



Canada-United States-Ontario-Michigan Border Transportation Partnership

Archaeology Assessment

Technically and Environmentally Preferred Alternative

December 2008

PREFACE

The Detroit River International Crossing (DRIC) Environmental Assessment study was conducted by a partnership of the federal, state and provincial governments in Canada and the United States in accordance with the requirements of the Canadian Environmental Assessment Act (CEAA), the Ontario Environmental Assessment Act (OEAA), and the U.S. National Environmental Policy Act (NEPA). In 2005, the Canadian and U.S. Study Teams identified 15 potential river crossing locations and associated plaza and access road alternatives. The results of the assessment of these alternatives led to the identification of an Area of Continued Analysis (ACA). Within the ACA, practical alternatives were developed for the crossings, plazas and access road alternatives.

Through the analysis of the practical alternatives, and in conjunction with ongoing consultation efforts, a new alternative was developed that combined beneficial features of the original alternatives. The new alternative was identified as The Parkway in August 2007 and included 7 kilometres of below grade freeway, an optimized service road system, a green corridor with 10 tunnelled sections totalling 1.5 km in length, a grade separated recreational trail system, and extensive green areas.

Upon completion of the analysis of the practical alternatives, the alternatives were evaluated. The Partnership announced the results of the evaluation for the access road component in May 2008. Referred to as The Windsor-Essex Parkway, the Technically and Environmentally Preferred Alternative (TEPA) access road consisted of the major components of the Parkway with some refinements made to reflect additional community consultation and analysis. These refinements included an additional tunnel in the Spring Garden area, more green space and a refined trail network. The components of the TEPA for the international bridge crossing (Crossing X-10B) and Canadian plaza (Plaza B1) were announced in June 2008.

The remainder of 2008 focused on detailed analysis and identification of impacts and appropriate mitigation measures for the TEPA, along with further refinements. A separate Technical Memorandum (December 2008) documents the assessment of further refinements that were made to the TEPA. This report summarizes the work undertaken in this regard specific to the Archaeology Assessment and the TEPA. These measures were also documented in a draft version of the Ontario Environmental Assessment Report, which was made available to the public, agencies, municipalities, First Nations, and other interested parties for review in November 2008.

Additional reports and details are available at the study website:
(www.partnershipborderstudy.com).

EXECUTIVE SUMMARY

This report details the results of the Stage 2 archaeological investigations conducted, as part of the Detroit River International Crossing (DRIC) Environmental Assessment study. This study is undertaken in compliance with the requirements of the Canadian Environmental Assessment Act (CEAA), the Ontario Environmental Assessment Act (OEAA). The environmental assessment is being undertaken as part of the assessment of the Technically and Environmentally Preferred Alternative for the project.

Previously, Stage 1 and preliminary Stage 2 Archaeological Assessments were undertaken for the study area under investigation. The Stage 1 assessment documented the archaeological and land use history of the area and its current geography and topography, in order to assess the potential for archaeological resources. The Stage 2 systematic field assessment investigated all areas with archaeological potential within or in close proximity to the projected Practical Alternative, and for which permission to enter had been obtained (496 parcels, or 55% of the 902 parcels in the project). 43 archaeological sites were identified in this area (14 Aboriginal, 17 Historic and 6 with both an aboriginal and historic component), and recommended 29 of these for further Stage 3 assessment. Twenty-four of these 29 lie within the Technically and Environmentally Preferred Alternative.

The Stage 2 assessment of the project area continued within the area affected by the Technically and Environmentally Preferred Alternative. Survey crews investigated 146 parcels (16% of the 902 parcels in the project). There remain 260 parcels that await Stage 2 assessment, with 253 pending permissions to enter. There are currently 7 properties outstanding (incomplete or pending ploughing) for which permissions to enter have been granted. URS identified 23 archaeological sites (14 Aboriginal and 9 Euro-Canadian) and recommends 7 of these (4 Aboriginal and 3 Euro-Canadian) for further Stage 3 assessment.

Survey crews undertook the Stage 2 field assessment from May through September of 2008 in favourable weather conditions.

All properties for which PTE has not been obtained previously will be assessed and cleared of archaeological concerns prior to commencement of construction activities.

All remaining Stage 3 assessments for previously documented sites will be completed prior to commencement of construction. Any archaeological sites identified in subsequent project phases will be subjected to Stage 3 assessment where required.

Any archaeological sites deemed to have significance for reasons of cultural, information and/or educational value will be evaluated for impacts and appropriate mitigation options determined. In the case of sites of aboriginal origin, this determination will be made in consultation with First Nations representatives.

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1. Project Background

1.1 Development Context

A Stage 2 Archaeological Assessment was required for 406 properties as part of the Detroit River Crossing (DRIC) Environmental Assessment (EA) study. This EA study is undertaken in compliance with the requirements of the Canadian Environmental Assessment Act (CEAA), the Ontario Environmental Assessment Act (OEAA) and the US National Environmental Policy Act (NEPA). The Stage 2 archaeological assessment is being undertaken as part of the assessment of the Technically and Environmentally Preferred Alternative for the project. **Figure 1** illustrates the study area for the Stage 2 work.

The Ministry of Transportation obtained Permission to Enter the assessed properties prior to access.

1.2 Historical Context

This report summarizes work carried out July-September 2008, building on the findings of The Practical Alternative Evaluation Working Paper, Cultural Heritage (March 2008, hereafter Working Paper 2008). Research carried out during this phase on specific properties within and adjacent to the TEPA provides a clearer picture of land use and property development in the study area. For a general history of the Windsor area, see the *Working Paper 2008* (**Appendix A**: Summary of Euro-Canadian History; **Appendix B**: Heritage Sensitive Areas within the Initial Study).

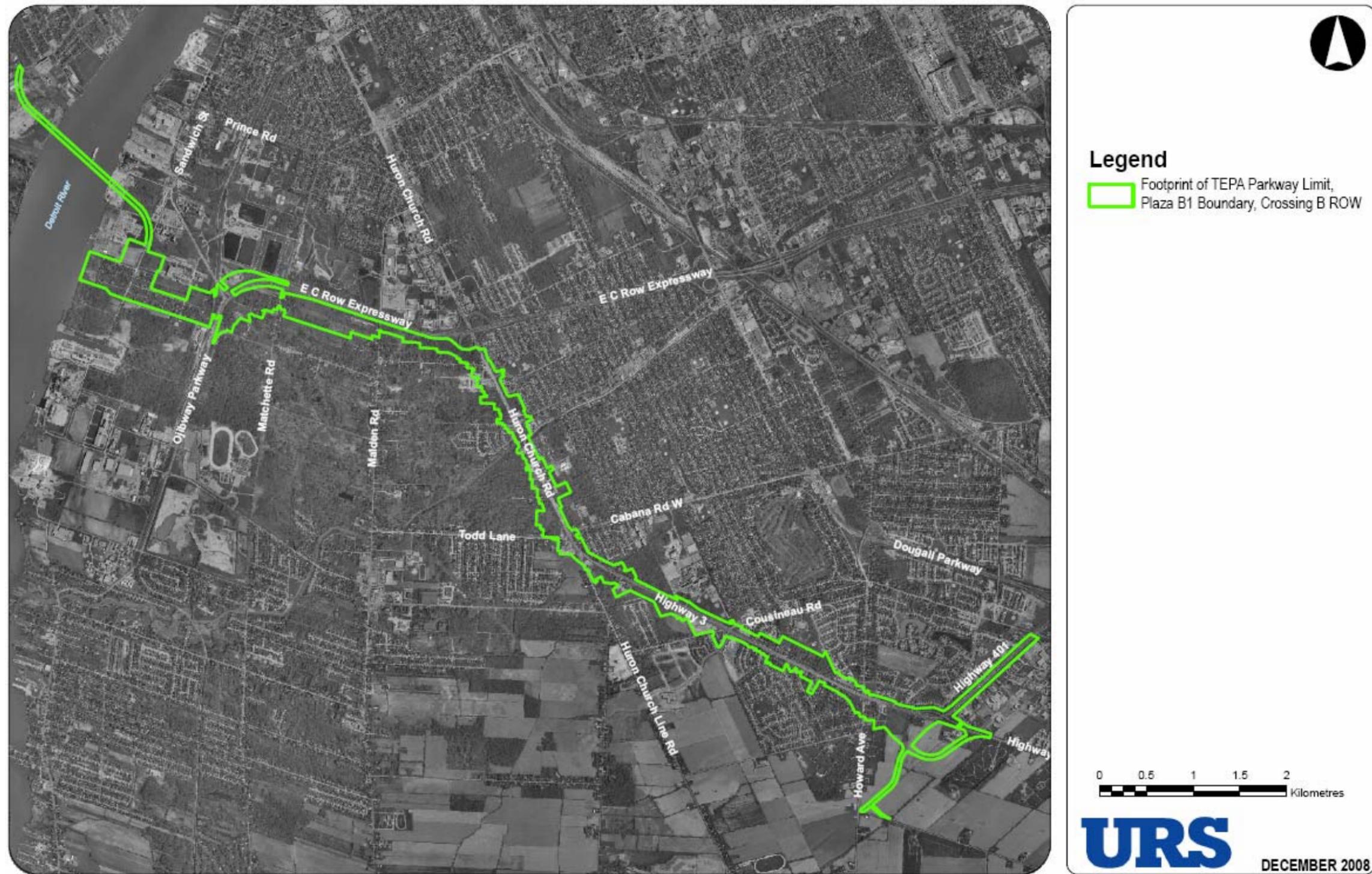
Little is known about the prehistory of the TEPA corridor and the adjacent land. There are several known prehistoric aboriginal sites in the area, most of them seasonal camps located along Turkey Creek and its tributaries. Huron corn fields were reported by early explorers.

The earliest settlement by Europeans began in 1749, when French settlers were granted land along the riverfront. Much of the land along the corridor was open farmland, surveyed in a unique fusion of the French pattern of long, narrow lots, and the rectilinear British grid of standard lots and concessions. Successive waves of immigration by Loyalists (1782ff), and British during the first half of the 19th century populated the upper concessions, and they remained primarily agricultural into the early 20th century.

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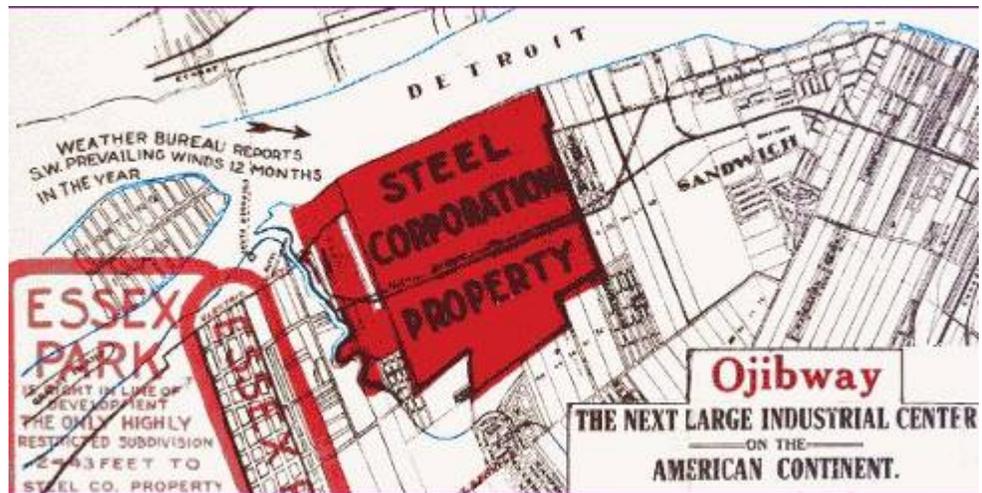
¹ History of Ojibway (Version OCT 2007). Ojibway Nature Centre. Department of Parks, Windsor, Ontario. <http://www.ojibway.ca/history.htm>

Figure 1: Location of Study Area



In step with the growth of Windsor and environs, development pressure came to bear on land flanking major roads, and near commercial or industrial focal points. An early example is the Brighton Beach residential community. When a large new steel plant was proposed for land along the river in Ojibway, developers were quick to subdivide land for residential use nearby (refer to Figure 2). Plan 688, subdividing Lot 55, Concession I was registered in 1913. A plan to subdivide Lot 50, Concession II along Huron Church Road was registered in 1920 (Plan 1020, Sandwich West Township), creating Spring Garden Road. In 1928, Lot 1 Concession IV, at the intersection of Talbot and Huron Church Line Roads, was subdivided into residential lots (Plans 1299, 1437 Sandwich West Township). Parts of all three surveys fall within the TEPA.

Figure 2: Ojibway Development Plan



Note: Map is showing the proposed industrial and residential development adjacent to the Area of Continued Analysis (<http://www.ojibway.ca/history.htm>)

Residential and commercial development filled in most of the former agricultural land through the balance of the 20th century.

The other area of interest re: the TEPA is the riverfront from which the new bridge will rise. Several sites of historic interest were located here. The Sandwich Fish Hatchery, one of the first fish hatcheries in the country, was located on Lot 59, Concession I Sandwich West Township. Immediately to the north, in Park Lot B, sulphur springs were discovered in 1867 while drilling for oil. This launched a temporary resort industry, with hotels and a spa that drew visitors from around the world to "take the waters." A canal from the river to the spring was created, with a shaded Willow Walk and other amenities. Business dropped off during the 1880s and the hotels closed early in the 1890s.

The whole area was overtaken by industry during the 20th century and nothing remains of either of these operations.

1.3

Archaeological Context

Much of the study area is located on sand plain with remnants of oak savannah and tall grass prairie (Chapman and Putnam 1984). The study area is currently characterised by a variety of land uses including industrial, commercial, residential, agricultural, and second growth open space. Generally, the most heavily industrialized areas are located along the Detroit River while the agricultural and open spaces are found to the south and east (Figure 1). Industrial and residential development has disturbed and altered much of the study area, and it is clear that extensive fill may have buried or damaged archaeological resources even in open areas. Land-use and potential disturbances for individual properties are described in Tables 3-6

Detailed Stage 1 research was previously completed and included the lands subject to Stage 2 testing that are reported on here. The original Stage 1 Assessment is titled "Stage 1 Archaeological Assessment-Detroit River International Crossing, City of Windsor and County of Essex (Town of La Salle and Town of Tecumseh), Ontario (ASI File #05EA-004)(MCL PIF P057-11-2005), and was submitted to MCL in May 2006. The results of that study were incorporated into the subsequent "Stage 2 Archaeological Assessment of the Detroit River Crossing (DRIC), city of Windsor and County of Essex, (Town of La Salle and Town of Tecumseh), Ontario (ASI File 06EA-112 and 07EA-240)(MCL PIF P057-270-2006, P057-454-2007, P057-441-2007). Stage 1 research identified 11 registered (1 Aboriginal, 7 Historic and 3 with both Aboriginal and Euro-Canadian components) and 9 unregistered Aboriginal archaeological sites; two registered burial sites; and a number of unregistered sites of uncertain location (ASI 2008:2). In addition, a field review was undertaken to characterize modern land-use for assessing the integrity of additional archaeological sites (ASI 2008:4). As a result of this research, stage 2 Archaeological Assessment was recommended to identify additional archaeological resources that might be present in the study area.

In addition to the sites documented in the Stage 1 report, 43 sites were recovered during the Stage 2 Archaeological Assessment (**Tables 1 and 2 Figure 3 a-e**). The Stage 2 systematic field assessment investigated all areas with archaeological potential within or in close proximity to the projected Practical Alternative, and for which permission to enter had been obtained (496 parcels, or 55% of the 902 parcels in the project). 43 archaeological sites were identified in this area (14 Aboriginal, 17 Historic and 6 with both an aboriginal and historic component), and recommended 29 (18 Aboriginal and 11 Euro-Canadian) of these for further Stage 3 assessment. Twenty-four of these 29 lie within the Technically and Environmentally Preferred Alternative. (ASI 2008:17-19, 22-24).

From May to the end of September of 2008 survey crews continued the Stage 2 Archaeological Assessment of the now projected Technically and Environmentally Preferred Alternative. Survey crews investigated 146 parcels (16% of the 902 parcels in the project) (**Tables 1- 6 Figures 4 a-e, 5 a-u**). There are currently 7 properties outstanding (incomplete or pending ploughing) for which permissions to enter have been granted. There remain 260 parcels that await Stage 2 assessment, with 253 pending permissions to enter. 23 archaeological sites (14 Aboriginal and 9 Euro-Canadian) were identified and 7 of these are recommended (4 Aboriginal and 3 Euro-Canadian) for further Stage 3 assessment.

The identified archaeological sites include both aboriginal and Euro-Canadian materials ranging in age from 8,000 years before present to the mid-nineteenth century. Most of the aboriginal sites consist of a small scatter of lithic debris left over from stone tool manufacture and use. Only one or two have datable artefacts. Most are described simply as relating to the pre-contact period.

The Euro-Canadian sites consist primarily of domestic refuse recovered from properties in or near locations where early to mid-nineteenth century homesteads were located. Although there is the potential for identifying materials relating to the 17th century French occupation of the region, to date no such material has been recovered.

2. Field Methods

The field methods employed on each individual property are listed in **Tables 3-5**. Survey crews assessed all of the properties with test-pit survey at a five metre interval. In some cases it was impossible to test-pit (in deeply disturbed or built areas), and these are noted in **Tables 3-5**

All test-pits were a minimum of 30 cm by 30 cm and excavated into sterile subsoil. All materials from all units were screened through 6mm (¼") mesh. All units were backfilled upon completion. Any previously disturbed areas were strategically tested to establish the limits and nature of the disturbance.

The locations of all finds were mapped in the field on 1:5000 orthographic map-sheets using local landmarks and topographic features. Digital recording of site locations was done with a hand-held Garmin GPSMAP 60CSx GPS unit using UTM NAD 83.

Where archaeological materials were encountered, the survey interval was reduced to 1 metre and an area 20 metres by 20 metres surrounding the object was examined in detail.

3. Results of Stage 2 Assessment

During the 2008 field season 23 archaeological sites were identified in addition to those previously identified (Figure 2). All site locations within the TEPA are shown in Figures 3 and 4. In all, URS assessed 146 properties. This represents 16% of the total property requirement for the TEPA. There remain 260 outstanding properties (29%) that await permissions to enter (253) or have other issues that require resolution prior to finalising the assessment (Table 1). Of the 146 properties, 122 did not contain archaeological materials (Table 3), twenty-three properties contained archaeological materials (Tables 4-5) and one property has been deeply buried through filling such that it could not be adequately tested (Table 6). The results of the field survey are provided in Tables 1-6 and Figures 3-5.

Table 1: Summary of Property Assessments to September 30, 2008

	ASI		URS		Total	
	#	%	#	%	#	%
Assessed Properties	494	55	146	16	640	71
Outstanding	0	0	254	29	254	29
Total Properties	496	55	406	45	894	100

Table 2: Summary of Archaeological Sites Found to September 30, 2008

	ASI		URS		Total	
	Aboriginal	Euro-Can	Aboriginal	Euro-Can	Aboriginal	Euro-Can
Recommended for Clearance	2	12	10	6	12	18
Stage 3 Recommended	18	11	4	3	22	14
Total Sites	20	23	14	9	34	32

Figure 3a: Location of Property Assessed (Hwy 3 & Hwy 401 Intersection)

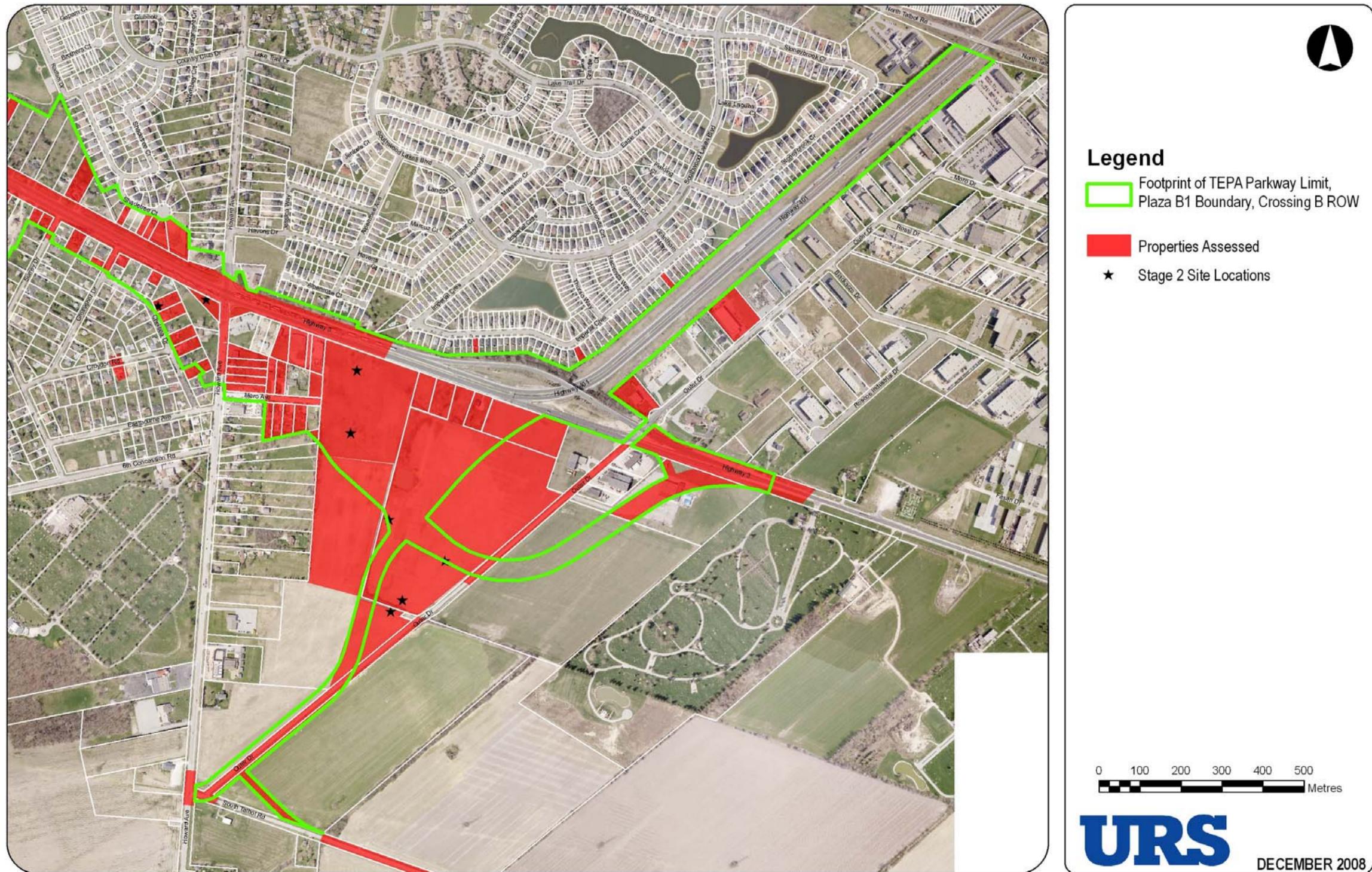


Figure 3b: Location of Property Assessed (Hwy 3 & Cousineau Rd. Intersection)

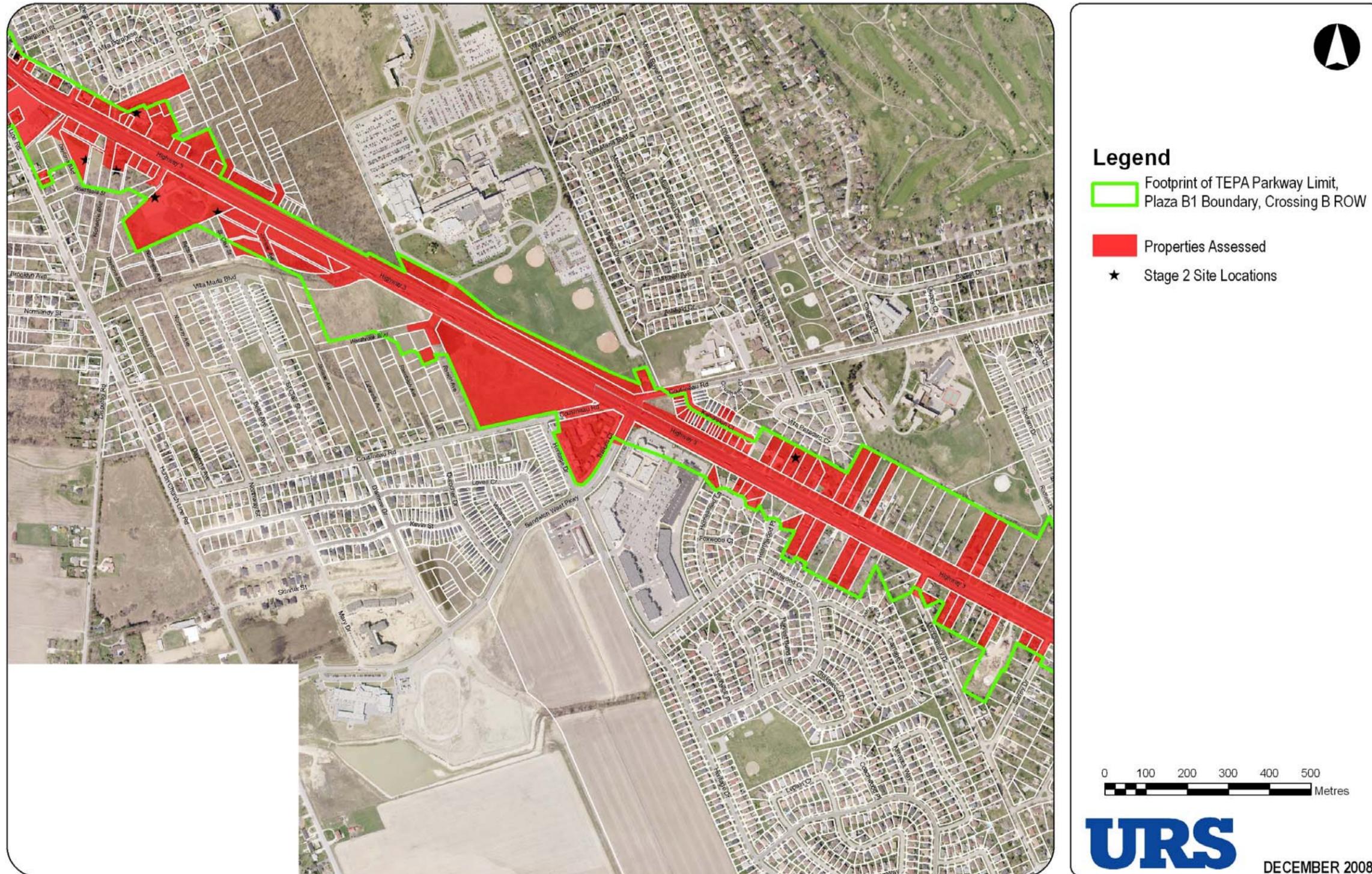


Figure 3d: Location of Property Assessed (E.C. Row Expressway and Malden Rd. Intersection)

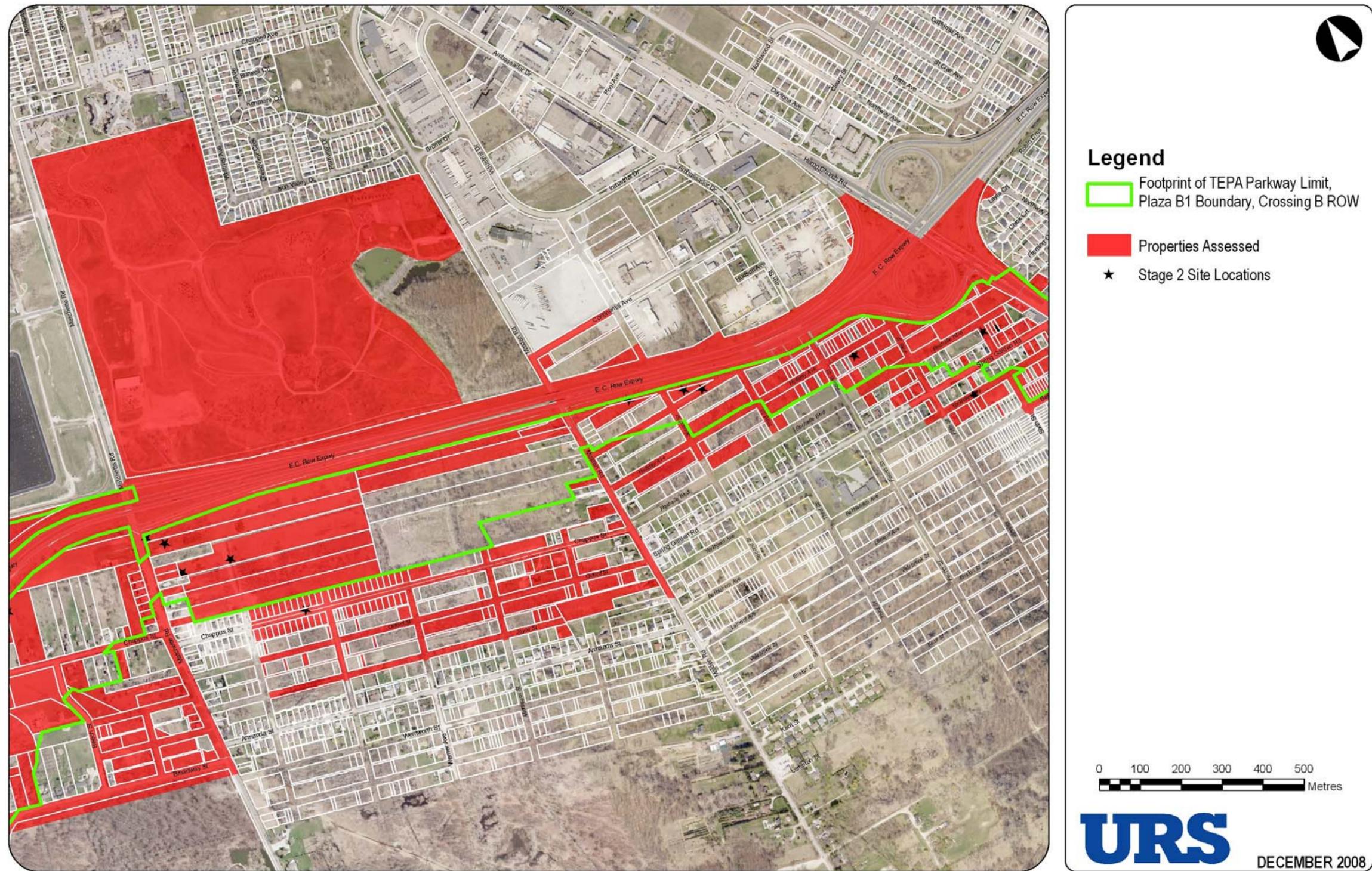


Figure 3e: Location of Property Assessed (E.C. Row Expressway and Ojibway Parkway)

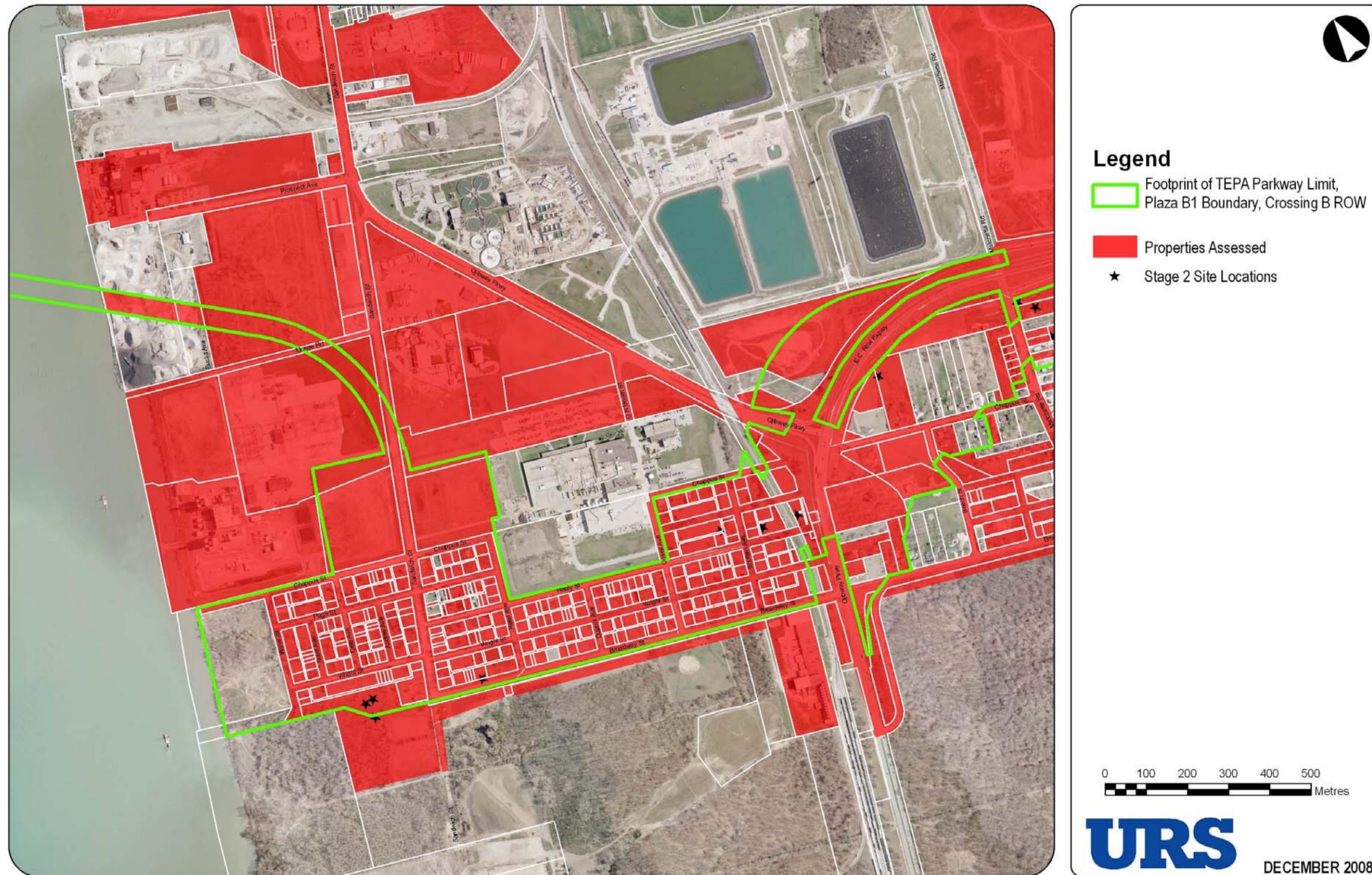


Table 3: Summary of Properties with No Archaeological Finds

URS Property #	Road	Conditions	Subsoil Depth Average	Survey Method	Recommendations	Comments
2215	Ensign St	Mowed field	35cm	Test Pit	No Further Testing	
1574	Rochelle Bld	Bush lot	30cm	Test Pit	No Further Testing	
1575	Rochelle Bld	Bush lot	30cm	Test Pit	No Further Testing	
0598	Chappus St	Bush lot/scrub lot	25cm	Test Pit	No Further Testing	
2845	Lansing	Lawn	60-100cm	Test Pit	No Further Testing	
2846	Lansing	Lawn	60-100cm	Test Pit	No Further Testing	
2847	Lansing	Lawn	60-100cm	Test Pit	No Further Testing	
2999	Huron Church Line	Lawn	50-100	Test Pit	No Further Testing	Front yard built up, still original soil in existence
2204	Ensign St	Mowed field	30cm	Test Pit	No Further Testing	
2168	Lamont St	Mowed field	80cm	Test Pit	No Further Testing	
2202	Ensign St	Mowed field	25cm	Test Pit	No Further Testing	
2216	Ensign St	Mowed field	25cm	Test Pit	No Further Testing	
1592	Fifth St	Bush lot	35cm	Test Pit	No Further Testing	
1630	Halliday Ave	Bush lot	23cm	Test Pit	No Further Testing	Ravine running through and built up berm
4419	Mero Ave	Lawn	40-70cm	Test Pit	No Further Testing	
4424	Mero Ave	Scrub field	45cm	Test Pit	No Further Testing	
3251	Talbot Rd	Lawn	100cm	Test Pit/Visual Inspection	No Further Testing	Disturbed heavily from Huron Church
2070	Bethlehem Ave	Lawn	30cm	Test Pit	No Further Testing	
2180	Valebrook St	Mowed field	32cm	Test Pit	No Further Testing	
1621	Halliday Ave	Bush lot/ marsh	10-20cm	Test Pit	No Further Testing	Bush lot, dense thorns, many fallen trees; yellow sandy subsoil
0897	Halliday Ave	Bush lot, Swamp	10-20cm	Test Pit	No Further Testing	Bush lot, dense thorns, many fallen trees; yellow sandy subsoil
2268	Kent St	South Edge Bush lot, Overgrown Weeds	30cm	Test Pit	No Further Testing	

URS Property #	Road	Conditions	Subsoil Depth Average	Survey Method	Recommendations	Comments
3177	Betts Ave	Meadow Lawn	40cm	Test Pit	No Further Testing	Water drain located 20cm to the north of study area; All TPs disturbed too or past subsoil depth with mottled clay fill
3700	Homestead Lane	Lawn	50cm	Test Pit	No Further Testing	Disturbed with house and pool
1603	Rochelle St	Grass field, Forest (east boundary)	30-40cm	Test Pit	No Further Testing	
2884	Lansing St	Weeds	unknown	Visual Inspection	No Further Testing	Disturbed –test-pitting not possible; ground covered 90% by gravel/asphalt fill
2885	Lansing St	Weeds	unknown	Visual Inspection	No Further Testing	Disturbed –test-pitting not possible; ground covered 90% by gravel/asphalt fill
3391	Talbot Rd	Bush Lot	30-40cm	Test Pit	No Further Testing	
5355	Talbot Rd	Ploughed field	unknown	Field walk	No Further Testing	
2058	Bethlehem Ave	Lawn	60cm	Test Pit/Visual Inspection	No Further Testing	Disturbed to fill
2860	Huron Church Rd	Lawn	30cm	Test Pit	No Further Testing	
2983	Todd Lane	Lawn	destroyed	Test Pit	No Further Testing	Disturbed
0548	Beech St	Lawn	destroyed	Test Pit	No Further Testing	Disturbed to sub-soil
2534	Sansotta Crt	Lawn	unknown	Test Pit/Visual Inspection	No Further Testing	Excavated Deep, no original prime horizon left; Disturbed (House Foundation)
2562	Lambton St	Lawn	65-78cm	Test Pit/Visual Inspection	No Further Testing	
2984	Huron Church Rd	Lawn	40-95cm	Test Pit	No Further Testing	Majority Disturbed, fill accounts for variation in depth
0490	Chappus St	Bush Lot	30cm	Test Pit	No Further Testing	
3684	Talbot Rd	Lawn/plughed plot	30-40cm	Test Pit	No Further Testing	Partially Disturbed
3903	Shadetree Crt	Lawn, overgrowth	unknown	Test Pit	No Further Testing	Raised/Disturbed to subsoil
1585	Halliday Ave	Bush Lot	25cm	Test Pit	No Further Testing	Undisturbed
4432	Howard Ave	Lawn	unknown	Test Pit/Visual Inspection	No Further Testing	
3179	Betts Ave	Lawn	40cm	Test Pit	No Further Testing	Much of property has gravel fill mottled in with the top soil and clay
2258	Ensign St	Woodlot	25-35cm	Test Pit	No Further Testing	Undisturbed woodlot, east boundary grassy area
2857	Reddock Ave	Lawn	unknown	Test Pit/Visual Inspection	No Further Testing	Completely Disturbed

URS Property #	Road	Conditions	Subsoil Depth Average	Survey Method	Recommendations	Comments
2858	Reddock Ave	Lawn	unknown	Test Pit/Visual Inspection	No Further Testing	Completely Disturbed
3865	Talbot Rd	Lawn	30-40cm	Test Pit	No Further Testing	Undisturbed yard/no fill
3866	Talbot Rd	Lawn	30-40cm	Test Pit	No Further Testing	
2408	Huron Church Rd	Lawn	30cm	Test Pit	No Further Testing	Undisturbed, no fill
2409	Huron Church Rd	Lawn	60cm	Test Pit	No Further Testing	
3289	Talbot Rd	Lawn	20-40cm	Test Pit	No Further Testing	
3290	Talbot Rd	Lawn/Bushlot	20-40cm	Test Pit	No Further Testing	
3291	Talbot Rd	Lawn/Bushlot	20-40cm	Test Pit	No Further Testing	
3292a	Talbot Rd	Lawn/Bushlot	20-40cm	Test Pit	No Further Testing	
2690	Gratiot St	Lawn	unknown	Test Pit	No Further Testing	Excavated to a depth of 110cm, no sub-soil found
2071	Bethlehem Ave	Lawn	unknown	Test Pit	No Further Testing	
2068	Bethlehem Ave	Lawn	unknown	Test Pit	No Further Testing	Property completely disturbed/ Fill to sub-soil
2060	Bethlehem Ave	Lawn	30cm	Test Pit	No Further Testing	Front yard completely disturbed, Backyard undisturbed
2062	Bethlehem Ave	Lawn	30cm	Test Pit	No Further Testing	Front yard completely graded/disturbed, Backyard untouched
2057	Bethlehem Ave	Lawn	35cm	Test Pit/Visual Inspection	No Further Testing	Front yard Disturbed/Backyard Partially Disturbed
2063	Bethlehem Ave	Lawn	30-40cm	Test Pit/Visual Inspection	No Further Testing	Front yard Disturbed/Backyard Partially Disturbed
2064	Bethlehem Ave	Lawn	30-60cm	Test Pit/Visual Inspection	No Further Testing	Front yard Disturbed/Backyard Partially Disturbed
1998	Rochelle St	Lawn/Bushlot	30-35cm	Test Pit	No Further Testing	
3970	Talbot Rd	Lawn, some bush	30-35	Test Pit	No Further Testing	Most of front yard disturbed
3971	Talbot Rd	Lawn	35-40cm	Test Pit	No Further Testing	95% Disturbed
3978	Talbot Rd	Lawn	35cm	Test Pit	No Further Testing	Buried high voltage wires in the vicinity, all cardinals negative
2002	Spring Garden Rd	Lawn	30-37cm	Test Pit	No Further Testing	
3690	Talbot Rd	Lawn	30-40cm	Test Pit	No Further Testing	Undisturbed Yard

URS Property #	Road	Conditions	Subsoil Depth Average	Survey Method	Recommendations	Comments
2920	Beacon St	Bush Lot	30-40cm	Test Pit	No Further Testing	
2022	Spring Garden Rd	Lawn	30cm	Test Pit	No Further Testing	
3620	Kendleton Crt	Lawn	unknown	Visual Inspection	No Further Testing	Disturbed/Serviced/Graded
3625	Kendleton Crt	Lawn	unknown	Test Pit	No Further Testing	Disturbed, raised, graded subdivision, gravel fill everywhere
4341	Highway 3	Lawn	40-50cm	Test Pit	No Further Testing	65% of property disturbed to sub-soil
3701	Homestead Lane	Lawn	30cm	Test Pit	No Further Testing	Backyard primarily undisturbed/ front yard disturbed
3704	Homestead Lane	Lawn	30cm	Test Pit	No Further Testing	Backyard primarily undisturbed/ front yard disturbed
3902	Shadetree Crt	Scrub field	unknown	Test Pit	No Further Testing	Disturbed fill surface
4109	Shadetree Crt	Scrub field	unknown	Test Pit	No Further Testing	Disturbed fill surface
2588	Sansotta Crt	Lawn	unknown	Test Pit	No Further Testing	Disturbed, graded
3452	Randolph Ave	Mowed field	30cm	Test Pit	No Further Testing	
3455	Rankin	Mowed field	30cm	Test Pit	No Further Testing	
0469	Ojibway Pky	Junk heap/scrub yard	unknown	Test Pit	No Further Testing	Fully Disturbed/Building, concrete
0303a	G N Booth Dr	Scrub Lot, Lawn(Section A)	40cm	Test Pit (Section B)	No Further Testing	Partially dug up and disturbed (Lawn Section A), Scrub Lot (B) Undisturbed
2217	Ensign St	Mowed field	35-45cm	Test Pit	No Further Testing	
3694	Hearthwood Pl	Lawn	unknown	Test Pit	No Further Testing	Disturbed
4414	Howard Ave	Bush Lot	35cm	Test Pit	No Further Testing	
3612	Kendleton Crt	Lawn	unknown	Test Pit	No Further Testing	Disturbed
3614	Kendleton Crt	Lawn	unknown	Test Pit	No Further Testing	Disturbed
3615	Kendleton Crt	Lawn	unknown	Test Pit	No Further Testing	Disturbed
3609	Kendleton Crt	Lawn	unknown	Test Pit	No Further Testing	
3617	Kendleton Crt	Lawn	unknown	Visual Inspection	No Further Testing	Disturbed
3619	Kendleton Crt	Lawn	unknown	Visual Inspection	No Further Testing	Disturbed, not tested/other lawns tested in area

URS Property #	Road	Conditions	Subsoil Depth Average	Survey Method	Recommendations	Comments
2998	Huron Church Line	Lawn	30-40cm	Test Pit	No Further Testing	Undisturbed primarily, front yard built up original sub-soil underneath
4428	Howard Ave	Lawn/Gravel	30-40cm	Test Pit /Visual Inspection	No Further Testing	Disturbed, east/west edges are undisturbed
4055	Montgomery Dr	Lawn	unknown	Test Pit	No Further Testing	Extensive grading has displaced all original soil
3977	Talbot Rd	Lawn	35cm	Test Pit	No Further Testing	Graded mound/valley in front yard and trench (drain) parallel to Huron Church
0316	Healy St	Scrub field	30cm	Test Pit	No Further Testing	
1622	Halliday Ave	Bush Lot	30cm	Test Pit	No Further Testing	
1958	Spring Garden Rd	Lawn	37cm	Test Pit	No Further Testing	90% undisturbed
1995	Rochelle St	Lawn	50-55cm	Test Pit	No Further Testing	
2000	Spring Garden Rd	Lawn	30-39cm	Test Pit	No Further Testing	
3079	Talbot Rd	Lawn	35cm	Test Pit	No Further Testing	
2935	Todd Lane	Lawn	45cm	Test Pit	No Further Testing	Partially disturbed yard/service/pool/fill, stripped
2848	Lansing St	Tennis Court/Grass	35cm	Test Pit	No Further Testing	
2128	Lamont St	Lawn	unknown	Test Pit	No Further Testing	Yard disturbed, backyard mottled and front fill, sub-soil not distinguished after digging 90cm deep
0210	Prospect Ave	Pockets of scrub vegetation	unknown	Visual Inspection	No Further Work	Gravel Depot/ Disturbed
0496	Matchette Rd	Lawn	30-35cm	Test Pit	No Further Testing	
0497	Matchette Rd	Lawn	30-35cm	Test Pit	No Further Testing	
0587	Matchette Rd	Long grass/scrub	35-40cm	Test Pit	No Further Testing	
0555	Broadway St	Weeds	destroyed	Test Pit/Visual Inspection	No Further Testing	Disturbed scrap yard
0556	Broadway St	Lawn	35-40cm	Test Pit	No Further Testing	
0495	Matchette Rd	Lawn	35cm	Test Pit	No Further Testing	Front yard disturbed, backyard undisturbed
2586	Sansotta Crt	Lawn	unknown	Test Pit/Visual Inspection	No Further Testing	Disturbed
2528	Sansotta Crt	Lawn	unknown	Test Pit/Visual Inspection	No Further Testing	Disturbed
2529	Sansotta Crt	Lawn	unknown	Test Pit/Visual Inspection	No Further Testing	Disturbed

URS Property #	Road	Conditions	Subsoil Depth Average	Survey Method	Recommendations	Comments
2532	Sansotta Crt	Lawn	unknown	Test Pit/Visual Inspection	No Further Testing	Disturbed
4566	Highway 3	Manicured Field	unknown	Test Pit/Visual Inspection	No Further Testing	Disturbed
3683	Talbot Rd	Lawn	30-40cm	Test Pit	No Further Testing	
4352	Chelsea	Lawn	35cm	Test Pit	No Further Testing	Partially Disturbed
2844	Lansing	Mowed field	30-70cm	Test Pit	No Further Testing	
3624	Kendleton Crt	Lawn	unknown	Test Pit Visual Inspection	No Further Testing	Disturbed, raised, graded subdivision, gravel fill everywhere
0198	Prospect Ave	Gravel Yard	unknown	Visual Inspection	No Further Testing	Disturbed Fill
3977	Hwy 3	Lawn	35 cm	Test Pit	No Further Testing	Disturbed Clay
4353	Chelsea	Lawn	40 cm	Test Pit	No Further Testing	clay
2560	Lambton St	Lawn	30-50cm	Test Pit/Visual Inspection	No Further Work	

Table 4: Summary of Archaeological Site for which No Further Work is Recommended

DRIC Stage 2 Results – Archaeological Sites – Clearance Recommended								
Property #	Road	Conditions	Subsoil Depth Average	Survey Method	Aboriginal Sites	Euro-Can Sites	Recommendations	Comments
2865	Reddock Ave	Mowed field	20-40cm	Test Pit	P1	H1	No Further Work	All cardinals negative
2167	Lamont St	Mowed field	95cm	Test Pit	P1		No Further Work	Flake likely from fill 8 cardinals all negative
0491	Matchette Rd	Mowed field/Bush lot	30cm	Test Pit		H1	No Further Work	Historical Scatter, no further study
2021	Spring Garden Rd	Lawn	35cm	Test Pit	P1		No Further Work	8 cardinals dug and only first Test Pit was positive
3037	Talbot Rd	Lawn	30-100cm	Test Pit	P1		No Further Work	Partially disturbed, mounds, driveway, house and pool. Depth depends on the amount of fill
3178	Talbot Rd	Lawn	40cm	Test Pit	P1,P2		No Further Work	Much of property has gravel fill mottled in with the top soil and clay
2996	Huron Church Line	Lawn	unknown	Test Pit		H1	No Further Work	Whole yard is disturbed by being mottled up with gravel although some sand appears to be original
2559/2561	Kent St/Lambton St	Mowed field/Lawn	30-50cm	Test Pit/Visual Inspection		H1	No Further Work	Historical scatter not warranting further study
3873	Talbot Rd	Lawn	26cm	Test Pit		H1	No Further Work	Front Yard Disturbed
2429	Grand Marais Rd W	Lawn	35-45cm	Test Pit	P1		No Further Work	All cardinals negative
3857	Talbot Rd	Lawn	25-40cm	Test Pit	P1		No Further Work	
3038	Talbot Rd	Lawn	35cm	Test Pit	P1		No Further Work	Artefact not significant
3693	Talbot Rd	Lawn	35cm	Test Pit	P1		No Further Work	
0588	Matchette Rd	Long grass/scrubb	35-40cm	Test Pit		H1	No Further Work	

Table 5: Summary of Archaeological Sites Requiring Further Investigation

DRIC Stage 2 Results – Archaeological Sites – Stage 3 Archaeological Assessment Recommended								
Lookup #	Road	Conditions	Subsoil Depth Average	Survey Method	Aboriginal Sites	Euro-Can Sites	Recommendations	Comments
2982	Todd Lane	Lawn	70-100cm	Test Pit		H1	Stage 3	Filled over, partially disturbed, 20% untestable
1964	Huron Church	Lawn	70-95cm	Test Pit	P1		Stage 3	Sec A, Disturbed, fill to about 70cm/Sec B, All Disturbed
2544	Gratiot St	Lawn	70-90cm	Test Pit	P1		Stage 3	Stage 2 test square excavated
3622/3623	Kendleton Crt	Lawn	unknown	Test Pit Visual Inspection		H1	Stage 3	Disturbed, raised, graded subdivision, gravel fill everywhere
3692	Talbot Rd	Lawn	30-40cm	Test Pit		H1	Stage 3	Recent material kept to depict compromised nature of H#1, some material questionable also kept. (ex. Wire nails, plastic); all notable finds are on east boundary.
3172	Talbot Rd	Lawn	55-85cm	Test Pit	P1		Stage 3	Some areas disturbed, site location in undisturbed sand
1996	Rochelle St	Lawn	50-55cm	Test Pit	P1		Stage 3	Test 1m unit excavated during stage two

Table 6: Summary of Properties with Deeply Buried Subsoil

DRIC Stage 2 Results – Archaeological Sites – Stage 4 Archaeological Monitoring Recommended								
Lookup #	Road	Conditions	Subsoil Depth Average	Survey Method	Aboriginal Sites	Euro-Can Sites	Recommendations	Comments
2919	Reddock Ave	Lawn	65cm	Test Pit/Visual Inspection			Monitoring	Undisturbed property to south, disturbed property to north.

Figure 4a: Location of Property Assessed with Field Conditions (Hwy 3 and Hwy 401 Intersection)

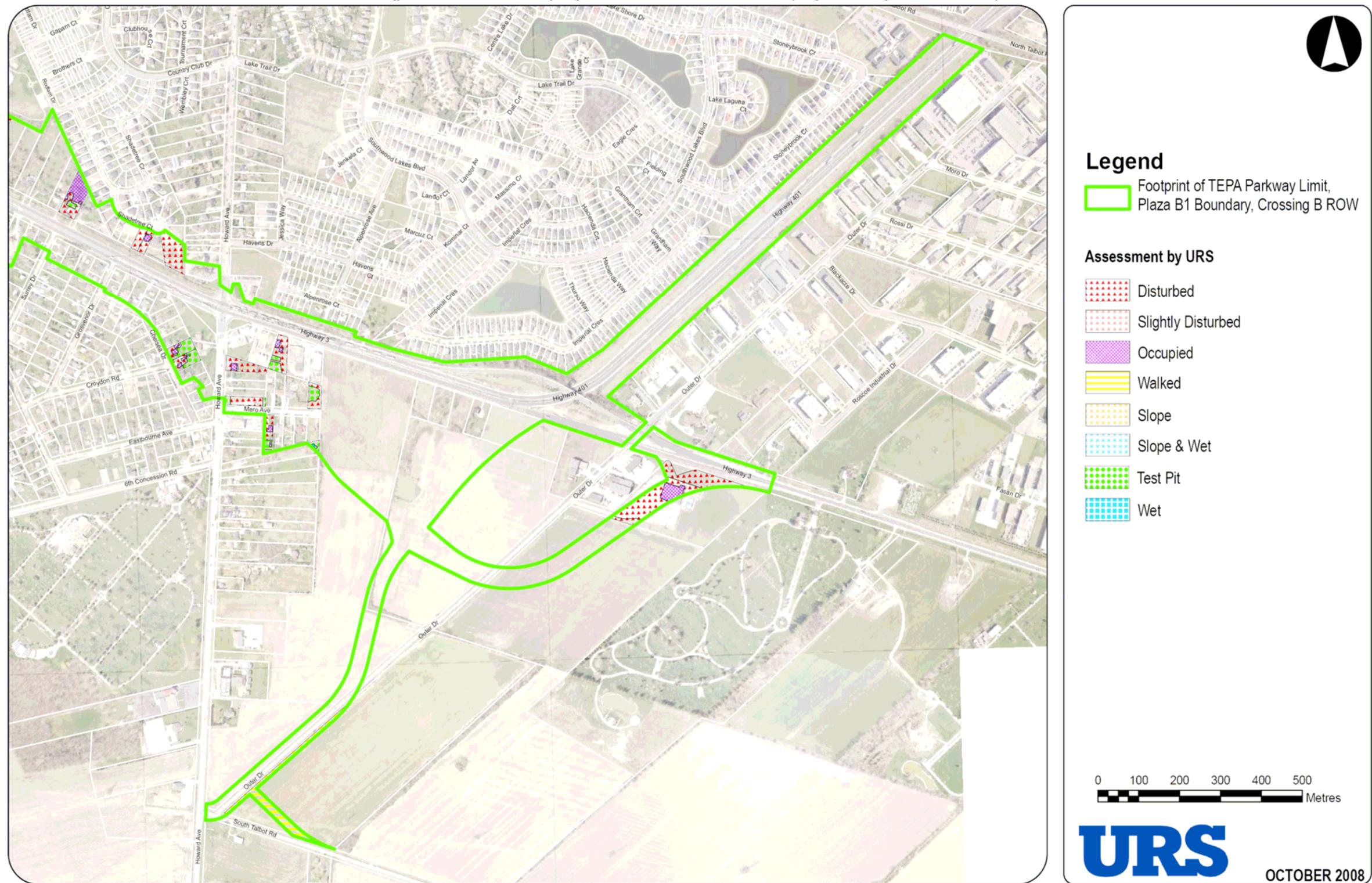


Figure 4b: Location of Property Assessed with Field Conditions (Hwy 3 and Cousineau Rd. Intersection)

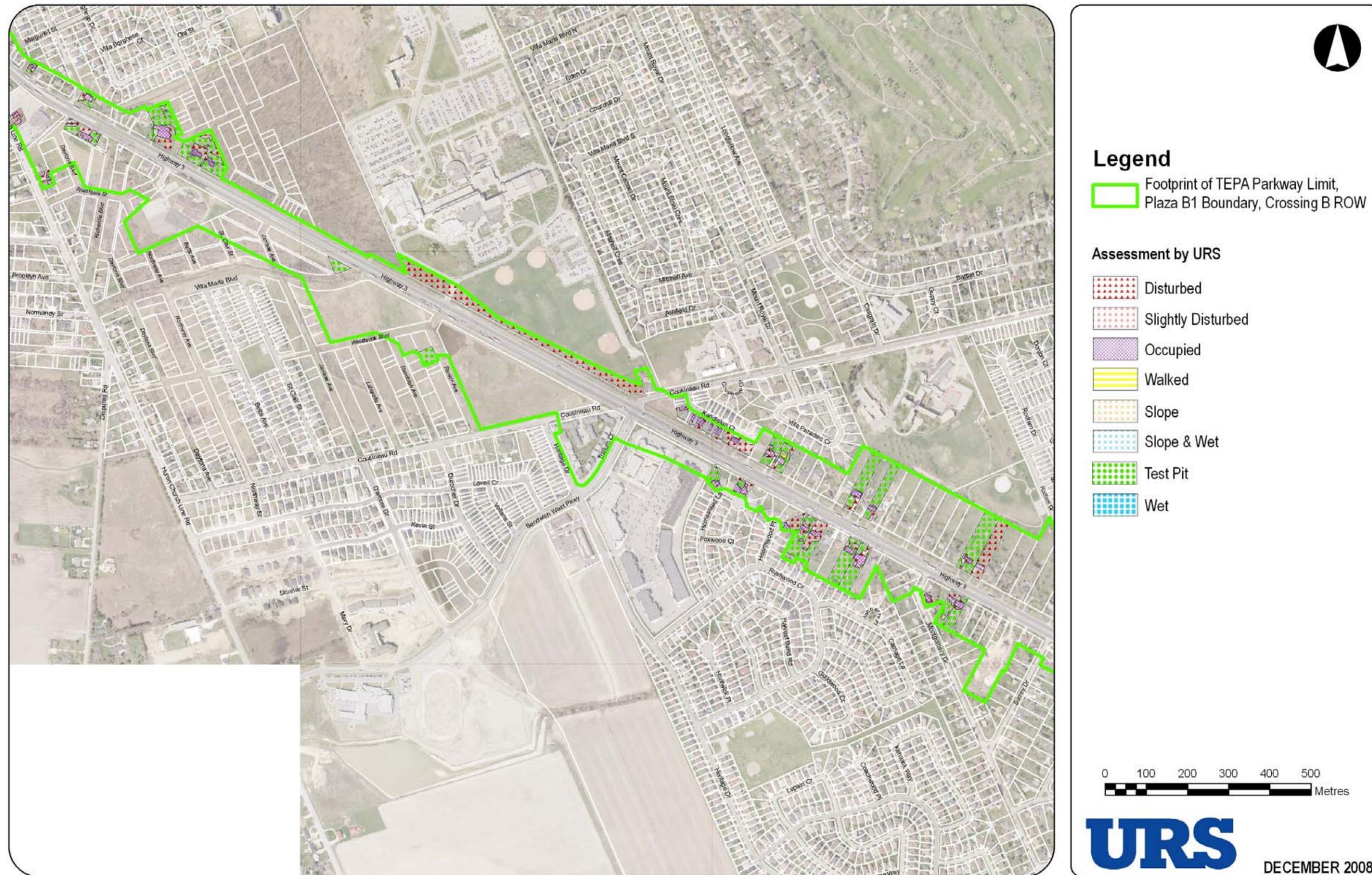


Figure 4c: Location of Property Assessed with Field Conditions (Huron Church Rd. and Todd Lane Intersection)

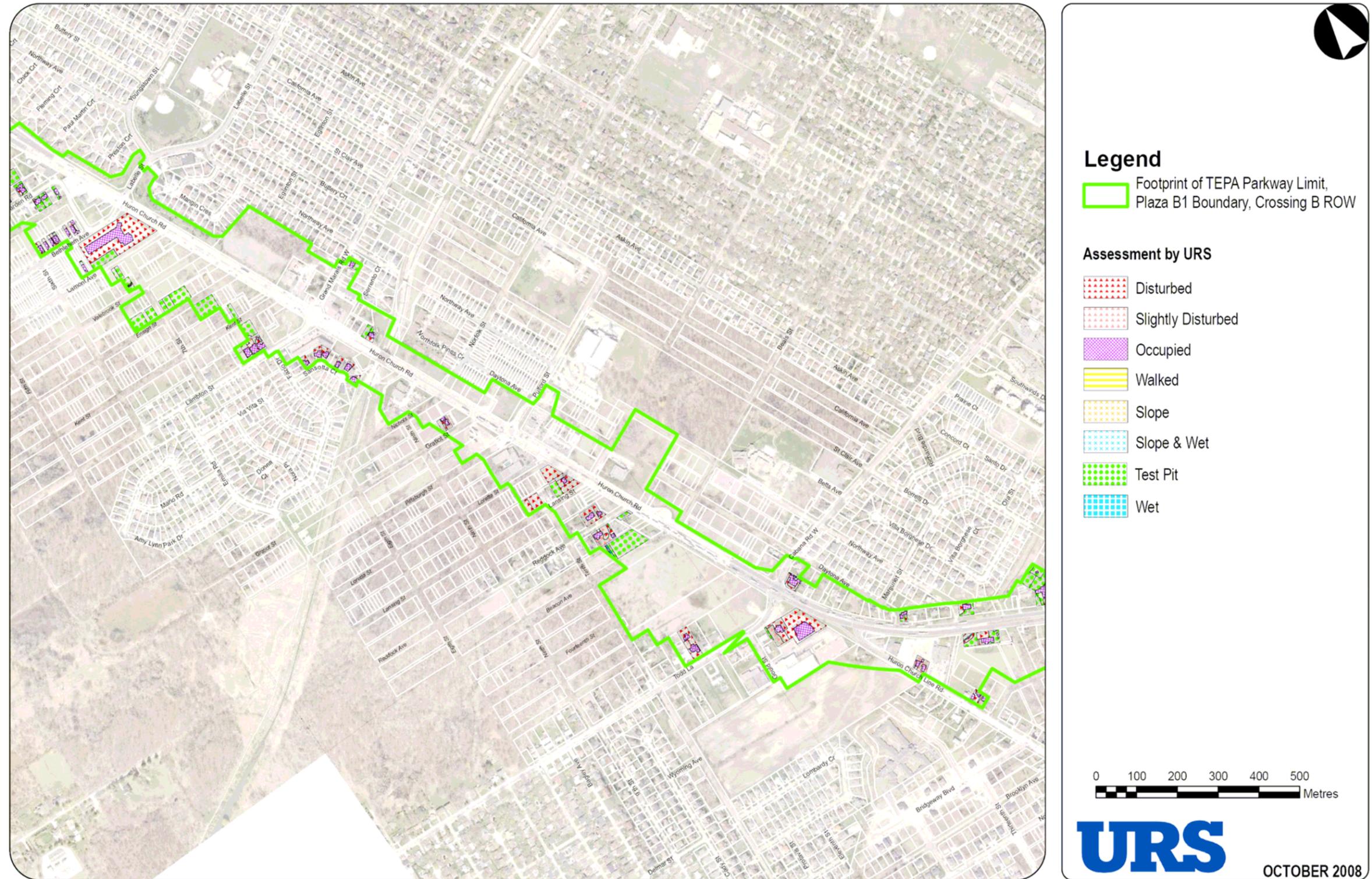


Figure 4d: Location of Property Assessed with Field Conditions (E.C. Row Expressway and Malden Rd. Intersection)

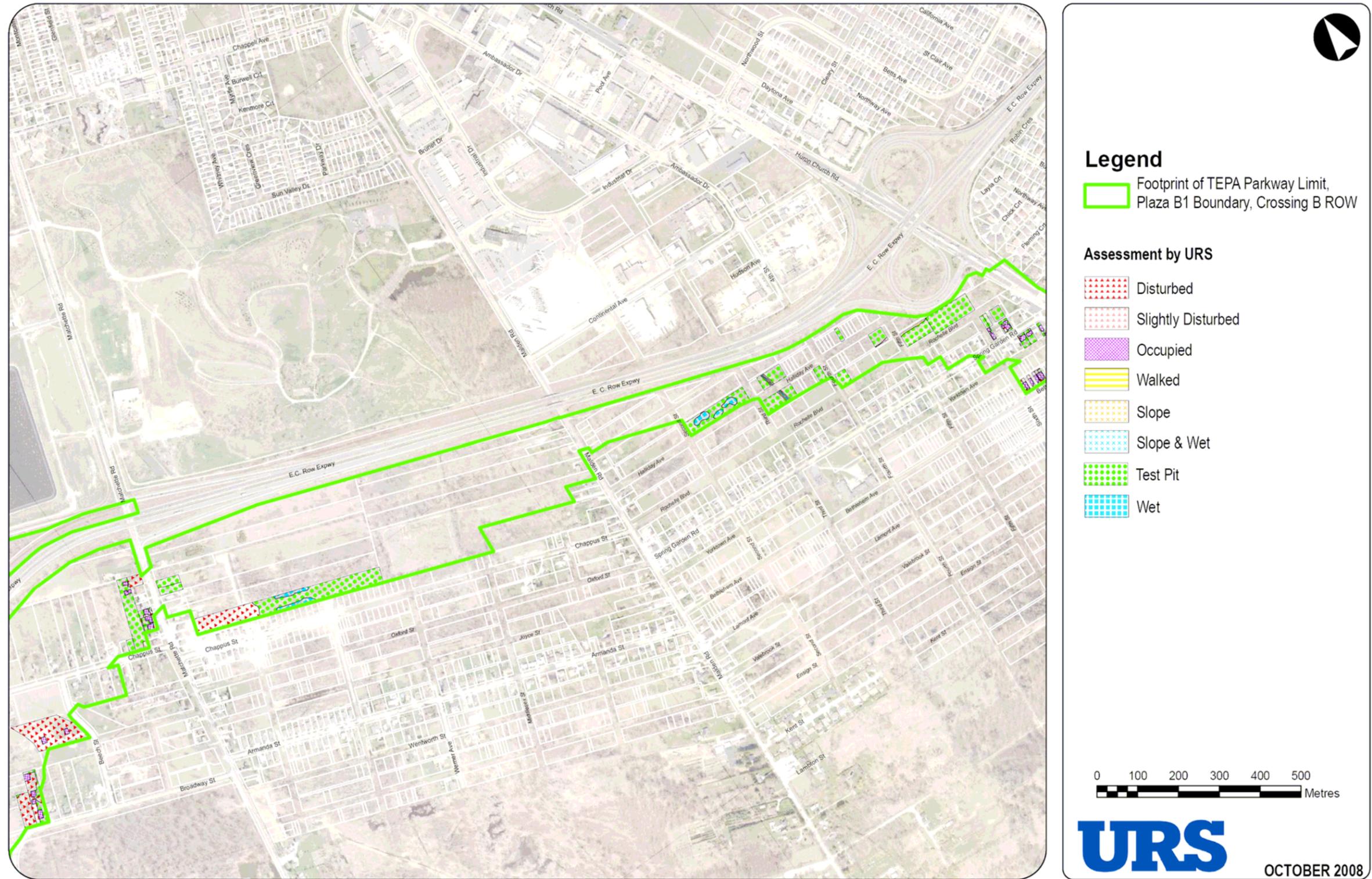
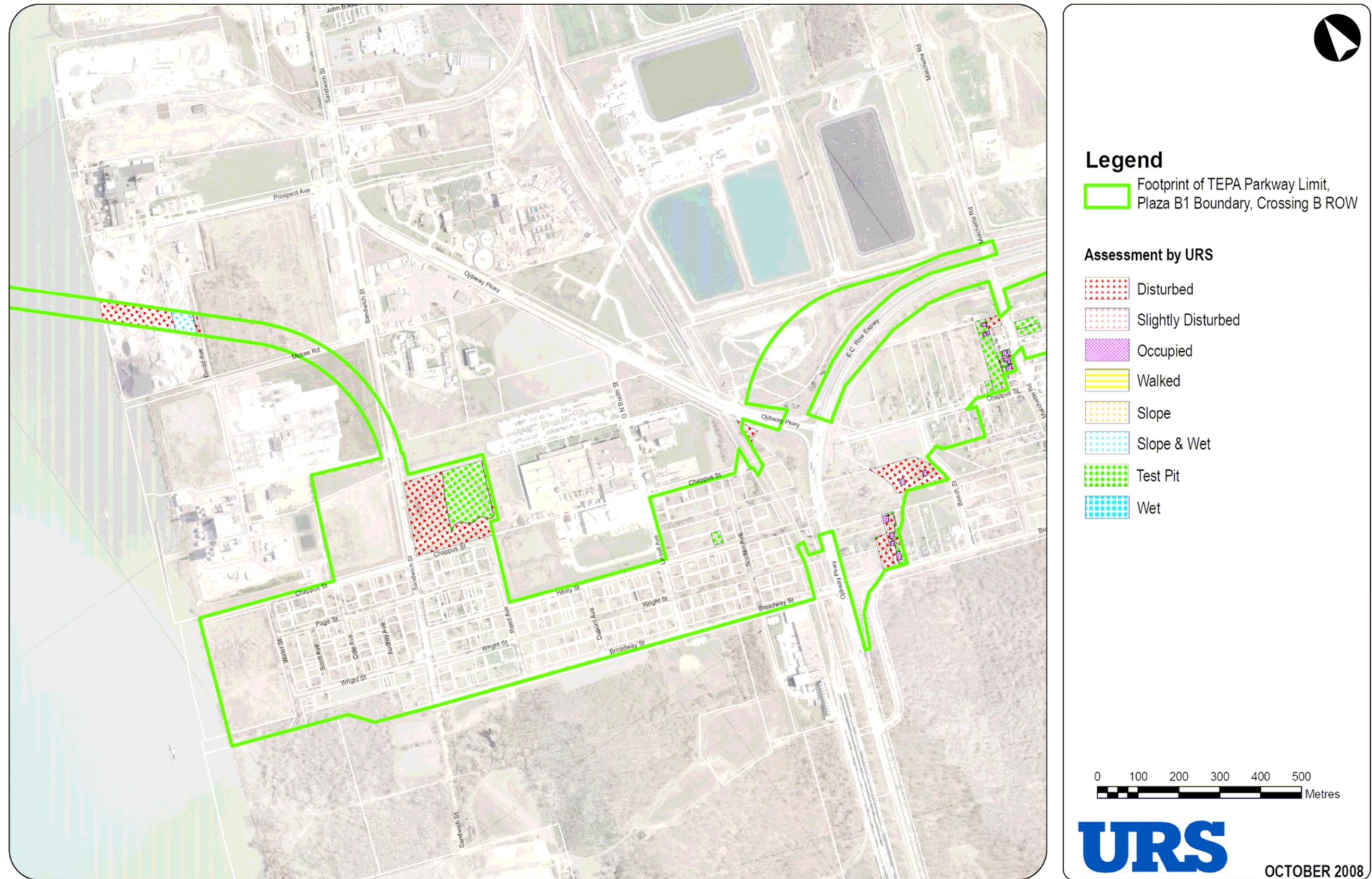


Figure 4e: Location of Property Assessed with Field Conditions (E.C. Row Expressway and Ojibway Parkway)



4. Analysis and Conclusions

4.1. Properties with Archaeological Sites – No Further Work

Property Number 2021 – Site P1

Site	P1	MCL Status:	Pending
PIN #	2021	Project Section:	
		Road Portion:	Spring Garden
Description:	Survey crews shovel tested property 2021 on June 10, 2008. It is a residential lot with a manicured lawn, house and driveway. Weather conditions were humid and cloudy for the duration of testing. The topography of the property is mainly flat with a slight slope in the front yard, running north toward the street. Soil conditions were 30-45cm of undisturbed loamy sand to orange sand sub-soil. The backyard yielded no artifacts, while a single chert flake was found on the eastern boundary of the front lawn.		
UTM Coordinates:	Survey Unit Centre UTM17T 0331201 4681501		
Artifacts Recovered:	One piece of chert chipping detritus found on the East boundary, all five test pits excavated around it were sterile		

Survey Unit	Property #	Typology	Entry #	Qty	Decoration	Material
Test Pit #1	2021	Chipping Detritus	1	1		Onondaga

Property Number 3037 – Site P1

Site	P1	
PIN #	3037	Project Section:
		Road Portion: Highway 3

Description: Survey crews shovel tested the property on July 16, 2008. The weather was windy and partly cloudy. The property consisted of a manicured lawn with several artificially raised mounds on the east section, and a house and fenced off pool in the west section. With the exception of the mounds the topography of the property is naturally flat. All test pits excavated outside the enclosed pool area consisted of undisturbed sandy soil to an approximate depth of 35cm, and all were sterile. Inside the pool area the soil is disturbed, probably due to the pool construction. Inside this enclosed area there was one positive test pit west of the pool, with several positive cardinal test pits surrounding it. The positive test pits produced limited and dubious pre-historic material, which is out of context and upon review deemed to be non-cultural.

UTM Coordinates: Survey Unit Centre UTM17T 332458 4679282

Artifacts Recovered:

One primary test pit contained a piece of Onondaga chert in the disturbed context of mottled fill and transported original soil. Upon excavating an additional 5 test pits around this initial positive one, a piece of butchered bone was unearthed. Upon further review of the artifacts they were all determined to be insignificant in cultural and heritage value.

Sample Catalogue of Diagnostic Artifacts

Survey Unit	Property #	Typology	Entry #	Qty	Decoration	Material
Test Pit 1	3037	Chert piece	4	1		Onondaga
Test Pit 1/S,W	3037	Mammal bone	2	1		Mammal

Recommendations: No further work is recommended.

Property Number 3693– Site P1

Site	P1
PIN#:	3693 Road Portion: Talbot Rd

Description: Survey crews shovel tested the property on July 24, 2008, on a sunny mild day. The property is a long rectangular lot with a house one third of the property length back from Highway 3. The topography of both the back and front yard is flat. The backyard has an above ground pool and the front has a u-shaped driveway and several trees. The single artifact recovered was found in the front lawn in the middle of the u-shaped driveway. The soil in this location is clay to a depth of 30cm.

UTM Coordinates: Survey Unit Centre UTM17T 0334237 44678342

Artifacts Recovered:

One positive test pit was excavated in the middle of the u-shaped driveway, unearthing a chert nodule. The nodule was thought to be a core but on further review deemed to be field chert. Eight intensification test pits were excavated around the initial find and were all sterile.

Sample Catalogue of Diagnostic Artifacts

Survey Unit	Property #	Typology	Entry #	Qty	Decoration	Material
Test Pit 2	3693	Chert nodual		1		Field chert

Recommendations: No further investigation warranted

Property Number 2167 – Site P1

Site	P1		
PIN#:	2167	Road Portion:	Lamont

Description: Survey crews shovel tested the property on July 4, 2008. The weather was mild and sunny. The property is approximately a ten by thirty meter rectangle with overgrown scrub vegetation. The topography is generally flat with small earth lumps. The west side of the lot is disturbed by construction of a condominium approximately fifteen meters to the west. There is a creek located approximately 70 meters to the south. The positive test pit is located on the southern boundary of the rectangle in the disturbed west portion. The soil conditions were 90cm of fill/sand to sub-soil. The flake was found at approximately 90cm.

UTM Coordinates: Survey Unit Centre UTM17T 0331245 4681230

Artifacts Recovered:

One positive test pit produced one piece of chert chipping detritus. The artifact was located in the compromised context of disturbed soil. Four additional test pits were excavated around the find and no undisturbed original soil or additional artifacts were discovered.

Sample Catalogue of Diagnostic Artifacts:

Survey Unit	Property #	Typology	Entry #	Qty	Decoration	Material
Test Pit 1	2167	Chert flake		1		Kettle Point

Recommendations: No further work is necessary

Property Number 0491– Site H1

Site	H1
PIN#:	0491 Road Portion: Matchette/Chappus
Description:	Survey crews shovel tested the property on July 9, 2008. The weather was hot, humid, and sunny. Section a, a scrubby grass area, substantially disturbed from underground drainage jutting out towards Matchette street, yielded no artifacts. Section c, an undisturbed bush lot buttressing Chappus street also yielded no artifacts. Section b, a long rectangular strip of lawn running parallel behind the residential lots on Matchette was largely undisturbed and did yield artifacts. Some structures, such as a rental cottage and above ground pool were present on this section although the majority was reclaimed orchard. All sections of the property consisted of flat topography and where the soil was undisturbed, fine sand extended to 30cm deep sub-soil. In the northwest corner of section b a small contained site was found.
UTM Coordinates:	Survey Unit Centre UTM17T 0329046 4682288
Artifacts Recovered:	One positive test pit with several positive cardinal test pits was found approximately 5 meters west of the small rental cottage in the northwest corner of property section b. Many of the artifacts found were recent in nature, notably a glass marble and plastic fragments. The remainder of the artifacts, such as window glass, earthenware, and undiagnostic white ware could not be conclusively determined to be of heritage value.
Recommendations:	Due to the recent or undiagnostic nature of the artifacts, we recommend no further work.

Property Number 3038– Site P1

Site	H1
PIN#:	3038
Road Portion:	Highway 3

Description: Survey crews shovel tested the property on July 15, 2008. The weather was extremely hot and humid. The topography was flat except for a man made drain running east-west through the north section of the property. The drain was flanked by a burm on either side, and to the north of the northern burm was a deep depression where all top-soil was stripped. To the north of the drain and on the south eastern boundary there is manicured lawn, and the rest of the field is scrubby overgrown grass. Soil conditions in the undisturbed portion are 30-40cm of sandy loam to sub-soil. The solitary find spot is located in the approximant centre of the field 10 meters south of the drain.

UTM Coordinates: Survey Unit Centre UTM17T 0332445 4679299

Artifacts Recovered:

The single find spot consists of piece of indeterminate burnt bone. Eight intensification test pits were placed around this find with no artifacts discovered.

Recommendations: No further work recommended

Property Number 3873– Site H1

Site	H1
PIN#:	3873 Road Portion: Highway 3

Description: The property is a well maintained residential lot, well treed and with lawn and several gardens. The front third of the property containing the house has completely disturbed soil while the backyard is for the most part untouched. While conducting a stage two test pit survey of the property on the hot and humid day of July, 17, 2008, survey crews discovered a positive test pit buttressing the eastern face of the house. The soil conditions in the undisturbed portion of the lot range from 20-30cm of clay above sub-soil.

UTM Coordinates: Survey Unit Centre UTM17T 0334870 4678114

Artifacts Recovered:

This single find is a scrap piece of fresh water shell that may be a remnant from button punching or some decorative piece. All intensification test pits excavated in the vicinity were sterile.

Recommendations: No further work recommended

Property Number 3178 – Site P1/P2

Site	P1/P2	Road Portion:	Highway 3
PIN#:	3178		

Description: Survey crews shovel tested the property on July 15, 2008, during very humid and hot conditions. The property is an odd shaped polygon with several juts and jogs in the property line; however the topography is consistently flat. This is a residential lot with a house roughly in the centre and a manicured lawn surrounding it. North of the pool extends a heavily treed area, which grades into bush at the extreme northern boundary of the property. Soil conditions vary, with the front yard east of the driveway, the eastern boundary, and the area surrounding the pool being completely disturbed to sub-soil. The most northern portion of the property has relatively undisturbed soil, while the areas west of the driveway (P1) and northwest of the pool (P2) are partially compromised. Soil in the P1 and P2 locations appears to have been disturbed during construction although some original soil seems to be mottled with fill

UTM Coordinates: Survey Unit Centre P1 UTM17T 0332631 4679286
Survey Unit Centre P2 UTM17T 0332650 4679306

Artifacts Recovered:

Site P1 is located directly west of the driveway and yielded one of fragment of chipping detritus from test pit 1. This flake is made from Lockport chert and was found in compromised context. Site P2 is located on a slightly raised berm to the northwest of the pool, in the backyard. This consists of one positive test pit containing a solitary piece of Onondoga chipping detritus. The artifact from P2 was also found in a disturbed context of mixed, mottled earth.

Recommendations: All artifacts were found in disturbed earth with the presence of foreign fill. The compromised context as well as the isolated nature of these artifacts warrants no further work on P1 or P2.

Property Number 2996 – Site H1

Site	H1
PIN#:	2996 Road Portion: Huron Church Line
Description:	Survey crews shovel tested the property on July 16, 2008, during hot and humid weather conditions. The property is rhombus shaped with the western boundary bordering Huron Church Line and the rest of the property line bordering the Ontario Legion parking lot. The topography of the property is flat and there are several residential structures. The two most intriguing positive test pits were located in a central court yard sandwiched between a garage and house. Two additional test pits were located in the yard that is situated in the southeast corner of the lot. Soil conditions are disturbed throughout the majority of the property, with only about ten percent undisturbed. All artifacts were present in the disturbed section.
UTM Coordinates:	Survey Unit Centre UTM17T 03323314 4679322
Artifacts Recovered:	The majority of the artifacts located in H1 are nondescript, recent and un-datable. The small samples of artifacts with early dates were found in the in test pits 4 and 5 located in disturbed soils in the courtyard area of the property. The early dated artifacts are located along with and at shallower depths than recent debris. Artifacts located in the test pits in the east are un-diagnostic.
Recommendations:	Site H1 yielded only a small sample of historic material from disturbed context. It is recommended that no further work is required at this location.

Property Number 2559/2561– Site H1

Site	H1
PIN#:	2559/2561
Road Portion:	Kent/Lambton St

Description: These adjoining properties were shovel tested on July 19 2008, during hot and humid weather conditions. Property 2559 is a rectangular, scrubby grass lot with sandy loam soil conditions to a depth of approximately 40cm. Property 2561 is a manicured lawn with sub-soil at a depth of 80cm. The topography of all the land encompassing H1 is flat. Site H1 consists of four positive test pits with several positive cardinal test pits around them. One positive test pit from H1 falls on 2561. The artifact scatter is dispersed throughout the south half of 2559 and into the backyard of 2561.

UTM Coordinates: Survey Unit Centre UTM17T 0331435 4680933

Artifacts Recovered:

The majority of the artifacts found were glass bottle fragments and window pane fragments. Some Iron Stone ware and other miscellaneous ceramic were found, nothing diagnostic.

Recommendations : There is not a significant enough amount of diagnostic material to warrant further study.

Property Number 2429– Site P1

Site	P1		
PIN#:	2429	Road Portion:	Grand Marais Rd

Description: Survey crew's shovel tested the property on July 21 2008, during hot and humid weather conditions. The property is a small residential lot consisting of a house with a front and back manicured lawn. The property is topographically flat with soil conditions of a slight layer of fill over 30cm of sandy loam to sub-soil. P1 is a single positive test pit located in the backyard approximately 2m south of the house foundation.

UTM Coordinates: Survey Unit Centre UTM17T 0331746 4680910

Artifacts Recovered:

One biface thinning flake made out of Kettle Point chert was recovered from P1. All intensification test pits excavated around test pit 1 were sterile.

Recommendations: No further study required.

Property Number 2865– Site P1, H1

Site	P1,H1	Road Portion:	Highway 3
PIN#:	2865		

Description: Survey crews shovel tested the property on June 24 2008, during sunny breezy conditions. The property is approximately 100m by 40m in size. It is a flat grass field with black sandy loam soil ranging from 20-40cm deep. Site P1 is located on the northern boundary, slightly west of center and H1 is located in the center of the property, slightly to the west .

UTM Coordinates: Survey Unit Centre P1 UTM17T 0331894 468001
Survey Unit Centre H1 UTM17T 0331898 4679986

Artifacts Recovered:

Site P1 consists of one piece of shatter on Kettle point chert, and all eight intensification test pits excavated around it were sterile. Site H1 consists of one piece of blue transfer print pearl ware. Eight cardinal test pits dug around this test pit produced no artifacts.

Recommendations: No further study required.

Property Number 3857– Site P1

Site	P1
PIN#:	3857
Road Portion:	Highway 3

Description: Survey crews shovel tested the property on July 22 2008, during hot and humid conditions. The property is a long rectangular residential lot with a house located on the front southern third. There is a manicured front yard to the South and backyard to the North. Topographically the property is flat and soil conditions are consistently 35cm of clay top-soil to orange/grey sub-soil. Two positive test pits were located 10 meters from the northern end of the property 5 meters apart in the center of the field.

UTM Coordinates: Survey Unit Centre UTM17T 0334440 4678474

Artifacts Recovered:

Two pieces of local field chert were found in undisturbed clay. Nothing more was found in the test pits in the vicinity of the two pieces of chert and upon further review they are deemed to be of no cultural significance.

Recommendations: No further study required.

Property Number 0588 – Site P1

Site	H1
PIN#:	0588
Description:	Road Portion: Survey crews shovel tested the property on August 14, 2008, during sunny mild conditions. The property is a vacant rectangular scrub lot. The topography is flat and soil conditions were 40cm of top soil to yellow clay sub-soil. The site consisted of four positive test pits encompassing an area approximately 30 meters long by 15 meters wide. The scatter was contained to the southeast area of the property
UTM Coordinates:	Survey Unit Centre UNKNOWN
Artifacts Recovered:	
	The artifact assemblage consisted of brick, metal, shell, whiteware, and glass. None of the artifacts un-earthed were of any heritage value.
Recommendations:	No further work

4.2. Properties with Archaeological Sites – Stage 3 Recommended:

Property Number 1996 – Site P1

Site	P1
PIN#:	1996 Road Portion: Rochelle Blvd
Description:	Survey crews shovel tested the property on July 30, 2008, under humid overcast conditions. The property is approximately a 10 meter by 30 meter rectangular field of overgrown grass. Soil conditions consist of undisturbed stratified sand. The site consisted of two positive test pits with four subsequent intensification test pits excavated around each, and a one meter test unit. The positive test pits were located on the western boundary of the property, fifteen meters apart. Test pit two is located on the north boundary and test pit one is located fifteen meters to the south. The vast majority of the artifacts were unearthened from the red sand layer with some coming out of the interface between the red layer and white sub-soil. There were no features present and excavation was stopped when the white sand became sterile.

UTM Coordinates: Survey Unit Centre UTM17T 0331153 4681582

Artifacts Recovered:

Test pit one contained a piece of burnt bone and two pieces of lithic debitage, one made from rare material. None of the eight intensification test pit excavated around it contained artifacts. Test pit two contained one flake and the intensification test pit to the South and to the East were also positive. The one meter test unit excavated yielded five Onondoga flakes from the red sand layer and interface between red and white sub-soil.

Sample Catalogue of Diagnostic Artifacts

Type	Material	Comments	Qty
Flake Fragment	Onondaga		6
Biface Thinning Flake	Onondaga		1
Shatter	Onondaga		2
Secondary Knapping Flake	Onondaga	minimal cortex, dorsal scars	1
Flake Fragment	Quartz		1

Recommendations: There are sufficient diagnostic prehistoric artifacts to warrant stage 3 investigation.

Property Number 1964 – Site P1

Site	P1
PIN#:	1964 Road Portion: Huron Church Road
Description:	Survey crews shovel tested the property on June 11, 2008, during humid conditions. The property is a commercial hotel with eighty percent of its land disturbed. Section a, a flat grass lawn, is located in the southwest corner of the property and is partially disturbed. P1, which is located in the northeast corner of this section, consists of four positive test pits.
UTM Coordinates:	Survey Unit Centre 0331266 4681287

Artifacts Recovered:

Test pit two contained two flakes composed of Flint Ridge chert, one of which exhibited evidence of reworking and could possibly be a scrapper fragment. Excavation of the one meter test unit over test pit two produced several pieces of non-cultural chert in the fill above the original sand layers. In the original soil four flakes were located. At the bottom of the unit a faint stain, containing a burnt flake, was detected in the North East corner. This sub-surface feature was left unexcavated for further study.

Sample Catalogue of Diagnostic Artifacts

Type	Material	Comments	Qty
Flake Fragments	Kettlepoint		3
Flake Fragment	Flint Ridge	Possible scrapper fragment	1
Shatter	Onondaga		3
Biface Thinning Flakes	Onondaga		3

Recommendations: Based on the presence of diagnostic lithic artifacts and possible prehistoric feature, we recommend a stage 3 archaeological assessment.

Property Number 2544- Site P1

Site	P1
PIN#:	2544 Road Portion: Gratiot Street
Description:	Survey crews shovel tested the property on July 19, 2008, and returned to excavate a one meter test unit on August 28, 2008. Weather conditions for both days were sunny, hot, and humid. This property is a small rectangular residential lot with two structures, several gardens, a driveway, and manicured lawn. This property and the adjacent property 2690 sit on a moderately raised plateau above surrounding low lying field. The plateau on which P1 sits is partially bolstered by grading from property 2690. P1 is located approximately 3 meters south of the house and 2 meters east of the disturbed driveway bordering property 2690. The site area is characterized by fill deposits and shallow soil disturbance for drainage. Under a shallow layer of fill stratified red sand with cultural material exists. P1 consists of one positive test pit and one positive test unit with eight negative intensification test pits surrounding it. The lack of any other positive test pits and amount of disturbance in the immediate vicinity indicate a contained site.

UTM Coordinates: Survey Unit Centre 0331698 4680462

Artifacts Recovered:

A Middleport Projectile Point was found in test pit one during the initial shovel test survey. Eight intensification test pits excavated around this spot produced no additional artifacts so a one meter test unit was excavated. This test unit yielded two flakes, one of which was thermally altered. The test unit did assist in developing a more accurate profile of the stratigraphy and to determine that all artifacts were recovered from the red layer. The cultural red layer exists at a depth of approximately 50-70cm.

Sample Catalogue of Diagnostic Artifacts

Type	Material	Comments	Qty
Projectile Point	Flint Ridge?	Late Woodland, Middleport Notched, base concave, stem, 1 basal corner longer- typical	1
Biface Thinning Flake	Flint Ridge? – similar chert to PP		1
Flake Fragment	Unknown	heavily thermally altered	1

Recommendations: A stage 3 assessment is recommended, based on the presence of sufficient diagnostic lithic artifacts.

Property Number 2982 – Site H1

Site	H1
PIN#:	2982 Road Portion: Todd Lane

Description: Survey crews shovel tested the property on June 09, 2008, during hot and humid conditions. The property is a residential lot consisting of two distinct sections, an artificially raised east half, which consists of a house, shed, and filled in pool and a lower west half with a manicured lawn and a fence running along the west and south boundaries. Both sections have compromised soil conditions disturbed from grading. Site H1 has approximately 35cm of condensed fill before any artifacts are encountered. It consists of three positive test pits in an area fifteen meters long, and five meters wide, about 4 metres south of the house.

UTM Coordinates: Survey Unit Centre 0332058 4679594

Artifacts Recovered:

The artifact assemblage consists of semi-porcelain, badly corroded miscellaneous metal, red brick fragments, and light blue glazed ceramic sherds. Fragments of a Murray Glasgow smoking pipe were also present in multiple test pits indicating possible 19th century deposition. The presence of all artifacts except the clay pipe indicates 20th century deposition during construction operations. Accurate assessment of the soil horizons during stage two shovel surveys was not possible and will be required in order to determine the context of the clay pipe fragments.

Sample Catalogue of Diagnostic Artifacts

Type	Material	Portion	Comments	Qty
Smoking Pipe	White Clay	Stem	"Mur.." Murray-Glasgow 1833-1861	1

Recommendations: We recommend a stage 3 archaeological assessment to determine the integrity and association of this site with the early 19th century finds.

Property Number 3692 – Site P1

Site	H1
PIN#:	3692 Road Portion: Highway 3
Description:	Survey crews shovel tested the property on July 29, 2008, during hot and humid conditions. The property is a rectangular residential lot with a house located in the northern section. The front yard and a walled off section on the west side of the backyard is disturbed to sub-soil from grading. There is a filled in pool located within the walled off section that is marked by a brick cabana on its southern boundary. Site H1 is located to the east of the walled off area on a flat, well treed, manicured lawn. The soil conditions consist of 35cm of clay top soil. H1 consists of ten positive test pits with several positive intensification test pits surrounding them. Site H1 encompasses an area approximately 15 by 40 meters, and includes a sub-surface feature in test pit 9

UTM Coordinates: Survey Unit Centre UTM17T 0331240 4678277

Artifacts Recovered:

Overall, the ceramics and architectural material recovered are characteristic of depositional events dating from the mid to late 19th century to the early 20th century. These artifacts are most likely related to the 20th century land use of the subject property. There are over 200 historic artifacts recovered from this location. Bone, colourless thick bottle glass, red clay brick fragments were recovered in larger proportions.

Sample Catalogue of Diagnostic Artifacts

Type	Material	Portion	Comments	Qty
Machine Cut Nail	Metal- Iron	Complete		10+
Container - Unidentifiable	Green Glass	Body Fragments		10+
Smoking Pipe	White Clay	Stem	"..MAN", Bannerman-Montreal 1857-1907	1
Button	White Glass	Complete		1
Button	Metal- Cuprous	Complete	The stamping on the back or front is not legible	1
Container- Unidentifiable	Colourless Glass	Base	No pontil- post 1850's	1

Ceramic Artifacts:

Type	Material	Ware	Motif	Comments	Qty
Tableware	Ceramic	Ironstone	Partial unidentifiable green makers stamp on exterior base		1
Tableware	Ceramic	RWE	Mulberry coloured transfer print		1
Tableware	Ceramic	RWE	Dark blue sponge		1
Utilitarian	Ceramic	Stoneware	Brown glaze on exterior		10+

Recommendations: Stage 3 assessment recommended, based on the large number of diagnostic artefacts recovered

Property Number 3622/3623 – Site H1

Site	H1
PIN#:	3623,3622 Road Portion: Kendleton Court
Description:	The property was visually assessed on the overcast day of August, 13, 2008. It was completely disturbed from construction activities in the immediate vicinity. Only a small number of sample test pits were excavated in order to determine the degree of the soil disturbance. During visual inspection of this property a large number of ceramic artifacts were collected from the surface. The ground surface was gravel, clay and fill overgrown with grass. Several piles of earth were present on the property and in the vicinity. There is documentary evidence to indicate that some structures were situated on Lot 3, Concession V, Township of Sandwich West, the site of 4513 Kendleton Ct. Two buildings were constructed after 1881, one was present by 1898, the other by 1905. The owner of the property at the time was J.B. Cousineau, who gave his name to the road.

UTM Coordinates: Survey Unit Centre 334041 4678541

Artifacts Recovered:

Over 60 historic ceramic and stoneware artifacts were collected from the surface of these properties. It is uncertain whether this is a primary yet compromised 19th century deposit or a 20th century secondary deposit.

Sample Catalogue of Diagnostic Artifacts

Type	Material	Ware	Motif	Comments
Tableware	Ceramic	Pearlware	Straight edge, blue, impressed curved line	
Tableware	Ceramic	Pearlware	Blue transfer print	
Tableware	Ceramic	Pearlware	Green transfer print	
Tableware	Ceramic	RWE	Light blue transfer print	
Tableware	Ceramic	RWE	Aqua blue transfer print	
Utilitarian	Ceramic	Stoneware	Salt glazed	

Recommendations: A stage three archaeological assessment is recommended to determine the temporal and spatial integrity of the finds.

Property Number 3172 Site P1

Site	P1
PIN#:	3172 Road Portion: Highway 3 Talbot Road
Description:	Survey crews shovel tested the property on August 14, 2008, during mild sunny conditions. The property is a rectangular residential lot with a house situated roughly in the center. The backyard to the north is mostly disturbed, as is the west side of the property from the driveway to the end of the backyard. The front yard and east side yard, which account for approximately 60 percent of the property, are undisturbed. The property is primarily flat with occasional gradual slopes of less than 20 degrees. The soil condition in undisturbed portions of the property is stratified sand. P1 is located on the East boundary of the property 1m west of the fence line and about midway along it. Artifacts were present in the brown sandy loam which occurs from 0-42cm and a red sand layer that occurs from 42-52cm deep.

UTM Coordinates: Survey Unit Centre 0332496 4679364

Artifacts Recovered:

One Kettle Point flake fragment was found during the test pit survey. None of the intensification test pits excavated around test pit one was positive. When a unit was placed over test pit one, ten more pieces of lithic debitage were found in the brown and red layers of sand.

Sample Catalogue of Diagnostic Artifacts

Type	Material	Comments	Qty
Flake Fragment	Kettle Point	3 thermally altered	4
Shatter	Flint Ridge		1
Edge Retouch Flake	Onondaga	1 thermally altered	1
Flake Fragment	Onondaga	1 thermally altered	5

Recommendations: Stage three investigation is recommended, based on the number of prehistoric artefacts recovered.

5. Recommendations

The following recommendations are based on the results of the Stage 2 Archaeological Assessment of the DRIC properties described in this report (**Tables 1-6**).

1. 260 properties in the study area were not assessed because permission to enter has yet to be obtained (253) or they were currently incomplete due to ploughing or right-of-way issues (7). These properties await Stage 2 assessment until these issues are resolved.
2. No further archaeological work is recommended on properties listed in **Tables 3 and 4**.
3. The seven sites listed in Table 5 should be the subject of Stage 3 archaeological assessments to determine their exact nature, extent and temporal associations. Archaeological site(s) recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the Ontario Heritage Act and may not be altered or artifacts removed except by a person holding an archaeological license. Development must not proceed until additional fieldwork has been completed.
4. Property # 2919 (Table 6) should require Stage 4 construction monitoring due to the depth of subsoil and the potential for deeply buried archaeological sites.
5. First Nations should be advised in advance of commencing the Stage 3 work at these sites, so that they can observe if desired. In addition, First Nations should be consulted once the results of the Stage 3 work are complete, to discuss mitigation strategies.

Standard Clauses

6. This report is filed with the Minister of Culture in compliance with sec. 65 (1) of the Ontario Heritage Act. The ministry reviews reports to ensure that the licensee has met the terms and conditions of the license and archaeological resources have been identified and documented according to the standards and guidelines set by the ministry, ensuring the conservation, protection and preservation of the heritage of Ontario. It is recommended that development not proceed before receiving confirmation that the Ministry of Culture has entered the report into the provincial register of reports.
7. Should previously unknown or unassessed deeply buried archaeological resources be uncovered during development, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.
8. Any person discovering human remains must immediately notify the police or coroner and the Registrar of Cemeteries, Ministry of Government Services.

6. References

Archaeological Services Inc

2006 Stage 1 Archaeological Assessment-Detroit River International Crossing, City of Windsor and County of Essex (Town of La Salle and Town of Tecumseh), Ontario (ASI File #05EA-004)(MCL PIF P057-11-2005).

Archaeological Services Inc

2008 Stage 2 Archaeological Assessment of the Detroit River Crossing (DRIC), city of Windsor and County of Essex, (Town of La Salle and Town of Tecumseh), Ontario (ASI File 06EA-112 and 07EA-240)(MCL PIF P057-270-2006, P057-454-2007, P057-441-2007).

Chapman, L.J. and F. Putnam

1984 The Physiography of Southern Ontario. Ontario Geological Survey, Special Volume 2. Ontario Ministry of Natural Resources, Toronto.

2006 Standards and Guidelines for Consultant Archaeologists (final draft, September 2006). Cultural Programs Branch, Ontario Ministry of Culture, Toronto.

2007 History of Ojibway (Version OCT2007) Ojibway Nature Centre. Department of Parks and Recreation, Windsor, Ontario (<http://www.ojibway.ca/history.htm>)

2008 The Practical Alternative Evaluation Working Paper, Cultural Heritage (March 2008)