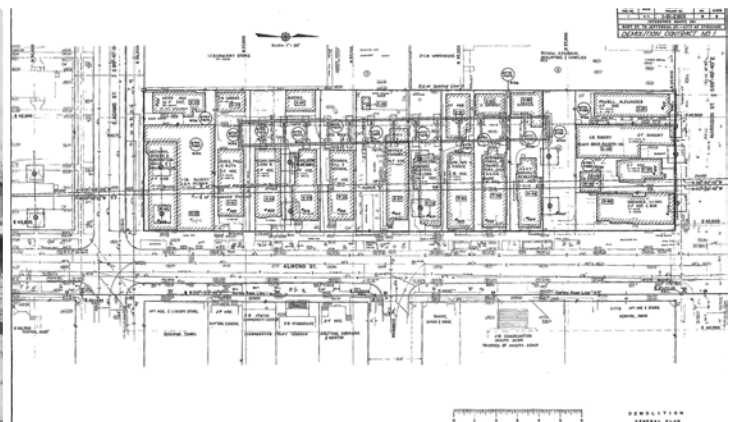
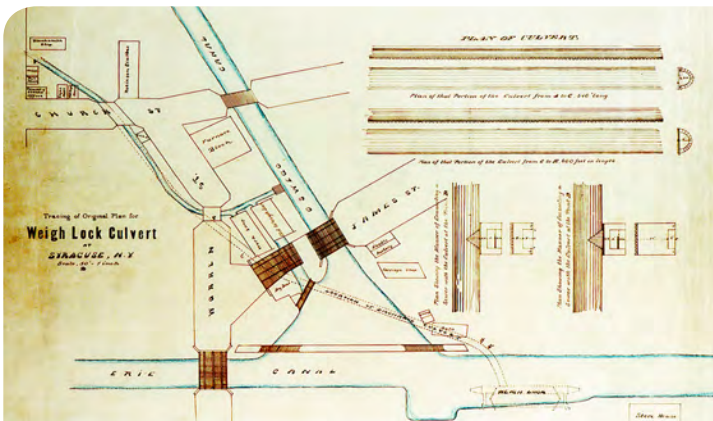


**Appendix E-5**  
**Phase IB Archaeological Survey Work Plan**



# Phase 1B Archaeological Survey Work Plan I-81 Viaduct Project

City of Syracuse and Towns of Salina, Cicero, and Dewitt, Onondaga County, New York

Prepared for:



**Department of  
Transportation**



**U.S. Department of Transportation  
Federal Highway Administration**

Prepared by:

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October 2017

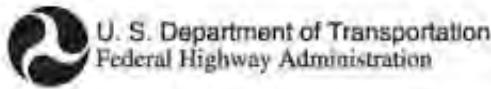
# Plan for Phase IB Archaeological Survey and Archaeological Monitoring During Construction Including Data Recovery I-81 Viaduct Project

City of Syracuse and Towns of Salina, Cicero, and Dewitt, Onondaga County, New York  
NYSDOT PIN 3501.60

Prepared for:



And



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October 2017

## MANAGEMENT SUMMARY

NYS DOT PIN:	3501.60
NYSORHP Project Review:	16PR06314
NYS DOT Project Type:	Highway demolition, reconstruction, and/or replacement
Cultural Resources Survey Type:	Plan for Phase 1B Archaeological Survey and Archaeological Monitoring During Construction Including Data Recovery
Location Information:	City of Syracuse and Towns of Salina, Cicero, and Dewitt Onondaga County
Survey Area:	
Project Description:	Reconstruction of I-81 and adjacent roadways in Onondaga County, New York. The Project is considering 2 alternatives – a Viaduct Alternative and Community Grid Alternative, described herein.
:	Area of Potential Effect (APE) for Direct Effects totals 458.9 acres
USGS 7.5-Minute Quadrangle Map:	Syracuse East, Syracuse West, Jamesville, Cicero and South Onondaga
Authors/Institution:	Patrick J. Heaton, RPA and Nicholas Freeland, RPA <i>Environmental Design &amp; Research, Landscape Architecture, Engineering, &amp; Environmental Services, D.P.C. (EDR), Syracuse, New York</i>
Date:	October 2017
Sponsor:	New York State Department of Transportation Federal Highway Administration

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## 1.0 INTRODUCTION

This *Plan for Phase IB Archaeological Survey and Archaeological Monitoring During Construction Including Data Recovery* (or Phase IB Archaeological Work Plan) for the I-81 Viaduct Project (the Project) was developed and prepared by Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. (EDR) on behalf of the New York State Department of Transportation (NYSDOT) in coordination with the Federal Highway Administration (FHWA), and in consultation with the New York State Historic Preservation Office (SHPO) and the Onondaga Nation. The I-81 Viaduct Project is located in the City of Syracuse and Towns of Salina, Cicero, and Dewitt, in Onondaga County, New York. This document presents a plan for Phase IB archaeological investigations and construction monitoring to be accomplished in advance of and concurrent with the construction of the Project.

The Phase IB Archaeological Work Plan describes methodologies for field investigations to identify archaeological resources within **the Project's** area of potential effects (APE), in accordance with 36 CFR Part 800.4(b). All fieldwork will be conducted in accordance with the **New York Archaeological Council's (NYAC's) *Standards for Cultural Resources Investigations and the Curation of Archaeological Collections in New York State*** (NYAC, 1994), the **New York State Education Department's (NYSED's) *Work Scope Specifications for Cultural Resource Investigations on New York State Department of Transportation Projects*** (NYSED, 2004), and the ***Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation***. The proposed work plan presented herein was prepared by archaeologists **who satisfy the qualifications criteria per the Secretary of the Interior's Standards** (36 CFR Part 61). **Archaeological monitoring will also be conducted in accordance with NYAC's *Guidelines for the Use of Archaeological Monitoring as an Alternative to Other Field Techniques*** (NYAC, 2002). All reports prepared in association with the Phase IB archaeological survey and/or archaeological monitoring will be consistent with the format and documentation standards of the NYSED Work Scope and the **SHPO's *Phase I Archaeological Report Format Requirements*** (2005).

### 1.1 Area of Potential Effect

The I-81 Viaduct Project includes the proposed reconstruction or replacement of the elevated portions of Interstate 81 (the I-81 Viaduct) through the City of Syracuse, in Onondaga County, New York. Two alternatives are currently being considered: the Viaduct Alternative and the Community Grid Alternative (Figure 1, Sheets 1 and 2). The Area of Potential Effect (APE) for the two project alternatives is described in detail in the Phase IA Archaeological Sensitivity Assessment (EDR, 2016) and the Draft Environmental Impact Statement (Draft EIS) (FHWA and NYSDOT, 2016). As defined in 36 CFR Part 800.16(d), the APE represents the geographical area within which the project **"may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist," and defines the area in which identification efforts will occur for architectural and archaeological properties.** The APE for the two Project alternatives carried forward for study in the Draft EIS was defined in consultation with the SHPO.

The project APE incorporates potential direct and indirect effects associated with the two build alternatives under consideration. Within the APE, a smaller area representing potential direct effects from physical alterations or ground disturbance associated with the project has been identified. This area, defined herein as the APE for Direct Effects, represents the limits of disturbance (LOD) of the two build alternatives and includes the area in which the proposed build alternatives have the potential to result in direct effects to archaeological resources (see Figure 1, Sheets 1 and 2). Changes to Project plans prior to or during construction would impact the APE which would necessarily impact the Phase IB archaeological survey and construction monitoring work plan. Therefore, any changes to Project plans need to be communicated to the archaeological consultant as quickly as possible.

## 1.2 Vertical Limits of Disturbance

Subsequent to completing the Phase IA report, the project design for both alternatives has continued to advance and additional detail is now available regarding the potential depth of soil disturbance for proposed work under each alternative. The anticipated depth of soil disturbance for each alternative based on preliminary/conceptual design information is shown on Figure 2 (Sheets 1 and 2). The potential depth of soil disturbance shown on Figure 2 is based on estimates by the design engineering team, based on currently available information. All areas within the APE for Direct Effects were first designated as having the potential for disturbance to a minimum depth of 0 to 2 feet (0 to 61 cm) below the ground surface. Using the preliminary project plans for each alternative, the design engineer delineated approximated areas within the APE for Direct Effects of each project Alternative where planned construction and/or demolition was expected to require soil disturbance beyond a depth of 2 feet (61 cm) to facilitate construction and/or relocation of underground utilities, sewers, bridge supports, and new highway right-of-way. In each of these areas, where possible, the estimated depth of anticipated disturbance was delineated. Anticipated depths of disturbance were not mapped for those areas characterized by previous cut and fill disturbance from the original construction of existing highway structures and embankments because, as described in the Phase IA report, the vertical depth of disturbance associated with the original highway construction was extensive and the proposed depth of construction is not expected to extend beyond the depth of previously disturbed soils into potential underlying natural subsoils (see EDR, 2016: Figures 2.4.6-13 and 2.6.3-1). Therefore, there is no possibility of intact buried archaeological materials existing at the **locations mapped as “Cut and Fill Highway and Embankment Areas” on Figures 2 and 4.**



## 2.0 ARCHAEOLOGICAL SENSITIVITY

### 2.1 Summary of the Phase IA Archaeological Sensitivity Assessment

A Phase IA Archaeological Sensitivity Assessment for the APE was completed in September 2016 (EDR, 2016). The purpose of the Phase IA Archaeological Sensitivity Assessment was to determine whether previously identified archaeological resources are located within the APE, and to evaluate the potential for previously unidentified archaeological resources to be located within the APE. The Phase IA study was conducted in accordance with established standards, including the NYAC *Standards for Cultural Resources Investigations and the Curation of Archaeological Collections in New York State* (NYAC, 1994), the New York State Education Department's (NYSED) *Cultural Resources Survey Program Work Scope Specifications for Cultural Resources Investigations on New York State Department of Transportation Projects* (NYSED, 2004), and the SHPO's *Phase I Archaeological Report Format Requirements* (NYSOPRHP, 2005).

The results of the archaeological sensitivity assessment presented in the Phase IA report are summarized below and depicted in Figure 3, Sheets 1 and 2, in addition to the supplemental analysis of areas with the potential to contain Native American human remains (described below). The Phase IA archaeological sensitivity assessment for the Project (EDR, 2016) was submitted by NYSDOT and FHWA to SHPO for review in September 2016. The Phase IA report (EDR, 2016:234) concluded: **"...due to the extent of prior ground disturbance, the potential for archaeological sites to be present within the APE for Direct Effects is highly variable...The Phase 1B archaeological survey will include different field methodologies depending on the existing conditions present within various portions of the APE for Direct Effects."** The Phase IA report concluded that a Phase IB archaeological survey would be needed to determine if intact archaeological resources are present within the APE for Direct Effects, and further recommended the development of an archaeological Work Plan to identify the locations and field methodologies for the Phase IB survey.

The Phase IA Archaeological Sensitivity Assessment was completed in consultation with the SHPO and the Onondaga Nation, and the report was provided for their review in advance of developing a scope of work for Phase IB archaeological survey. The SHPO concurred with the recommendation for Phase IB testing in a letter dated September 22, 2016 in which it stated: **"we concur with your agency's recommendation to FHWA. We have no issues** or concerns with the Phase IB archaeology testing and reporting recommendations provided on pages 234 and 235 of the Phase IA Report" (Bonafide, 2016).

On October 7, 2016, FHWA, NYSDOT, SHPO, and the Onondaga Nation met to discuss the Phase IA Archaeological Sensitivity Assessment. Following this meeting, in a letter to the NYSDOT dated November 14, 2016, the Onondaga Nation provided comments on the Phase IA report. Additional comments were provided in a March 1, 2017 letter from

the Onondaga Nation to the FHWA, based on review of the pre-Draft EIS. Comments provided by FHWA and the Onondaga Nation during the October 7, 2016 meeting and in subsequent correspondence included requests for additional information regarding the vertical APE, mapping, proposed methods of investigation, and procedures in the event that human remains are encountered during construction. Following the completion of the Phase IA report (EDR, 2016), the Onondaga Nation requested that the historic alignment of Onondaga Creek be more clearly delineated, due to the elevated sensitivity for human burials in proximity to the historic watercourse. Information prepared in response to these requests has been included in this Phase IB Work Plan and are discussed in more detail below in Section 2.4 of this report.

The Phase IA report relies on background data and historical information specific to the project setting to assess the likelihood that archaeological resources are located in the APE. This includes detailed historic context narratives for the long period of Pre-Contact Native American settlement and use of the APE and vicinity, as well as descriptions of the settlement and development of the APE during the Historic Period. This site-specific historic context provides a foundation for the identification and evaluation of potential archaeological resources in accordance with the requirements of Section 106.

The archaeological sensitivity assessment in the Phase IA report evaluates the potential for archaeological deposits to be located within the APE based on analysis of the following information:

- The environmental setting, geology, and soils within the APE and vicinity;
- Existing conditions within the APE, based on reconnaissance-level site visits and illustrated with representative photographs;
- The locations of previously identified archaeological sites located within and adjacent to the APE;
- The results of previous archaeological surveys and investigations within and adjacent to the APE;
- Historical research and the results of historic map review; and,

There are 14 previously recorded archaeological sites within or adjacent to the APE for Direct Effects. These include eight historic-period sites and six Pre-Contact Native American sites. The Historic Period sites consist of six historic structural remains (these include intact foundations and middens/debris scatters associated with historically map-documented structures [including the Syracuse Armory]) and one Erie Canal boat basin. The Pre-Contact Native American sites consist of two villages/hamlets, two artifact scatters/traces of occupation, one camp site, and one site **described as a “camp or hamlet” (Parker, 1922:647). Therefore**, Historic Period archaeological sites expected to be encountered during the Phase IB survey include artifact scatters, structural remains including foundations and ancillary features such as privies and wells, and canal-related features including canal prisms, boat basins, and locks. To account for this, the Phase 1B archaeological survey strategy targets the mapped alignment of the Erie and Oswego Canals for

machine-aided testing and construction monitoring and targets historically map-documented structure locations for machine-aided testing. Pre-Contact Native American archaeological sites could range from small camps and scattered artifacts to major village sites and it is also anticipated that Pre-Contact human remains could potentially be encountered. Smaller camps and isolated artifacts could be located in any previously undisturbed portions of the APE but larger camps and village sites are likely to be located near Onondaga Lake or the former course of Onondaga Creek. Therefore, Phase IB archaeological survey will target previously undisturbed areas with shovel testing and the former alignment of Onondaga Creek (based on georeferenced historic maps) with machine-aided testing. The extent and nature of proposed Phase IB archaeological survey and archaeological monitoring are discussed in detail below in Sections 3 and 4 of this report.

The Phase IA report also includes documentation of the horizontal and vertical extent of prior ground disturbance within the APE, which affects the integrity of potential archaeological resources. The next steps in the phased approach to the identification of archaeological resources are to review the proposed locations of ground disturbance for the project and identify potential Phase IB archaeological testing methods (such as shovel testing, machine-aided excavation, and/or archaeological monitoring) that will be used in archaeologically sensitive areas where the proposed depth of ground disturbance exceeds the depth of existing ground disturbance.

The APE is primarily within a very developed urban area with a complicated history of prior ground disturbance that affects the integrity of potential archaeological deposits. Sources of previous ground disturbance within the APE for Direct Effects include land filling activities associated with nineteenth-century urban development in the City of Syracuse; demolition and construction associated with mid-twentieth century highway construction; disturbance associated with construction, expansion, or modification of buildings; areas of cut and fill associated with road and highway construction; and installation of underground utilities. The Phase IA report documents the extent of previous ground disturbance within the APE. This analysis includes consideration of mapped soils, buried utilities, demolished structures (as determined by geo-referencing historic maps and NYSDOT demolition/construction plans), GIS analysis of 955 soil borings to estimate depth of fill/disturbed soils within the APE, and identification of highway cut and fill embankment areas based on review of NYSDOT demolition and construction plans, aerial imagery (including oblique views and historical imagery), and field reconnaissance/confirmation.

## 2.2 Pre-Contact/Native American Archaeological Sensitivity within the APE

Potential Pre-Contact Native American archaeological sites within the APE would necessarily pre-date the significant filling and engineering of the landscape that took place as part of the development of the City of Syracuse throughout the nineteenth and twentieth centuries. Therefore, potential Native American archaeological sites are anticipated to be located only in areas with undisturbed soils. As described in the Phase IA report, approximately 19.1 acres within the

APE for Direct Effects are undisturbed, or disturbance cannot be documented, and therefore potentially sensitive for Pre-Contact Native American archaeological resources.

Prehistoric Native American site types that could be expected to occur within the APE include:

- Small campsites dating to the Paleoindian, Early Archaic, and/or Middle Archaic Periods. These sites could be expected to contain primarily chipped stone tools and debitage with potentially some bone or ivory tools. Features could include hearths and post-molds.
- Large residential campsites dating to the Late Archaic, Early Woodland, and/or Middle Woodland Periods. These sites could be expected to include large quantities of chipped stone tools and debitage, ground stone tools and net weights, bone tools, ceramic vessels and vessel fragments, steatite vessels and vessel fragments, ceramic and bone decorative items, and exotic goods such as marine shells and copper. Features could include hearths, post-molds, middens, and human burials.
- Large nucleated villages dating to the Late Woodland Period. These sites could be expected to include large quantities of chipped stone tools and debitage, ground stone tools, bone tools, ceramic vessels and vessel fragments, ceramic and bone decorative items, and exotic goods such as marine shells and copper. Features could include hearths, storage pits, post molds associated with both longhouses and palisade walls, extensive middens, and human burials.
- Small resource acquisition campsites dating to the Late Archaic, Early Woodland, Middle Woodland, and/or Late Woodland Periods. These sites could be expected to include small quantities of chipped stone tools, ground stone tools and net weights, bone tools, ceramic vessels and vessel fragments, and/or steatite vessels and vessel fragments. Features would likely be restricted to small hearths at these locations.
- Isolated artifacts such as projectile points, other tools, ceramic fragments, or lithic debitage with no associated features.
- Burial sites – the potential for Pre-Contact Native American human remains and/or burial sites to be located within the APE is discussed in Section 2.4 of this report.

### 2.3 Historic-Period Archaeological Sensitivity within the APE

As described in the Phase IA report, the construction of Interstates 81 and 690 through Syracuse required demolition of large portions of city neighborhoods including much of the Fifteenth Ward, which was home to the highest concentration of African-American and Jewish populations in the city (Stamps and Stamps, 2008; Ducre, 2012). It is estimated that 800-900 families were displaced by the construction of highways in the Fifteenth Ward (Knight, 2007). Areas that were demolished included 103 acres of land in four contiguous census tracts that were predominately African-American and poor. Many residences, dozens of African-American-owned businesses, and nearly all of the

African-American churches in the city were destroyed (Stamps and Stamps, 2008). It is anticipated that archaeological features and deposits associated with these residential and commercial properties, as well as archaeological features and artifacts associated with earlier nineteenth and twentieth-century occupants, are located throughout the APE for Direct Effects. Potential historic-period archaeological resources in the APE include sites and features related to the Erie and Oswego Canals; large-scale commercial, industrial, and institutional sites; residential and small-scale commercial sites; and military sites (although none of the latter are known to be located within the project limits).

As described in and shown on maps included in the Phase IA report, hundreds of former structures are depicted on historic maps within the APE for Direct Effects. These are located throughout the APE in areas that are currently characterized as previously disturbed land with fill deposits of varying depths. It is anticipated that cellars and/or foundation remains associated with demolished structures may be present within the APE for Direct Effects at varying depths below the current ground surface (depending on local conditions). The foundations or structural remains unto themselves are unlikely to be considered archaeologically or historically significant, in large part because the location, dimensions, and arrangement of those buildings can be well understood based on review of historic cartographic sources and archaeological data is unlikely to contribute significant new information. Therefore, although these structural (foundation) remains are potentially ubiquitous throughout the APE for Direct Effects, it is assumed that archaeological investigation of these features is unlikely to contribute significant, meaningful new information.

However, potential artifact deposits and shaft features, which include privies, wells, and cisterns, are found on many domestic and commercial properties in urban contexts and are potentially located in former yard areas adjacent to the former locations of map-documented structures. In addition to their primary functions, these features were used as disposal pits for household refuse both during and at the end of their use life (Wheeler, 2000). These features are in general robustly constructed with wood, brick, and stone, and because they are underground they are likely to remain behind when the domestic or commercial structure they served is demolished or otherwise destroyed (Heck and Balicki, 1998; Roberts and Barrett, 1984; Stottman, 2000). Unlike open trash heaps which are subject to disturbance from plowing, demolition, and other actions, shaft features were typically abandoned and sealed or covered in place at the **end of the feature's useful life** (typically by having any remaining empty shaft space below the ground surface filled with soil, gravel, and/or debris), preventing later disturbances to the artifacts dumped inside. This enables tighter dating of sites through the glass and ceramics that are frequently recovered from them. In many instances, artifact assemblages from sealed shaft features can be associated with specific time periods and/or historically documented occupants of a given site. Therefore, shaft features have the potential to address specific historical and archaeological research questions, and therefore have the potential to be considered significant (Carnes-McNaughton and Harper, 2000; Geismar, 1993; McCarthy and Ward, 2000; Stottman, 2000; Wheeler, 2000).

## 2.4 Potential for Human Remains within the APE

Based on the results of the research conducted as part of the Phase IA Archaeological Sensitivity Assessment and through consultation with the Onondaga Nation, there is a potential for human remains to be located (or to be formerly located) within the APE. Historical accounts describe Native American human remains that were disturbed during nineteenth-century construction activities near Onondaga Creek and Genesee Street, which may be located within or adjacent to the APE. In addition, three historic-period cemeteries (one of these is the former site of a relocated cemetery) are located adjacent to (but outside) the APE. These include the National Register of Historic Places–(NRHP-) listed **Oakwood Cemetery, the former site of Old St. Mary’s Cemetery, and the House Family Cemetery**. No disturbance to any of these three cemeteries is anticipated as part of the project.

As noted above, the Onondaga Nation had requested that the historic alignment of Onondaga Creek be further clarified. The Onondaga Nation noted that all areas along the historic alignment of Onondaga Creek and any additional areas near historic water sources should be considered sensitive for the potential to contain human burials. To address these concerns, the mapped extent and path of watercourses within the APE for Direct Effects were digitized and included in GIS mapping for the project. Historic maps from 1827, 1834, 1852, 1859, 1874, and 1938-1943 were digitally georeferenced using GIS software. All watercourses depicted on those maps within or immediately adjacent to the APE were traced, and buffered by 50 feet (15 meters) to account for uncertainty in the original cartographic depiction of watercourses and/or potential geo-referencing errors. The mapped former locations of these waterbodies are depicted on Figure 4 and represent areas that are considered archaeologically sensitive due to potential for buried human remains. It should be noted that the historic alignment of these water courses is also considered archaeologically sensitive for Pre-Contact Native American resources other than human burials as well as Historic Period structures.

### 3.0 PROPOSED PHASE IB ARCHAEOLOGICAL SURVEY METHODOLOGIES

As described in the Phase IA report (EDR, 2016) the appropriate methods for Phase IB archaeological investigations within the APE are variable and dependent on the archaeological sensitivity of different portions of the APE, the extent of prior ground disturbance, the anticipated depth of soil disturbance (see Figure 2, Sheets 1 and 2), and logistical considerations associated with the existing land uses and timing of construction activities throughout the APE. The potential need for Phase IB archaeological investigations (as described in the Phase IA report) is summarized as follows:

- Cut-and-Fill Highway and Embankment Areas: these are shown on Figures 2 and 3 and include areas within and adjacent to the APE for Direct Effects in which substantial cutting and filling of sediment has occurred related to highway construction. These include areas where the Interstate is elevated above the surrounding terrain on an earthen berm, areas where the Interstate has been excavated below the natural ground surface, areas where exit and entrance ramps are supported by concrete retaining walls or earthen berms, and other similar circumstances these areas are severely disturbed to such an extent that there is no potential for intact archaeological resources to be present. As recommended in the Phase IA report (EDR, 2016), no Phase IB archaeological investigation or further consideration of these areas (relative to the archaeological resources) is planned. It is important to note that although these areas may also be paved, they are distinct from the paved areas described below because their predominant characteristic is significant cut and/or fill disturbance. It should be noted that most of the I-81/I-481 Northern Interchange, the I-481 Eastern Improvements, and the I-81/I-481 Southern Interchange occur within Cut-and-Fill Highway and Embankment Areas.
- Unpaved areas and/or areas where significant fill deposits are not documented or anticipated: these consist of apparently undisturbed areas, primarily within or adjacent to Interstate rights-of-way (ROWs). These areas are **shown on Figure 4 as areas of potential “Native American Archaeological Sensitivity.”** In these areas, the Phase IB survey will include a systematic program of shovel testing conducted in accordance with applicable guidelines (see Figure 5).
- Paved and/or previously disturbed areas where the proposed depth of construction activities is anticipated to be relatively minimal (i.e., within 2 feet [61 cm] of the existing ground surface): Areas where the anticipated depth of soil disturbance is anticipated to be less than 2 feet (61 cm) are shown on Figure 2. In these areas, no Phase IB archaeological investigations are planned. This would include areas where construction activities are limited to road re-surfacing or minor widening, curb replacements, streetscape improvements, and similar small-scale activities.

- Paved and/or previously disturbed areas where the proposed depth of construction activities is anticipated to be significant (i.e., greater than 2 feet [61 cm] below existing grade or otherwise involve large amounts of ground disturbance): Areas where the depth of soil disturbance is anticipated to be greater than 2 feet [61 cm] are shown on Figure 2. These will primarily consist of vacant lots, green spaces, and parking lots. In these areas, the Phase IB archaeological survey will include machine-aided archaeological investigations (see Figure 5) to determine if potentially significant archaeological deposits are present beneath fill deposits. A sampling strategy that identifies specific locations for proposed archaeological investigations is presented below in Section 3.1.2. This sampling strategy prioritizes areas where there is a potential for human remains to be present and provides for a representative assessment of the potential for the various types of historic-period archaeological resources that may be located within the APE for Direct Effects.
- Existing public roadways where the proposed depth of construction activities is anticipated to be significant (i.e., greater than 2 feet [61 cm] below existing grade or otherwise involve large amounts of ground disturbance) and where there is a potential for significant (i.e., NRHP-eligible) archaeological resources to be located (i.e., Erie and Oswego-Canal related resources): The locations of canal-related resources within the APE are shown on Figure 3. These areas are for the most part within existing roadways where machine-aided Phase IB testing would not be feasible due to the traffic stoppages it would cause. In these areas, on-site archaeological monitoring during construction is planned to document the presence or absence of potentially significant features. A monitoring protocol is included in Section 3.1.3 of this work plan.

NYSDOT will coordinate with the Onondaga Nation to provide opportunities for a Nation Representative to be present during Phase IB shovel testing, machine-aided testing, and archaeological monitoring during construction of the Project.

### 3.1 Phase IB Archaeological Field Methods

Proposed field methods for the Phase IB archaeological survey for the Project include shovel testing, machine-aided excavation, and archaeological monitoring during construction. Each of these methods is described below and the locations where the various methods are planned are depicted on Figure 5, Sheets 1 and 2. The Phase IB archaeological investigations will be carried out prior to the start of construction, to the extent possible, in those areas where shovel testing and machine-aided excavation are proposed.

- Shovel tests will be excavated in unpaved areas and/or areas where significant fill deposits are not documented or anticipated.



- Mechanized excavation/machine-aided archaeological testing will be employed in a representative sample of paved and/or previously disturbed areas where the proposed depth of construction activities is anticipated to be significant (i.e., greater than 2 feet [61 cm] below existing grade, or otherwise involve large amounts of ground disturbance). **This work will be carried out in advance of the Project's construction activities, to the extent possible.**
- Archaeological monitoring during construction will be employed in existing public roadways where the proposed depth of construction activities is anticipated to be greater than 2 feet [61 cm] below existing grade or otherwise involve large amounts of ground disturbance, and where there is a potential for significant archaeological resources to be located (i.e., Erie and Oswego-Canal related resources).

Some combination of these Phase IB field methods (further described below) will be used regardless of which Alternative (i.e., the Viaduct Alternative or the Community Grid Alternative) is selected. If any archaeological sites are identified, **the site's eligibility** will be assessed in terms of NRHP Criteria for Evaluation as discussed in the Phase IA report (EDR, 2016). If possible, NRHP eligibility (site significance) will be assessed based on the results of the Phase IB survey; however, Phase II investigations are typically required to fully evaluate NRHP eligibility at most archaeological sites. If, following Phase IB archaeological survey fieldwork, it is determined that Phase II investigations are necessary at one or more sites, the archaeological consultant will develop a Phase II work plan for the site or sites in questions for review by NYSDOT. It is anticipated that the preparation of a Phase II work plan will take no more than five days per site. It is also anticipated that, for most sites, Phase II investigations could be concluded within 20 days of approval of the Phase II work plan by NYSDOT.

In the event that potential human remains and/or funerary objects associated with human remains are identified during Phase IB archaeological survey, all work in the immediate vicinity will stop and the NYSDOT cultural resources lead for the Project will be contacted. All applicable procedures outlined in the SHPO Human Remains Discovery Protocol (NYSOPRHP, 2015) (Appendix A), the Haudenosaunee Human Remains Protocol (Grand Council of the Haudenosaunee, 2002) (Appendix B), and the NYSDOT *Procedures in the Event of the Inadvertent Discovery of Human Remains during Construction* (Appendix C) will be followed. If human remains or funerary objects directly associated with human remains are encountered, the appropriate treatment will be determined through consultation as described in these procedures.

In some cases, Phase III data recovery/mitigation may be appropriate at sites determined to be eligible for listing on the NRHP as a result of Phase IB survey and/or Phase II investigations. Based on consultation with the Onondaga Nation, Data Recovery would not be considered an appropriate treatment for any Native American burial site, human

resources, a Phase III data recovery plan will be developed by the archaeological consultant for review by NYSDOT, SHPO, FHWA, and also by the Onondaga Nation for sites determined to be Native American.

It is anticipated that the preparation of a Phase III data recovery plan will take no more than 15 days per site. It is also anticipated that, for most sites, Phase III data recovery could be completed within 35 days of approval of the Phase III data recovery plan by NYSDOT. For both Phase II and Phase III investigations, an end-of-field (EOF) letter will be prepared and submitted to NYSDOT within five days of the conclusion of fieldwork. The EOF will summarize the preliminary results of the investigations, make recommendations for further work (or lack thereof), and present a time frame for the completion of a full Phase II or Phase III report. It should be noted that the above time frame assumes only one archaeological site will be investigated at a time. If multiple sites need to be investigated concurrently by a single archaeological consultant, the process will likely take longer. It should be noted that the methodologies and timelines discussed above apply only to data recovery that results from Phase IB archaeological survey. Data recovery that occurs as a result of archaeological monitoring is discussed below in Section 4.0 of the work plan.

Each field methodology is discussed in detail below.

### *3.1.1 Shovel Testing*

Areas where shovel testing is recommended are depicted on Figure 5. Shovel tests will be excavated in unpaved areas where extensive previous disturbance is not documented or anticipated and where the depth of fill deposits, if present, is unlikely to exceed the practical limits of hand excavation. Shovel tests will be excavated at 50-foot (approximately 15-meter) intervals in all unpaved/undisturbed portions of the APE for Direct Effects. Shovel tests will be approximately 12-20 inches (30-50 cm) in diameter and excavated to a depth of at least 4 inches (10 cm) into the subsoil stratum or to the limits of practical hand excavation. The locations of all shovel tests will be recorded with professional-grade GPS equipment and noted on field maps. Stratigraphic profiles, including depth, soil color, and texture, for all shovel tests will be recorded on standardized field record sheets. A complete tabulation of the stratigraphy encountered in all shovel tests will be included as an appendix to the Phase IB report.

If Pre-Contact Native American artifacts are recovered from a shovel test, archaeologists will excavate additional **“radial” shovel tests per the SHPO’s Phase I Archaeological Report Format Requirements** (NYSOPRHP, 2005). The SHPO guidance indicates when Pre-Contact Native American artifacts are recovered from an isolated shovel test, up to 8 additional shovel tests should be excavated at 1- and 3-meter intervals around the original positive shovel test to determine whether the artifacts present represent an isolated find or may indicate the presence of an archaeological site. If historic artifacts are encountered in a shovel test or if shovel tests are being excavated in an area of high historic

archaeological sensitivity (e.g. near a map-documented structure), shovel tests may be excavated at 25-foot (7.5-meter) intervals.

As described previously, if potential human remains and/or funerary objects associated with human remains are identified during shovel testing, all work in the immediate vicinity will stop and the NYSDOT cultural resources lead for the Project will be contacted. All applicable procedures outlined in the SHPO Human Remains Discovery Protocol (NYSOPRHP, 2015) (Appendix A), the Haudenosaunee Human Remains Protocol (Grand Council of the Haudenosaunee, 2002) (Appendix B), and the NYSDOT *Procedures in the Event of the Inadvertent Discovery of Human Remains during Construction* (Appendix C) will be followed.

All soils excavated from shovel tests will be screened through 0.25-inch hardware cloth. The presence of clearly modern materials, such as plastic fragments, modern bottle glass fragments, or twentieth-century architectural materials, in shovel tests will be noted on field forms but these materials will not be collected for subsequent analysis. Per standard archaeological field protocol, Pre-Contact Native American and historic-period artifacts recovered from shovel tests will be placed in plastic bags labeled with standard provenience information.

As depicted on Figure 5, shovel testing is recommended at the following locations:

- Viaduct Alternative (Figure 5, Sheet 1)
  - Apparently undisturbed areas at the southern end of the Viaduct Priority Area on either side of the I-81 ROW.
- Community Grid Alternative (Figure 5, Sheet 2)
  - Apparently undisturbed area along north side of I-81/I-481 Northern Interchange Area.
  - Apparently undisturbed areas at the southern end of the Viaduct Priority Area on either side of the I-81 ROW.
  - Apparently undisturbed at the northern and southern ends of the I-81/I-481 Southern Interchange.

### 3.1.2 Machine-Aided Archaeological Testing

To determine whether potentially significant archaeological deposits or features are present in areas within the APE containing evidence of previous disturbance, machine-aided archaeological testing will be conducted at selected locations within the APE to provide a representative sample of potential archaeological resources. Testing is necessary in these areas due to the potential for intact archaeological deposits to exist under a layer of disturbed fill (e.g., in the case of filled structural foundations). Under the direction of a professional archaeologist (i.e., an archaeologist who satisfies **the qualifications criteria per the Secretary of the Interior's** Professional Qualifications Standards [36 CFR Part

61)), test trenches will be excavated within selected locations to determine if potentially significant archaeological resources are present. A backhoe will be used to remove overburden including pavement, sidewalks, gravel ballast or fill underneath pavement, and obvious artificial fill encountered in utility trenches or other contexts, and excavate test trenches in a sample of areas within the APE.

Specific areas recommended for machine-aided testing are discussed in detail below and depicted on Figure 5. These areas were selected to specifically target the historic alignment of Onondaga Creek, which, as previously noted, is sensitive for human burials, Pre-Contact Native American cultural material, and Historic Period structures. Additionally, the machine-aided testing will target the locations of Historic Period commercial facilities located along the Erie and/or Oswego Canals and Historic Period residences along Almond Street.

Based on the results of previously conducted Phase I machine-aided archaeological testing within the City of Syracuse (e.g., Panamerican Consultants, Inc., 2000; Hartgen Archaeological Associates [HAA], 2001a; HAA, 2001b; HAA 2001c; HAA, 2003a; HAA, 2003b), it is anticipated that trenches will be excavated to a depth of approximately 3.5 feet (1.1 meters) to 7 feet (2.1 meters) below the modern ground surface. However, trenches will be terminated at the proposed depth of disturbance for the Project, upon encounter of an archaeological feature (so as not to damage the feature), 10 cm (approximately 4 inches) or more into sterile natural subsoil, or at standing water.

Under guidance from archaeologists, equipment operators will remove sediment and fill in horizontal levels by stratigraphic unit. Archaeologists will screen one sample of soil from each layer removed (excluding demolition rubble or materials such as asphalt and concrete) per 7.5 meters of linear trench. All samples will be screened through 0.25-inch hardware mesh. Archaeological artifacts will be collected for further analysis and clearly modern or highly fragmented historic materials removed from fill contexts will be noted but not collected. The presence of clearly modern materials, such as plastic fragments, modern bottle glass fragments, or twentieth-century architectural materials, in trench profiles or fill deposits will be noted but these materials will not be collected for subsequent analysis. If intact natural soil horizons are exposed within a backhoe trench, excavation will proceed either mechanically, or by hand depending on the accessibility of the natural horizon. Field archaeologists will record (draw and photograph) stratigraphic profiles of trench walls (including features, if present) and plan view maps of trench bases. The corner points of all test trenches and any identified archaeological features will be recorded with survey-grade GPS equipment.

If a potential archaeological feature is exposed, all mechanized excavation will cease and archaeologists will enter the open trench to further inspect the feature<sup>1</sup>. In cases where the depth of the open trench exceeds 4 feet (1.2 meters),

the trench walls will be shored up by construction personnel prior to the archaeologist entering the trench, in compliance with pertinent OSHA regulations (OHSA, 2015). Prior to the installation of shoring, the stratigraphy in the upper portions of the walls, which will be obscured by shoring, will be recorded. Shoring must be installed in such a way as to minimize impacts to cultural material in the bottom of the trench. The feature will be cleaned and further exposed via hand excavation. All exposed features will be photographed, measured and described in detailed field notes. If appropriate, a sample of sediment from the feature will be collected for further analysis. If the identified archaeological feature and/or site is considered to be potentially significant (per NRHP Criteria for Evaluation), additional fieldwork ( may be warranted. Additional fieldwork will be in the form of Phase II investigations for the purposes of gathering sufficient data to assess NRHP eligibility and, potentially, Phase III investigations to mitigate adverse effects on sites determined to meet the NRHP criteria for eligibility (based on the results of Phase II investigations). The need for additional phases of fieldwork will be determined through consultation with NYSDOT, the FHWA, SHPO, and the Onondaga Nation.

As described previously, if potential human remains and/or funerary objects associated with human remains are identified during machine-aided archaeological testing, all work in the immediate vicinity will stop and the NYSDOT cultural resources lead for the Project will be contacted. All applicable procedures outlined in the SHPO Human Remains Discovery Protocol (NYSOPRHP, 2015) (Appendix A), the Haudenosaunee Human Remains Protocol (Grand Council of the Haudenosaunee, 2002) (Appendix B), and the NYSDOT *Procedures in the Event of the Inadvertent Discovery of Human Remains during Construction* (Appendix C) will be followed.

Because of the logistical constraints presented by urban archaeological testing (i.e., mobilization of mechanical equipment and operators, disruption of existing use of properties, pavement removal, the potential removal of large quantities of fill), it is anticipated that any Phase II/III archaeological work that is required will be conducted immediately following the determination that identified archaeological features warrant further investigation for the purpose of an eligibility determination or data recovery.

At each location selected for archaeological testing, at least one backhoe trench will be excavated under the supervision of a professional archaeologist following the methodology proposed above. Based on the methods employed during previously conducted Phase I machine-aided archaeological testing within the City of Syracuse (e.g., Panamerican Consultants, Inc., 2000; HAA, 2001a; HAA, 2001b; HAA 2001c; HAA, 2003a; HAA, 2003b), and the scope of the current Project, it is anticipated that backhoe trenches will likely range in size from approximately 6 feet (1.2 meters) wide by approximately 9 feet (1.8 meters) long to approximately 10 feet (3.1 meters) wide by up to 50 feet (15 meters) long; however, they may be larger or smaller as conditions dictate. Machine-aided Phase IB archaeological testing is recommended at the following locations (same for both alternatives) (see Figure 5):

- Between 5 and 7 former residential/commercial lots along Almond Street, in areas currently characterized by open lots and/or parking lots (see Figure 5). Testing locations will prioritize the areas near former rear lot lines to determine if shaft features or other potentially significant archaeological features are present.
- Between 3 and 5 former residential/commercial lots on the north side of Erie Boulevard between Townsend Street and Oswego Boulevard, in areas currently characterized by open lots and/or parking lots – historically, these lots were the locations of commercial facilities located along the Erie and/or Oswego Canals (see Figure 5). Testing locations will prioritize the areas near former rear lot lines to determine if shaft features or other potentially significant archaeological features are present.
- Up to 3 locations along the historic alignment of Onondaga Creek, in areas currently characterized by open lots and/or parking lots. The purpose of this testing is to determine if potential Native American human remains (see Section 2.4 and Figure 4 of this work plan), as well as any archaeological resources, are present in this area.

The schedule and timing of the Phase IB archaeological field investigations, particularly in areas where the removal of pavement and other machine-aided testing will be necessary, will be coordinated to minimize multiple episodes of soil disturbance and disruption of existing land uses. Maximum efficiency will be achieved if machine-aided testing is undertaken immediately prior to the initiation of project construction. This way, areas disturbed by machine-aided testing will not need to be restored to their prior state because they will be immediately thereafter impacted by project construction.

### 3.1.3 *Archaeological Monitoring during Construction*

Archaeological monitoring during construction will be restricted to those areas where removal of pavement in advance of construction is not feasible (such as within active roadways). Archaeological monitoring will be conducted by qualified professional archaeologists who will observe all potential earth-disturbing construction activities associated within the areas recommended for monitoring (see Figure 5), which include:

- Viaduct Alternative (see Figure 5, Sheet 1)
  - Locations within the Viaduct Priority Area where soil disturbance greater than approximately 2 feet (61 cm) below the modern ground surface is proposed along streets overlapping with mapped alignments of the Enlarged Erie or Oswego Canals (see Figure 3, Sheet 2; and Figure 5, Sheet 2).
  - Locations within the Viaduct Priority Area where disturbance greater than approximately 2 feet (61 cm) below the current ground surface is proposed within existing roadways in areas adjacent to the former locations of waterbodies (and therefore sensitive for Native American human remains and other Pre-Contact resources; see Figure 4, Sheet 1; and Figure 5, Sheet 1).

- Community Grid Alternative (see Figure 5, Sheet 2)
  - Locations within the Viaduct Priority Area where soil disturbance greater than approximately 2 feet (61 cm) below the modern ground surface is proposed along streets overlapping with mapped alignments of the Enlarged Erie or Oswego Canals (see Figure 3, Sheet 2 and Figure 5, Sheet 2).
  - Locations within the Viaduct Priority Area where disturbance greater than approximately 2 feet (61 cm) below the current ground surface is proposed within existing roadways in areas adjacent to the former locations of waterbodies (and therefore sensitive for human remains; see Figure 4, Sheet 2 and Figure 5, Sheet 2).
  - Locations within the I-81/I-481 Southern Interchange where disturbance greater than approximately 2 feet (61 cm) below the current ground surface is proposed within existing roadways in areas adjacent to the former locations of waterbodies (and therefore sensitive for human remains; see Figure 4, Sheet 2 and Figure 5, Sheet 2).
  - Locations within the I-481 Eastern Improvements area that are adjacent to the former locations of waterbodies (and therefore sensitive for human remains). Proposed construction in these areas will be limited to installing footers for piers for an elevated highway in areas currently characterized by wetlands. Because of the wetland character of these areas, the potential for human remains is considered highly unlikely and archaeological testing in advance of construction is not considered feasible.

During construction monitoring, on-site archaeologists will have full access to the construction site and full Stop Work Authority. Archaeologists will inspect exposed soils throughout the course of excavation/construction and may temporarily stop work at times to further investigate exposed artifacts, foundations, soil stains, or other indications of potentially significant cultural resources. Investigation may consist of: visual inspection of exposed materials and/or trench walls, photography, hand excavation with a shovel and/or trowel, collection of artifacts and/or soil samples, and screening of excavated back dirt. It is assumed that the construction contractor will assist the archaeological consultant in maintaining safety standards (as necessary) during inspection (e.g., shoring up or grading trench walls to meet Occupational Health and Safety Administration standards). The presence of clearly modern materials, such as plastic fragments, modern bottle glass fragments, or twentieth-century architectural materials, in trench profiles or fill deposits will be noted but these materials will not be collected for subsequent analysis.

NYSDOT will coordinate with the Onondaga Nation and provide opportunities for a Nation representative to be present during archaeological monitoring during construction of the proposed Project.

A complete Archaeological Monitoring Protocol, including specific time frames allowable for trench/excavation inspection and investigation of potentially NRHP-eligible archaeological finds, as well as an explanation of the specific activities to be conducted by the archaeologist within the trench, and specific assistance required of construction personnel, is provided in Sections 4.1 and 4.2 of this report.

### 3.2 Laboratory Methods

Following completion of the archaeological fieldwork, materials recovered will be washed (when appropriate), identified, inventoried and re-bagged in labeled clean 4-mil archival quality plastic bags. Recovered artifacts will then be identified and described based on material type and standard descriptive characteristics in accordance with standard archaeological practice. A complete inventory of collected artifacts will be included as an appendix to the Phase IB report(s).

Depending on whether potentially significant archaeological features or deposits are identified, specialized laboratory analyses for specific materials may be necessary. These may include lithic (stone tool) analysis, vessel reconstruction and/or minimum vessel analyses, faunal (i.e., animal bone) analysis, paleo-botanical (i.e., plant remains) analysis, or other specialized soil/sediment analyses. The need for and appropriate application of specialized archaeological analyses will be determined in consultation with the NYSDOT, SHPO, FHWA, and the Onondaga Nation (for Pre-Contact Native American sites)

**All materials will be processed and stored in accordance with the New York State Museum's (NYSM's) Accession Policy and Accession Standards, as articulated in the "Archaeological Curation Guidelines" (<http://www.nysm.nysed.gov/services/233/curation.html>) and the NYAC Standards (NYAC, 1994). All materials collected from state lands will be treated in accordance with the New York State Education Department Law §233.**

### 3.3 Phase IB Archaeological Survey Report

Within two weeks of the completion of shovel testing, the archaeologist will provide an EOF letter to the NYSDOT summarizing the preliminary results of shovel testing. Additionally, within two weeks of the completion of machine-aided excavation, the archaeologist will provide an EOF letter to the NYSDOT, summarizing the preliminary results of machine-aided testing. The EOF letters will identify potentially eligible archaeological resources, and provide recommendations for additional investigations (i.e., Phase II), if needed, to evaluate the NRHP eligibility of specific archaeological sites. The EOF letters will also identify and map areas where shovel testing or machine-aided testing revealed no archaeological resources.



The results of the Phase I survey will be presented in a formal illustrated report prepared in accordance with the NYSED *Cultural Resources Survey Program Work Scope Specifications for Cultural Resources Investigations for New York State Department of Transportation Projects* (NYSED, 2004), and SHPO's *Phase I Archaeological Report Format Requirements* (NYSOPRHP, 2005). The report will include a narrative summary of the methods and results of the archaeological survey, recommendations regarding S/NRHP eligibility and/or recommendations for additional (i.e., Phase II) investigations to evaluate eligibility for each identified resource, documentation of soils and/or archaeological contexts encountered during the survey, a complete artifact inventory, and will include illustrations, photographs, and maps, as appropriate.

## 4.0 PLAN FOR ARCHAEOLOGICAL MONITORING DURING CONSTRUCTION

### 4.1 Plan for Archaeological Monitoring During Construction

Archaeological monitoring will be undertaken by specialists trained in archaeological fieldwork and monitoring and under the supervision of an **archaeologist meeting the Secretary of the Interior's Professional Qualification Standards** (36 CFR, Appendix A to Part 61). A representative from the Onondaga Nation will be provided opportunities to observe archaeological monitoring during construction.

All archaeological monitoring during construction will be conducted in accordance with existing on-site safety protocols as well as federal labor standards (OSHA 29 CFR 1926 Subpart P). OSHA 29 CFR 1926, Subpart P specifies appropriate protection measures to be used for employees working in open excavations. These include sloping and/or shoring excavation walls to prevent collapse. If the archaeologist needs to enter the open excavation to inspect exposed cultural material, construction personnel will install shoring/support in the open excavation, if this required by OSHA 29 CFR 1926 (Subpart P), given the dimensions of the excavation.

If the archaeological consultant encounters human remains (or potential human remains) during the archaeological monitoring, the *NYSDOT Procedures in the Event of the Inadvertent Discovery of Human Remains during Construction*, the SHPO Human Remains Discovery Protocol, and the Haudenosaunee Protocol on Human Remains, will be followed. Immediately upon notification of the discovery, the NYSDOT will contact the SHPO, FHWA, Tony Gonyea of the Onondaga Nation, and Joseph Heath, General Counsel to the Onondaga Nation. The SHPO Human Remains Discovery Protocol (NYSOPRHP, 2015), the Haudenosaunee Protocol on Human Remains (Haudenosaunee Confederacy, 2002), and the *NYSDOT Procedures in the Event of the Inadvertent Discovery of Human Remains during Construction* are attached to this document as Appendices A, B, and C, respectively and the Human Remains and Funerary Objects Protocol for the current project is discussed further in Section 5.0 of this work plan.

#### 4.1.1 Initial Inspection and Investigation of Potential Cultural Material

If the archaeologist identifies potential cultural material during construction, he/she will request a temporary work stoppage to inspect the location of the exposed cultural material. This temporary work stoppage will be limited to one hour for each area within an approximately 20-foot (6.1-meter) radius. Following the confirmation of the work stoppage, the archaeologist will enter the open excavation, once the necessary shoring, if required, has been installed, and inspect the exposed cultural material. During this initial inspection, the archaeologist may photograph the exposed cultural material, collect the cultural material (or a sample thereof), draw a sketch map of the exposed stratigraphy, take additional notes, remove soil samples, and conduct additional hand excavation with a shovel or a trowel.

Following the initial inspection of identified cultural material, if the archaeologist identifies the materials as obviously, modern, or historic but with no chance of meeting the NRHP Criteria for Evaluation, he or she will notify construction personnel that they can continue work. If, however, following the initial inspection, the archaeologist determines the cultural material to be potentially significant (i.e., meet the NRHP Criteria for Evaluation), he or she will request an extension of the temporary work stoppage in order to further evaluate the exposed cultural material. The extended work stoppage may last up to but no longer than four hours, not including one hour for the initial inspection of exposed cultural material, as described above. Taking into consideration input from the Onondaga Nation representative on-site, the archaeologist will make a preliminary assessment of potential eligibility and coordinate with NYSDOT to determine the need for additional archaeological investigations and documentation. As described in the next section, NYSDOT will consult with the SHPO, FHWA, and the Onondaga Nation. If no additional investigation or documentation is needed, construction activities will resume. Activities undertaken by the archaeologist during the preliminary evaluation of potentially NRHP-eligible (i.e., significant) cultural materials will be similar to those undertaken for initial inspection of cultural materials (discussed above), but may also include screening of excavation back dirt or soil removed via hand excavation through ¼-inch hardware cloth and collection of any artifacts recovered through screening. All evaluative testing activities would be restricted to the APE for Direct Effects for the Project.

The timeframe outlined above would not apply in the case of a human remains discovery. If potential human remains and/or funerary objects associated with human remains are identified during machine-aided archaeological testing, all work in the immediate vicinity will stop the NYSDOT cultural resources lead for the Project will be contacted. All applicable procedures outlined in the NYSDOT *Procedures in the Event of the Inadvertent Discovery of Human Remains during Construction* (Appendix C), SHPO Human Remains Discovery Protocol (NYSOPRHP, 2015) (Appendix A), and the Haudenosaunee Human Remains Protocol (Grand Council of the Haudenosaunee, 2002) (Appendix B) will be followed. In this instance, the temporary work stoppage could last significantly longer than the times listed above. It is important to note that in the case of identified human remains, no additional evaluative testing or data recovery activities will occur.

Given the urban nature of the APE for Direct Effects, it is anticipated that historic and/or modern artifacts may be encountered in secondary fill contexts (i.e., neighborhood trash and coal ash dumps). For archaeological materials clearly located within secondary fill contexts, the archaeological consultant will describe and photograph a representative sample of the materials but will not collect them. Archaeological materials identified in secondary fill contexts will be described in an archaeological monitoring report to be submitted to NYSDOT and FHWA following the conclusion of fieldwork. It should be noted; however, that in addition to formal and informal refuse dumps, the Erie and Oswego Canals within the City of Syracuse were often filled with coal ash and other refuse following their closure in the early twentieth century. Therefore, although individual artifacts encountered within secondary refuse deposits will

not be collected for further analysis, the stratigraphy of these deposits will be carefully documented and, if possible, a determination will be made if they represent canal fill.

The Phase IA Archaeological Sensitivity Assessment (EDR, 2016:158-229) describes in detail the various types of potential archaeological sites that could occur within the APE for Direct Effects, as well as how the significance of each type of archaeological site would be assessed under the NRHP Criteria for Evaluation. For historic archaeological materials, the proposed archaeological monitoring during construction applies primarily to areas with potential to contain Erie or Oswego Canal-related features, but there is the potential for other historic or pre-contact cultural resources to be present in the monitored areas. Potentially significant archaeological resources which may be encountered include:

- Historic cultural resources:
  - Intact portions of the Erie or Oswego Canal prisms, other canal-related features.
  - Intact archaeological features in undisturbed soil contexts such as occupied surfaces, foundations, and shaft features including wells, cisterns, and privies.
  - Diagnostic historic artifacts such as household and/or industrial materials located in undisturbed primary contexts.
  - Any indications of human burials or funerary objects.
- Pre-Contact Native American cultural resources:
  - Intact archaeological features including hearths, storage pits, middens, palisade remnants, and structural remnants.
  - Diagnostic artifacts such as projectile points, ceramics, and other stone and bone tools located in undisturbed primary contexts.
  - Any indications of human burials or funerary objects.

In the cases of the above types of cultural resources, significance would be assessed in the field by the monitoring archaeologist, following the methods discussed above, who will provide preliminary recommendations to NYSDOT. NYSDOT, in turn, will consult with FHWA, SHPO, and the Onondaga Nation. A *Project Contacts Table* is included as Appendix D of this work plan. The Phase IA Archaeological Sensitivity Assessment for the I-81 Viaduct Project (EDR, 2016) discusses the specific considerations which will be brought to bear in assessing significance for different types of cultural resources. However, as a rule, cultural resources will be considered potentially significant if they contain cultural material within intact stratified deposits that maintain a high degree of physical integrity. Cultural materials

indicative of a potentially significant site could include a density and diversity of artifacts, including temporally or culturally diagnostic artifacts, intact features, and artifacts indicative of a specific activity or activities.

If the archaeological consultant determines the discovery to be a potentially significant archaeological resource (i.e., potentially NRHP-eligible), he/she will immediately notify the NYSDOT Project Manager (or identified Point of Contact) and/or onsite construction manager and request a temporary suspension of work in the location, consistent with the time frames discussed above in this Section. Preliminary determination of NRHP-eligibility will be based on the identification of potentially significant cultural resources as described above.

#### *4.1.2 Additional Archaeological Investigations to Determine NR Eligibility*

In some cases, additional archaeological testing/documentation of significant or potentially significant cultural resources, beyond the initial inspection and preliminary assessment of significance discussed above, may be required. The need for additional archaeological testing/documentation of potentially significant archaeological resources will be assessed based on consultation between the on-site archaeological monitor and NYSDOT, who will in turn consult with FHWA, SHPO, and the Onondaga Nation. Additional archaeological testing/documentation is anticipated to be necessary in cases where large intact portions of significant cultural resources occur within the APE for Direct Effects. These cultural resources would need to be recovered or sampled prior to the continuation of construction in the area. Additional archaeological testing/documentation may also be necessary in cases where the full extent/nature of the cultural resource identified within the APE for Direct Effects is unclear or impossible to establish based on the amount exposed by construction activities. In these cases, construction activities in the immediate vicinity of the cultural resources would cease and the archaeologist would proceed to test, record, and/or recover the cultural materials to an extent agreed upon by NYSDOT as sufficient. Additional testing/documentation in these cases would be limited to eight hours for each individually identified resource in the case of non-canal resources, or eight hours per 50 linear feet (15 meters) of exposed canal or canal-related features.

When potentially significant cultural resources are identified, the archaeological monitor will consult with Project personnel to determine the best course of action moving forward. It likely will be appropriate to initiate archaeological sampling immediately to further evaluate the integrity and potential significance of any identified archaeological remains. Unless otherwise directed by NYSDOT based on consultation with the SHPO, FHWA and Onondaga Nation, all work to evaluate the discovered archaeological resources will be restricted to the proposed area of potential earth disturbance associated with the Project (i.e., the APE for Direct Effects).

#### *4.1.3 Implementation of Data Recovery Procedures*

In an instance where exposed cultural material is determined to meet the NRHP Criteria for Evaluation, the archaeologist will immediately contact NYSDOT, as discussed above. All construction work in the immediate vicinity of the discovery will cease and data recovery procedures will be implemented. Data recovery procedures will be implemented to minimize the interruption of construction. Therefore, construction activities will only be stopped in the immediate vicinity of the data recovery, and only to the extent to ensure the safety of the on-site archaeologists and to ensure the protection of the exposed cultural material until data recovery is complete. Once initiated, it is anticipated that data recovery activities at any given location will be completed within no more than 15 days of the initiation of data recovery fieldwork.

Data recovery activities may include the documentation, photography, measurement, and collection of historic period or pre-contact Native American archaeological materials exposed within construction excavations. Data recovery may also involve additional investigation of such resources by hand excavation. As noted above, data recovery would occur when cultural material that meets the NRHP Criteria for Evaluation has been exposed by construction activities. This could include, but is not limited to, intact portions of the Erie or Oswego Canal prisms, or other intact canal-related features, historic structural foundations or shaft features, or significant concentrations or deposits of diagnostic historic artifacts. It could also include intact pre-contact Native American archaeological features including hearths, storage pits, middens, palisade remnants, or structure remains, or significant concentrations of diagnostic pre-contact artifacts such as projectile points, ceramics, and other stone and bones tools located in an undisturbed primary context.

In the case of historic features and artifacts encountered during construction monitoring, data recovery activities will consist of documentation of exposed features and soil stratigraphy and the collection of exposed artifacts (or a sample thereof). In the case of pre-contact Native American features and artifacts encountered during construction monitoring, data recovery activities could consist of documentation of exposed features and soil stratigraphy and the collection of feature fill and/or exposed artifacts (or a sample thereof). Typically, data recovery activities will be restricted to open excavations; however, in some limited cases it may be necessary to expose additional areas as part of data recovery. This will be accomplished via hand excavation wherever possible, but may also require mechanical excavation. In these instances, it is anticipated that data recovery activities could last for up to 10 hours for each individually identified resource in the case of non-canal (historic or pre-contact) resources, or 10 hours per 50 linear feet (15 meters) of exposed canal prism or canal-related features.

As discussed above for artifacts recovered during Phase IB survey, all artifacts recovered during data recovery investigations will be processed and stored in accordance with the New York State Museum's (NYSM's) Accession Policy and Accession Standards, as articulated in the "Archaeological Curation Guidelines"

(<http://www.nysm.nysed.gov/services/233/curation.html>) and the NYAC Standards (NYAC, 1994). All materials collected from state lands will be treated in accordance with the New York State Education Department Law §233.

Additionally, as discussed above for data recovery occurring as a result of Phase IB survey an EOF letter will be prepared and submitted to NYSDOT within five days of the conclusion of data recovery fieldwork. The EOF will summarize the preliminary results of the investigations, make recommendations for further work (or lack thereof), and present a time frame for the completion of a full Phase III report.

#### 4.2 Contractor Assistance and Consideration

The following is a summary of expectations and considerations pertaining to **the construction contractor's role in** archaeological monitoring and/or data recovery investigations for the Project.

##### Archaeological Monitoring and Contractor General Considerations:

- The construction contractor should expect delays due to the identification of cultural materials during excavation.
- All archaeological monitoring during construction will be conducted in accordance with existing on-site safety protocols as well as federal labor standards (OSHA 29 CFR 1926 Subpart P).
- Temporary work stoppages for the preliminary investigation of exposed cultural materials will be limited to one hour for each approximately 20-foot (6.1-meter) radius area.
- Extended temporary work stoppages to further evaluate potentially NRHP-eligible cultural materials may last for up to four hours, not including the initial temporary stoppage discussed above.
- In some cases, additional archaeological testing/documentation of significant or potentially significant cultural resources, beyond the initial inspection and preliminary assessment of significance discussed above, may be required. Additional testing/documentation in these cases would be limited to eight hours for each individually identified resource in the case of non-canal resources, or eight hours per 50 linear feet (15 meters) of exposed canal or canal-related features.
- In certain cases, when exposed cultural material has been determined to be eligible or potentially eligible for listing on the NRHP, data recovery investigations will be implemented during which construction in this location will be suspended for up to 15 days. For historic-period archaeological resources, it is anticipated that data recovery investigations will require no more than 10 hours per individual non-canal related resource and 10 hours for every 50 linear feet of exposed canal prism or canal-related resource.
- If human remains are identified, all construction in the vicinity of the discovery will cease pending consultation, as discussed in Section 5.0 of this document. As described above, the time restrictions for temporary work stoppages do not apply to the discovery of human remains. In each case, the duration of the work stoppage

will be determined by the time needed to carry out actions for avoidance or an appropriate treatment as determined through consultation. Within 24-72 hours of the discovery, NYSDOT will notify the construction contractor of the expected duration for the suspension of the construction activities in the area of the discovery.

*Construction Contractor Responsibilities:*

- The contractor will stop or slow work as directed by the archaeologist.
- If human remains are identified, all construction in the vicinity of the discovery will cease pending consultation among the SHPO, FHWA, the Onondaga Nation, and NYSDOT, as discussed in Section 5.0 of this document. Communication and coordination among the consulting parties will be done by NYSDOT and is not the obligation of the construction contractor.
- The contractor will assist the archaeologist in complying with all work place safety measures, including shoring trenches deeper than 4 feet (1.2 meters) for the archaeologist to enter.
- If data recovery investigation is required at specific locations, it may be necessary to leave excavations open **overnight. It will be the construction contractor's responsibility** to secure the open excavation in these cases.
- The construction contractor will provide heavy equipment and an operator to aid the archaeologist in tasks such as the removal of overburden during archaeological monitoring and data recovery.
- The construction contractor and/or NYSDOT will **provide the archaeologist with at least one week's notice** prior to initiating construction/excavation in areas subject to archaeological monitoring, for logistical reasons.

*Archaeologist Responsibilities:*

- The archaeologist will comply with all on site safety rules and regulations.
- The archaeologist will communicate the need for and anticipated duration of any temporary work stoppages clearly and effectively to the construction contractor if cultural materials are exposed.
- The archaeologist will also clearly communicate to the construction contractor if and when work may resume in a given area.
- If the archaeological consultant determines the discovery to be a potentially significant archaeological resource (i.e., potentially NRHP-eligible), he/she will immediately notify the NYSDOT Project Manager (or identified Point of Contact)



## 5.0 HUMAN REMAINS AND FUNERARY OBJECTS PROTOCOL

In the event of an unanticipated discovery of potential human remains and/or funerary objects, all work in the immediate vicinity will stop until further notice and the NYSDOT cultural resources lead for the Project will be contacted. The potential remains/funerary objects will be treated with respect, left *in situ* by all on site personnel, and protected from further disturbance. All fieldwork will be conducted in accordance with SHPO's **Human Remains Discovery Protocol** (NYSOPRHP, 2015) (Appendix A), and the Haudenosaunee Human Remains Protocol (Grand Council of the Haudenosaunee, 2002) (Appendix B). **If the discovery occurs during the Project's construction, the NYSDOT Procedures in the Event of the Inadvertent Discovery of Human Remains during Construction** will be implemented (Appendix C). If human remains or funerary objects are Native American, a treatment plan will be developed in consultation with the SHPO and the Onondaga Nation, consistent with the established protocols and guidance. It is worth noting that the SHPO, Haudenosaunee, and NYSDOT human remains protocols all require temporary suspension of activity in the vicinity of the discovery, protection of discovered remains, notification of SHPO and Native American representatives, and consultation regarding treatment of remains.

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## Figures





## I-81 Viaduct Project Onondaga County, New York

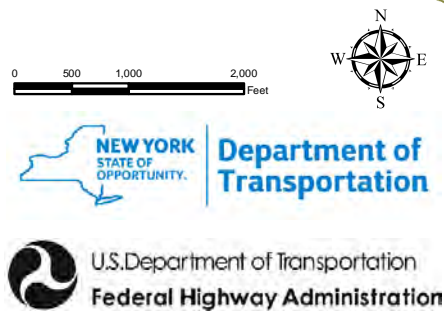
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Sheet 1: Viaduct Alternative

September 2017

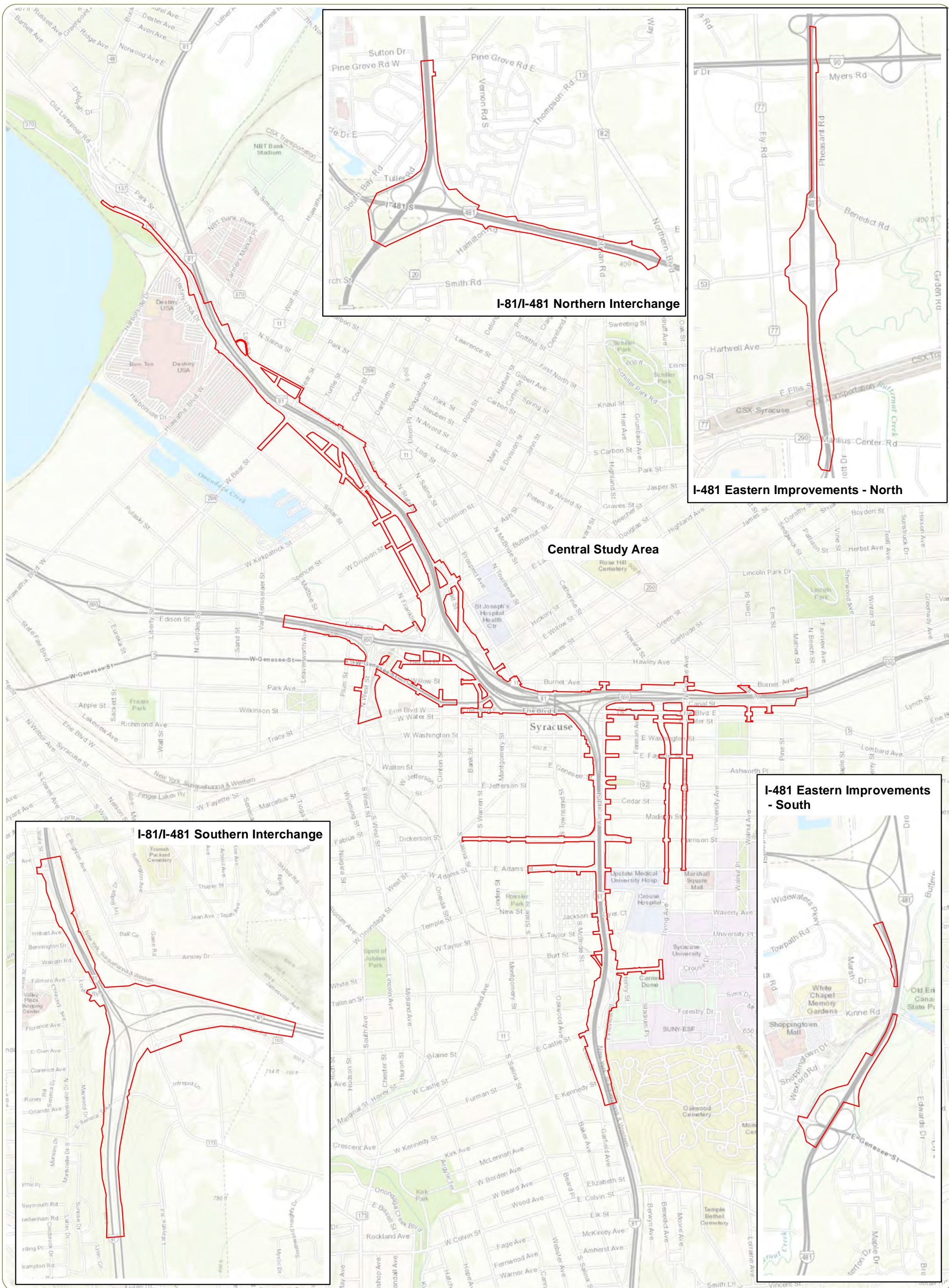
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 APE for Direct Effects

Legend







## I-81 Viaduct Project

Onondaga County, New York

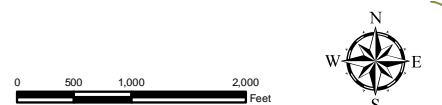
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Sheet 2: Community Grid Alternative

September 2017

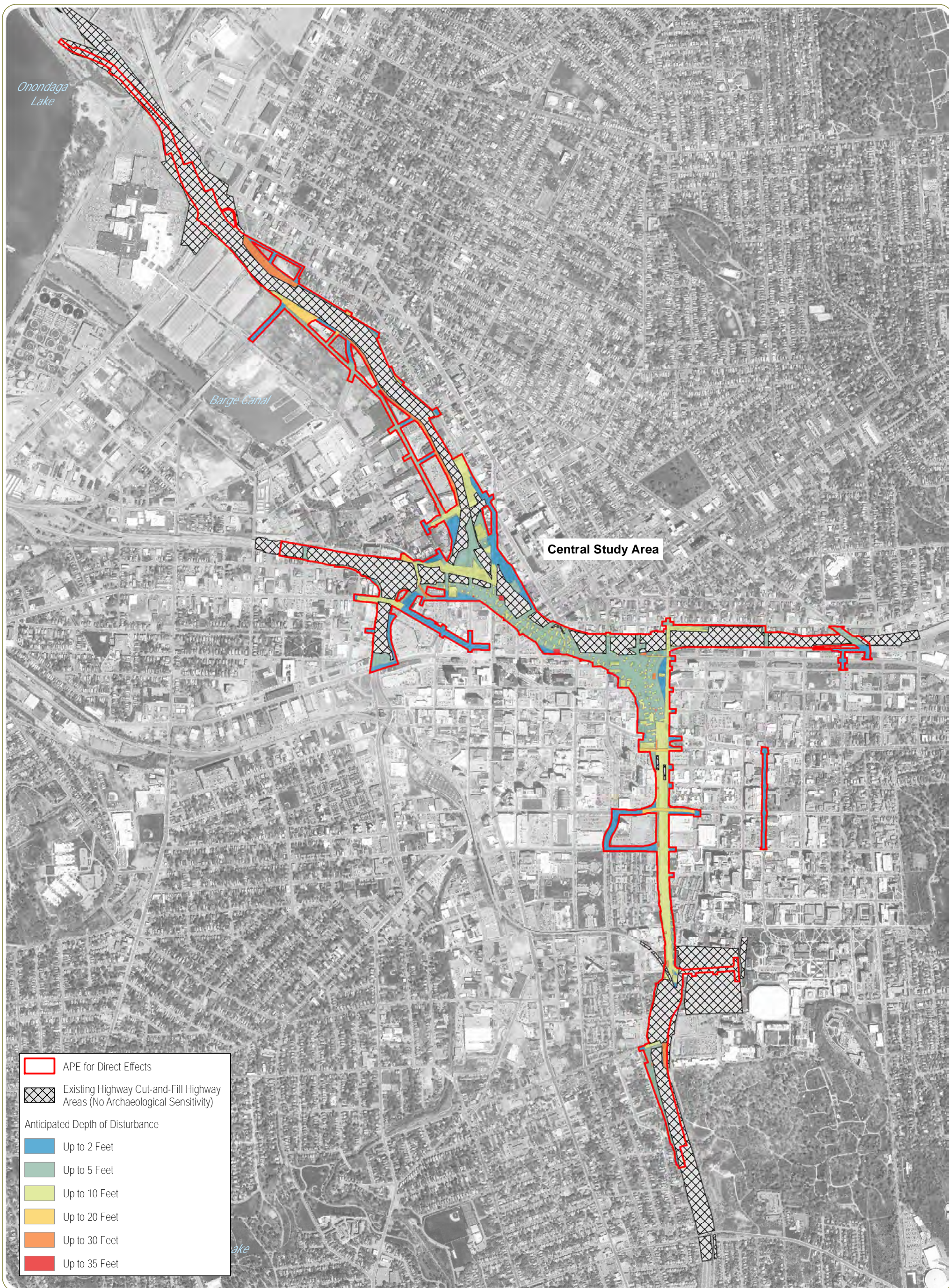
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 APE for Direct Effects

Legend







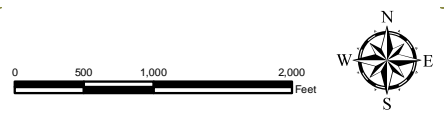
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Onondaga County, New York

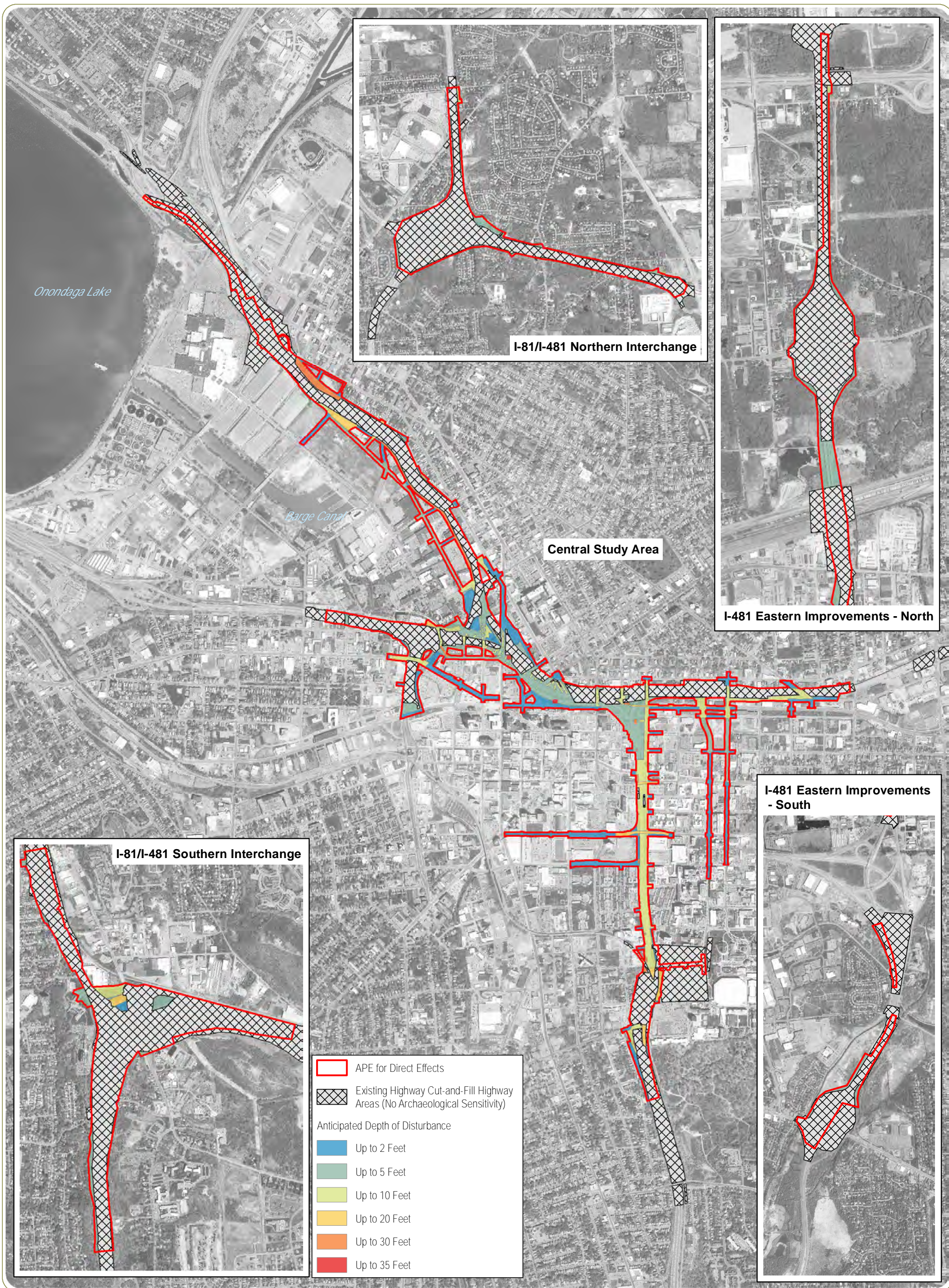
Figure 2: Anticipated Depth of Soil Disturbance (Estimated)  
Sheet 1: Viaduct Alternative

September 2017

Notes:  
1. Basemap: NYS Digital Orthoimagery Program 1-foot resolution orthoimagery, 2015.  
2. This is a color graphic. Reproduction in grayscale may misrepresent the data.







## I-81 Viaduct Project

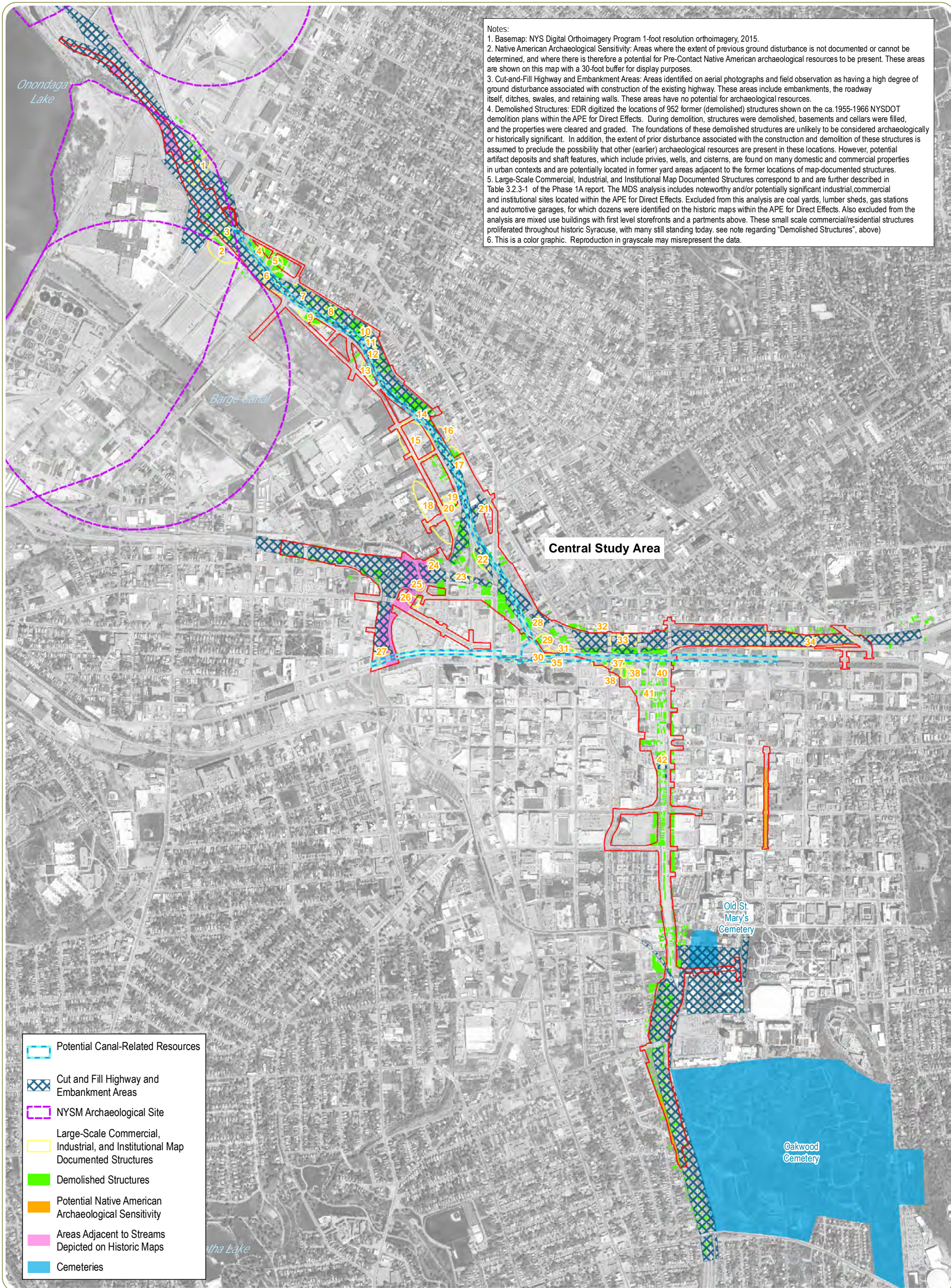
Onondaga County, New York

**Figure 2: Anticipated Depth of Soil Disturbance (Estimated)**  
Sheet 2: Community Grid Alternative

September 2017

**Notes:**  
1. Basemap: NYS Digital Orthoimagery Program 1-foot resolution orthoimagery, 2015.  
2. This is a color graphic. Reproduction in grayscale may misrepresent the data.





Notes:

1. Basemap: NYS Digital Orthoimagery Program 1-foot resolution orthoimagery, 2015.
2. Native American Archaeological Sensitivity: Areas where the extent of previous ground disturbance is not documented or cannot be determined, and where there is therefore a potential for Pre-Contact Native American archaeological resources to be present. These areas are shown on this map with a 30-foot buffer for display purposes.
3. Cut-and-Fill Highway and Embankment Areas: Areas identified on aerial photographs and field observation as having a high degree of ground disturbance associated with construction of the existing highway. These areas include embankments, the roadway itself, ditches, swales, and retaining walls. These areas have no potential for archaeological resources.
4. Demolished Structures: EDR digitized the locations of 952 former (demolished) structures shown on the ca.1955-1966 NYSDOT demolition plans within the APE for Direct Effects. During demolition, structures were demolished, basements and cellars were filled, and the properties were cleared and graded. The foundations of these demolished structures are unlikely to be considered archaeologically or historically significant. In addition, the extent of prior disturbance associated with the construction and demolition of these structures is assumed to preclude the possibility that other (earlier) archaeological resources are present in these locations. However, potential artifact deposits and shaft features, which include privies, wells, and cisterns, are found on many domestic and commercial properties in urban contexts and are potentially located in former yard areas adjacent to the former locations of map-documented structures.
5. Large-Scale Commercial, Industrial, and Institutional Map Documented Structures correspond to and are further described in Table 3.2.3-1 of the Phase 1A report. The MDS analysis includes noteworthy and/or potentially significant industrial, commercial and institutional sites located within the APE for Direct Effects. Excluded from this analysis are coal yards, lumber sheds, gas stations and automotive garages, for which dozens were identified on the historic maps within the APE for Direct Effects. Also excluded from the analysis are mixed use buildings with first level storefronts and a apartments above. These small scale commercial/residential structures proliferated throughout historic Syracuse, with many still standing today. see note regarding "Demolished Structures", above)
6. This is a color graphic. Reproduction in grayscale may misrepresent the data.

## I-81 Viaduct Project

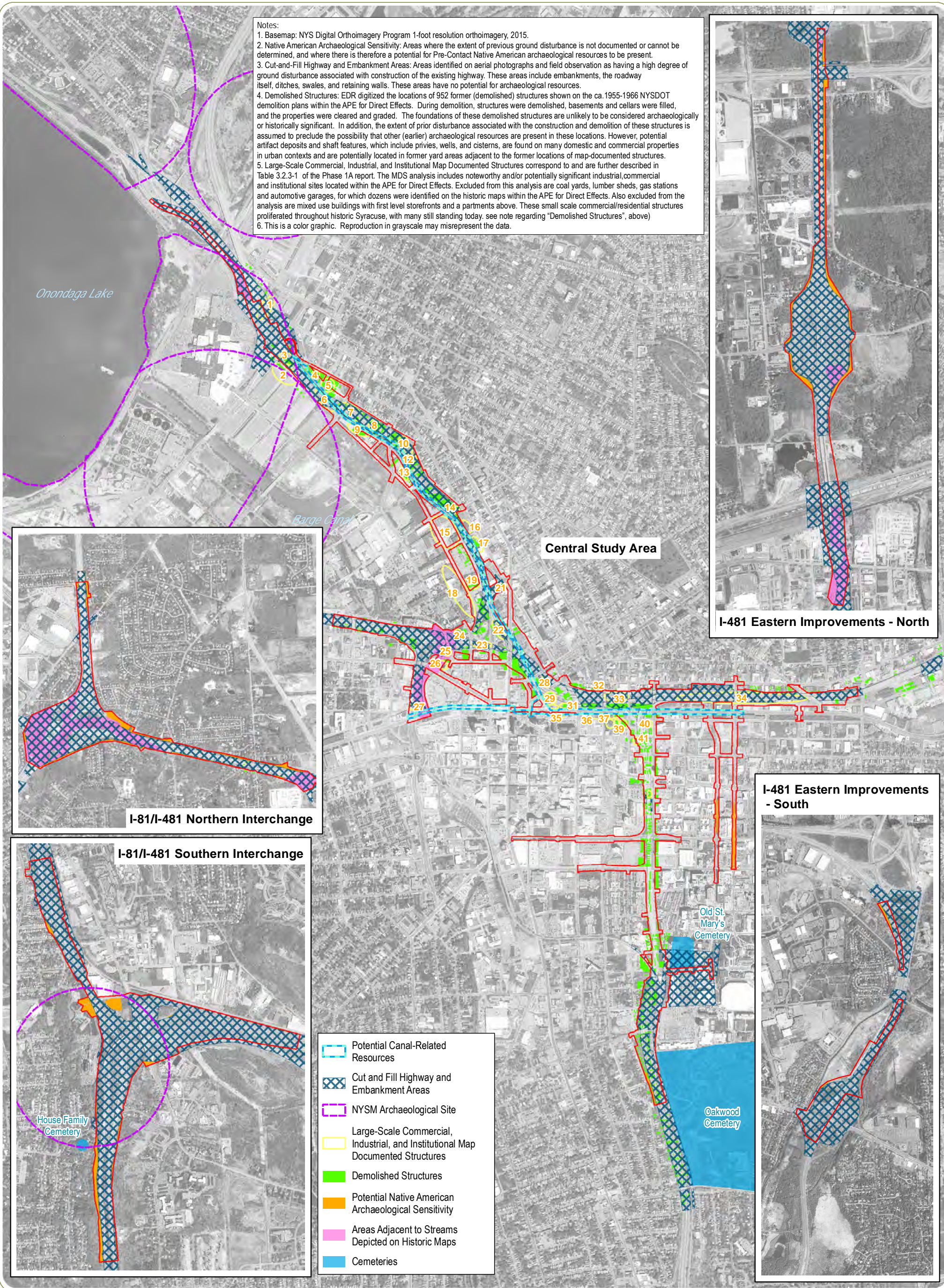
Onondaga County, New York

Figure 3: Archaeological Sensitivity  
Sheet 1: Viaduct Alternative

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- Notes:
1. Basemap: NYS Digital Orthoimagery Program 1-foot resolution orthoimagery, 2015.
  2. Native American Archaeological Sensitivity: Areas where the extent of previous ground disturbance is not documented or cannot be determined, and where there is therefore a potential for Pre-Contact Native American archaeological resources to be present.
  3. Cut-and-Fill Highway and Embankment Areas: Areas identified on aerial photographs and field observation as having a high degree of ground disturbance associated with construction of the existing highway. These areas include embankments, the roadway itself, ditches, swales, and retaining walls. These areas have no potential for archaeological resources.
  4. Demolished Structures: EDR digitized the locations of 952 former (demolished) structures shown on the ca. 1955-1966 NYSDOT demolition plans within the APE for Direct Effects. During demolition, structures were demolished, basements and cellars were filled, and the properties were cleared and graded. The foundations of these demolished structures are unlikely to be considered archaeologically or historically significant. In addition, the extent of prior disturbance associated with the construction and demolition of these structures is assumed to preclude the possibility that other (earlier) archaeological resources are present in these locations. However, potential artifact deposits and shaft features, which include privies, wells, and cisterns, are found on many domestic and commercial properties in urban contexts and are potentially located in former yard areas adjacent to the former locations of map-documented structures.
  5. Large-Scale Commercial, Industrial, and Institutional Map Documented Structures correspond to and are further described in Table 3.2.3-1 of the Phase 1A report. The MDS analysis includes noteworthy and/or potentially significant industrial, commercial and institutional sites located within the APE for Direct Effects. Excluded from this analysis are coal yards, lumber sheds, gas stations and automotive garages, for which dozens were identified on the historic maps within the APE for Direct Effects. Also excluded from the analysis are mixed use buildings with first level storefronts and apartments above. These small scale commercial/residential structures proliferated throughout historic Syracuse, with many still standing today. see note regarding "Demolished Structures", above)
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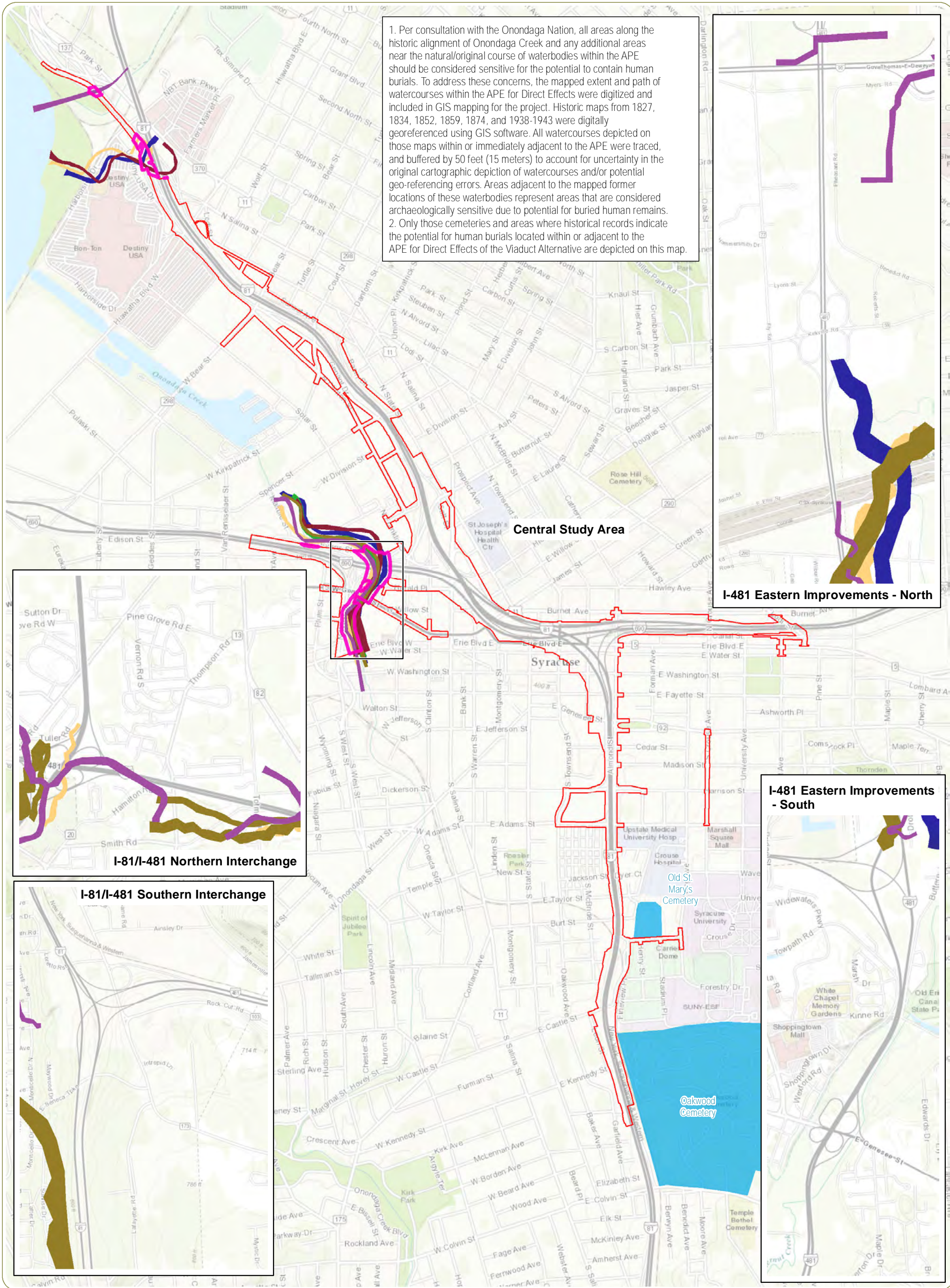
## I-81 Viaduct Project

Onondaga County, New York

Figure 3: Archaeological Sensitivity  
Sheet 2: Community Grid Alternative

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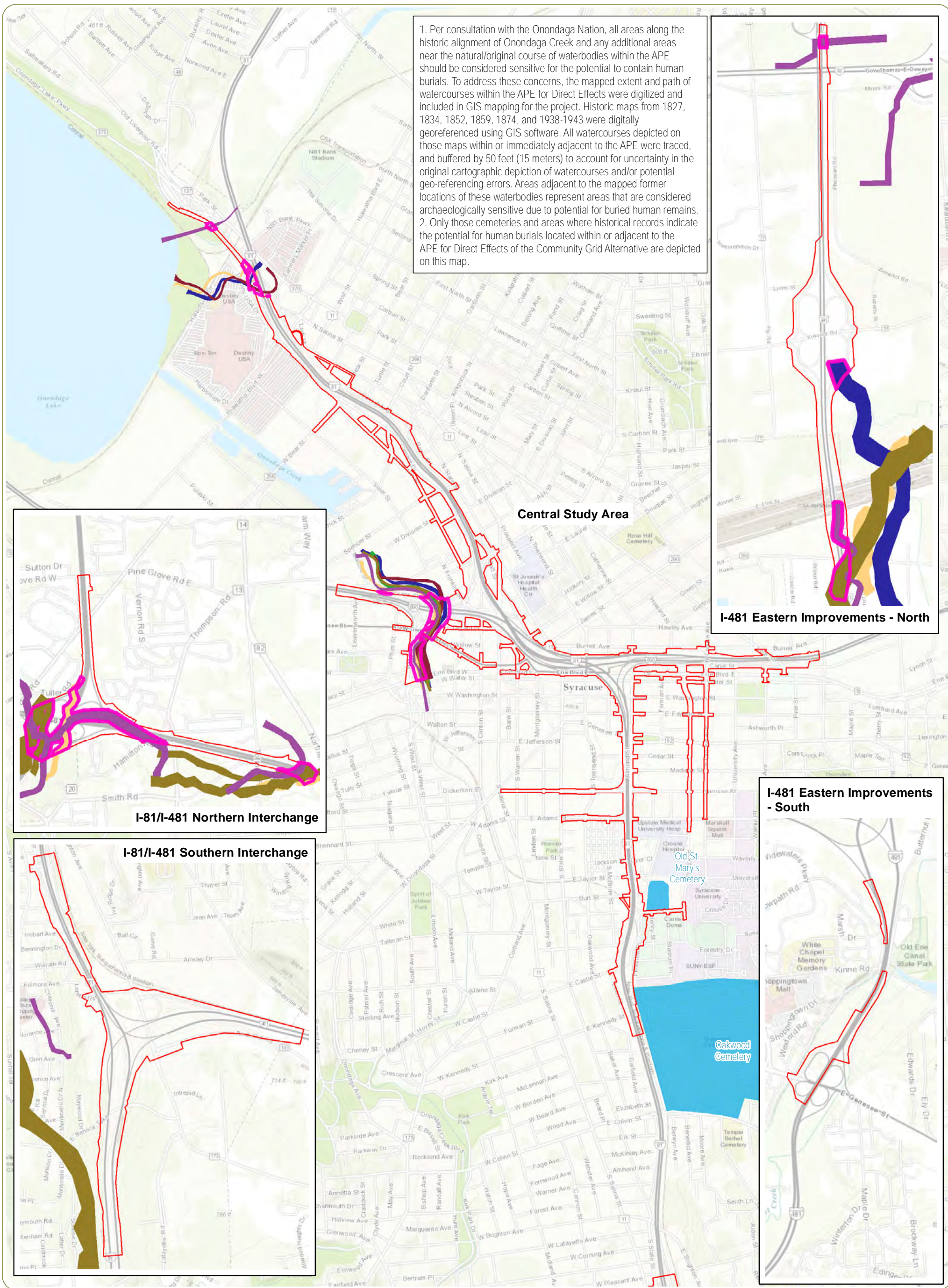
I-81 Viaduct Project  
Onondaga County, New York

Figure 4: Areas of Potential Sensitivity for Human Remains  
Sheet 1: Viaduct Alternative

September 2017

Notes: 1. Basemap: ESRI ArcGIS Online "World Topographic Map" Map Service.  
2. This is a color graphic. Reproduction in grayscale may misrepresent the data.





I-81 Viaduct Project  
Onondaga County, New York

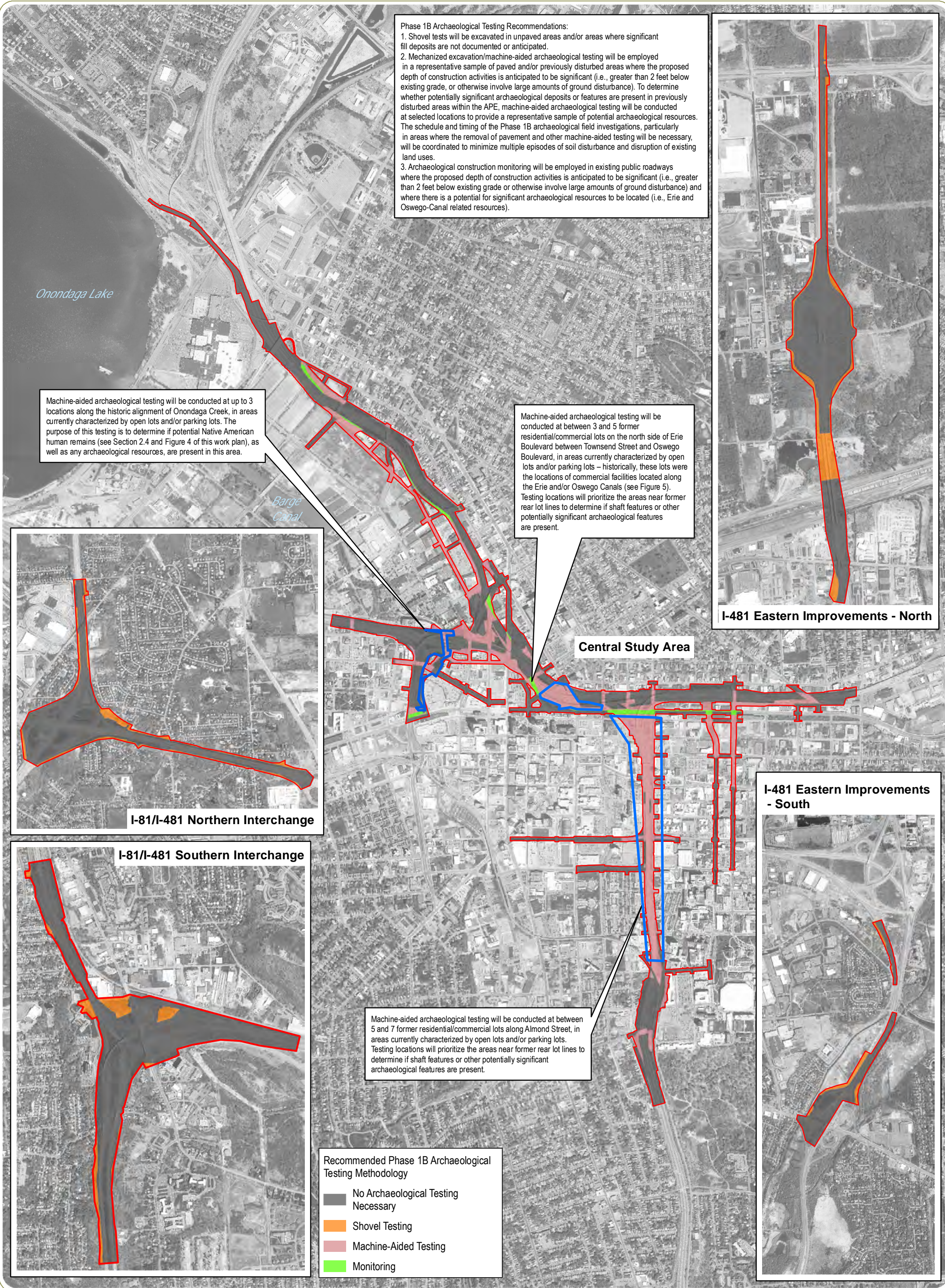
Figure 4: Areas of Potential Sensitivity for Human Remains  
Sheet 2: Community Grid Alternative  
September 2017

Notes: 1. Basemap: ESRI ArcGIS Online "World Topographic Map" Map Service.  
2. This is a color graphic. Reproduction in grayscale may misrepresent the data.







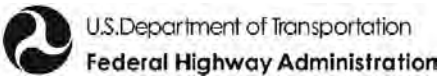


**I-81 Viaduct Project**  
Onondaga County, New York

Figure 5: Recommended Phase 1B Archaeological Methods  
Sheet 2: Community Grid Alternative

September 2017

Notes:  
1. Basemap: NYS Digital Orthoimagery Program 1-foot resolution orthoimagery, 2015.  
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Appendix A:

New York State Office of Parks, Recreation and Historic Preservation  
Human Remains Discovery Protocol and Native American Graves Protection and  
Repatriation Act Guidance

**State Historic Preservation Office/  
New York State Office of Parks, Recreation and Historic Preservation  
Human Remains Discovery Protocol  
(June 2015)**

In the event that human remains are encountered during construction or archaeological investigations, the New York State Historic Preservation Office (SHPO) recommends that the following protocol is implemented:

- Human remains must be treated with the utmost dignity and respect at all times. Should human remains or suspected human remains be encountered, work in the general area of the discovery will stop immediately and the location will be immediately secured and protected from damage and disturbance.
- Human remains or associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.
- The SHPO, the appropriate Indian Nations, the involved state and federal agencies, the coroner, and local law enforcement will be notified immediately. Requirements of the coroner and local law enforcement will be met. A qualified forensic anthropologist, bioarchaeologist or physical anthropologist will assess the remains *in situ* to help determine if the remains are Native American or non-Native American.
- If human remains are determined to be Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Please note that avoidance is the preferred choice of the SHPO and the Indian Nations. The involved agency will consult SHPO and appropriate Indian Nations to develop a plan of action that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) guidance. Photographs of Native American human remains and associated funerary objects should not be taken without consulting with the involved Indian Nations.
- If human remains are determined to be non-Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Please note that avoidance is the preferred choice of the SHPO. Consultation with the SHPO and other appropriate parties will be required to determine a plan of action.



Appendix B:  
Haudenosaunee Protocol for Handling Discovery of Human Remains

#### 4.7 Protocol for Handling Discovery of Human Remains

	<u>Known Burials</u>	<u>Unidentified Burials</u>
<b>When to contact?</b>	<b>Intentional excavation</b> At the earliest time in decision-making process.	<b>Inadvertent Discovery</b> Upon discovery.
<b>Which Nation to contact?</b>	If find is within existing Nation boundary, contact that Nation's Cultural Resource representatives. If the find is within the traditional land use area (fifty mile radius from the current nation territory, contact the closest Nation's Cultural Resource Representative. If the find is within the aboriginal territory of each nation, as shown on the attached map, contact the Nation within that territory. For finds located within fifty miles on either side of the boundary lines shown on the map, contact the Cultural Resource Representatives of both Nations.	
<b>Who to contact?</b>	Haudenosaunee Cultural Resource Representatives  HSCBRR	Haudenosaunee Cultural Resource Representatives  HSCBRR
<b>How to contact?</b>	Contact list is provided.	
<b>Information Required</b>	Brief description of the find or potential find; site map and any information on the known cultural history of the area and summary of nearby archaeological findings.  Nation will send a representative to review the site.	
		Company must hire a Native American on-site observer.
<b>Next steps</b>	<i>Non-disturbance of burials is preferred.</i>  If after proper consultation, the remains must be removed, we prefer to have them reburied close to their original location as possible, provided the future sanctity of the grave can be assured. <i>No remains should be removed without proper cultural protocols.</i> If no safe local burial ground can be offered, the Haudenosaunee will reclaim the remains for reburial at an undisclosed location. The local government /state agency/developer must pay all of the costs for such reburial. All objects associated with the original burial must be reburied as well. All of the soil in the immediate area of the burial should also be placed in the new grave.	
<b>Time Frame</b>	30 to 45 days	As soon as possible

Appendix C:  
NYSDOT Procedures in the Event of the Inadvertent Discovery of Human Remains  
during Construction

## **NYSDOT Procedures in the Event of the Inadvertent Discovery of Human Remains during Construction<sup>1</sup>**

1. If a burial site, human remains, or bones thought to be human remains, are encountered during construction for a NYSDOT undertaking, the work will be stopped immediately and rescheduled to avoid disturbing the area. The remains will be left in place and protected from further damage.
2. In accordance with the current NYSDOT Standard Specifications, Section 107-01 D. *Archaeological Salvage*<sup>2</sup>, the Engineer-in-Charge (EIC) will, through proper channels, notify appropriate Department personnel and other authorities. The EIC will report the discovery of human remains to the local police, and the county coroner having jurisdiction, or to the medical examiner, and will arrange immediate inspection of the site<sup>3</sup>.
3. If the site is determined to be part of a criminal investigation, the police will notify the EIC when work in the area may resume.
4. If determined that the remains are not a police issue, the Regional Cultural Resources Coordinator (CRC) will notify the Federal Highway Administration (FHWA), the Office of Parks, Recreation and Historic Preservation/ State Historic Preservation Office (OPRHP/SHPO), appropriate Indian tribal contacts, and archaeologists, and arrange site visits accordingly. Work will be temporarily suspended in the area, and measures will be taken to secure the burial site and protect the remains from disturbance, including the placement of a twenty-five foot protective buffer around the burial site.
5. The NYSDOT Environmental Science Bureau (ESB), in coordination with the Region, will arrange for a qualified physical anthropologist to examine the remains. NYSDOT in coordination with FHWA will invite designated Indian tribal representative(s) to participate in the consultation process. Representatives will be determined on the basis of established Department contacts and identified areas of interest for tribal nations. The remains will not be removed until determined by the qualified physical anthropologist to be non-native.
6. NYSDOT, in consultation with the OPRHP/SHPO, Indian tribes and other identified consulting parties, will arrange for an archeologist to establish horizontal and vertical extent of the burial(s) and assess measures for avoiding the human remains if possible. The avoidance of human remains is the preferred choice.
7. Any new location or alignment developed to avoid the burial(s) will be subject to archaeological investigation, and the results will be provided to the OPRHP/SHPO, Indian tribes, and other consulting parties as appropriate for comment before the project proceeds in this area.
8. If the alignment is unchanged, a plan will be developed in coordination with FHWA, NYSHPO, the Indian tribal representatives, and other consulting parties as appropriate, to preserve the site and protect the burial(s) before the project proceeds in this area.
9. If removal and reburial of the remains is necessary, it will be undertaken in a manner agreed to by all involved parties. Temporary disposition of the remains until reburial will be determined in consultation with the Indian tribes, and other consulting parties as appropriate.
10. Any actions relating to the treatment, disposition, removal, or reburial of human remains will comply with all applicable State and Federal laws and regulations.

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<sup>1</sup> Last updated April 21, 2016.

<sup>2</sup> <https://www.dot.ny.gov/main/business-center/engineering/specifications/updated-standard-specifications-us>

<sup>3</sup> In Erie County, the discovery must be reported to the medical director.

Appendix D:  
Project Contacts

Contact Personnel for I-81 Viaduct Project Archaeological Monitoring During Construction

Construction Project Manager (on-site) TO BE DETERMINED	Alternate TO BE DETERMINED
<p>New York State Department of Transportation Mark Frechette, P.E. Project Director New York State Department of Transportation 333 East Washington Street Syracuse, NY 13202 315-428-4409 <a href="mailto:Mark.Frechette@dot.ny.gov">Mark.Frechette@dot.ny.gov</a></p> <p>Daniel P. Hitt, RLA Director, Office of Environment New York State Department of Transportation 50 Wolf Road, POD 4-1 Albany, NY 12232 518-457-4054 (Desk) 518-457-5672 (Office of Environment) <a href="mailto:Dan.Hitt@dot.ny.gov">Dan.Hitt@dot.ny.gov</a></p>	<p>Alternate Jonathan Adams, RLA Senior Landscape Architect New York State Department of Transportation Dulles State Office Building 317 Washington St Watertown, NY 13601 315-785-2341 <a href="mailto:Jon.Adams@dot.ny.gov">Jon.Adams@dot.ny.gov</a></p> <p>Jessica Prockup Environmental Specialist Office of Environment New York State Department of Transportation 50 Wolf Road, POD 4-1 Albany, NY 12232 518-417-6642 <a href="mailto:Jessica.Prockup@dot.ny.gov">Jessica.Prockup@dot.ny.gov</a></p>
<p>Federal Highway Administration Tricia Millington Area Engineer NY Division Tribal Nation Coordinator Federal Highway Administration Leo W. O'Brien Federal Building 11A Clinton Avenue, Suite 719 Albany, NY 12207 <a href="mailto:patricia.millington@dot.gov">patricia.millington@dot.gov</a> (518) 431-8844 Fax: (518) 431-4121</p>	<p>Alternate Robert M. Davies District Engineer Federal Highway Administration New York Division <b>Leo W. O'Brien Federal Building</b> 11A Clinton Avenue, Suite 719 Albany, NY 12207 <a href="mailto:Robert.Davies@dot.gov">Robert.Davies@dot.gov</a> 518-431-8880</p>

<p>New York State Office of Parks Recreation and Historic Preservation  John Bonafide  Director, Technical Preservation Services Bureau  Division for Historic Preservation  Agency Historic Preservation Officer  New York State Office of Parks Recreation &amp; Historic Preservation  Peebles Island State Park, PO Box 189  Waterford, New York 12188-0189  (518) 268-2166  <a href="mailto:john.bonafide@parks.ny.gov">john.bonafide@parks.ny.gov</a></p>	<p>Alternate  Nancy Herter  Archaeology Program Unit Coordinator  New York State Parks, Recreation &amp; Historic Preservation  Peebles Island State Park, PO Box 189  Waterford, New York 12188-0189  (518) 268-2179  <a href="mailto:nancy.herter@parks.ny.gov">nancy.herter@parks.ny.gov</a></p>
<p>New York State Museum  Dr. Christina Rieth  New York State Archaeologist  Division of Research and Collections  New York State Museum  3118 Cultural Education Center  Albany, NY 12230  <a href="mailto:christina.rieth@nysed.gov">christina.rieth@nysed.gov</a>  518-402-5975</p>	<p>Alternate  Dr. John P. Hart  Director, Research and Collections Division  New York State Museum  3140 Cultural Education Center  Albany, New York 12230  <a href="mailto:john.hart@nysed.gov">john.hart@nysed.gov</a>  518-474-5816</p>
<p>The Onondaga Nation  Faithkeeper Anthony Gonyea  <b>DYODIHWASNYE'NHA</b>  Administration Building  4040 Route 11  Onondaga Nation  via-Nedrow, NY 13120  Phone: 315-952-3109  Fax: 315-469-4717  <a href="mailto:steve.thomas808@yahoo.com">steve.thomas808@yahoo.com</a></p>	<p>Alternate  Joseph Heath  General Counsel  315-475-2559</p> <p>Thane Joyal, Esq.  315-475-2559  <a href="mailto:thanejoyal@gmail.com">thanejoyal@gmail.com</a></p>
<p>Law Enforcement Agency  Onondaga County Sheriff's Office  407 S State St,  Syracuse, NY 13202  315-435-3044</p>	<p>Alternate  City of Syracuse Police Department  511 S. State Street  Syracuse, NY 13202  315-442-5111</p>

County Coroner Onondaga County Medical Examiner 100 Elizabeth Blackwell Street Syracuse, New York 13210 (315) 435-3800	Alternate N/A
Archaeological Consultant TBD	Alternate TBD