for encountering future contamination associated with any sites impacted by the Project would be reduced by the cleanup actions conducted during construction of the alternative. Sixty-eight (68) of the properties on the acquisition list were included in the total identified sites located adjacent to the I-81 corridor and listed as locations where subsurface contamination may be encountered. Additional properties of concern were identified outside the I-81 corridor (see the HW/CM Screening Assessment Report in Appendix L and Figures 6-4-10-1 through 6-4-10-19). Areas where subsurface contamination and orphan underground storage tanks (USTs) are identified would be addressed when encountered during construction for the Project.

Operationally, maintenance and cleanup of any future releases would be performed in accordance with applicable state and Federal laws and standard NYSDOT roadway operating procedures.

6-4-10.3.2 CONSTRUCTION EFFECTS

Based on the past and present property uses within the Project Area, subsurface contamination is anticipated to be identified during construction at numerous sites. Many of the sites were identified as having historical petroleum storage and sales operations, automotive repair and
sales, and fleet/trucking operations. Soils may be contaminated by petroleum products (fuels and lubricants); washing and cleaning solvents; antifreeze; lead and mercury from spills and illegal disposal practices; and abandoned or leaking underground tanks. This type of contamination is the most common environmental issue encountered along urban highway corridors.

Several dry cleaning establishments and printers were also identified along the corridor. Dry cleaning operations involve the use of chlorinated volatile organic compounds and spotting chemicals. Printers use the same chemicals plus dyes/pigments that often contain a variety of metals, including arsenic, cyanide, and silver. Many sites were also used for industrial manufacturing, production, and warehousing with the potential for a wide range and variety of chemical materials products.

Portions of the highway alignment were also repurposed from former railroad corridors (New York Central West Shore/New York Central Railroad from Van Rensselaer Street to Beech Street for I-690 and the Lackawanna and Western Railroad for I-81 south of East Taylor Street). Rail lines and yards often have some degree of environmental impairment from cleaning, fueling, and other operational activities through the years. Contamination typically found along railroad lines includes partially combusted fossil fuels consisting of polynuclear aromatic hydrocarbons; leachate from creosote-preserved railroad ties; pesticides used in maintenance of the corridor; strong acid or alkaline materials; spent cleaning and degreasing solvents; ignitable paint wastes; used oil; lead contamination from older freight cars with plane bearings; and other heavy metals, including chromium and arsenic. In addition, the current location of Erie Boulevard East coincides with the historical location of the Erie Canal, and Oswego Boulevard coincides with the historical location of the Oswego Canal. These canals were backfilled with unknown materials to allow for construction of the area roadway network.

A Phase II Site Assessment would be performed as design advances at those locations with the suspected greatest likelihood of contamination where property acquisition and/or substantial soil disturbance is proposed. These investigations would be performed to determine the presence or absence of contamination or USTs, to assist with the development of material-handling cost estimates, and to select and develop procedures for the protection of on-site workers and the adjacent public during proposed construction activities.

The scope of the environmental investigation would include drilling investigations conducted with a direct push “hydraulic” or rotary drilling rig to collect soil samples for retrieval and examination. Soil samples would be collected and analyzed for both Target Compound List (TCL) and Target Analyte List (TAL) parameters for volatile, semi-volatile, pesticides, polychlorinated biphenyls (PCBs), and metals including mercury, cyanide, and hexavalent chromium. If any of the results indicate that the sample has the potential to be hazardous, the soil sample would be further analyzed under the Toxicity Characteristic Leaching Procedure (TCLP) methodology (USEPA method 1311) for the parameter(s) in question. This additional TCLP analysis would allow for the determination of whether the samples meet the definition of RCRA hazardous waste. The results of these field studies would provide information to support the development of material-handling cost estimates and to determine budgetary allowances that should be set aside for construction.

To identify how contamination that is discovered in the field would be addressed, the Contractor
would be required to prepare a site-wide Soil Management Plan prior to the start of work outlining procedures to be followed any time evidence of contamination, and/or potential contamination, is suspected or identified. Once evidence of contamination is identified by the Contractor in the field, an environmental monitor hired by the Contractor would be on call to assist with the screening and management of soils that show signs of contamination (i.e., strange or noxious odors, unnatural colors or sheen, odors characteristic of petroleum or solvent contamination, elevated volatile vapor readings as measured by field screening instruments).

During the proposed construction activities there would be potential for an increase in local worker and public exposures to the materials being removed (e.g., contaminated water and soil, asbestos-containing materials being abated from bridges and building structures, lead-based paint removal and disposal, the removal of identified petroleum bulk storage tanks and their associated products, etc.). A Project Safety and Health Plan would be required by NYSDOT and developed by the Contractor and would identify procedures to be followed in the event of an unidentified discovery (see Chapter 4, Construction Means and Methods and Table 4-7). The plan would be prepared to include a job hazard analysis of each identified task; assist with the identification of procedures for the protection of on-site workers and the adjacent public; describe the real-time monitoring of environmental field conditions and the collection of any necessary samples for laboratory analysis; and detail the procedures and regulations to be followed for the segregation, transport, and disposal of contaminated materials.

Ambient air quality would be monitored by the Contractor’s environmental monitor for the protection of on-site workers and soil screening would be performed through visual observations and use of a photoionization detector or similar instrument. The Contractor’s environmental monitor would follow the procedures described in the Project Safety and Health Plan that would be prepared by the Contractor. Elevated readings would be expected in close proximity to the active work zone and mitigated by the use of respiratory and other personal protective equipment with personal protective equipment levels adjusted based on field measurements. In addition, perimeter work zone monitoring for volatile vapors and particulates would be conducted at downwind and upwind locations to verify that any exposures are limited to adequately trained and protected personnel in the exclusion work zone. If elevated readings are recorded at the work zone limits, modifications including the implementation of engineering controls, adjustment of the exclusion zone boundary, or temporary stoppage of work would be employed.

For asbestos abatement work, an independent asbestos project monitor and air sampling technician would be present full-time as required by NYSDOL ICR 56 for the abatement of asbestos containing materials. Their role would include monitoring work activities and practices, confirming that the workers have current certifications and approved medical clearances, and collecting daily air samples to ensure that levels are not above 0.01 fibers per cubic centimeter or the established background level, whichever is greater.

Lead-based paint abatement work would be monitored in accordance with NYSDOT standard specifications for lead removal operations. NYSDOT would require that a Lead Exposure Control Plan (LECP) would be developed by the Contractor that includes practices and measures that would be implemented to ensure the safety and health of employees who may be exposed to lead during construction work. By extension this plan would be developed to protect the general public. The LECP is consistent with the OSHA Lead Standard (29 CFR 1926.62) and
would address all the requirements of that standard. A copy of this LECP would be maintained in all NYSDOT field offices administering contracts that include Class A, Class B or Environmental Ground/Waterway Protection work for paint removal work associated with lead-coated structural steel.

However, not all contaminated sites exhibit signs of contamination, such as petroleum odors, unnatural colors or sheen, or elevated volatile vapor readings as measured by field screening instruments. During construction, soils excavated from industrial and commercial sites identified as having the potential for contamination would be closely reviewed and characterized by the Contractor to coordinate their proper management and disposal. The establishment and use of an excavated soil laydown yard(s) would be a necessary component of the Soil Management Plan to provide a means to stockpile and test suspect soils generated during this Project. Testing of materials associated with historical industrial property uses would be conducted before releasing soils to the Contractor as unclassified excavation.

Contaminated soils would be managed in areas identified for material stockpiles or direct loaded for transport to an approved landfill. Stockpiled soils would be placed on impervious pavement or on polyethylene sheeting and covered with sheeting or an equivalent material and then properly weighted to prevent contaminated runoff from precipitation and the release of odors. Any soils stored in roll-off containers awaiting transport would be completely covered and secured with waterproof tarpaulins. During transport, contaminated soils and asbestos containing materials would be covered to control dust emissions. Covering the materials during stockpile and transport would mitigate potential public exposure to dust and contamination.

Table 4-7 identifies the protocols to identify, remove, and transport hazardous wastes and contaminated materials during construction. As described in Section 4.5.2, NYSDOT would require the Contractor to prepare and implement communication and public outreach plan to keep the public informed of activities throughout the construction period.

6-4-10.3.3 INDIRECT EFFECTS

No indirect or secondary effects would result from the removal of hazardous and contaminated materials associated with the Viaduct Alternative.

6-4-10.3.4 CUMULATIVE EFFECTS

The removal of hazardous and contaminated materials for the Viaduct Alternative and any other redevelopment that may occur within and adjacent to the Project Area would have an overall cumulative benefit as the risks associated with future exposure to hazardous or contaminated soils and other materials would be diminished as a result of the project and cleanup of identified contaminated materials. However, proposed construction activities would expose contaminated materials (e.g., contaminated soils, contaminated groundwater, lead-based paint, and asbestos-containing materials). The exposure, movement, staging, loading, and transport of these contaminants would have to follow all Occupational Safety and Health Administration (OSHA), USEPA, NYSDEC, and NYSDOL regulations so that any potential impacts are limited to those working on the project and who have received the appropriate training, are using personal protective equipment, and are conducting their actions following accepted practices. The work
would be completed in a manner to prevent making any future condition worse except unavoidable temporary conditions in the immediate work zone.

6-4-10.3.5 MITIGATION

A Project Safety and Health Plan would be required by NYSDOT and developed by the Contractor and would identify measures to protect workers and the general public during construction (see Chapter 4, Construction Means and Methods and Table 4-7). During construction, excavated soils would be monitored for evidence of contamination, including petroleum and other odors, unnatural colors or sheen, evidence of construction and demolition debris, or elevated volatile vapor readings as measured by field screening instruments. Any materials that were identified as contaminated would be handled within a temporary work exclusion zone that restricts the area to trained and properly protected workers. A direct reading volatile vapor meter would be used by the Contractor’s environmental monitor to adjust the exclusion zone limits. Dust suppression techniques would be employed if necessary. The Project Safety and Health Plan would address the concerns associated with working with hazardous and contaminated materials found in the excavation materials. Any returned soils would be certified as clean or be obtained from a virgin borrow source.

Mitigation would result in the removal and proper disposal of all contaminated materials that are excavated during construction as well as the asbestos containing materials described in Section 6-4-9, Asbestos. The removal of asbestos containing materials would be completed in accordance with NYSDOL ICR 56 and applicable Federal regulations (e.g., OSHA, National Emission Standards for Hazardous Air Pollutants Compliance Monitoring [NESHAPS]).

Lead-based paint concerns to protect the public from lead dust exposure would first be controlled by the actions of the contractor and use of containment and control structures and modification of construction practices. Airborne lead levels could be monitored either directly or indirectly by monitoring particulate concentrations in the atmosphere. Additional protection methods will be evaluated as necessary.

Fuel/chemical storage would not be allowed on the job site unless the area is over impermeable ground and provides proper containment to protect against spill contamination. Absorption materials would be available on-site, as necessary, to clean up any spills. Any spills (e.g., oil, gasoline, brake fluid, transmission fluid) would be contained immediately and properly disposed of off-site. Spills more than five gallons would be reported to NYSDEC, as well as any spills that reach waters or lands of the state or are not cleaned up within two hours of discovery.

6-4-10.4 ENVIRONMENTAL CONSEQUENCES OF THE COMMUNITY GRID ALTERNATIVE

6-4-10.4.1 PERMANENT/OPERATIONAL EFFECTS

The Community Grid Alternative would affect a total of approximately 64 bridge and ramp structures, and four buildings. A detailed assessment of each property and any building structure on that site would be completed as the design advances. Additional information on the individual property acquisitions is given in Section 6-3-1, Land Acquisition, Displacement, and
Relocation. Sixty-six (66) of the 151 sites on the full or partial property acquisition list for this alternative were also listed as sites that have a potential to exhibit signs or have a history of contamination.

Prior to demolition, asbestos and lead-based paint surveys would be required to identify, locate, and quantify asbestos and lead-containing materials for these structures. In addition, the buildings may likely contain mercury fluorescent light bulbs and PCB light ballasts, batteries, refrigerators/freezers that contain ozone depleting refrigerants, and miscellaneous operational and maintenance equipment, chemicals, and products. These items represent a business environmental risk and must be removed prior to demolition and reclaimed/salvaged or transported off-site for proper disposal. Environmental concerns for the demolition and replacement of the various bridges, ramps, and connecting roadways include asbestos-containing materials, lead-based paint, high intensity discharge lighting, and the possibility of encountering subsurface soil and groundwater contamination during excavation work.

The potential for encountering future contamination associated with any sites impacted by the Project would be reduced by the cleanup actions conducted during construction of the alternative. Sixty-five (65) of the properties on the acquisition list were included in the 231 total identified sites located adjacent to the I-81 corridor as locations where subsurface contamination may be encountered. Additional properties of concern, including one (1) on the acquisition list, were identified outside the I-81 corridor in the North, South or East Study areas and are shown on Figures 6-4-10-1 through 6-4-10-19. Areas where subsurface contamination and orphan underground storage tanks are identified would be addressed when encountered during construction for the Project.

Operationally, maintenance and cleanup of any future releases would be performed in accordance with applicable State and Federal laws and standard NYSDOT roadway operating procedures.

6-4-10.4.2 CONSTRUCTION EFFECTS

Subsurface contamination would be expected to be identified during construction at numerous sites within the Project Area. Sites were identified as having historical petroleum storage and sales operations, dry cleaning establishments and printers, and sites that were used for industrial manufacturing, production, and warehousing. Soils may be contaminated by petroleum products (fuels and lubricants); parts washing and cleaning solvents; antifreeze; lead and mercury from spills and illegal disposal practices; and abandoned or leaking underground tanks and are the most common environmental issue encountered along urban highway corridors.

Several dry cleaning establishments and printers were also identified along the corridor. Dry cleaning operations involve the use chlorinated volatile organic compounds and spotting chemicals, whereas printers use the same chemicals plus dyes/pigments, which often contain a variety of metals including arsenic, cyanide, and silver. Many sites were also used for industrial manufacturing, production, and warehousing with the potential for a wide range and variety of chemical materials products.

Portions of the highway alignment were also repurposed from former railroad corridors (New York Central West Shore/New York Central Railroad from Van Rensselaer Street to Beech Street for the I-690 and the Lackawanna and Western Railroad for I-81 south of East Taylor Street).
Rail lines and yards often have some degree of environmental impairment from cleaning, fueling, and other operational activities through the years. Contamination typically found along railroad lines includes partially combusted fossil fuels consisting of polynuclear aromatic hydrocarbons; leachate from creosote-preserved railroad ties; pesticides used in maintenance of the corridor; strong acid or alkaline materials; spent cleaning and degreasing solvents; ignitable paint wastes; used oil; and lead contamination from older freight cars with plane bearings, as well as other heavy metals including chromium and arsenic. In addition, the current location of Erie Boulevard East coincides with the historical location of the Erie Canal and Oswego Boulevard coincides with the historical location of the Oswego Canal. These canals were backfilled with unknown materials to allow for construction of the area roadway network.

A Phase II Site Assessment would be performed as design advances at those locations with the suspected greatest likelihood of contamination where property acquisition and/or substantial soil disturbance is proposed. These investigations would be performed to determine the presence or absence of contamination or USTs, to assist with the development of material-handling cost estimates, and to select and develop procedures for the protection of on-site workers and the adjacent public during the proposed construction activities.

The scope of the environmental investigation would include drilling investigations conducted with a direct push “hydraulic” or rotary drilling rig to collect soil samples for retrieval and examination. Soil samples would be collected and analyzed for both TCL and TAL parameters for volatile, semi-volatile, pesticides, PCBs, and metals including mercury, cyanide, and hexavalent chromium. If any of the results indicate that the sample has the potential to be hazardous, the soil sample would be further analyzed under TCLP methodology (USEPA method 1311) for the parameter(s) in question. This additional TCLP analysis would allow for the determination of whether the samples meet the definition of RCRA hazardous waste. The results of these field studies would provide information to support the development of material-handling cost estimates and to determine budgetary allowances that should be set aside for construction.

To identify how contamination that is discovered in the field would be addressed, the Contractor would be required to prepare a site-wide Soil Management Plan prior to the start of work, outlining procedures to be followed any time evidence of contamination, and/or potential contamination, is suspected or identified. Once evidence of contamination is identified by the Contractor in the field, an environmental monitor hired by the Contractor would be on call to assist with the screening and management of soils that show signs of contamination (i.e., strange or noxious odors, unnatural colors or sheen, odors characteristic of petroleum or solvent contamination, elevated volatile vapor readings as measured by field screening instruments). These measures would assist with the protection of on-site workers, the collection of any necessary samples, and segregation of contaminated from non-contaminated soil. Ambient air would be monitored by the Contractor’s environmental monitor for the protection of on-site workers and soil screening would be performed through visual observations and use of a photoionization detector or similar instrument. The environmental monitor would follow the procedures described in a Field Organic Vapor Monitoring Plan prepared by the Contractor.

During the proposed construction activities, there would be potential for an increase in local worker and public exposures to the materials being removed (e.g., contaminated water and soil,
asbestos-containing materials being abated from bridges and building structures, lead-based paint removal and disposal, the removal of identified petroleum bulk storage tanks and their associated products, etc.). A Project Safety and Health Plan would be required by NYSDOT and developed by the Contractor and would identify procedures to be followed in the event of an unidentified discovery (see Chapter 4, Construction Means and Methods and Table 4-7). The plan would be prepared to include a job hazard analysis of each identified task; assist with the identification of procedures for the protection of on-site workers and the adjacent public; describe the real-time monitoring of environmental field conditions and the collection of any necessary samples for laboratory analysis; and detail the procedures and regulations to be followed for the segregation, transport, and disposal of contaminated materials.

Ambient air quality would be monitored by the Contractor’s environmental monitor for the protection of on-site workers, and soil screening would be performed through visual observations and use of a photoionization detector or similar instrument. The environmental monitor would follow the procedures described in the Project Safety and Health Plan that would be prepared by the Contractor. Elevated readings would be expected in close proximity to the active work zone and mitigated by the use of respiratory and other personal protective equipment with personal protective equipment levels adjusted based on field measurements. In addition, perimeter work zone monitoring for volatile vapors and particulates would be conducted at downwind and upwind locations to verify that any exposures are limited to adequately trained and protected personnel in the exclusion work zone. If elevated readings are recorded at the work zone limits, modifications including the implementation of engineering controls, adjustment of the exclusion zone boundary, or temporary stoppage of work would be employed.

For asbestos abatement work, an independent asbestos project monitor and air sampling technician would be present full-time as required by NYSDOL ICR 56 for the abatement of asbestos-containing materials. Their role would include monitoring work activities and practices, confirming that the workers have current certifications and approved medical clearances, and collecting daily air samples to ensure that levels are not above 0.01 fibers per cubic centimeter or the established background level, whichever is greater.

Lead-based paint abatement work would be monitored in accordance with NYSDOT standard specifications for lead removal operations. A Lead Exposure Control Plan (LECP) would be developed by the Contractor that includes practices and measures that would be implemented to ensure the safety and health of employees who may be exposed to lead during construction work. By extension this plan would be developed to protect the surrounding public. The LECP is consistent with the OSHA Lead Standard (29 CFR 1926.62) and would address all the requirements of that standard. A copy of this LECP would be maintained in all NYSDOT field offices administering contracts that include Class A, Class B or Environmental Ground/Waterway Protection work for paint removal work associated with lead-coated structural steel.

However, not all contaminated sites exhibit signs of contamination, such as petroleum odors, unnatural colors or sheen, or elevated volatile vapor readings as measured by field screening instruments. During construction, soils excavated from industrial and commercial sites identified as having the potential for contamination would be closely reviewed and characterized by the Contractor to coordinate their proper management and disposal. The establishment and use of
an excavated soil laydown yard(s) would be a necessary component of the Soil Management Plan to provide a means to stockpile and test suspect soils generated during this Project. Testing of materials associated with historical industrial property uses would be conducted before releasing soils to the Contractor as unclassified excavation.

Contaminated soils would be managed in areas identified for material stockpiles or direct loaded for transport to an approved landfill. Stockpiled soils would be placed on impervious pavement or on polyethylene sheeting and covered with sheeting or an equivalent material and then properly weighted to prevent contaminated runoff from precipitation and the release of odors. Any soils stored in roll-off containers awaiting transport would be completely covered and secured with waterproof tarpaulins. During transport, contaminated soils would be covered to control dust emissions. Covering the materials during stockpile and transport would mitigate potential public exposure to dust and contamination.

Table 4-7 identifies the protocols to identify, remove, and transport hazardous wastes and contaminated materials during construction. As described in Section 4.5.2, NYSDOT would require the Contractor to prepare and implement communication and public outreach plan to keep the public informed of activities throughout the construction period.

**6-4-10.4.3 INDIRECT EFFECTS**

No indirect or secondary impacts would result from the removal of hazardous and contaminated materials associated with the Community Grid Alternative.

**6-4-10.4.4 CUMULATIVE EFFECTS**

The removal of hazardous and contaminated materials for the Community Grid Alternative and any other redevelopment that may occur within and adjacent to the Project Area would have an overall cumulative benefit as the risks associated with future exposure to the hazardous or contaminated soils and other materials would be diminished as a result of the project and cleanup of identified contaminated materials. However, the proposed construction activities would expose contaminated materials (e.g., contaminated soils, contaminated groundwater, lead-based paint, and asbestos-containing materials). The exposure, movement, staging, loading, and transport of these contaminants would have to follow all OSHA, USEPA, NYSDEC, and NYSDOL regulations so that any potential impacts are limited to those working on the project and who have received the appropriate training, are using personal protective equipment and are conducting their actions following accepted practices. The work would be completed in a manner to prevent making any future condition worse except unavoidable temporary conditions in the immediate work zone.

**6-4-10.4.5 MITIGATION**

A Project Safety and Health Plan would be required by NYSDOT and developed by the Contractor and would identify measures to protect workers and the general public during construction (see Chapter 4, Construction Means and Methods and Table 4-7). During construction, excavated soils would be monitored for evidence of contamination, including petroleum and other odors, unnatural colors or sheen, evidence of construction and demolition...
debris, or elevated volatile vapor readings as measured by field screening instruments. Any materials that were identified as contaminated would be handled within a temporary work exclusion zone that restricts the area to trained and properly protected workers. A direct reading volatile vapor meter would be used by the environmental monitor to adjust the exclusion zone limits. Dust suppression techniques would be employed if necessary. Project Safety and Health Plan would address the concerns associated with working with hazardous and contaminated materials found in the excavation materials. Any returned soils would be certified as clean or be obtained from a virgin borrow source.

Mitigation would result in the removal and proper disposal of all contaminated materials that are excavated during construction as well as the asbestos containing materials described in Section 6-4-9, Asbestos. The removal of asbestos containing materials would be completed in accordance with NYSDOL ICR 56 and applicable Federal regulations (e.g., OSHA, NESHAPS).

Lead-based paint concerns to protect the public from lead dust exposure would first be controlled by the actions of the contractor and use of containment and control structures and modification of construction practices. Airborne lead levels could be monitored either directly or indirectly by monitoring particulate concentrations in the atmosphere. Additional protection methods will be evaluated as necessary.

Fuel/chemical storage would not be allowed on the job site unless the area is over impermeable ground and provides proper containment to protect against spill contamination. Absorption materials would be available on-site, as necessary, to clean up any spills. Any spills (e.g., oil, gasoline, brake fluid, transmission fluid) would be contained immediately and properly disposed of off-site. Spills more than five gallons would be reported to NYSDEC, as well as any spills that reach waters or lands of the state or are not cleaned up within two hours of discovery.
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