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Sent Via Email Only

April 28, 2025

Mr. Ken Elwert, CPRE
Parks and Natural Resources Director
City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309

Subject: Wetland and Watercourse Boundary Determination

Nowicki Park

ASTI File No. A25-1482.03

Applicant: City of Rochester Hills

Dear Mr. Elwert:

The City of Rochester Hills requested that a Wetland and Watercourse Boundary Determination be completed for the Nowicki Park property located on Adams Road, south of Tienken Road, north of Powderhorn Ridge Road, within the City of Rochester Hills, Oakland County, Michigan (Property).

ASTI Environmental (ASTI) completed a Wetland and Watercourse Boundary Determination in accordance with the City of Rochester Hills Wetland and Watercourse Protection Ordinance for the Property on January 29 and 30, and April 21, 2025. Two wetlands regulated by the City of Rochester Hills (City) and likely the Michigan Department of Environment, Great Lakes, and Energy (EGLE), two wetlands regulated by the City and not likely EGLE, and four wetlands not likely regulated by EGLE and not regulated by the City and were observed on the Property (see Figure 1 – *GPS-Surveyed Wetland Boundaries*). Wetland boundaries, as depicted on Figure 1, were located using a professional grade, hand-held Global Positioning System unit (GPS). ASTI offers the following comments for your consideration.

COMMENTS

1. Wetland and Watercourse Determinations (§ 126-531). This Section lists specific requirements for completion of a Wetland and Watercourse Boundary Determination. This Determination has been completed in the context of those requirements.



2. Data Used (§ 126-532). This Section lists sources available for use in investigating or determining location, boundaries, and features of watercourses and wetlands.

The United States Geological Survey (USGS) Rochester, Michigan 7.5' Quadrangle Maps, the USDA Web Soil Survey (WSS), the National Wetland Inventory Map (NWI), the EGLE Wetlands Map Viewer web site, and digital aerial photographs were all used to support the wetland determination and subsequent regulatory status of determination. All reviewed data indicated the presence of sporadic wetland in the central and southern portions of the Property.

The WSS indicates the Project Area is comprised of the soil complexes shown in Table 1 below:

Table 1 – Project Area Soils

Project Area Soils	Hydric Soil per the WSS (Yes or No)
Marlette sandy loam (1-6% slopes)	No
Capac sandy loam (0-4% slopes)	No
Brookston and Colwood loams	Yes
Fox sandy loam (till plain, 2-6% slopes)	No
Udorthents (loamy, nearly level)	No
Riddles sandy loam (1-6% slopes)	No

3. Additional Investigation (§ 126-533). This Section stipulates that the City may request information or documentation as necessary to facilitate determination of watercourse or wetland boundaries in relation to proposed activity.

No additional information is required by ASTI at this time.

4. Criteria and Evidence (§ 126-534). This Section lists criteria that shall govern the determination of wetland and watercourse boundaries. A discussion of these criteria, as they apply to the Property, can be found below:

ASTI investigated the Property for the presence of lakes, ponds, wetlands, and watercourses. This work is based on MCL 324 Part 301, Inland Lakes and Streams, Part 303, Wetlands Protection, and the City of Rochester Hills Wetland and Watercourse Protection Ordinance.

The delineation protocol used by ASTI for this delineation is based on the US Army Corps of Engineers' *Wetland Delineation Manual*, 1987, the *Regional Supplement to the Corps of Engineer Wetland Delineation Manual: Midwest Region*, and related guidance/documents, as appropriate. Wetland vegetation, hydrology, and soils were used to locate wetland boundaries.

Eight wetlands were found on the Property as discussed below.



Table 1 – Property Wetlands

			Table 1 1 10p	perty vvetiands		
Wetland Name	Wetland Type	Area within Property (acres)	Location Numbering	Wetland Determination Sheet No.	Upland Determination Sheet No.	ASTI Opinion if Regulated by EGLE under Part 303 and/or Rochester Hills under Article IV
A	Forested	0.58	A-1 to A-14	WT1	UP1	Isolated (greater than 500 feet from an inland lake, stream, or pond) and less than 5 acres in size but greater than 2 acres in size including offsite extents to the south & east. Not likely regulated under Part 303 but regulated under Article IV.
В	Forested & Emergent	3.58	B-1 to B-46 & BB-1 to BB-9	WT2	WT2	Isolated (greater than 500 feet from an inland lake, stream, or pond) and less than 5 acres in size but greater than 2 acres in size including offsite extents to the south & east. Not likely regulated under Part 303 but regulated by under Article IV.
С	Forested & Emergent	0.55	C-1 to C-9 & CC-1 to CC-5	WT3	UP3	Isolated and less than 2 acres in size. Not likely regulated under Part 303 and not regulated under Article IV.
D	Forested & Emergent	0.26	D-1 to D-15	WT4	UP5	Isolated and less than 2 acres in size. Not likely regulated under Part 303 and not regulated under Article IV.



Wetland Name	Wetland Type	Area within Property (acres)	Location Numbering	Wetland Determination Sheet No.	Upland Determination Sheet No.	ASTI Opinion if Regulated by EGLE under Part 303 and/or Rochester Hills under Article IV
E	Forested	0.13	E-1 to E-6	WT5	UP6	Isolated and less than 2 acres in size. Not likely regulated under Part 303 and not regulated under Article IV.
F	Forested	0.14	F-1 to F-11	WT6	UP7	Within 500 feet of an off-site watercourse to the north. Regulated under Part 303 and under Article IV.
G	Forested & Emergent	0.26	G-1 to G-12 & GG-1 to GG-5	WT7	UP8	Isolated and less than 2 acres in size. Not likely regulated under Part 303 and not regulated under Article IV.
H/I	Forested	0.30	H-1 to H-18, I-1 to I-4, & Z-1 to Z-6	WT8	UP10	Within 500 feet of an off-site watercourse to the north. Regulated under Part 303 and under Article IV.

Wetland Quality Assessments

Wetland A Quality Assessment

Wetland A, which is regulated by the City, is a forested wetland in the southeastern portion of the site. Wetland A was dominated by the native tree species of red maple (*Acer rubrum*) with supporting native tree species of silver maple (*Acer saccharinum*), cottonwood (*Populus deltoides*), and American elm (*Ulmus americana*); the majority of the trees observed within Wetland A were moderately mature. The shrub layer was sparse and included the common native species of green ash (*Fraxinus pennsylvanica*) and gray dogwood (*Cornus racemosa*). Invasive shrub species observed within Wetland A included multiflora rose (*Rosa multiflora*), which was a minor component in the shrub layer. Herbaceous vegetation coverage was sparse and was dominated the common native species of riverbank wild rye (*Elymus riparius*) and poison ivy (*Toxicodendron radicans*). Overall, vegetation within Wetland A was dominated by native species with minor invasive species inclusions.

Soils within Wetland A were comprised of sandy loams and appeared to be a natural and undisturbed state. No surface water was observed within Wetland A on the days of



the site inspections. Wetland A is a part of a larger wetland system that continues offsite to the east but, based on its estimated total size (~3 acres) and because it is within a highly urbanized area, does not have the potential to provide significant wildlife habitat beyond typical backyard urban species. Based on these factors, it is ASTI's opinion that Wetland A is of medium ecological quality and should be considered a semi-valuable natural resource to the City.

Wetland B Quality Assessment

Wetland B, which is regulated by the City, is a forested and emergent wetland in the south-central portion of the site. The forested portion was dominated by the native tree species of silver maple and cottonwood with supporting native species of green ash and box elder (*Acer negundo*); the majority of the trees observed within Wetland B were mature to moderately mature. The shrub layer was sparse and included the common native species of green ash and cottonwood. Invasive shrub species observed within Wetland B included multiflora rose, which was a minor component in the shrub layer. Herbaceous vegetation coverage was sparse and was dominated the native species of riverbank wild rye, calico aster (*Symphyotrichum lateriflorum*), and poison ivy. Water was actively being detained within the forested portion of Wetland B on the days of the site inspections. Overall, vegetation within the forested portion of Wetland A was dominated by native species with little non-native species.

The emergent portion of Wetland B was observed north of the forested portion; two small, forested areas were also located in this area. The emergent portion of Wetland B was dominated by the non-native species of creeping bentgrass (*Agrostis stolonifera*), purple loosestrife (*Lythrum salicaria*), and reed canary grass (*Phalaris arundinacea*), which comprised approximately 95% of all vegetation within the emergent portion of Wetland B. Herbaceous coverage was thick at the time of the inspection by ASTI. The two small, forested portions of Wetland B within the emergent portion were dominated by very young stands of cottonwood, which is a common native succession species. Shrub coverage across the emergent portion of Wetland B was sparse and sporadic and was comprised of the common native species of gray dogwood, cottonwood, and box elder. Overall, vegetation within the emergent portion of Wetland B was dominated by nonnative species (~95%). ASTI observed multiple areas of sporadic water detainment within the emergent portion along with multiple areas of saturated soils.

Overall soils within Wetland B were comprised of sandy clayey loams in the forested portion and sandy loams in the emergent portion (including the small, forested portion within the emergent portion) and appeared to be in a natural state.

The forested portion of Wetland B was of high-quality as it was dominated by native species that included multiple mature wetland trees; the emergent portion of Wetland B was dominated by non-native species (~95%). Wetland B extends outside the site to the south but to a minimal extent making its estimated total acreage approximately four acres in size (3.58 on-site) making it a relatively small wetland. For all the reasons described above and for the fact Wetland B is surrounded by urban development, it has low potential to provide locally diverse wildlife habitat but does offer adequate ecological functions associated with wetlands (water detainment, infiltration, etc.). Based on these factors, it is ASTI's opinion that the forested portion of Wetland B should be considered a



high-quality wetland area and should be considered a valuable natural resource to the City. Conversely, the emergent portion of Wetland B (including the two small, forested portions observed within) is of low-ecological quality and should not be considered a valuable natural resource to the City.

Wetland C Quality Assessment

Wetland C, which is not regulated by the City, is a forested and emergent wetland in the east-central portion of the site. The forested portion was dominated by the native tree species of silver maple and cottonwood with supporting native species of green ash; the trees observed within Wetland B were young. The shrub layer was sparse and included the common native species of green ash and cottonwood. Herbaceous vegetation coverage was very sparse and was dominated the native species of fowl manna grass (*Glyceria striata*). Water was actively being detained within the forested portion of Wetland C on the days of the site inspections. Overall, vegetation within the forested portion of Wetland C was dominated by native species with little non-native species.

The emergent portion of Wetland C was dominated by the non-native species of creeping bentgrass, purple loosestrife, and reed canary grass (approximately 95% of all vegetation within the emergent portion of Wetland C). Herbaceous coverage was thick at the time of the inspection by ASTI. Shrub coverage across the emergent portion of Wetland C was very sparse and included individuals of gray dogwood and cottonwood. Overall, vegetation within the emergent portion of Wetland C was dominated by non-native species (~95%). ASTI did not observe any areas of water detainment within the emergent portion.

Overall, soils within Wetland C were comprised of sandy clayey loams that appeared to be in a natural state.

The forested portion of Wetland C was of medium-quality vegetation-wise as it was dominated by native species including young wetland trees; the emergent portion of Wetland C was dominated by non-native species (~95%) and of low ecological quality. Wetland B extends off-site to the east but to a minimal extent making its estimated total acreage approximately 0.6 acres in size (0.55 acres on-site) making it a very small wetland. For all the reasons described above and for the fact Wetland C is surrounded by urban development, it has low potential to provide locally diverse wildlife habitat and can only offer minimal ecological functions associated with wetlands. Based on the factors stated above, it is ASTI's opinion that Wetland C should not be considered a valuable resource to the City.

Wetland D Quality Assessment

Wetland D, which is not regulated by the City, is a forested and emergent wetland in the southwestern portion of the site. The forested portion was dominated by the native tree species of green ash; trees observed within Wetland D were young. The shrub layer was sparse and included the common native species of green ash and cottonwood. Herbaceous vegetation coverage was very sparse and was dominated the non-native



species of creeping bentgrass. Water was not actively being detained within the forested portion of Wetland D on the days of the site inspections, but ASTI did observe saturated soils. Overall, vegetation within the forested portion of Wetland D was dominated by common young native tree species with the emergent layer dominated by non-native species.

The emergent portion of Wetland D was dominated by the non-native species of creeping bentgrass and curly dock (*Rumex cripus*) along with the common native species of fox sedge (*Carex vulpinoidea*); coverages of non-native and native species were generally equal (50% each). Herbaceous coverage was thick at the time of the inspection by ASTI. Tree and shrub coverage across the emergent portion of Wetland D was absent. Overall, vegetation within the emergent portion of Wetland D was distributed equally between non-native and common native species. ASTI did not observe any areas of water detainment within the emergent portion.

Overall soils within Wetland D were comprised of sandy clayey loams that appeared to be in a natural state.

The forested portion of Wetland D was of low-quality vegetation-wise as it was dominated by native species including young wetland trees; the emergent portion of Wetland D was dominated by common native and non-native species (50% each) and of low ecological quality. Wetland D does not extend outside the site and was 0.26 acres in size, making it a very small wetland. For all the reasons described above and for the fact Wetland D is surrounded by urban development, it has low potential to provide locally diverse wildlife habitat and can only offer minimal ecological functions associated with wetlands. Based on the factors above, it is ASTI's opinion Wetland D should not be considered a valuable resource to the City.

Wetland E Quality Assessment

Wetland E, which is not regulated by the City, is a forested wetland in the west-central portion of the site. Wetland E was dominated by the common species of green ash, which were young, with inclusions of the non-native species of European buckthorn (*Rhamnus cathartica*) at approximately 15%. The shrub layer was sparse and included the same species in similar distribution. Herbaceous vegetation coverage was very sparse and was dominated green ash and European buckthorn saplings. Water was not observed within Wetland E, but surface water indicators (water marks on trees) were observed. Overall, vegetation within Wetland E was dominated by native species with non-native inclusions (~15%). Soils within Wetland E were comprised of sandy loams that appeared to be in a natural state.

Wetland E was comprised of low-quality vegetation as it was dominated by common native species within non-native inclusions and is of low ecological quality. Wetland E is completely on-site and very small (0.26 acres). For all the reasons described above and for the fact Wetland E is surrounded by urban development, it has low potential to provide locally diverse wildlife habitat and can only offer minimal ecological functions associated with wetlands. Based on the factors above, it is ASTI's opinion Wetland E should not be considered a valuable resource to the City.



Wetlands F and H/I Quality Assessment

Wetlands F and H/I are connected off-site to the north and are a portion of the same wetland complex and are of similar composition, and, thus, will be discussed together for qualitative purposes. Both Wetlands F and H/I are regulated by the City and likely EGLE. These wetlands are both forested wetlands located in the northern portion of the site. They were dominated by the native tree species of silver maple, cottonwood, and green ash and were young to moderately mature. The shrub layer was dominated by green ash and American elm saplings with inclusions of the non-native species glossy buckthorn (*Frangula alnus*), which comprised approximately 20% of the shrub layer. Herbaceous vegetation coverage was sparse and was dominated the native species of calico aster, panicled aster (*Symphyotrichum lanceolatum*) with significant inclusions of the non-native species of reed canary grass, especially in Wetland F. Water was actively being detained within these wetlands during ASTI's site inspections. Overall, vegetation within these wetlands was dominated by native species with non-native inclusions (~15%). Overall soils within Wetland C were comprised of sandy clayey loams that appeared to be in a natural state.

Wetlands F and H/I were of medium-quality vegetation-wise as it was dominated by native species including young to moderately mature wetland trees. Wetlands F and H/I both extend into the same wetland complex approximately 2-4 aces in size that is part of a small riparian corridor to the north of the site that provides shade/water cooling and natural buffering to a small off-site watercourse off-site to the north. However, because it is surrounded by urban development, it has low potential to provide locally diverse wildlife habitat. Although it is small, it does provide water filtration, clarification, and other realized functions to the off-site water course. Based on the factors above, it is ASTI's opinion that Wetlands F and H/I are of medium to high ecological quality and function and should considered valuable natural resources to the City.

Wetland G Quality Assessment

Wetland G, which is not regulated by the City, is a forested and emergent wetland in the central portion of the site. The forested portion was dominated by the native tree species of green ash; trees observed within Wetland G were young. The shrub layer was sparse and included the common native species of green ash and cottonwood. Herbaceous vegetation coverage was very sparse and was dominated the non-native species of reed canary grass. Water was not actively being detained within the forested portion of Wetland G on the days of the site inspections, but ASTI did observe saturated soils. Overall, vegetation within the forested portion of Wetland G was dominated by common young native tree species with the emergent layer dominated by non-native species.

The emergent portion of Wetland G was dominated by the non-native species of purple loosestrife and reed canary grass, which comprised approximately 95% of all vegetation within the emergent portion of Wetland G. Herbaceous coverage was thick at the time of the inspection by ASTI. Shrub coverage across the emergent portion of Wetland G was sparse and sporadic and was comprised of the common native species of cottonwood. Overall, vegetation within the emergent portion of Wetland G was dominated by non-native species (~95%). ASTI observed multiple areas of sporadic saturated soils in this area.



Overall soils within Wetland G were comprised of sandy clayey loams that appeared to be in a natural state.

The forested portion of Wetland G was of low-quality vegetation-wise as it was dominated by native species comprised of young wetland trees; the emergent portion of Wetland G was dominated by non-native species (~95%) and of low ecological quality. Wetland G does not extend outside the site and was 0.26 acres in size, making it a very small wetland. For all the reasons described above and for the fact Wetland G is surrounded by urban development, it has low potential to provide locally diverse wildlife habitat and can only offer minimal ecological functions associated with wetlands. Based on the factors above, it is ASTI's opinion Wetland G should not be considered a valuable resource to the City.

SUMMARY

Based upon the data, information, criteria, and evidence noted above, ASTI finds that the Property contains two wetlands only regulated by the City (Wetlands A and B) under the City's Natural Resource Ordinance, Article IV, Wetland and Watercourse Protection, three wetlands (Wetlands F, H, and I) regulated by both the City under Article IV and likely by EGLE under Part 303, Wetlands Protection, and three wetlands (Wetlands C, D, and E) not regulated by the City or likely EGLE. Any proposed impact to the areas that ASTI has identified as regulated by the City will require a Wetland Use Permit from the City; any wetlands ASTI has identified as regulated by both the City and EGLE will require a Wetland Use Permit from the City and a Part 303 permit from EGLE.

ASTI recommends EGLE verification of wetland regulatory status of any wetlands that ASTI deems non-EGLE regulated, prior to any wetland impacts. Please note that EGLE has the final authority on the extent of regulated wetlands, lakes, and streams in the State of Michigan.

Respectfully submitted,

ASTI ENVIRONMENTAL

Kyle Hottinger Wetland Ecologist

Professional Wetland Scientist #2927

Dianne C. Martin

Dranne CMart

Director of Ecological Services Professional Wetland Scientist #1313

Attachments: Figure 1 – GPS-Surveyed Wetland Boundaries

Completed ACOE Data Sheets



See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park		City/Cour	nty: Rochest	er Hills-Oakland	Co. San	npling Date	e: 1-29	-25
Applicant/Owner: City of Rochester Hills				State:	MI San	npling Poir	nt: U	UP1
Investigator(s): ASTI - KAH		Section, T	ownship, Ran	ge: TN3 R11E	Sec 8			
Landform (hillside, terrace, etc.): plain		 	Local relief (co	oncave, convex,	none): flat			
Slope (%): 1-3 Lat: 42.689292			83.190894	,	′	n: NAD83		
Soil Map Unit Name: Marlette sandy loam (1-6% slope	es)			NW	I classification			
Are climatic / hydrologic conditions on the site typical 1	-	f voor?	Yes x		no, explain ir		`	
		-		rcumstances" pr	-			
<u> </u>							No	-
Are Vegetation, Soil, or Hydrology				lain any answer				
SUMMARY OF FINDINGS – Attach site m	ap showir	ng sampling	g point loc	ations, trans	sects, imp	ortant fe	atures	, etc.
Hydrophytic Vegetation Present? Yes X N	0	Is the	Sampled Are	ea				
	o X	withir	n a Wetland?	Yes	N	o_X_		
Wetland Hydrology Present? Yes N	o X							
Remarks:		•						
Upland adjacent to Wetland A in the SE portion of the	e site.							
VEGETATION – Use scientific names of pla		Damainant	la dia atau I					
Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance To	est workshe	et.		
1. Acer saccharinum	15	Yes	FACW	Number of Do				
2. Pinus sylvestris	15	Yes	UPL	Are OBL, FAC	•	23 THAT	6	(A)
3. Acer rubrum	10	Yes	FAC	Total Number				- ` ′
4. Fraxinus pennsylvanica	10	Yes	FACW	Across All Stra			10	(B)
5.				Percent of Dor	ninant Specie	es That		_
	50	=Total Cover		Are OBL, FAC	W, or FAC:	_	60.0%	_ (A/B)
Sapling/Shrub Stratum (Plot size: 15')							
Berberis vulgaris	25	Yes	<u>FACU</u>	Prevalence In				
2. Elaeagnus umbellata	10	Yes	UPL	Total % C			iply by:	_
3. Fraxinus pennsylvanica	10	Yes	FACW_	OBL species	0	x 1 = _	0	_
4				FACW species		x 2 = _	100	_
5	45	=Total Cover		FAC species FACU species	<u>10</u> 25	x 3 = x 4 =	30 100	_
 <u>Herb Stratum</u> (Plot size: 5')	45	- Total Covel		UPL species	35	x5=	175	-
1. Rubus occidentalis	10	Yes	UPL	Column Totals		(A)	405	(B)
Cinna arundinacea	10	Yes	FACW		Index = B/A	_	.38	_(_)
3. Symphyotrichum lateriflorum	5	Yes	FACW					_
4.				Hydrophytic \	/egetation In	dicators:		
5.				1 - Rapid ⁻	Test for Hydro	phytic Ve	getation	
6.				X 2 - Domina	ance Test is >	50%		
7.				3 - Prevale	ence Index is	≤3.0 ¹		
8					ological Adapt			
9					Remarks or o		,	
10				Problemat	ic Hydrophyti	c Vegetation	on¹ (Expla	ain)
		=Total Cover		¹ Indicators of h				must
Woody Vine Stratum (Plot size: 15')		-	be present, un	less disturbed	d or proble	matic.	
1	0			Hydrophytic				
2		=Total Cover		Vegetation	Voc. V	N.a		
		- i otai Cover		Present?	YesX	No_		
Remarks: (Include photo numbers here or on a sepa	rate sneet.)							

Profile Desc Depth		to the depth				ator or o	confirm the absence of	of indicators.)		
(inches)	Matrix Redox Features Color (moist) % Color (moist) % Type ¹				Loc ²	Texture	Rem	arks		
0-15	10YR 4/2	100	Color (IIIOlot)		Турс		Sandy	Ttom	anto	
	10111 4/2						Garidy			
15 10	10VD 4/2		10VD 4/2	10			Candy		naantrationa	
15-18	10YR 4/2	90	10YR 4/3	10	<u> </u>	M	Sandy	Faint redox co	oncentrations	<u> </u>
	-									
	oncentration, D=Depl	etion, RM=R	Reduced Matrix, I	MS=Masl	ked Sand	d Grains		PL=Pore Lining, M		
Hydric Soil								s for Problematic H	-	:
— Histosol	• •		Sandy Gle		rix (S4)			Manganese Masses		
	oipedon (A2)		Sandy Re		.,			Parent Material (F21)		
Black Hi	n Sulfide (A4)		Stripped M Dark Surfa	-))			Shallow Dark Surfac (Explain in Remarks		
	d Layers (A5)		Loamy Mu	. ,	aral (E1)		Other	(Explain in Remarks	>)	
	ick (A10)		Loamy Gl	-						
	d Below Dark Surface	(A11)	Depleted							
	ark Surface (A12)	(,	Redox Da	-						
	nosulfide (A18)		— Depleted		. ,)	³ Indicators	s of hydrophytic vege	etation and	
Sandy M	lucky Mineral (S1)		Redox De	pressions	s (F8)		wetlar	nd hydrology must b	e present,	
5 cm Mu	icky Peat or Peat (S3)					unles	s disturbed or proble	matic.	
Restrictive	Layer (if observed):									
Type:	none		_							
Depth (ir	nches):		_				Hydric Soil Present	? Yes	No	X
HYDROLC	OGY									
_	drology Indicators:									
	cators (minimum of o	ne is require			(50)			y Indicators (minimu	m of two requ	uired)
	Water (A1)		Water-Sta		` '			ce Soil Cracks (B6)		
Saturatio	ater Table (A2)		Aquatic Fa	•	•			age Patterns (B10) eason Water Table	(C2)	
	larks (B1)		Hydrogen)		sh Burrows (C8)	(02)	
	nt Deposits (B2)		Oxidized F					ation Visible on Aeria	al Imagery (C	C9)
	posits (B3)		Presence			-	` ' —	ed or Stressed Plant		,
Algal Ma	at or Crust (B4)		Recent Iro	n Reduc	tion in Ti	illed Soil	s (C6) Geom	norphic Position (D2))	
	osits (B5)		Thin Mucl	Surface	(C7)		X FAC-I	Neutral Test (D5)		
	on Visible on Aerial Ir		Gauge or	Well Dat	a (D9)					
Sparsely	Vegetated Concave	Surface (B8	Other (Ex	olain in R	emarks)					
Field Obser				_						
		S	No x	Depth (i	_					
Surface Wat			—	D			1			
Water Table	Present? Yes	s	No x	Depth (in			Wetland Hydrolog	u Brosont? Voc	No	~
Water Table Saturation P	Present? Yes	s	No x No x	Depth (in			Wetland Hydrolog	y Present? Yes	No	X
Water Table Saturation P (includes cap	Present? Yes resent? Yes pillary fringe)	s s	No x	Depth (i	nches):			y Present? Yes	No	X
Water Table Saturation P (includes cap	Present? Yes	s s	No x	Depth (i	nches):			y Present? Yes	No	X
Water Table Saturation P (includes cap	Present? Yes resent? Yes pillary fringe)	s s	No x	Depth (i	nches):			y Present? Yes	No	X
Water Table Saturation P (includes cap Describe Re	Present? Yes resent? Yes pillary fringe)	s s	No x	Depth (i	nches):			y Present? Yes	No	X
Water Table Saturation P (includes cap Describe Re	Present? Yes resent? Yes pillary fringe)	s s	No x	Depth (i	nches):			y Present? Yes	No	X

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park	nty: Roches	ter Hills-Oakland Co.	_ Sampling Da	ite: <u>1-29</u>	-25		
Applicant/Owner: City of Rochester Hills				State: MI	Sampling Po	int:l	UP2
Investigator(s): ASTI - KAH		Section, T	ownship, Ra	nge: TN3 R11E Sec	8		
Landform (hillside, terrace, etc.): slope		I	Local relief (c	concave, convex, none):	slope		
Slope (%): 4-6 Lat: 42.689294		Long:	83.191795		Datum: NAD83	3	
Soil Map Unit Name: Capac sandy loam (0-4% slopes)			NWI class	ification: none		
Are climatic / hydrologic conditions on the site typical f	for this time o	of year?	Yes x	No (If no, ex	xplain in Remark	s.)	
Are Vegetation , Soil , or Hydrology		-		Circumstances" present		-	
Are Vegetation , Soil , or Hydrology				plain any answers in Re			_
SUMMARY OF FINDINGS – Attach site m					*	features	, etc.
Hydrophytic Vegetation Present? Yes N	o X	Is the	Sampled Ar	rea			
	o X		n a Wetland?		No_X_		
Wetland Hydrology Present? Yes N	o X				- —		
Remarks: Upland adjacent to Wetland B in the SC portion of the VEGETATION – Use scientific names of pla							
TECETATION COC SCIENTING HARMES OF PIC	Absolute	Dominant	Indicator	T .			
Tree Stratum (Plot size:30')	% Cover	Species?	Status	Dominance Test wo	rksheet:		
Carya cordiformis	25	Yes	FACU	Number of Dominant	Species That		
2. Ulmus americana	10	Yes	FACW	Are OBL, FACW, or	FAC:	1	_(A)
3. Juglans nigra	10	Yes	FACU	Total Number of Don	ninant Species		
4				Across All Strata:	-	8	_(B)
5. Sapling/Shrub Stratum (Plot size: 15'	45	=Total Cover		Percent of Dominant Are OBL, FACW, or	•	12.5%	_(A/B)
1. Fraxinus americana	30	Yes	FACU	Prevalence Index w	orkshoot:		
Berberis thunbergii	10	Yes	FACU	Total % Cover of		Itiply by:	
3.					0 x 1 =	0	-
4.				· —	10 x 2 =	20	-
5.				FAC species	5 x 3 =	15	-
	40	=Total Cover		FACU species 8	35 x 4 =	340	_
Herb Stratum (Plot size: 5')				UPL species2	25 x 5 = _	125	_
1. Rubus idaeus	10	Yes	FACU		25 (A)	500	_(B)
2. Geum canadense	5	<u>No</u>	<u>FAC</u>	Prevalence Index	= B/A =	4.00	_
3. Daucus carota	5	No	UPL				
4. Actaea racemosa	10	Yes	UPL_	Hydrophytic Vegeta			
5. Rubus occidentalis 6.	10	Yes	<u>UPL</u>	1 - Rapid Test fo 2 - Dominance T	, , ,	egetation	
7				3 - Prevalence Ir			
				4 - Morphologica		Provide sui	pporting
9.					ks or on a sepa		
10.				Problematic Hyd			
Woody Vine Stratum (Plot size: 15'	40	=Total Cover		¹ Indicators of hydric s be present, unless di	soil and wetland	hydrology	,
1.	0			Hydrophytic			
2		=Total Cover		Vegetation Present? Yes	No_	Х	
Remarks: (Include photo numbers here or on a sepa				l			

	cription: (Describe t Matrix	to the dept				ator or o	confirm the absence of	of indicators.)	
Depth (inches)	Color (moist)	<u></u> %	Color (moist)	x Featur %	Type ¹	Loc ²	Texture	Remark	e
0-3			Color (moist)		Туре			Tellian	<u> </u>
	10YR 3/2	100					Sandy		
3-18	10YR 4/4	95	10YR 3/3	5	С	M	Sandy	Faint redox conc	entrations
	oncentration, D=Depl	etion, RM=	Reduced Matrix, N	//S=Mas	ked San	d Grains		PL=Pore Lining, M=M	
Hydric Soil			Sandy Cla	wad Mat	riv (C1)			s for Problematic Hyd	
— Histosol	pipedon (A2)		Sandy Gle Sandy Re	•	IX (54)			Manganese Masses (F1 Parent Material (F21)	2)
_	istic (A3)		Stripped M		:)			Shallow Dark Surface (F	=22)
	en Sulfide (A4)		Dark Surfa		,,			· (Explain in Remarks)	22)
	d Lavers (A5)		Loamy Mu	, ,	aral (E1)			(Explain in Remarks)	
	uck (A10)		Loamy Gle	•	, ,				
	d Below Dark Surface	(A11)	Depleted I	•	, ,				
	ark Surface (A12)	(////	Redox Dai						
	nosulfide (A18)		Depleted [, ,)	³ Indicator	s of hydrophytic vegetat	ion and
	/lucky Mineral (S1)		Redox De		` '	,		nd hydrology must be p	
	ucky Peat or Peat (S3)				s disturbed or problema			
Restrictive	Layer (if observed):								
Type:	none								
Depth (i	nches):						Hydric Soil Present	? Yes	No X
Remarks:									
HYDROLO	OGY								
Wetland Hy	drology Indicators:								
Primary Indi	cators (minimum of o	ne is requir	ed; check all that	apply)			<u>Secondar</u>	y Indicators (minimum o	of two required)
Surface	Water (A1)		Water-Sta	ined Lea	ves (B9))		ce Soil Cracks (B6)	
High Wa	ater Table (A2)		Aquatic Fa	auna (B1	3)		Drain	age Patterns (B10)	
Saturation	on (A3)		True Aqua	tic Plant	s (B14)		Dry-S	eason Water Table (C2	2)
	larks (B1)		Hydrogen					ish Burrows (C8)	
	nt Deposits (B2)		Oxidized F	•		-		ation Visible on Aerial I	
	posits (B3)		Presence			` '		ed or Stressed Plants (I	D1)
	at or Crust (B4)		Recent Iro			illed Soil	` ' —	norphic Position (D2)	
	posits (B5)	·=-	Thin Muck		. ,		FAC-	Neutral Test (D5)	
	on Visible on Aerial In								
	y Vegetated Concave	Surface (B	8) Other (Exp	plain in R	emarks))			
Field Obser									
Surface Wa		s		Depth (i					
Water Table		s		Depth (i			l		
Saturation F		s	No <u>x</u>	Depth (i	ncnes): _		Wetland Hydrolog	y Present? Yes	No_X_
	pillary fringe)		mikaninan serati	- 4 - ما مد ا			Mana Viff and State of the Control o		
Describe Re	ecorded Data (stream	gauge, moi	nitoring well, aeria	ıı pnotos	, previou	s inspec	cuons), it available:		
Remarks:									

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park		_ City/Cour	nty: Roches	ter Hills-Oakland Co.	Sampling Da	ite: <u>1-29</u> -	-25
Applicant/Owner: City of Rochester Hills				State: MI	Sampling Po	int:l	UP3
Investigator(s): ASTI - KAH		Section, T	ownship, Ra	nge: TN3 R11E Sec 8	8		
Landform (hillside, terrace, etc.): plain		_ 	_ocal relief (c	concave, convex, none):	flat		
Slope (%): 1-3 Lat: 42.690461		 Long: -{	83.19118		Datum: NAD83	3	
Soil Map Unit Name: Marlette sandy loam (1-6% slop	pes)			NWI class	ification: none		
Are climatic / hydrologic conditions on the site typical	for this time of v	rear?	Yes x	No (If no, ex	nlain in Remark	s)	
Are Vegetation , Soil , or Hydrology	-			Circumstances" present?		No No	
Are Vegetation, Soil, or Hydrology	-			plain any answers in Re			-
SUMMARY OF FINDINGS – Attach site n	_			-	•	eatures	, etc.
Lludrophytic Vocatation Procest? Voc	No. V	lo the	Compled A				
	No X No X		Sampled Aı a Wetland?		No. Y		
	No X	Within	i a vvelialiu :	163	No X		
Remarks:	<u> </u>						
Upland adjacet to Wetland C in the east-central port	tion of the site.						
VEGETATION – Use scientific names of p	lants.						
	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: 30')		Species?	Status	Dominance Test wo	rksheet:		
1.	0			Number of Dominant	•	4	(4)
2. 3.				Are OBL, FACW, or I	-	1	_(A)
4.				Total Number of Don Across All Strata:	linant Species	3	(B)
5.				Percent of Dominant	Species That		_('')
		otal Cover		Are OBL, FACW, or I	•	33.3%	(A/B)
Sapling/Shrub Stratum (Plot size: 15')				_		- ` ′
1.	0			Prevalence Index w	orksheet:		
2.				Total % Cover o	f: Mul	Itiply by:	_
3.				OBL species	0 x 1 = _	0	_
4				' <u></u>	20 x 2 = _	40	_
5				· · · —	10 x 3 = _	30	_
	=T	otal Cover		· · · · · · · · · · · · · · · · · · ·	15 x 4 = _	180	_
Herb Stratum (Plot size: 5')	40		E4011	·	$\frac{25}{25}$ x 5 = _	125	- (D)
Symphyotrichum ericoides Bhlaver gratages	_ 10	No No	FACU	Column Totals: 1		375	_(B)
Phleum pratense Agrostis stolonifera	- <u>10</u> 15	No Yes	FACU FACW	Prevalence Index	- b/A	3.75	-
Agrosus stolorinera Daucus carota	10	No	UPL	Hydrophytic Vegeta	tion Indicators		
5. Poa pratensis	10	No	FAC	1 - Rapid Test fo			
6. Bromus inermis	25	Yes	FACU	2 - Dominance T		2gotation	
7. Euthamia graminifolia	5	No	FACW	3 - Prevalence In			
8. Elaeagnus umbellata	15	Yes	UPL	4 - Morphologica		Provide su	pporting
9.				data in Remar	ks or on a sepai	rate sheet)	1
10				Problematic Hyd	rophytic Vegeta	tion ¹ (Expla	ain)
	100 =T	otal Cover		¹ Indicators of hydric s			must
Woody Vine Stratum (Plot size: 15'	_)			be present, unless di	sturbed or probl	ematic.	
1.	0			Hydrophytic			
2		otal Carre		Vegetation	AI.	~	
		otal Cover		Present? Yes	No_	<u> </u>	
Remarks: (Include photo numbers here or on a sep	arate sheet.)						

Profile Desc Depth	cription: (Describe t Matrix	o the depth		cument th ox Featur		ator or o	confirm the absence of	of indicators.)			
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Re	marks		
0-2	10YR 3/2	100	Color (Molot)		Турс		Sandy		лино		—
	1011(3/2	100									—
0.40	40\/D 4/4	400					Canada				
2-18	10YR 4/4	100					Sandy				—
							-				
¹ Type: C=Ce	oncentration, D=Depl	etion, RM=R	Reduced Matrix,	MS=Mas	ked Sand	d Grains	. ² Location	PL=Pore Lining,	M=Matrix.		
Hydric Soil	Indicators:						Indicator	s for Problemation	Hydric S	oils³:	
Histosol	(A1)		Sandy Gl		rix (S4)		Iron-N	∕langanese Masse	s (F12)		
	pipedon (A2)		Sandy Re					Parent Material (F2	,		
Black Hi	` '		Stripped I	-	6)			Shallow Dark Surf			
	n Sulfide (A4)		Dark Surf	, ,			Other	(Explain in Rema	rks)		
	Layers (A5)		Loamy M								
	ick (A10)	(0.44)	Loamy G	-							
	Below Dark Surface	(A11)	Depleted Redox Da	-							
	ark Surface (A12) nosulfide (A18)		Depleted		. ,	`	³ Indicator	s of hydrophytic ve	anetation a	nd	
	lucky Mineral (S1)		Redox De			,		nd hydrology must	-		
	icky Peat or Peat (S3))		process	3 (1 0)			s disturbed or prol		14,	
	Layer (if observed):					1		•			
Type:	none										
Depth (ir	nches):						Hydric Soil Present	? Ye	s	No _	Χ
HYDROLC	GY										
Wetland Hy	drology Indicators:										
	cators (minimum of or	ne is require						<u>y Indicators (minir</u>		requir	<u>ed)</u>
	Water (A1)		Water-Sta		` '	1		ce Soil Cracks (Be	•		
·	iter Table (A2)		Aquatic F	•	•			age Patterns (B10			
Saturatio			True Aqu			`		eason Water Tab	e (C2)		
	arks (B1) nt Deposits (B2)		Hydrogen Oxidized					ish Burrows (C8) ation Visible on Ae	orial Image	ny (CO)	
	oosits (B3)		Presence			-	` '	ed or Stressed Pla	-	ry (Ca)	!
	it or Crust (B4)		Recent Ir			. ,		norphic Position (E			
	osits (B5)		Thin Muc				` '	Neutral Test (D5)	/		
	on Visible on Aerial In	nagery (B7)	—— Gauge or		` '			(- /			
Sparsely	Vegetated Concave	Surface (B8	Other (Ex	plain in R	emarks)						
Field Obser	vations:										
Surface Wat	er Present? Yes	·	No x	Depth (i	nches): _						
Water Table	Present? Yes	<u> </u>	No x	Depth (i							
Saturation P	resent? Yes	·	No <u>x</u>	Depth (i	nches): _		Wetland Hydrolog	y Present? Ye	s	No _	<u>X</u>
(includes cap							1				
Describe Re	corded Data (stream	gauge, mon	itoring well, aeri	aı photos	, previou	s inspec	ctions), if available:				
Remarks:											
Remarks:											
Remarks:											

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki	ı Park				City/Co	unty: Roches	ster Hills-Oa	akland (Co. S	ampling [vate: <u>1-2</u>	29-25
Applicant/Owner:	City of Roche	ster Hills					Stat	te: !	<u>иі</u> s	ampling F	oint:	UP4
Investigator(s): ASTI	- KAH				Section,	Township, Ra	inge: TN3	3 R11E	Sec 8			
Landform (hillside, te	errace, etc.): <u>pl</u>	lain				Local relief (d	concave, co	onvex, r	none): <u>flat</u>			
Slope (%): 1-3	Lat: 42.6889	 971			Long:	-83.192781			Dat	um: NAD	33	
Soil Map Unit Name:			slopes)		•.			NWI	classificat			
Are climatic / hydrolo	naic conditions	on the site tyn	ical for thi	s time o	f vear?	Yes x	Nο	— (If	no, explain	in Rema	rks)	
Are Vegetation	_				-	Are "Normal (
Are Vegetation											- ''' —	
		_				(If needed, ex						
SUMMARY OF I	-INDINGS -	- Attach Sit	e map s	nowin	ıg sampılı	ng point io	cations,	trans	ects, im	portant	teature	s, etc.
Hydrophytic Vegeta	tion Present?	Yes	No X	(Is th	e Sampled A	rea					
Hydric Soil Present	?	Yes	No X	_	with	in a Wetland'	?	Yes		No X		
Wetland Hydrology	Present?	Yes	No X								•	
Remarks:												
General upland con	ditions in the S	C poriton of the	ne site.									
VEGETATION –	Use scienti	fic names o										
Tree Stratum	(Plot size:	30' \		solute Cover	Dominant Species?	Indicator Status	Domina	anco To	st worksh	oot:		
1. Acer negundo	(Flot size			35	Yes	FAC						
2.					100	1710			ninant Spe <i>N</i> , or FAC		1	(A)
3.									of Dominar			_('')
4.							Across			п орсоюз	4	(B)
5.							Percent	of Don	ninant Spe	cies That		— `'
				35 =	=Total Cover		1		N, or FAC		25.0%	(A/B)
Sapling/Shrub Strat	<u>um</u> (Plot	t size: 15')									
1. Elaeagnus umb	ellata			15	Yes	UPL	Prevale	nce Inc	dex works	heet:		
2							Tot	tal % C	over of:		ultiply by:	
3							OBL sp	ecies	0	_ x1=	0	
4							FACW			_ x 2 =		_
5							FAC sp		45	_ x3=		_
	(5)	-ı \		15 =	=Total Cover		FACU s	•	90	_ ×4=		_
Herb Stratum	(Plot size:	5')		50	V	EAGU	UPL spe		15	$-(x^{5})$		— _(D)
1. Bromus inermis				50	Yes	FACU	Column			(A)	3.80	(B)
 Symphyotrichun Populus deltoide 				10	No No	FACU FAC	Preva	alence	Index = B/	A	3.00	_
4. Solidago altissir				30	Yes	FACU	Hydron	hytic V	egetation	Indicator	·c·	
	nu .					17100		-	est for Hy			1
6.							. —	•	ince Test is		. ogotation	
7.									nce Index			
0							4 - 1	Morpho	logical Ada	aptations ¹	(Provide s	upporting
							d	lata in F	Remarks o	on a sep	arate shee	et)
10.							Pro	blemati	c Hydroph	ytic Veget	ation¹ (Exp	olain)
			_	100 =	Total Cover				ydric soil a			y must
Woody Vine Stratur	<u>n</u> (Plot	t size:15')				be prese	ent, unl	ess disturb	ed or pro	olematic.	
				0			Hydrop	hytic				
2							Vegetat					
					=Total Cover		Present	t?	Yes	No	<u> </u>	
Remarks: (Include	photo numbers	s here or on a	separate s	sheet.)								

Depth	Matrix		Red	ox Featur	20			
(inches)	Color (moist)	% Cc	olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	10YR 3/2	100	ioi (moiot)		Турс		Sandy	Romano
	1011(3/2	100					Garidy	
2.40	40\/D 4/2						Candy	
3-18	10YR 4/3	100					Sandy	
	oncentration, D=Depl	etion, RM=Red	uced Matrix,	MS=Mas	ked Sand	d Grains		PL=Pore Lining, M=Matrix.
Hydric Soil								s for Problematic Hydric Soils ³ :
— Histosol	` '	_	Sandy Gl		rix (S4)			Manganese Masses (F12)
	pipedon (A2)	_	Sandy Re					Parent Material (F21)
Black His	` '	_	Stripped I	-	5)			Shallow Dark Surface (F22)
	n Sulfide (A4)	_	Dark Surf	, ,			Other	(Explain in Remarks)
	Layers (A5)	_	Loamy Mi					
2 cm Mu		(411)	Loamy GI					
	d Below Dark Surface ark Surface (A12)	(A11) _	Depleted Redox Da	-				
_	nosulfide (A18)	_	Depleted		. ,	١	³ Indicators	s of hydrophytic vegetation and
	lucky Mineral (S1)	_	Redox De			,		nd hydrology must be present,
	icky Peat or Peat (S3	_		process	3 (1 0)			s disturbed or problematic.
	Layer (if observed):	<u>, </u>				Ι		·
Type:	none							
Depth (ir	nches):						Hydric Soil Present	? Yes No_X_
HYDROLO	GY							
Wetland Hy	drology Indicators:							
	cators (minimum of o							
Surface	\	ne is required;						y Indicators (minimum of two required)
High Wa		ne is required; o	Water-Sta	ained Lea	` '	1	Surfac	ce Soil Cracks (B6)
O 1 11	iter Table (A2)	ne is required; o	Water-Sta Aquatic F	ained Lea auna (B1	3) ` ´	1	Surface Draina	ce Soil Cracks (B6) age Patterns (B10)
Saturatio	nter Table (A2) on (A3)	ne is required; o - -	Water-Sta Aquatic F True Aqua	ained Lea auna (B1 atic Plant	3) s (B14)		Surface Draina	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2)
Water M	nter Table (A2) on (A3) larks (B1)	ne is required; o - - -	Water-Sta Aquatic F True Aqua Hydrogen	ained Lea auna (B1 atic Plant Sulfide (3) s (B14) Odor (C1)	Surfac Draina Dry-S Crayfi	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8)
Water M Sedimen	nter Table (A2) on (A3) larks (B1) nt Deposits (B2)	ne is required; one is req 	Water-Sta Aquatic F True Aqua Hydrogen Oxidized	ained Lea auna (B1 atic Plant Sulfide (Rhizosph	3) s (B14) Odor (C1 eres on l) Living Ro	SurfactDrainateDry-SCrayfit poots (C3)Satura	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9)
Water M Sedimen Drift Dep	nter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)	ne is required; o	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence	ained Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc	3) s (B14) Odor (C1 eres on led) Living Ro (C4)	SurfaceDrainsDry-SCrayfit poots (C3)SaturaStunte	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)
Water M Sedimen Drift Dep Algal Ma	on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4)	ne is required; d	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Iru	ained Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc	3) s (B14) Odor (C1 eres on led Iron (tion in Ti) Living Ro (C4)	Surface Draina Dry-S Crayfi oots (C3) Satura Stunte s (C6) Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) torphic Position (D2)
Water M Sedimen Drift Dep Algal Ma	on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	- - - - - -	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Iro Thin Mucl	ained Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc k Surface	3) s (B14) Odor (C1 eres on led Iron (tion in Ti) Living Ro (C4)	Surface Draina Dry-S Crayfi oots (C3) Satura Stunte s (C6) Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)
Water M Sedimen Drift Dep Algal Ma Iron Dep	on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4)		Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Iru	ained Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc k Surface Well Dat	3) s (B14) Odor (C1 eres on led Iron (tion in Ti (C7) a (D9)) Living Ro (C4) illed Soil	Surface Draina Dry-S Crayfit oots (C3) Satura Stunte s (C6) Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) torphic Position (D2)
Water M Sedimen Drift Dep Algal Ma Iron Dep	nter Table (A2) on (A3) larks (B1) nt Deposits (B2) oosits (B3) nt or Crust (B4) oosits (B5) on Visible on Aerial In v Vegetated Concave		Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Iro Thin Mucl Gauge or	ained Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc k Surface Well Dat	3) s (B14) Odor (C1 eres on led Iron (tion in Ti (C7) a (D9)) Living Ro (C4) illed Soil	Surface Draina Dry-S Crayfit oots (C3) Satura Stunte s (C6) Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) torphic Position (D2)
Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio	ter Table (A2) on (A3) larks (B1) ot Deposits (B2) oosits (B3) ot or Crust (B4) oosits (B5) on Visible on Aerial In v Vegetated Concave vations:	nagery (B7) Surface (B8)	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ira Thin Mucl Gauge or Other (Ex	ained Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc k Surface Well Dat plain in R	3) s (B14) Ddor (C1 eres on led Iron (tion in Ti (C7) a (D9)) Living Ro (C4) illed Soil	Surface Draina Dry-S Crayfit oots (C3) Satura Stunte s (C6) Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) torphic Position (D2)
Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely	ter Table (A2) on (A3) larks (B1) ot Deposits (B2) oosits (B3) ot or Crust (B4) oosits (B5) on Visible on Aerial In v Vegetated Concave vations: er Present?	nagery (B7) Surface (B8)	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Iro Thin Mucl Gauge or	ained Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc k Surface Well Dat plain in R	3) s (B14) Odor (C1 eres on led Iron (tion in Ti (C7) a (D9) emarks)) Living Ro (C4) Illed Soil	Surface Draina Dry-S Crayfit oots (C3) Satura Stunte s (C6) Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) torphic Position (D2)
Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat	ter Table (A2) on (A3) larks (B1) ot Deposits (B2) oosits (B3) ot or Crust (B4) losits (B5) on Visible on Aerial In ovegetated Concave vations: er Present? Yes Present?	nagery (B7)	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ird Thin Mucl Gauge or Other (Ex	ained Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc k Surface Well Dat plain in R	3) s (B14) Odor (C1 eres on l eres on l tion in Ti (C7) a (D9) emarks) nches): _ nches): _) Living Ro (C4) Illed Soil	Surface Draina Dry-S Crayfit oots (C3) Satura Stunte s (C6) Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) corphic Position (D2) Neutral Test (D5)
Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	nter Table (A2) on (A3) larks (B1) on (B2) oosits (B3) ot or Crust (B4) oosits (B5) on Visible on Aerial In v Vegetated Concave vations: er Present? Yes present? Yes oillary fringe)	nagery (B7)	Water-Sta Aquatic F True Aqua Hydrogen Oxidized I Presence Recent Iru Thin Mucl Gauge or Other (Ex	ained Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc k Surface Well Dat plain in R Depth (i Depth (i	3) s (B14) Ddor (C1 eres on led Iron (C7) a (D9) emarks) enches): _ nches): _) Living Ro (C4) illed Soil	Surface Draina Dry-S Crayfi oots (C3) Satura Stunte s (C6) FAC-I	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) corphic Position (D2) Neutral Test (D5)
Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	on (A3) Inter Table (A2) Inter Table (A2) Inter Table (B1) Inter Table (B2) Inter Table (B2) Inter Table (B2) Inter Table (B3) Inter Table (B4) Inter Table (B4) Inter Table (B4) Inter Table (B4) Inter Table (B2) Inter Table (B2) Inter Table (B2) Inter Table (B2) Inter Table (A2) Inter Table (B2) Inter Table (B2	nagery (B7)	Water-Sta Aquatic F True Aqua Hydrogen Oxidized I Presence Recent Iru Thin Mucl Gauge or Other (Ex	ained Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc k Surface Well Dat plain in R Depth (i Depth (i	3) s (B14) Ddor (C1 eres on led Iron (C7) a (D9) emarks) enches): _ nches): _) Living Ro (C4) illed Soil	Surface Draina Dry-S Crayfi oots (C3) Satura Stunte s (C6) FAC-I	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) corphic Position (D2) Neutral Test (D5)
Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	nter Table (A2) on (A3) larks (B1) on (B2) oosits (B3) ot or Crust (B4) oosits (B5) on Visible on Aerial In v Vegetated Concave vations: er Present? Yes present? Yes oillary fringe)	nagery (B7)	Water-Sta Aquatic F True Aqua Hydrogen Oxidized I Presence Recent Iru Thin Mucl Gauge or Other (Ex	ained Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc k Surface Well Dat plain in R Depth (i Depth (i	3) s (B14) Ddor (C1 eres on led Iron (C7) a (D9) emarks) enches): _ nches): _) Living Ro (C4) illed Soil	Surface Draina Dry-S Crayfi oots (C3) Satura Stunte s (C6) FAC-I	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) corphic Position (D2) Neutral Test (D5)
Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap Describe Re	nter Table (A2) on (A3) larks (B1) on (B2) oosits (B3) ot or Crust (B4) oosits (B5) on Visible on Aerial In v Vegetated Concave vations: er Present? Yes present? Yes oillary fringe)	nagery (B7)	Water-Sta Aquatic F True Aqua Hydrogen Oxidized I Presence Recent Iru Thin Mucl Gauge or Other (Ex	ained Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc k Surface Well Dat plain in R Depth (i Depth (i	3) s (B14) Ddor (C1 eres on led Iron (C7) a (D9) emarks) enches): _ nches): _) Living Ro (C4) illed Soil	Surface Draina Dry-S Crayfi oots (C3) Satura Stunte s (C6) FAC-I	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) corphic Position (D2) Neutral Test (D5)
Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap Describe Re	nter Table (A2) on (A3) larks (B1) on (B2) oosits (B3) ot or Crust (B4) oosits (B5) on Visible on Aerial In v Vegetated Concave vations: er Present? Yes present? Yes oillary fringe)	nagery (B7)	Water-Sta Aquatic F True Aqua Hydrogen Oxidized I Presence Recent Iru Thin Mucl Gauge or Other (Ex	ained Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc k Surface Well Dat plain in R Depth (i Depth (i	3) s (B14) Ddor (C1 eres on led Iron (C7) a (D9) emarks) enches): _ nches): _) Living Ro (C4) illed Soil	Surface Draina Dry-S Crayfi oots (C3) Satura Stunte s (C6) FAC-I	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) corphic Position (D2) Neutral Test (D5)

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park		City/Cou	nty: Roches	ter Hills-Oakland Co.	Sampling Date	te: <u>1-29</u>	-25	
Applicant/Owner: City of Rochester Hills	State: MI Sampling Point: UP5							
Investigator(s): ASTI - KAH		Section, T	ownship, Ra	nge: TN3 R11E Sec 8				
Landform (hillside, terrace, etc.): plain			Local relief (d	concave, convex, none):	flat			
Slope (%): 1-3 Lat: 42.689149		Long: -	83.193393		Datum: NAD83			
Soil Map Unit Name: Marlette sandy loam (1-6% sk	opes)			NWI classi	fication: none			
Are climatic / hydrologic conditions on the site typic	al for this time o	f vear?	Yes x	No (If no, exp	olain in Remarks	s.)		
Are Vegetation , Soil , or Hydrology	significantly of			Circumstances" present?		, No		
Are Vegetation, Soil, or Hydrology	_			plain any answers in Rei			_	
SUMMARY OF FINDINGS – Attach site					•	eatures	, etc.	
Hydrophytic Vegetation Present? Yes X	No	Is the	Sampled A	rea				
Hydric Soil Present? Yes	No X	l	n a Wetland		No X			
Wetland Hydrology Present? Yes	No X				<u>//</u>			
Remarks: Upland adjacent to Wetland D in the SW portion or	f the site.	<u>'</u>						
VEGETATION – Use scientific names of	plants.							
	Absolute	Dominant	Indicator					
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wor	ksheet:			
Populus deltoides 2.	15	Yes	<u>FAC</u>	Number of Dominant Are OBL, FACW, or F	•	4	(A)	
3.				Total Number of Dom	_	<u> </u>	_ (' ')	
4.				Across All Strata:	_	7	_(B)	
5.				Percent of Dominant	Species That		_	
	15:	=Total Cover		Are OBL, FACW, or F	AC:	57.1%	_(A/B)	
Sapling/Shrub Stratum (Plot size: 15')							
1. Elaeagnus umbellata	15	Yes	UPL	Prevalence Index wo		tha barbara		
2. Juniperus virginiana	15	Yes	FACU_	Total % Cover of		tiply by:	-	
3				OBL species 19 FACW species 39		10 60	_	
4				FACW species 3 FAC species 4		135	-	
J	30	Total Cover		FACU species 4		180	-	
Herb Stratum (Plot size: 5')		- Total Covel		UPL species 1		75	-	
1. Solidago gigantea	20	Yes	FACW	Column Totals: 14		460	(B)	
Symphyotrichum lanceolatum	15	Yes	FAC	Prevalence Index		3.17	_(_)	
3. Bromus inermis	30	Yes	FACU		-		_	
4. Euthamia graminifolia	10	No	FACW	Hydrophytic Vegetat	ion Indicators:			
5. Poa pratensis	15	Yes	FAC	1 - Rapid Test for	Hydrophytic Ve	egetation		
6. Lythrum salicaria	10	No	OBL	X 2 - Dominance Te				
7.				3 - Prevalence Inc	dex is ≤3.0 ¹			
8.				4 - Morphological	Adaptations ¹ (F	rovide su	pporting	
9.				data in Remark	s or on a separ	ate sheet)	,	
10				Problematic Hydr	ophytic Vegetat	ion ¹ (Expla	ain)	
Woody Vine Stratum (Plot size: 15'	100	=Total Cover		¹ Indicators of hydric s be present, unless dis			must	
1	— ′ 0			·	I Proble			
2.				Hydrophytic Vegetation				
		Total Cover		Present? Yes	X No			
Remarks: (Include photo numbers here or on a se	enarate sheet \							
,	,							

Profile Desc Depth	cription: (Describe t Matrix	o the depth	needed to do	ator or o	confirm the absence of	f indicators.)					
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Re	marks		
0-12	10YR 4/3	100	Color (Moist)		Турс		Sandy		mano		—
0-12	1011(4/0	100					Candy				
12-18	10YR 4/3	 	10YR 6/4	10			Sandy	Faint redox	concentra	tions	—
12-10	1011(4/0						Garidy				—
			10YR 6/6	5	<u> </u>	<u>M</u>		Distinct redo	x concenir	alions	—
											—
1							2				
	oncentration, D=Depl	etion, RM=R	educed Matrix,	MS=Masl	ked Sand	d Grains		PL=Pore Lining,			
Hydric Soil Histosol			Sandy Cl	avad Mate	iv (C1)			s for Problematic Manganese Masse	-	ons :	
	pipedon (A2)		Sandy Re	eyed Mati	IX (34)			Parent Material (F2			
Black Hi				Matrix (S6	3)			Shallow Dark Surfa	,		
	n Sulfide (A4)		Dark Sur	-	')			(Explain in Rema			
	Layers (A5)			ucky Mine	eral (F1)			(,		
	ick (A10)			leyed Mat							
	d Below Dark Surface	(A11)		Matrix (F							
Thick Da	ark Surface (A12)		Redox Da	ark Surfac	e (F6)						
Iron Mor	osulfide (A18)		Depleted	Dark Sur	face (F7))	³ Indicators	s of hydrophytic ve	egetation a	ınd	
Sandy M	lucky Mineral (S1)		Redox De	epression	s (F8)		wetland hydrology must be present,				
5 cm Mucky Peat or Peat (S3)							unles	s disturbed or prob	olematic.		
Restrictive	Layer (if observed):										
Type:	none		_								
Depth (ir	nches):		_				Hydric Soil Present	? Ye	s	No_	<u>X</u>
HYDROLC	OGY										
_	drology Indicators:										
	cators (minimum of o	ne is require			(50)			y Indicators (minin		o requir	<u>'ed)</u>
	Water (A1)			ained Lea	` ,			ce Soil Cracks (B6	•		
Saturatio	iter Table (A2)			auna (B1 atic Plant				age Patterns (B10 eason Water Tabl			
	arks (B1)			Sulfide ()		sh Burrows (C8)	6 (02)		
	nt Deposits (B2)			Rhizosph				ation Visible on Ae	erial Image	erv (C9))
	posits (B3)			of Reduc		-	` '	ed or Stressed Pla	•	, ()	
	it or Crust (B4)		Recent Ir	on Reduc	tion in Ti	lled Soil		orphic Position (D			
Iron Dep	osits (B5)		Thin Muc	k Surface	(C7)		FAC-I	Neutral Test (D5)			
Inundation	on Visible on Aerial In	nagery (B7)	Gauge or	Well Dat	a (D9)						
Sparsely	Vegetated Concave	Surface (B8)	Other (E)	plain in R	emarks)						
Field Obser	vations:										
Surface Wat	er Present? Yes		No x	Depth (i	_						
			No x	Depth (i						Ma	V
Water Table				Danth (D			
Saturation P	resent? Yes		No x	Depth (i	nches): _		Wetland Hydrolog	y Present? Ye	s	No _	<u>^</u>
Saturation P (includes cap	resent? Yes pillary fringe)	<u> </u>	No x			s insner		y Present? Ye	s	NO _	<u>^</u>
Saturation P (includes cap	resent? Yes	<u> </u>	No x			s inspec		y Present? Ye	s	NO _	
Saturation P (includes cap	resent? Yes pillary fringe)	<u> </u>	No x			s inspec		y Present? Ye	s	NO	<u>^</u>
Saturation P (includes cap Describe Re	resent? Yes pillary fringe)	<u> </u>	No x			s inspec		y Present? Ye	s	NO	
Saturation P (includes cap Describe Re	resent? Yes pillary fringe)	<u> </u>	No x			s inspec		y Present? Ye	s	NO	

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park		City/Cou	nty: Roches	ter Hills-Oakland Co.	Sampling Da	ate: <u>1-29</u>	1-25
Applicant/Owner: City of Rochester Hills				State: MI	Sampling Po	int:!	UP6
Investigator(s): ASTI - KAH		Section, T	ownship, Ra	nge: TN3 R11E Sec	c 8		
Landform (hillside, terrace, etc.): plain			Local relief (c	concave, convex, none	e): flat		
Slope (%): 1-3 Lat: 42.690698		Long: -	83.193693		Datum: NAD83	3	
Soil Map Unit Name: Ca[pac sandy loam (0-4% slop	pes)			NWI clas	ssification: none		
Are climatic / hydrologic conditions on the site typica	al for this time o	f vear?	Yes x	No (If no, e	explain in Remark	s.)	
Are Vegetation , Soil , or Hydrology		-		Circumstances" preser			
Are Vegetation , Soil , or Hydrology				plain any answers in F			_
SUMMARY OF FINDINGS – Attach site					,	features	, etc.
Hydrophytic Vegetation Present? Yes	No X	Is the	Sampled Ar	rea			
	No X		n a Wetland?		No _ X		
Wetland Hydrology Present? Yes	No X						
Remarks: Upland adjacent to Wetland E in the west-central p VEGETATION – Use scientific names of p		е.					
	Absolute	Dominant	Indicator				
Tree Stratum (Plot size:30')	% Cover	Species?	Status	Dominance Test v	vorksheet:		
1. Populus deltoides	10	Yes	<u>FAC</u>	Number of Domina	•		
2. Juniperus virginiana	25	Yes	<u>FACU</u>	Are OBL, FACW, o	r FAC:	1	_ (A)
3.				Total Number of Do	ominant Species	0	(D)
4 5.				Across All Strata:	-	6	_ ^(B)
J	35	=Total Cover		Percent of Dominal Are OBL, FACW, o	•	16.7%	(A/B)
Sapling/Shrub Stratum (Plot size: 15')			7 022, 17.011, 0	_		_(''')
1. Elaeagnus umbellata	一 ′ 5	Yes	UPL	Prevalence Index	worksheet:		
2.				Total % Cover	of: Mu	Itiply by:	_
3.	_			OBL species	0 x 1 =	0	_
4				FACW species	15 x 2 =	30	_
5				FAC species	15 x 3 =	45	_
	5	=Total Cover		FACU species	95 x 4 = _	380	_
Herb Stratum (Plot size: 5')	40		=	UPL species	15 x 5 = _	75	– <u>(5)</u>
1. Solidago altissima		Yes	FACU		140 (A)	530	_ ^(B)
2. Rumex crispus	_ 5	No No	FAC	Prevalence Inde	x = B/A =	3.79	_
Bromus inermis Solidago juncea		Yes No	FACU_ UPL	Hydrophytic Vege	tation Indicators	 	
5. Agrostis stolonifera	10	No	FACW	' ' '	for Hydrophytic V		
6. Euthamia graminifolia		No	FACW	2 - Dominance		egetation	
7. Lotus corniculatus		Yes	FACU	3 - Prevalence			
8.					cal Adaptations ¹ (F	Provide su	pporting
9.					arks or on a sepa		
10.				Problematic Hy	drophytic Vegeta	tion ¹ (Expl	ain)
	100	=Total Cover		¹ Indicators of hydric	soil and wetland	hydrology	must
Woody Vine Stratum (Plot size: 15')			be present, unless	disturbed or probl	ematic.	
1.	0			Hydrophytic			
2				Vegetation		V	
		=Total Cover		Present? Ye	esNo_	<u> </u>	
Remarks: (Include photo numbers here or on a se	parate sheet.)						

Profile Descripe	ription: (Describe t Matrix	o the depth		iment th x Feature		tor or o	confirm the absence o	f indicators.)	
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-18	10YR 4/3	100					Sandy		
0-10	10111 4/0	100					Garidy		
¹ Type: C=Co	ncentration, D=Depl	etion RM=R	educed Matrix M	 leeM=21	ed Sand	Grains	² Location:	PL=Pore Lining, M=Matrix.	
Hydric Soil I		otion, raw ra	Caacca Watrix, W	io ividoi	tou ounu	Oranio		for Problematic Hydric Soi	ils³:
Histosol (Sandy Gle	ved Mati	rix (S4)			langanese Masses (F12)	
	pedon (A2)		Sandy Red		ix (0 i)			arent Material (F21)	
Black His	. ,		Stripped M	, ,	6)			Shallow Dark Surface (F22)	
	Sulfide (A4)		Dark Surfa		,			(Explain in Remarks)	
	Layers (A5)		Loamy Mu		eral (F1)		 -	,	
2 cm Mud	• , ,		Loamy Gle	•	. ,				
— Depleted	Below Dark Surface	(A11)	Depleted N	•	, ,				
Thick Da	k Surface (A12)	,	Redox Dar						
Iron Mond	osulfide (A18)		Depleted D	ark Surf	face (F7)		³ Indicators	of hydrophytic vegetation an	d
Sandy Mu	ucky Mineral (S1)		Redox Dep	ressions	s (F8)		wetlan	d hydrology must be present	ı
5 cm Mud	cky Peat or Peat (S3)	_				unless	disturbed or problematic.	
Restrictive L	ayer (if observed):								
Type:	none								
Depth (in	ches):		_				Hydric Soil Present?	Yes	No X
Remarks:									
HYDROLO	GY								
Wetland Hyd	rology Indicators:								
Primary Indic	ators (minimum of o	ne is require	d; check all that a	apply)			<u>Secondary</u>	Indicators (minimum of two	required)
Surface V	Vater (A1)		Water-Stai	ned Lea	ves (B9)		Surfac	ce Soil Cracks (B6)	
High Wat	er Table (A2)		Aquatic Fa	•	•			age Patterns (B10)	
Saturation	• •		True Aqua		` '		<u> </u>	eason Water Table (C2)	
Water Ma			Hydrogen					sh Burrows (C8)	
	Deposits (B2)		Oxidized R			-	` ' —	ation Visible on Aerial Imagery	/ (C9)
Drift Depo			Presence of		`	,		ed or Stressed Plants (D1)	
	or Crust (B4)		Recent Iron			led Soil		orphic Position (D2)	
Iron Depo		(5-1)	Thin Muck		` '		FAC-N	leutral Test (D5)	
	n Visible on Aerial In	0 , ,	Gauge or \						
Sparsely	Vegetated Concave	Surface (B8	Other (Exp	lain in R	emarks)				
Field Observ									
Surface Water				Depth (ii	· -				
Water Table I				Depth (ii	′ –				
Saturation Pr		<u> </u>	No <u>x</u>	Depth (ii	nches): _		Wetland Hydrolog	y Present? Yes	No <u>X</u>
(includes cap									
Describe Rec	orded Data (stream	gauge, moni	toring well, aeria	pnotos,	, previous	inspec	cuons), it available:		
Remarks:									

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Midwest Region See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park		City/Cou	nty: Rochest	er Hills-Oakland	Co. Sam	pling Date	e: <u>1-29</u>	-25
Applicant/Owner: City of Rochester Hills				State:	MI Sam	pling Poir	nt:	UP7
Investigator(s): ASTI - KAH		Section, T	ownship, Ran	ge: TN3 R11E	Sec 8			
Landform (hillside, terrace, etc.): slope			Local relief (co	oncave, convex,	none): slope			
Slope (%): 3-5 Lat: 42.692448			83.191898	,		: NAD83		
Soil Map Unit Name: Brookston and Colwood loams			00.101000	NWI	classification			
•	or this time o	f voor?	Voc. v			-	\	
Are climatic / hydrologic conditions on the site typical f Are Vegetation , Soil , or Hydrology		-	Yes <u>x</u>		no, explain in			
<u> </u>				rcumstances" pr			No	_
Are Vegetation, Soil, or Hydrology	naturally prob	olematic? (If needed, exp	lain any answers	s in Remarks.)		
SUMMARY OF FINDINGS – Attach site m	ap showir	ng samplin	g point loc	ations, trans	ects, impo	ortant fe	eatures	, etc.
Hydrophytic Vegetation Present? Yes N	o X	Is the	Sampled Are	ea .				
	o X		n a Wetland?		N	о <u>Х</u>		
	o X							
Remarks:								
Upland adjacent to Wetland F in the NW portion of th	e site.							
VEGETATION – Use scientific names of pla	ants.							
	Absolute	Dominant	Indicator					
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Te				
1. Juglans nigra	15	Yes	FACU	Number of Dor		s That	_	(A)
2. Acer negundo	10	Yes	FAC	Are OBL, FAC		–	5	_(A)
3. Pyrus calleryana 4.		No	UPL	Total Number of Across All Stra		Species	10	(B)
5.							10	_ ^(B)
J	55	=Total Cover		Percent of Don Are OBL, FAC	•	s That	50.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15')	- Total Gover		AIC OBE, I AO	w, or rao.	_	30.070	_(//(D)
1. Acer negundo	10	Yes	FAC	Prevalence In	dex workshe	et:		
Elaeagnus umbellata	30	Yes	UPL	Total % C			iply by:	
3. Cornus racemosa	5	No	FAC	OBL species	0	x 1 =	0	_
4.				FACW species	0	x 2 =	0	_
5.				FAC species	95	x 3 =	285	
	45	=Total Cover		FACU species	35	x 4 =	140	_
Herb Stratum (Plot size: 5')				UPL species	50	x 5 =	250	_
Solidago canadensis	10	Yes	<u>FACU</u>	Column Totals	180	(A) _	675	_(B)
2. Daucus carota	10	Yes	UPL	Prevalence	Index = B/A	=3	.75	_
3. Symphyotrichum lanceolatum	10	Yes	FAC					
4. Geum canadense	5	No	FAC	Hydrophytic V	U			
5. Prunella vulgaris	15	Yes	FAC		est for Hydro		getation	
6. Poa pratensis	20	Yes Yes	FAC		ance Test is >			
7. Rubus idaeus	10	<u>Yes</u>	FACU		nce Index is : logical Adapt			
8 9.					ological Adapt Remarks or ol	,		
					ic Hydrophytic	•		
10	80	=Total Cover				•		,
Woody Vine Stratum (Plot size: 15')	Total Covel		¹ Indicators of h be present, unl	•		, ,,	must
1	0		}	·		2. p. 3510		
2.				Hydrophytic Vegetation				
		=Total Cover		Present?	Yes	No	Х	
Remarks: (Include photo numbers here or on a sepa	rate sheet)							
(p	220/							

Profile Desc Depth	Matrix		Redo	x Featur	96			•
(inches)	Color (moist)		olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 4/2	100	olor (moiot)		Турс		Sandy	Romano
	1011(4/2	100					Garidy	
4.40	40\/D 4/4	400					Candy	
4-18	10YR 4/4	100					Sandy	
	-							
¹ Type: C=Co	oncentration, D=Depl	etion, RM=Red	uced Matrix, I	์ MS=Masl	ked Sand	d Grains	. ² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators	s for Problematic Hydric Soils ³ :
Histosol	(A1)	_	Sandy Gle	yed Matı	rix (S4)		Iron-N	langanese Masses (F12)
Histic Ep	pipedon (A2)	_	Sandy Re	dox (S5)				Parent Material (F21)
— Black His	` '	_	Stripped N	-	5)			Shallow Dark Surface (F22)
	n Sulfide (A4)	_	Dark Surfa	. ,			Other	(Explain in Remarks)
	d Layers (A5)	_	Loamy Mu					
2 cm Mu		(444)	Loamy Gl					
	d Below Dark Surface	(A11) _	Depleted	-				
_	ark Surface (A12) nosulfide (A18)	_	Redox Da Depleted		, ,		³ Indicators	s of hydrophytic vegetation and
	lucky Mineral (S1)	_	Redox De			1		nd hydrology must be present,
	icky Peat or Peat (S3)	_	redox Be	probbleric	3 (1 0)			s disturbed or problematic.
	Layer (if observed):	<u>'</u>				1		
Type:	none							
Depth (ir		_					Hydric Soil Present	? Yes No_X_
Remarks:								
rtomanto.								
HYDROLO	OGY							
Wetland Hy	drology Indicators:							
	cators (minimum of o	ne is required;						y Indicators (minimum of two required)
	Water (A1)	_	Water-Sta		` '			ce Soil Cracks (B6)
·	iter Table (A2)	_	Aquatic Fa	•	•			age Patterns (B10)
— Saturatio		_	True Aqua			`		eason Water Table (C2)
	larks (B1) nt Deposits (B2)	_	Hydrogen				Crayii	sh Burrows (C8)
— Sedimen	IL DEPOSILS (DZ)			Dhizooph	araa an l		note (C2) Setur	ation Visible on Asrial Imagery (CO)
Drift Den		-				-	` ' —	ation Visible on Aerial Imagery (C9)
	oosits (B3)	-	Presence	of Reduc	ed Iron ((C4)	Stunte	ed or Stressed Plants (D1)
Algal Ma	posits (B3) at or Crust (B4)	- - -	Presence Recent Iro	of Reduc	ed Iron (tion in Ti	(C4)	Stunte	ed or Stressed Plants (D1) corphic Position (D2)
Algal Ma	posits (B3) at or Crust (B4) posits (B5)	- - - - - - - -	Presence Recent Iro Thin Muck	of Reduc on Reduc Surface	ed Iron (tion in Ti (C7)	(C4)	Stunte	ed or Stressed Plants (D1)
Algal Ma Iron Dep Inundation	posits (B3) at or Crust (B4)		Presence Recent Iro	of Reduc on Reduc Surface Well Data	ed Iron (tion in Ti (C7) a (D9)	(C4)	Stunte	ed or Stressed Plants (D1) corphic Position (D2)
Algal Ma Iron Dep Inundation	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial In Vegetated Concave		Presence Recent Iro Thin Muck Gauge or	of Reduc on Reduc Surface Well Data	ed Iron (tion in Ti (C7) a (D9)	(C4)	Stunte	ed or Stressed Plants (D1) corphic Position (D2)
Algal Ma Iron Dep Inundatio Sparsely	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial In v Vegetated Concave	Surface (B8)	Presence Recent Irc Thin Muck Gauge or Other (Ex	of Reduc on Reduc Surface Well Data Dain in R	eed Iron (tion in Ti (C7) a (D9) emarks)	(C4) lled Soil	Stunte	ed or Stressed Plants (D1) corphic Position (D2)
Algal Ma Iron Dep Inundatio Sparsely	posits (B3) at or Crust (B4) posits (B5) pon Visible on Aerial In v Vegetated Concave evations: ter Present? Yes	Surface (B8)	Presence Recent Iro Thin Muck Gauge or	of Reduc on Reduc Surface Well Data	eed Iron (tion in Ti (C7) a (D9) emarks)	(C4) lled Soil	Stunte	ed or Stressed Plants (D1) corphic Position (D2)
Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat	posits (B3) at or Crust (B4) posits (B5) pon Visible on Aerial In vegetated Concave vations: ter Present? Yes Present? Yes	Surface (B8)	Presence Recent Irc Thin Muck Gauge or Other (Ex	of Reduction Reduction Reduction Surface Well Date Delain in Reduction Reduc	ed Iron (tion in Ti (C7) a (D9) emarks) nches): _ nches): _	(C4) lled Soil	Stunte	ed or Stressed Plants (D1) Porphic Position (D2) Neutral Test (D5)
Algal Ma Iron Dep Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial In vegetated Concave rvations: ter Present? Present? Ves pillary fringe)	Surface (B8)	Presence Recent Iro Thin Muck Gauge or Other (Exp No x No x No x No x	of Reduction Reduction Reduction Surface Well Datablain in Reduction Depth (in Reduction Reducti	eed Iron (tion in Ti (C7) a (D9) emarks) nches): nches): nches):	(C4)	Stunte Stunte Geom FAC-I	ed or Stressed Plants (D1) Porphic Position (D2) Neutral Test (D5)
Algal Ma Iron Dep Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	posits (B3) at or Crust (B4) posits (B5) por Visible on Aerial In vegetated Concave rvations: ter Present? Present? Ves versent? Ves versent? Ves	Surface (B8)	Presence Recent Iro Thin Muck Gauge or Other (Exp No x No x No x No x	of Reduction Reduction Reduction Surface Well Datablain in Reduction Depth (in Reduction Reducti	eed Iron (tion in Ti (C7) a (D9) emarks) nches): nches): nches):	(C4)	Stunte Stunte Geom FAC-I	ed or Stressed Plants (D1) Porphic Position (D2) Neutral Test (D5)
Algal Ma Iron Dep Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap Describe Re-	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial In vegetated Concave rvations: ter Present? Present? Ves pillary fringe)	Surface (B8)	Presence Recent Iro Thin Muck Gauge or Other (Exp No x No x No x No x	of Reduction Reduction Reduction Surface Well Datablain in Reduction Depth (in Reduction))	eed Iron (tion in Ti (C7) a (D9) emarks) nches): nches): nches):	(C4)	Stunte Stunte Geom FAC-I	ed or Stressed Plants (D1) Porphic Position (D2) Neutral Test (D5)
Algal Ma Iron Dep Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial In vegetated Concave rvations: ter Present? Present? Ves pillary fringe)	Surface (B8)	Presence Recent Iro Thin Muck Gauge or Other (Exp No x No x No x No x	of Reduction Reduction Reduction Surface Well Datablain in Reduction Depth (in Reduction))	eed Iron (tion in Ti (C7) a (D9) emarks) nches): nches): nches):	(C4)	Stunte Stunte Geom FAC-I	ed or Stressed Plants (D1) Porphic Position (D2) Neutral Test (D5)
Algal Ma Iron Dep Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap Describe Re-	posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial In vegetated Concave rvations: ter Present? Present? Ves pillary fringe)	Surface (B8)	Presence Recent Iro Thin Muck Gauge or Other (Exp No x No x No x No x	of Reduction Reduction Reduction Surface Well Datablain in Reduction Depth (in Reduction))	eed Iron (tion in Ti (C7) a (D9) emarks) nches): nches): nches):	(C4)	Stunte Stunte Geom FAC-I	ed or Stressed Plants (D1) Porphic Position (D2) Neutral Test (D5)

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

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Project/Site: Nowicki Park		City/Cour	nty: Rocheste	er Hills-Oakland Co.	Sampling Date:	1-30-25
Applicant/Owner: City of Rochester Hills				State: MI	Sampling Point:	UP8
Investigator(s): ASTI - KAH		Section, To	ownship, Ran	ge: TN3 R11E Sec 8		
Landform (hillside, terrace, etc.): plain			ocal relief (co	oncave, convex, none):	flat	
Slope (%): 1-3 Lat: 42.691375		Long: -8	33.19234		Datum: NAD83	
Soil Map Unit Name: Marlette sandy loam (1-6% slopes)				fication: none	
Are climatic / hydrologic conditions on the site typical for		rear?	Yes x	No (If no, exp	lain in Remarks.)	
Are Vegetation, Soil, or Hydrologysi				rcumstances" present?		0
						
Are Vegetation, Soil, or Hydrologyna SUMMARY OF FINDINGS – Attach site ma				lain any answers in Rei ations, transects,		tures, etc.
		1.41	0			
Hydrophytic Vegetation Present? Yes X No			Sampled Are		No. V	
	<u>X</u>	WIEDIN	a Wetland?	res	No X	
Remarks;						
Upland adjacent to Wetland G in the northcentral ortion	n of the site.					
VEGETATION – Use scientific names of plar	nts.					
		Dominant	Indicator			
Tree Stratum (Plot size: 30')		Species?	Status	Dominance Test wo	rksheet:	
1. Malus domestica		Yes	UPL	Number of Dominant	•	5 (A)
2. Acer negundo		Yes	FAC	Are OBL, FACW, or F		5(A)
3. Populus deltoides	10	Yes	_FAC_	Total Number of Dom	inant Species	7 (D)
4.				Across All Strata:		7(B)
5	40 =T	otal Cover		Percent of Dominant : Are OBL, FACW, or F	•	1.4% (A/B)
Sapling/Shrub Stratum (Plot size: 15')		otal Covel		AIE OBL, I ACW, OI I	70.	1.470 (700)
	0		ŀ	Prevalence Index wo	rksheet:	
2.				Total % Cover of		v bv:
2				OBL species 2		20
4.				FACW species 4		80
5.				FAC species 4	5 x 3 =	135
	=T	otal Cover		FACU species 2	0 x 4 =	80
Herb Stratum (Plot size: 5')				UPL species 1	5 x 5 =	75
1. Lythrum salicaria	20	Yes	OBL	Column Totals: 14	Ю (A) —	390 (B)
2. Phalaris arundinacea	10	No	FACW	Prevalence Index		э
3. Poa pratensis	20	Yes	FAC			
4. Euthamia graminifolia	10	No	FACW	Hydrophytic Vegetat	ion Indicators:	
5. Agrostis stolonifera	20	Yes	FACW	1 - Rapid Test for	Hydrophytic Vege	tation
6. Bromus inermis	20	Yes	FACU	X 2 - Dominance Te	est is >50%	
7				3 - Prevalence In		
8.					Adaptations ¹ (Prov	
9.					s or on a separate	•
10				Problematic Hydr	ophytic Vegetation	¹ (Explain)
Woody Vine Stratum (Plot size: 15')	100=T	otal Cover		¹ Indicators of hydric s be present, unless dis		
1				Hydrophytic		
2				Vegetation		
		Total Cover		Present? Yes	No	
Remarks: (Include photo numbers here or on a separa	ate sheet.)					

SOIL	Sampling Point: UF
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	ription: {Describe	to the depth	needed to doc	ument ti	ne indica	tor or o	onfirm the absence	of indicators.)
Depth	Matrix			x Featur				•
(inches)	es) Color (moist) % Color (moist) % Typ						Texture	Remarks
0-13	10YR 4/2	100					Sandy	-
*******		-						
13-18	10YR 4/2	95	10YR 4/4	5			Sandy	Distinct redox concentrations
13-10	1011114/2		10111474				Candy	Distillet redex concentrations
								
								·
¹ Type: C=Co	oncentration, D=Dep	letion, RM=R	leduced Matrix, N	/IS=Mas	ked Sand	Grains		n: PL=Pore Lining, M=Matrix.
Hydric Soil I	Indicators:							ors for Problematic Hydric Soils ³ :
Histosol			Sandy Gle					-Manganese Masses (F12)
	ipedon (A2)		Sandy Red					Parent Material (F21)
Black His	` '		Stripped N		5)			/ Shallow Dark Surface (F22)
	n Sulfide (A4)		Dark Surfa	, ,	. (=4)		Oth	er (Explain in Remarks)
	Layers (A5)		Loamy Mu	-				
2 cm Mu	' '	o /A44\	Loamy Gle					
	l Below Dark Surface rk Surface (A12)	e (ATT)	Depleted N Redox Dar		•			
	osulfide (A18)		Depleted I		` '		³ Indicate	ors of hydrophytic vegetation and
II——	ucky Mineral (S1)		Redox Dep					and hydrology must be present,
_	cky Peat or Peat (S:	3)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	. ()			ss disturbed or problematic.
	ayer (if observed):	<u> </u>						·
Type:	none	•						
Depth (in			_				Hydric Soil Preser	nt? Yes No_X
Remarks:								
itemans.								
HYDROLO	GY							
Wetland Hyd	drology Indicators:							
	cators (minimum of o		d; check all that	apply)			Seconda	ary Indicators (minimum of two required)
Surface \	Water (A1)		Water-Sta	ined Lea	ves (B9)		Surf	ace Soil Cracks (B6)
High Wa	ter Table (A2)		Aquatic Fa	una (B1	3)		Drai	nage Pattems (B10)
Saturatio			True Aqua					Season Water Table (C2)
_	arks (B1)		Hydrogen		Odor (C1)		Cray	fish Burrows (C8)
	t Deposits (B2)							
Light Dan	'4 - (DO)		Oxidized F	-		-	oots (C3) Satu	ration Visible on Aerial Imagery (C9)
	osits (B3)		Presence	of Reduc	ed Iron (C4)	oots (C3) Satu	uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
Algal Ma	t or Crust (B4)		Presence	of Reduc	ced Iron (tion in Til	C4)	oots (C3) Satu Stur s (C6) Geo	uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2)
Algal Ma	t or Crust (B4) osits (B5)	mageny (R7)	Presence Recent Iro Thin Muck	of Reduc n Reduc Surface	ced Iron (tion in Til (C7)	C4)	oots (C3) Satu Stur s (C6) Geo	uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
Algal Ma Iron Dep	t or Crust (B4) osits (B5) on Visible on Aerial I		Presence Recent Iro Thin Muck	of Reduce n Reduce Surface Well Dat	ced Iron (tion in Til (C7) a (D9)	C4)	oots (C3) Satu Stur s (C6) Geo	uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2)
Algal Ma Iron Dep Inundatio Sparsely	t or Crust (B4) osits (B5) on Visible on Aerial I Vegetated Concave		Presence Recent Iro Thin Muck	of Reduce n Reduce Surface Well Dat	ced Iron (tion in Til (C7) a (D9)	C4)	oots (C3) Satu Stur s (C6) Geo	uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2)
Algal Ma Iron Dep Inundatio Sparsely	t or Crust (B4) osits (B5) on Visible on Aerial I Vegetated Concave vations:	e Surface (B8	Presence Recent Iro Thin Muck Gauge or V Other (Exp	of Reduce n Reduce Surface Well Dat lain in R	ced Iron (tion in Til (C7) a (D9) temarks)	C4)	oots (C3) Satu Stur s (C6) Geo	uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2)
Algal Ma Iron Dep Inundatio Sparsely Field Observ Surface Water	t or Crust (B4) osits (B5) on Visible on Aerial I Vegetated Concave vations: er Present? Ye	e Surface (B8	Presence Recent Iro Thin Muck Gauge or Other (Exp	of Reduce n Reduce Surface Well Date plain in R	ced Iron (tion in Til (C7) a (D9) demarks)	C4) led Soil	oots (C3) Satu Stur s (C6) Geo	uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2)
Algal Ma Iron Dep Inundatio Sparsely	t or Crust (B4) osits (B5) on Visible on Aerial I Vegetated Concave vations: er Present? Ye Present?	e Surface (B8	Presence Recent Iro Thin Muck Gauge or V Other (Exp	of Reduce n Reduce Surface Well Date blain in Reduce Depth (in Depth (in Depth (in Reduced)	ced Iron (tion in Til (C7) a (D9) temarks) nches): _	C4) led Soil	oots (C3) Satu Stur s (C6) Geo	uration Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1) Imorphic Position (D2) Inter-Position (D5) Inter-Position (D5)
Algal Ma Iron Depr Inundatio Sparsely Field Obsert Surface Water Table	t or Crust (B4) osits (B5) on Visible on Aerial I Vegetated Concave vations: er Present? Present? Ye resent? Ye	e Surface (B8	Presence (Recent Iro Thin Muck Gauge or () Other (Exp	of Reduce n Reduce Surface Well Date blain in Reduce Depth (in Depth (in Depth (in Reduced)	ced Iron (tion in Til (C7) a (D9) demarks)	C4) led Soil	s (C6) Satures (C3) Satures (C6) X FAC	uration Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1) Imorphic Position (D2) Interest (D5)
Algal Ma Iron Depr Inundation Sparsely Field Obsert Surface Water Table Saturation Pr (includes cap	t or Crust (B4) osits (B5) on Visible on Aerial I Vegetated Concave vations: er Present? Present? Ye resent? Ye	e Surface (B8	Presence of Recent Iro Thin Muck Gauge or No No X No X No X	of Reducen Reducen Surface Well Date I Depth (i Depth (i	ced Iron (tion in Til (C7) a (D9) demarks) nches): _ nches): _ nches): _	C4) led Soil	s (C6) Satures (C6) X FAC	uration Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1) Imorphic Position (D2) Inter-Position (D5) Inter-Position (D5)
Algal Ma Iron Depr Inundation Sparsely Field Obsert Surface Water Table Saturation Pr (includes cap	t or Crust (B4) osits (B5) on Visible on Aerial I Vegetated Concave vations: er Present? Present? Ye resent? Ye oillary fringe)	e Surface (B8	Presence of Recent Iro Thin Muck Gauge or No No X No X No X	of Reducen Reducen Surface Well Date I Depth (i Depth (i	ced Iron (tion in Til (C7) a (D9) demarks) nches): _ nches): _ nches): _	C4) led Soil	s (C6) Satures (C6) X FAC	uration Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1) Imorphic Position (D2) Inter-Position (D5) Inter-Position (D5)
Algal Ma Iron Depr Inundation Sparsely Field Obsert Surface Water Table Saturation Pr (includes cap	t or Crust (B4) osits (B5) on Visible on Aerial I Vegetated Concave vations: er Present? Present? Ye resent? Ye oillary fringe)	e Surface (B8	Presence of Recent Iro Thin Muck Gauge or No No X No X No X	of Reducen Reducen Surface Well Date I Depth (i Depth (i	ced Iron (tion in Til (C7) a (D9) demarks) nches): _ nches): _ nches): _	C4) led Soil	s (C6) Satures (C6) X FAC	uration Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1) Imorphic Position (D2) Inter-Position (D5) Inter-Position (D5)
Algal Ma Iron Depr Inundation Sparsely Field Obsert Surface Water Table Saturation Pr (includes cap Describe Rec	t or Crust (B4) osits (B5) on Visible on Aerial I Vegetated Concave vations: er Present? Present? Ye resent? Ye oillary fringe)	e Surface (B8	Presence of Recent Iro Thin Muck Gauge or No No X No X No X	of Reducen Reducen Surface Well Date I Depth (i Depth (i	ced Iron (tion in Til (C7) a (D9) demarks) nches): _ nches): _	C4) led Soil	s (C6) Satures (C6) X FAC	uration Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1) Imorphic Position (D2) Inter-Position (D5) Inter-Position (D5)

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park		City/Cou	unty: Roches	ter Hills-Oakland Co.	Sampling Da	te: <u>1-30</u>	-25
Applicant/Owner: City of Rochester Hills	3			State: MI	Sampling Poi	nt:	UP9
Investigator(s): ASTI - KAH		Section,	Township, Ra	nge: TN3 R11E Sec	8		
Landform (hillside, terrace, etc.): plain			Local relief (d	concave, convex, none): flat		
Slope (%): 1-3 Lat:		Long:			Datum: NAD83		
Soil Map Unit Name: Marlette sandy loam (。			sification: none		
Are climatic / hydrologic conditions on the s	ite typical for this time	of year?	Yes x	 No (If no, e	explain in Remarks	<u> </u>	
Are Vegetation , Soil , or Hydro	* *	-		Circumstances" presen		No	
Are Vegetation, Soil, or Hydro				plain any answers in F			_
SUMMARY OF FINDINGS – Attac			•		•	eatures	, etc.
I bedraude the Versatation Descrit?	Na V	la 4la	a Camania d A				
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes			e Sampled A in a Wetland'		No X		
Wetland Hydrology Present? Yes	No X	With	iii a wedana				
Remarks:		l .					
General upland conditions in the NW portion	on of the site south of	Wetland F.					
VEGETATION – Use scientific nam	nes of plants.						
Trac Stratum (Diet size: 20)	Absolute		Indicator	Dominance Test w	· oulsala anti		
Tree Stratum (Plot size: 30' 1.)	r Species?	Status	Dominance Test w			
2.				Number of Dominal Are OBL, FACW, o	•	0	(A)
3.		_		Total Number of Do	_		_ (* ')
4.				Across All Strata:	minum openies	5	(B)
5.				Percent of Dominar	nt Species That		_
		=Total Cover		Are OBL, FACW, o	•	0.0%	_(A/B)
Sapling/Shrub Stratum (Plot size:	15')						
Elaeagnus umbellata	5	Yes	UPL	Prevalence Index			
2. Juniperus virginiana	5	Yes	FACU	Total % Cover		tiply by:	_
3. Rosa multiflora	5	Yes	<u>FACU</u>	OBL species	0 x 1 = _	0	_
4				FACW species	$\begin{array}{ccc} 10 & x 2 = \\ 0 & x 3 = \\ \end{array}$	20	_
5		=Total Cover		FAC species FACU species	0 x 3 =	280	-
Herb Stratum (Plot size: 5'	13	_ = Total Cover		UPL species	35 x 5 =	175	_
Solidago juncea	/ 	No	UPL	Column Totals:		475	— (B)
Euthamia graminifolia	10	No	FACW	Prevalence Inde		4.13	_(-/
3. Dactylis glomerata	10	No No	FACU				_
4. Phleum pratense	5	No	FACU	Hydrophytic Veget	ation Indicators:		
5. Daucus carota	20	Yes	UPL	1 - Rapid Test f	for Hydrophytic Ve	getation	
6. Erigeron canadensis	5	No	FACU	2 - Dominance	Test is >50%		
7. Bromus inermis	40	Yes	FACU	3 - Prevalence			
8					cal Adaptations ¹ (F		
9					arks or on a separ		•
10				l 	drophytic Vegetat		,
Woody Vine Stratum (Plot size:	15')	_=Total Cover		¹ Indicators of hydric be present, unless of			must
	0			·	isturbed of proble	manc.	
1. 2.				Hydrophytic			
		=Total Cover		Vegetation Present? Ye	sNo_	X	
Remarks: (Include photo numbers here or	on a concrete shart						
Transition (include priote numbers here of	on a soparate sneet.	,					

Profile Desc Depth	cription: (Describe t Matrix	o the depth		ument th		ator or c	confirm the absence of	of indicators.)	
(inches)	Color (moist)	%	Color (moist)	% " Catar	Type ¹	Loc ²	Texture	Remarks	
0-12	10YR 4/3	100	Color (Moist)		Турс		Sandy	Tomano	
0-12	1011(4/5	100					Garidy		
10.10	10VD 4/2		10VD 6/4				Candy		trations
12-18	10YR 4/3	95	10YR 6/4	5	<u> </u>	M	Sandy	Faint redox concer	itrations
	oncentration, D=Depl	etion, RM=R	educed Matrix, I	MS=Masl	ked Sand	d Grains		PL=Pore Lining, M=Mat	
Hydric Soil								s for Problematic Hydric	
Histosol	` '		Sandy Gle		rix (S4)			Manganese Masses (F12)	
	pipedon (A2)		Sandy Re		• •			Parent Material (F21)	0)
Black Hi	` '		Stripped N	-))			Shallow Dark Surface (F2	2)
	n Sulfide (A4) I Layers (A5)		Dark Surfa	. ,	oral (E1)		Other	(Explain in Remarks)	
	ick (A10)		Loamy Gl						
	d Below Dark Surface	(Δ11)	Depleted						
	ark Surface (A12)	(/**11)	Redox Da	-	-				
	nosulfide (A18)		Depleted I		` ')	³ Indicators	s of hydrophytic vegetatio	n and
	lucky Mineral (S1)		Redox De			,		nd hydrology must be pre	
	icky Peat or Peat (S3))						s disturbed or problemation	
Restrictive	Layer (if observed):								
Type:	none		_						
Depth (ir	nches):		_				Hydric Soil Present	? Yes	No X
HYDROLC	OGY								
Wetland Hy	drology Indicators:								
	cators (minimum of or	ne is required						y Indicators (minimum of	two required)
	Water (A1)		Water-Sta		, ,)		ce Soil Cracks (B6)	
	iter Table (A2)		Aquatic Fa	•	•			age Patterns (B10)	
Saturatio	arks (B1)		True Aqua Hydrogen			`		eason Water Table (C2) ish Burrows (C8)	
	nt Deposits (B2)		Oxidized F		-			ation Visible on Aerial Ima	agery (C9)
	posits (B3)		Presence			-	· · · —	ed or Stressed Plants (D1	
	it or Crust (B4)		Recent Iro			. ,		norphic Position (D2)	,
	osits (B5)		Thin Muck				` ' —	Neutral Test (D5)	
Inundation	on Visible on Aerial In	nagery (B7)	Gauge or	Well Dat	a (D9)				
	on Visible on Aerial In Vegetated Concave								
	Vegetated Concave					1			
Sparsely	Vegetated Concave	Surface (B8)		Depth (i	temarks)				
Sparsely Field Obser Surface Wat Water Table	vations: er Present? Present? Vegetated Concave Yes	Surface (B8)	Other (Exp Nox Nox	Depth (in Depth (in	nches): _				
Sparsely Field Obser Surface Wat Water Table Saturation P	vations: er Present? Yes Present? Yes resent? Yes	Surface (B8)	Other (Ex	Depth (i	nches): _		Wetland Hydrolog	y Present? Yes	No <u>X</u>
Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	vegetated Concave vations: er Present? Yes Present? Yes resent? Yes pillary fringe)	Surface (B8)	No x No x No x	Depth (in Depth	nches): _ nches): _ nches): _			y Present? Yes	No_X
Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	vations: er Present? Yes Present? Yes resent? Yes	Surface (B8)	No x No x No x	Depth (in Depth	nches): _ nches): _ nches): _			y Present? Yes	No X
Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	vegetated Concave vations: er Present? Yes Present? Yes resent? Yes pillary fringe)	Surface (B8)	No x No x No x	Depth (in Depth	nches): _ nches): _ nches): _			y Present? Yes	No_X
Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap Describe Re	vegetated Concave vations: er Present? Yes Present? Yes resent? Yes pillary fringe)	Surface (B8)	No x No x No x	Depth (in Depth	nches): _ nches): _ nches): _			y Present? Yes	No X
Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap Describe Re	vegetated Concave vations: er Present? Yes Present? Yes resent? Yes pillary fringe)	Surface (B8)	No x No x No x	Depth (in Depth	nches): _ nches): _ nches): _			y Present? Yes	No_X

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park		City/Cour	nty: Roches	ter Hills-Oakland Co.	Sampling Da	ate: <u>1-30</u>	-25
Applicant/Owner: City of Rochester Hills				State: MI	Sampling Po	oint: L	JP10
Investigator(s): ASTI - KAH		Section, T	ownship, Ra	nge: TN3 R11E Se	<u> </u>		
Landform (hillside, terrace, etc.): plain		 	_ocal relief (c	concave, convex, none	e): flat		
Slope (%): 1-3 Lat: 42.692237			83.193334	,	Datum: NAD8	3	
Soil Map Unit Name: Marlette sandy loam (1-6% slope	es)			NWI clas	ssification: none		
	-	f.voor?	Voc. v				
Are climatic / hydrologic conditions on the site typical		•	Yes x		explain in Remarl		
Are Vegetation, Soil, or Hydrology	•			Circumstances" preser		No	_
Are Vegetation, Soil, or Hydrology				plain any answers in f	·		
SUMMARY OF FINDINGS – Attach site m	nap showin	g samplin	g point lo	cations, transect	ts, important	features	, etc.
Hydrophytic Vegetation Present? Yes N	lo X	Is the	Sampled Ar	·ea			
	lo X		n a Wetland?		No_X		
	lo X						
Remarks:		<u> </u>					
Upland conditions adjacent to Wetlands H and I in the	e NW portion	of the site.					
VEGETATION – Use scientific names of plants		- · · ·					
<u>Tree Stratum</u> (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test v	vorksheet:		
1. Acer saccharinum	15	Yes	FACW	Number of Domina			
2. Malus domestica	10	No	UPL	Are OBL, FACW, o	•	4	(A)
3. Juglans nigra	20	Yes	FACU	Total Number of Do			_` ′
4. Ulmus americana	5	No	FACW	Across All Strata:	ommant opecies	8	(B)
5. Fraxinus pennsylvanica	5	No	FACW	Percent of Domina	nt Species That		- ` ′
	55 =	Total Cover		Are OBL, FACW, o		50.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15')				•		
1. Fraxinus pennsylvanica	10	No	FACW	Prevalence Index	worksheet:		
2. Frangula alnus	15	Yes	FACW	Total % Cover	r of: Mu	ultiply by:	_
3. Acer saccharinum	25	Yes	FACW	OBL species	0 x 1 =	0	_
4. Elaeagnus umbellata	15	Yes	UPL	FACW species	80 x 2 =	160	_
5				FAC species	10 x 3 =	30	_
	65	Total Cover		FACU species	40 x 4 =	160	_
Herb Stratum (Plot size: 5')				UPL species	25 x 5 =	125	-
1. Hackelia virginiana	10	Yes	FACU	Column Totals:	155 (A)	475	_ ^(B)
2. Symphyotrichum lanceolatum	10	Yes	FAC	Prevalence Inde	x = B/A =	3.06	_
3. Rubus idaeus		Yes	FACU FACW	Hydrophytic Vege	tation Indicators		
4. Solidago gigantea		<u>No</u>	FACVV	' ' '			
5. 6.				2 - Dominance	for Hydrophytic V	egetation	
7				3 - Prevalence			
					cal Adaptations ¹ (Provide su	nnortina
0					arks or on a sepa		
10.					ydrophytic Vegeta		•
	35 =	Total Cover		¹ Indicators of hydri			,
Woody Vine Stratum (Plot size: 15')			be present, unless		, ,,	mast
1.	0			Hydrophytic	·		
2.				Vegetation			
		Total Cover			esNo	X	
Remarks: (Include photo numbers here or on a sepa	arate sheet.)				· · · · · · · · · · · · · · · · · · ·		
	,						

Profile Desc Depth	cription: (Describe t Matrix	o the depth		ument th		ator or o	confirm the absence of	of indicators.)			
(inches)	Color (moist)		Color (moist)	% " Catar	Type ¹	Loc ²	Texture		Remarks		
0-16	10YR 4/2	100	Color (molot)		Турс		Sandy		Romano		
	10111 4/2	100					Garidy				
16 10	10VD 4/2		10VD 4/4	10			Candy	Diatinat ra	day aanaan	trations	
16-18	10YR 4/2	90	10YR 4/4	10	<u>C</u>	<u>M</u>	Sandy	Distinct re	dox concen	trations	—
								-			
	oncentration, D=Depl	etion, RM=R	educed Matrix,	MS=Masl	ked Sand	d Grains		PL=Pore Linin			
Hydric Soil								s for Problema	-	Soils':	
— Histosol	` '		Sandy Gle		rix (S4)			Manganese Mas			
	oipedon (A2)		Sandy Re		.,			Parent Material	` '		
Black Hi	` ,		Stripped M Dark Surf	-))			Shallow Dark S (Explain in Rer)	
	n Sulfide (A4) d Layers (A5)		Loamy Mu	٠,	aral (E1)		Other	(Explain in Rei	iiaiks)		
	ick (A10)		Loamy Gl	-							
	d Below Dark Surface	(A11)	Depleted	-							
	ark Surface (A12)	(* * * * *)	Redox Da	-	-						
	nosulfide (A18)		 Depleted		. ,)	³ Indicators	s of hydrophytic	vegetation	and	
Sandy M	lucky Mineral (S1)		Redox De	pressions	s (F8)		wetland hydrology must be present,				
5 cm Mucky Peat or Peat (S3)							unles	s disturbed or p	roblematic.		
Restrictive	Layer (if observed):										
Type:	none		_								
Depth (ir	nches):		_				Hydric Soil Present	?	Yes	No_	X
HYDROLC	OGY										
_	drology Indicators:										
	cators (minimum of or	ne is require						y Indicators (mi		vo requi	<u>red)</u>
	Water (A1)		Water-Sta		` '			ce Soil Cracks (. ,		
	ater Table (A2)		Aquatic Fa	•	•			age Patterns (B eason Water Ta			
Saturatio	larks (B1)		Hydrogen)		ish Burrows (C8			
	nt Deposits (B2)		Oxidized I		-			ation Visible on	•	erv (C9	a)
	posits (B3)		Presence	•		-	· · · —	ed or Stressed	-	, , , , , ,	,
	at or Crust (B4)		Recent Ire			, ,		norphic Position			
Iron Dep	oosits (B5)		Thin Mucl	Surface	(C7)		FAC-I	Neutral Test (D	5)		
Inundation	on Visible on Aerial In	nagery (B7)	Gauge or	Well Dat	a (D9)						
Sparsely	/ Vegetated Concave	Surface (B8)	Other (Ex	plain in R	emarks)						
Field Obser	vations:										
		:	No x		nches): _						
Surface Wat											
Water Table	Present? Yes	3	No x	Depth (in			W-41		V	NI -	V
Water Table Saturation P	Present? Yes	3		Depth (in			Wetland Hydrolog	y Present?	Yes	No_	<u> </u>
Water Table Saturation P (includes ca	Present? Yes resent? Yes pillary fringe)	<u> </u>	No x No x	Depth (i	nches): _			y Present?	Yes	No_	<u>X</u>
Water Table Saturation P (includes ca	Present? Yes	<u> </u>	No x No x	Depth (i	nches): _			y Present?	Yes	No_	X
Water Table Saturation P (includes ca	Present? Yes resent? Yes pillary fringe)	<u> </u>	No x No x	Depth (i	nches): _			y Present?	Yes	No_	X
Water Table Saturation P (includes ca Describe Re	Present? Yes resent? Yes pillary fringe)	<u> </u>	No x No x	Depth (i	nches): _			y Present?	Yes	No _	X
Water Table Saturation P (includes ca Describe Re	Present? Yes resent? Yes pillary fringe)	<u> </u>	No x No x	Depth (i	nches): _			y Present?	Yes	No_	X

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Midwest Region See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park		City/Cou	nty: Rochest	er Hills-Oakland C	o. San	npling Date	e: <u>1-29</u>	-25
Applicant/Owner: City of Rochester Hills				State: M	I San	npling Poin	t:V	NT1
Investigator(s): ASTI - KAH		Section, T	Township, Ran	ge: TN3 R11E	Sec 8			
Landform (hillside, terrace, etc.): depression		I	Local relief (co	oncave, convex, no	one): conca	ve		
Slope (%): 1-3 Lat: 42.689371		Long: -	83.19059		Datun	n: NAD83		
Soil Map Unit Name: Capac sandy loam (0-4% slopes	s)			NWI c	 classification	n: none		
Are climatic / hydrologic conditions on the site typical	for this time of v	/ear?	Yes x	No (If no	o, explain in	Remarks.)	
Are Vegetation , Soil , or Hydrology	-			rcumstances" pres			, No	
Are Vegetation, Soil, or Hydrology				olain any answers i				_
SUMMARY OF FINDINGS – Attach site m				-			atures	, etc.
Hydrophytic Vegetation Present? Yes X N	lo	Is the	Sampled Are	ea				
	lo		n a Wetland?		X N	0		
	lo <u> </u>			_				
Remarks: Wetland A - forested wetland in the SE portion of the	site.							
VEGETATION – Use scientific names of pla								
Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Tes	t worksho	at.		
1. Ulmus americana	10	Yes	FACW	Number of Domi				
Populus deltoides	15	Yes	FAC	Are OBL, FACW		:S IIIal	7	(A)
3. Acer rubrum	25	Yes	FAC	Total Number of				-` ′
4.				Across All Strata		,p00,00	7	(B)
5.				Percent of Domi	nant Specie	s That		_
Conling/Chruh Ctratum /Diet eizer 45'	50 =7	Total Cover		Are OBL, FACW	, or FAC:		100.0%	_(A/B)
Sapling/Shrub Stratum (Plot size: 15' 1. Acer rubrum	10	Yes	FAC	Prevalence Inde		ot:		
2. Populus deltoides	10	Yes	FAC	Total % Co			ply by:	
3.				OBL species	10	x 1 =	10	_
4.				FACW species	20	x 2 =	40	-
5.				FAC species	70	x 3 =	210	_
	20 =7	Total Cover		FACU species	0	x 4 =	0	_
Herb Stratum (Plot size:5')				UPL species	0	x 5 =	0	_
Cinna arundinacea	10	Yes	FACW	Column Totals:	100	(A)	260	(B)
2. Glyceria striata	10	Yes	OBL	Prevalence In	dex = B/A	= 2.	.60	_
3. Populus deltoides	5	No	FAC					
4. Acer rubrum	5	No	FAC	Hydrophytic Ve	getation In	dicators:		
5				1 - Rapid Te	-		jetation	
6				X 2 - Dominan				
7				X 3 - Prevalen				
8				4 - Morpholo	ogical Adapt emarks or o			
9.				Problematic			,	
10	30 =7	Total Cover				Ū	` .	,
Woody Vine Stratum (Plot size: 15')	otal COVEI		¹ Indicators of hydbe present, unles				must
1	0		}	·		2. 2100101		
2.				Hydrophytic Vegetation				
	=1	Total Cover			Yes X	No		
Remarks: (Include photo numbers here or on a sepa	rate sheet.)							
, ,	,							

	cription: (Describe Matrix	to the depth				ator or o	confirm the absence	of indicators.)	
Depth (inches)	Color (moist)	——————————————————————————————————————	Color (moist)	x Featur %	Type ¹	Loc ²	Texture	Remarks	
0-18	10YR 4/2								
<u>U-16</u>	1018 4/2	<u>85</u>	7.5YR 5/6	15	<u> </u>	PL/M	Sandy	Prominent redox concentra	ations
1 _{Type:} C=C	oncontration D-Dan	Lotion DM-D	aduand Matrix N			Crains	² l coation	: PL=Pore Lining, M=Matrix.	
Hydric Soil	oncentration, D=Dep	ielion, Kivi–K	educed Matrix, r	vio-iviasi	Reu Sand	Giailis		rs for Problematic Hydric Soil	ls ³ ·
Histosol			Sandy Gle	ved Mati	rix (S4)			Manganese Masses (F12)	
	pipedon (A2)		X Sandy Re	•	IX (O4)			Parent Material (F21)	
	stic (A3)		Stripped N		3)			Shallow Dark Surface (F22)	
	n Sulfide (A4)		Dark Surfa		·)			r (Explain in Remarks)	
	d Layers (A5)		Loamy Mu	` '	eral (F1)			(Explain in Nomano)	
	ick (A10)		Loamy Gle	-	, ,				
	d Below Dark Surface	e (A11)	Depleted I	•					
	ark Surface (A12)	, (, , , , ,	Redox Da	-					
	nosulfide (A18)		Depleted I		, ,)	³ Indicator	rs of hydrophytic vegetation and	d
	lucky Mineral (S1)		Redox De		` '			and hydrology must be present,	
	ıcky Peat or Peat (S3	3)			` ,			ss disturbed or problematic.	
	Layer (if observed):					1		·	
Type:	none								
Depth (ii			_				Hydric Soil Presen	t? Yes X N	No
Remarks:			_				•		
itemarks.									
HYDROLO)GY								
Wetland Hv	drology Indicators:								
_	cators (minimum of c	ne is require	d: check all that	apply)			Seconda	ry Indicators (minimum of two r	eauired)
	Water (A1)		Water-Sta		ves (B9)			ace Soil Cracks (B6)	
— High Wa	iter Table (A2)		Aquatic Fa	auna (B1	3)			nage Patterns (B10)	
Saturation	on (A3)		True Aqua	tic Plant	s (B14)		 Dry-S	Season Water Table (C2)	
	larks (B1)		Hydrogen)		fish Burrows (C8)	
Sedimer	nt Deposits (B2)		x Oxidized F	Rhizosph	eres on l	_iving R	oots (C3) Satu	ration Visible on Aerial Imagery	(C9)
Drift Dep	oosits (B3)		Presence	of Reduc	ed Iron ((C4)	Stun	ted or Stressed Plants (D1)	
Algal Ma	at or Crust (B4)		Recent Iro	n Reduc	tion in Ti	lled Soil	s (C6) <u>x</u> Geor	morphic Position (D2)	
	osits (B5)		Thin Muck	Surface	(C7)		X FAC-	Neutral Test (D5)	
	on Visible on Aerial I		Gauge or	Well Data	a (D9)				
Sparsely	Vegetated Concave	Surface (B8)	Other (Exp	olain in R	emarks)				
Field Obser	vations:								
Surface Wat	ter Present? Ye	s	No <u>x</u>	Depth (ii	nches): _				
Water Table		s	No <u>x</u>	Depth (ii	nches): _				
Saturation P	resent? Ye	s	No x	Depth (ii	nches): _		Wetland Hydrolog	gy Present? Yes X	ــــــ ٥٠
(includes ca									
Describe Re	corded Data (stream	gauge, moni	toring well, aeria	l photos,	previou	s inspec	tions), if available:		
Remarks:									
i veillai KS.									

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki	i Park				City/Cοι	unty: Roches	ster Hills	s-Oakland	Co.	Samp	oling Da	ate: <u>1-29</u>	-25
Applicant/Owner:	City of Roches	ster Hills						State:	МІ	Samp	ling Po	int:\	NT2
Investigator(s): ASTI	- KAH				Section,	Township, Ra	inge: _	TN3 R11E	Sec 8				
Landform (hillside, te	errace, etc.): de	epression				Local relief (d	concave	e, convex,	none): c	oncave)		
Slope (%):1-3	Lat: 42.6892	234			Long:	-83.191968				Datum:	NAD83	3	
Soil Map Unit Name:	: Capac sandy	loam (0-4% s	lopes)					NW	/I classific	cation:	none		
Are climatic / hydrolo	ogic conditions	on the site ty	pical for t	his time c	of year?	Yes x	No	(If	f no, expl	ain in F	Remark	(s.)	
Are Vegetation	_				=	Are "Normal 0	_						
Are Vegetation		_				(If needed, ex	oplain ar	ny answer	s in Rem	arks.)			-
SUMMARY OF I		_						-			rtant 1	features	, etc.
					1								
Hydrophytic Vegeta Hydric Soil Present		Yes X Yes X	No_ No_			e Sampled Ai in a Wetland1		Vos	s X	No			
Wetland Hydrology		Yes X	No —		With	iii a wetiana	•	163	·	NO			
Remarks:			_										
Wetland B - foreste	d wetland in the	e central to so	outh-cent	ral portior	of the site.								
VEGETATION –	Use scienti	fic names o	of plants	3.									
- 0	(D)			Absolute	Dominant	Indicator	l _						
Tree Stratum 1. Acer saccharinu	(Plot size:)	· _ <u> </u>	% Cover 75	Species? Yes	Status FACW		ninance T					
2.	1111			73	165	TACVV		ber of Do OBL, FAC		•	Ihat	1	(A)
3.								l Number			- necies		_(''')
4.								ss All Stra		iain op	00.00	1	(B)
5.							Perc	ent of Do	minant S	pecies	That		_
			_	75	=Total Cover		Are (OBL, FAC	CW, or FA	AC:	_	100.0%	_(A/B)
Sapling/Shrub Strat	<u>:um</u> (Plot	t size:15)										
1. 2.				0				ralence In Total % C				ltiply by:	
								species	0		x 1 =	Itiply by: 0	-
4.								W species			x 2 =	150	-
5.								species	0		x 3 = _	0	_
			_		=Total Cover		FAC	U species	3 0		x 4 = _	0	_
Herb Stratum	(Plot size:	5'))					species	0		x 5 = _	0	_
1				0				mn Totals		—`	_	150	_(B)
2							Pi	revalence	Index =	B/A =		2.00	_
3. 4.							Hydi	rophytic \	Venetatio	on Indi	cators		
_							-	1 - Rapid	_				
6.							_	2 - Domina			•	ogotation.	
7.								3 - Prevale					
ο							—	4 - Morpho	ological A	Adaptat	ions¹ (F	Provide su	pporting
9.								data in	Remarks	or on	a sepa	rate sheet)	ł
10							'	Problemat	tic Hydro	phytic '	√egeta	tion ¹ (Expla	ain)
			–		=Total Cover							hydrology	must
Woody Vine Stratur	•	t size:15		0			be pi	resent, un	iless disti	urbed o	or probl	ematic.	
1				0			-	rophytic					
- .					=Total Cover			etation sent?	Yes	Х	No		
Remarks: (Include	photo numbers	s here or on a	separate				<u> </u>		_				
(morduo	F. Joto Hambore	o.o o. o. a	Jopaidic	. 511001.)									

Profile Des Depth	cription: (Describe Matrix	to the dep		ument ti x Featur		ator or o	confirm the absence o	indicators.)
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	10YR 3/1	100	, ,				Loamy/Clayey	
8-18	10YR 3/1	80	10YR 5/1	15			Loamy/Clayey	Faint redox concentrations
			10YR 4/6	5		PL/M	<u></u>	Prominent redox concentrations
			10111 4/0			1 L/101		1 Torrillerit Tedex correctitations
	· ·							
	-							
1			Dadwa d Matrice N	40. 14			21 41	Di Dana Limban M Matrix
	Concentration, D=Dep Indicators:	letion, Rivi=	Reduced Matrix, I	/IS=IVIAS	ked Sand	Grains		PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils ³ :
Histoso			Sandy Gle	vod Mat	riv (S1)			Manganese Masses (F12)
	pipedon (A2)		Sandy Red	•	IIX (34)			Parent Material (F21)
_	istic (A3)		Stripped M		3)			Shallow Dark Surface (F22)
	en Sulfide (A4)		Dark Surfa		,			(Explain in Remarks)
	d Layers (A5)		Loamy Mu	, ,	eral (F1)			(2,4,4,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,
	uck (A10)		Loamy Gle	•	, ,			
	d Below Dark Surface	e (A11)	Depleted N					
	ark Surface (A12)	. ,	X Redox Dar	•	•			
Iron Mo	nosulfide (A18)		Depleted [Dark Sur	face (F7))	³ Indicators	s of hydrophytic vegetation and
Sandy M	Mucky Mineral (S1)		Redox Dep	oression	s (F8)		wetlar	nd hydrology must be present,
5 cm M	ucky Peat or Peat (S3	3)					unless	s disturbed or problematic.
Restrictive	Layer (if observed):							
Type:	none							
Depth (i	inches):						Hydric Soil Present	? Yes <u>X</u> No
Remarks:								
ĺ								
	201							
HYDROLO								
_	drology Indicators:	no lo roqui	radi abaak all that	annlu)			Cacandan	u Indicatora (minimum of two required)
-	icators (minimum of c	ne is requi	water-Sta		voc (PO)			y Indicators (minimum of two required)
	Water (A1) ater Table (A2)		Aquatic Fa		` ,			ce Soil Cracks (B6) age Patterns (B10)
x Saturati			True Aqua	-	-			eason Water Table (C2)
x Water N			Hydrogen)		sh Burrows (C8)
	nt Deposits (B2)		x Oxidized F		-			ation Visible on Aerial Imagery (C9)
_	posits (B3)		Presence	•		-	· · · · · · · · · · · · · · · · · · ·	ed or Stressed Plants (D1)
_	at or Crust (B4)		Recent Iro					norphic Position (D2)
	posits (B5)		Thin Muck					Neutral Test (D5)
	ion Visible on Aerial I	magery (B7			` '			, ,
Sparsel	y Vegetated Concave	Surface (E	38) Other (Exp	lain in R	emarks)			
Field Obse	rvations:							
Surface Wa	ter Present? Ye	s x	No	Depth (i	nches):	0.5		
Water Table	e Present? Ye	s x	No	Depth (i	nches): _	11		
Saturation F	Present? Ye	s X		Depth (i	nches):	1	Wetland Hydrolog	y Present? Yes X No
(includes ca	pillary fringe)							
Describe Re	ecorded Data (stream	gauge, mo	nitoring well, aeria	l photos	, previou	s inspec	tions), if available:	
Remarks:								
	surface water							

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park		City/Cou	nty: Rochest	er Hills-Oakland	Co. Sar	npling Da	ate: <u>1-29</u>	-25
Applicant/Owner: City of Rochester Hills				State:	MI San	npling Po	int: \	NT3
Investigator(s): ASTI - KAH		Section, T	ownship, Rar	nge: TN3 R11E	Sec 8			
Landform (hillside, terrace, etc.): depression			Local relief (co	oncave, convex,	none): conca	ıve		
Slope (%): 1-3 Lat: 42.690654			83.190822	,		n: NAD8	3	
Soil Map Unit Name: Marlette sandy loam (1-6% slope	es)		0000022	NW	I classification			
	-	fvoor	Vaa v					
Are climatic / hydrologic conditions on the site typical f		-	Yes <u>x</u>		no, explain ir			
Are Vegetation, Soil, or Hydrology				ircumstances" pr			No	_
Are Vegetation, Soil, or Hydrology				olain any answers		•		
SUMMARY OF FINDINGS – Attach site m	ap showir	ng samplin	g point loc	cations, trans	sects, imp	ortant 1	features	, etc.
Hydrophytic Vegetation Present? Yes X N	0	Is the	Sampled Are	na na				
	<u> </u>	I	n a Wetland?		X N	lo		
Wetland Hydrology Present? Yes X N								
Remarks:								
Wetland C - forested and emergent wetland in the ea	st-central por	tion of the site	e; forested por	tion sampled.				
VEGETATION – Use scientific names of pla	ants.							
	Absolute	Dominant	Indicator					
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance To				
1. Acer saccharinum	40	Yes	FACW	Number of Doi		es That	0	(4)
2. Populus deltoides	40	Yes	FAC	Are OBL, FAC		-	6	_(A)
3. Ulmus americana	5	No	_FACW_	Total Number		Species	6	(D)
4 5.				Across All Stra			6	_ ^(B)
J	85	=Total Cover		Percent of Dor Are OBL, FAC	•	es That	100.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15'	\ 	- Total Covel		Ale OBL, FAC	W, OI FAC.	-	100.076	_ (A/D)
1. Acer saccharinum	, 5	No	FACW	Prevalence In	dex workshi	eet.		
Fraxinus pennsylvanica	15	Yes	FACW	Total % C			Itiply by:	
3. Populus deltoides	10	Yes	FAC	OBL species	5	x 1 =	5	_
4.				FACW species	80	x 2 = -	160	_
5.				FAC species	60	x3=	180	_
	30	=Total Cover		FACU species	0	x 4 =	0	_
Herb Stratum (Plot size: 5')				UPL species	0	x 5 = _	0	_
Symphyotrichum lateriflorum	5	No	FACW	Column Totals	:145	(A) _	345	_(B)
2. Populus deltoides	10	Yes	FAC	Prevalence	Index = B/A	=	2.38	_
3. Fraxinus pennsylvanica	10	Yes	<u>FACW</u>					
4. Glyceria striata	5	<u>No</u>	OBL_	Hydrophytic \	_			
5					Test for Hydro		egetation	
6				X 2 - Domina				
7				X 3 - Prevale			Duna dala	
8 9.					ological Adap Remarks or o			
					ic Hydrophyti			
10	30	Total Cover				•	, ,	•
Woody Vine Stratum (Plot size: 15')	Total Govel		¹ Indicators of h be present, un				must
1	0		}		410.011000	5. Probl		
2.				Hydrophytic Vegetation				
		Total Cover		Present?	Yes X	No		
Remarks: (Include photo numbers here or on a sepa	rate sheet)					<u> </u>		
(p	220/							

Depth	Matrix	to the depi		x Featur		ator or C	confirm the absence of	nimicators.
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	10YR 3/1	100	, ,				Loamy/Clayey	
8-18	10YR 3/1	75	10YR 5/1	10	С	M	Loamy/Clayey	Faint redox concentrations
			10YR 5/8	15	С	PL/M		Prominent redox concentrations
¹ Type: C=C	oncentration, D=Dep	letion, RM=	Reduced Matrix, N	 ∕/S=Mas	ked San	d Grains	Location:	PL=Pore Lining, M=Matrix.
Hydric Soil		·						s for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Gle	yed Mat	rix (S4)		Iron-N	Manganese Masses (F12)
Histic E _l	oipedon (A2)		Sandy Re	dox (S5)				Parent Material (F21)
	istic (A3)		Stripped N	`	3)			Shallow Dark Surface (F22)
	en Sulfide (A4)		Dark Surfa	` '			Other	(Explain in Remarks)
	d Layers (A5)		Loamy Mu	•	, ,			
	ıck (A10)		Loamy Gle	-				
I — ·	d Below Dark Surface	e (A11)	Depleted I					
	ark Surface (A12)		X Redox Da		. ,	`	31	- A banda a badia a a sa kadi a a sa d
	nosulfide (A18)		Depleted I)		s of hydrophytic vegetation and
	/lucky Mineral (S1) ucky Peat or Peat (S3	1)	Redox De	pression	s (Fo)			nd hydrology must be present, s disturbed or problematic.
		·)				1	unios	a distarbed of problematio.
Type:	Layer (if observed): none							
Depth (i			_				Hydric Soil Present	? Yes X No
Remarks:			_					
itemarks.								
HYDROLO	OGY							
Wetland Hy	drology Indicators:							
Primary Indi	cators (minimum of o	ne is requir	ed; check all that	apply)			<u>Secondar</u>	y Indicators (minimum of two required)
x Surface	Water (A1)		Water-Sta		` ')		ce Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa		-			age Patterns (B10)
Saturation			True Aqua					eason Water Table (C2)
x Water M	, ,		Hydrogen					ish Burrows (C8)
I —	nt Deposits (B2)		_x_Oxidized F	•		-	· · —	ation Visible on Aerial Imagery (C9)
	posits (B3)		Presence			. ,		ed or Stressed Plants (D1)
	at or Crust (B4)		Recent Iro			illea Soli		norphic Position (D2) Neutral Test (D5)
	oosits (B5) on Visible on Aerial Iı	magery (R7	Thin Muck) Gauge or		, ,		<u> </u>	Neutrai Test (D5)
_	Vegetated Concave				. ,)		
Field Obser			<u> </u>					
		s_x_	No	Depth (i	nches):	0.5		
Water Table		s			nches):			
Saturation F		s			nches):		Wetland Hydrolog	y Present? Yes X No
(includes ca	pillary fringe)				´ -			
Describe Re	corded Data (stream	gauge, mo	nitoring well, aeria	l photos	, previou	s inspec	tions), if available:	
Pomorko:								
Remarks: lce was the	surface water							

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park	ect/Site: Nowicki Park City/County: Rochester Hills-Oakland Co. Sampling Date: 1-29-25							
Applicant/Owner: City of Rochester Hills				State: MI	Sampling Po	int: V	VT4	
Investigator(s): ASTI - KAH		Section, T	ownship, Ra	nge: TN3 R11E Sec 8				
Landform (hillside, terrace, etc.): depression			Local relief (d	concave, convex, none):	concave			
Slope (%): 1-3 Lat: 42.690654		Lona: -	83.190822	, -	Datum: NAD83	3		
Soil Map Unit Name: Marlette sandy loam (1-6% slope	s)			NWI classit	fication: none			
Are climatic / hydrologic conditions on the site typical for	-	of year?	Yes x	No (If no, exp		·e)		
	significantly	-		Circumstances" present?		No		
							_	
Are Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS – Attach site ma				plain any answers in Rer	•	features	etc	
		<u> </u>	9 00					
Hydrophytic Vegetation Present? Yes X No			Sampled A					
Hydric Soil Present? Yes X No		within	n a Wetland?	? Yes X	No			
Wetland Hydrology Present? Yes X No	<u> </u>							
Remarks: Wetland D - forested and emergent wetland in the we	et control no	rtion of the cit	o: omorgant i	portion campled				
Wettand D - Torested and emergent wettand in the we	si-centiai po	THOIT OF THE SIG	e, emergem p	oortion sampled.				
VEGETATION – Use scientific names of pla	nte							
VEGETATION – Use scientific flames of pla	Absolute	Dominant	Indicator	Τ				
<u>Tree Stratum</u> (Plot size: 30')	% Cover	Species?	Status	Dominance Test wor	rksheet:			
Fraxinus pennsylvanica	15	Yes	FACW	Number of Dominant	Species That			
2.				Are OBL, FACW, or F	AC:	4	_(A)	
3				Total Number of Dom	inant Species			
4				Across All Strata:	-	4	_(B)	
5				Percent of Dominant	•	100.00/	(4 (5)	
Cardina/Charle Charters / Distains 451	15	=Total Cover		Are OBL, FACW, or F	AC:	100.0%	_ (A/B)	
Sapling/Shrub Stratum (Plot size: 15'	15	Yes	EAC\A/	Prevalence Index wo				
Fraxinus pennsylvanica 2.	15	165	_FACW_	Total % Cover of		Itiply by:		
3.				OBL species 5		5	-	
4.				FACW species 10		210	-	
5.				FAC species 2	0 x 3 =	60	_	
	15	=Total Cover		FACU species 0	x 4 =	0	_	
Herb Stratum (Plot size: 5')				UPL species0		0	_	
Prunella vulgaris	10	No	FAC	Column Totals: 13		275	_(B)	
2. Typha angustifolia	5	No No	OBL	Prevalence Index	= B/A =	2.12	_	
3. Phragmites australis	5	No No	FACW	I badaa a bada Maaadad	landrallantana			
Carex vulpinoidea Cinna arundinacea	<u>40</u> 5	Yes	FACW	Hydrophytic Vegetat				
Cinna arundinacea Agrostis stolonifera	20	No Yes	FACW FACW	1 - Rapid Test for X 2 - Dominance Te		egetation		
7. Rumex crispus	10	No	FAC	X 3 - Prevalence Inc				
8. Juncus dudleyi	5	No	FACW	4 - Morphological		Provide sur	portina	
9.				data in Remark				
10.				Problematic Hydro	ophytic Vegeta	tion ¹ (Expla	ain)	
	100	=Total Cover		¹ Indicators of hydric s	oil and wetland	hydrology	must	
Woody Vine Stratum (Plot size: 15')			be present, unless dis	turbed or probl	ematic.		
1	0			Hydrophytic				
2				Vegetation				
		=Total Cover		Present? Yes	No_			
Remarks: (Include photo numbers here or on a separ	rate sheet.)							

Depth	Matrix	to the depth		ox Featur		ator or c	confirm the absence	of indicators.)
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10YR 4/2		10YR 6/8	25	C	PL	Sandy	Prominent redox concentrations
								-
¹ Type: C=C	oncentration, D=Depl	etion, RM=R	educed Matrix,	MS=Mas	ked Sand	d Grains	s. ² Location	n: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicato	rs for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy GI	eyed Mat	rix (S4)		Iron-	Manganese Masses (F12)
Histic E	pipedon (A2)		X Sandy Re					Parent Material (F21)
	istic (A3)		Stripped		6)			Shallow Dark Surface (F22)
	en Sulfide (A4)		Dark Surf	, ,			Othe	r (Explain in Remarks)
	d Layers (A5)		Loamy M	•	, ,			
	uck (A10)	(* 4 4)	Loamy G					
	d Below Dark Surface	(A11)	Depleted		-			
	ark Surface (A12)		Redox Da		` '		3Indianta	ro of budroubutio voqetation and
	nosulfide (A18) /lucky Mineral (S1)		Depleted Redox De		, ,	1		rs of hydrophytic vegetation and and hydrology must be present,
	ucky Peat or Peat (S3)	Nedox De	pression	5 (1-0)			ss disturbed or problematic.
	, ,	,					unics	as disturbed of problematic.
	Layer (if observed):							
Type: Depth (i	none_		_				Hydric Soil Presen	t? Yes X No
			-				Hydric 3011 Fresen	t? Yes <u>X</u> No
Remarks:								
HYDROLO	ng v							
_	drology Indicators:	na ia raguira	di abaak all that	· annlu()			Casanda	mulmdiantara (minimum of two required)
	cators (minimum of o Water (A1)	ne is required	ı <u>; cneck alı tnal</u> Water-Sta		voc (PO)			ry Indicators (minimum of two required) ace Soil Cracks (B6)
	ater Table (A2)		Aquatic F		` ,			nage Patterns (B10)
x Saturati			True Aqu					Season Water Table (C2)
	farks (B1)		Hydroger)		fish Burrows (C8)
	nt Deposits (B2)		x Oxidized		•	,		ration Visible on Aerial Imagery (C9)
	posits (B3)		Presence			_		ted or Stressed Plants (D1)
	at or Crust (B4)		Recent In					morphic Position (D2)
	posits (B5)		Thin Muc					-Neutral Test (D5)
Inundati	on Visible on Aerial Ir	nagery (B7)	Gauge or	Well Dat	a (D9)			
Sparsel	y Vegetated Concave	Surface (B8)	Other (Ex	plain in R	emarks)			
Field Obser	rvations:							
Surface Wa	ter Present? Ye	s X	No	Depth (i	nches):	0.5		
Water Table			No x	Depth (i	nches): _			
Saturation F	Present? Ye	s <u>x</u>	No	Depth (i	nches):	12	Wetland Hydrolo	gy Present? Yes X No
(includes ca	pillary fringe)							
Describe Re	ecorded Data (stream	gauge, moni	toring well, aeri	al photos	, previou	s inspec	ctions), if available:	
Domarka								
Remarks: Ice was the	surface water							

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Midwest Region See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park		City/Cou	inty: Rochest	ter Hills-Oakland (<u>Co.</u> Sam	pling Date	: <u>1-29</u> -	-25
Applicant/Owner: City of Rochester Hills				State:N	<u>∕II</u> Sam	pling Point	t: <u> </u>	NT5
Investigator(s): ASTI - KAH		Section, 7	Γownship, Raı	nge: <u>TN3 R11E</u>	Sec 8			
Landform (hillside, terrace, etc.): depression			Local relief (c	oncave, convex, r	none): <u>concav</u>	/e		
Slope (%): 1-3 Lat: 42.690824		Long: -	83.19343		Datum	: NAD83		
Soil Map Unit Name: Capac sandy loam (0-4% slope:	s)			NWI	classification	: PEM1C		
Are climatic / hydrologic conditions on the site typical	for this time of	f year?	Yes x	No (If r	no, explain in	Remarks.)	
Are Vegetation, Soil, or Hydrology		-		ircumstances" pre			, No	
Are Vegetation , Soil , or Hydrology	=			olain any answers				-
SUMMARY OF FINDINGS – Attach site m				-			atures.	, etc.
Hydrophytic Vegetation Present? Yes X	No	Is the	Sampled Ar	ea				
Hydric Soil Present? Yes X	No	withi	n a Wetland?	Yes	X No			
Wetland Hydrology Present? Yes X	No							
Remarks: Wetland E - forested wetland in the west-central port VEGETATION — Use scientific names of pl								
TECETIVITIES CONTRACTOR OF PARTIES CONTRACTO	Absolute	Dominant	Indicator					
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Te	st workshee	t:		
1. Fraxinus pennsylvanica	70	Yes	FACW	Number of Dom		s That		
2. Rhamnus cathartica 3.	15	No	FAC	Are OBL, FACV		. —	3	_(A)
3. 4.				Total Number of Across All Strat		pecies	3	(B)
5.								- ^(D)
	85	=Total Cover		Percent of Dom Are OBL, FACV	•		100.0%	_(A/B)
Sapling/Shrub Stratum (Plot size: 15'	_)							
Fraxinus pennsylvanica	25	Yes	_FACW_	Prevalence Inc				
2.				Total % Co			oly by:	_
3.				OBL species	0	x 1 =	0	-
4 5.				FACW species FAC species	<u>100</u>	x 2 = x 3 =	200 45	-
J	25	=Total Cover		FACU species	0	x 4 =	0	-
Herb Stratum (Plot size: 5')		10101 00101		UPL species	0	x 5 =	0	-
1. Fraxinus pennsylvanica	5	Yes	FACW	Column Totals:		(A)	245	(B)
2.				Prevalence I	Index = B/A =		13	
3.								_
4				Hydrophytic V	_			
5					est for Hydro		etation	
6				X 2 - Domina				
7				X 3 - Prevaler				
8. 9.					logical Adapta Remarks or or			
10.					c Hydrophytic	•	,	
10	5	=Total Cover		¹ Indicators of h		-		,
Woody Vine Stratum (Plot size: 15')			be present, unle				must
1.	0			Hydrophytic		-		
2.				Vegetation				
		=Total Cover		Present?	Yes X	No		
Remarks: (Include photo numbers here or on a sepa	arate sheet.)							

	cription: (Describe Matrix	to the depth				ator or o	confirm the absence of	of indicators.)	
Depth (inches)	Color (moist)		Color (moist)	x Featur %	Type ¹	Loc ²	Texture	Remarks	
0-18	10YR 4/2	80							trations
<u>U-10</u>	10114/2		10YR 6/8		<u> </u>	PL_	Sandy	Prominent redox concen	irations
1 _{Type: C=C}	oncentration, D=Dep	lotion DM-D	aduand Matrix N			Crains	² l coation	: PL=Pore Lining, M=Matrix.	
Hydric Soil		ielion, Rivi-R	educed Matrix, N	/IO-IVIASI	keu Sanc	Giailis		s for Problematic Hydric S	nils ³ ·
Histosol			Sandy Gle	ved Mati	riy (S4)			Manganese Masses (F12)	0110 .
	oipedon (A2)		X Sandy Red	•	IX (O4)			Parent Material (F21)	
	stic (A3)		Stripped M		3)			Shallow Dark Surface (F22)	
	n Sulfide (A4)		Dark Surfa	•	,,			(Explain in Remarks)	
	d Layers (A5)		Loamy Mu	` '	eral (F1)			(Explain in Remains)	
	ick (A10)		Loamy Gle	-	. ,				
	d Below Dark Surface	e (A11)	Depleted N	•	, ,				
	ark Surface (A12)	,	Redox Dar	-	-				
	nosulfide (A18)		Depleted [` ')	³ Indicator	s of hydrophytic vegetation a	nd
	lucky Mineral (S1)		Redox De		` '			nd hydrology must be preser	
	ıcky Peat or Peat (S	3)			,			s disturbed or problematic.	•
	Layer (if observed):	-				1		·	
Type:	none								
Depth (ii			_				Hydric Soil Present	? Yes X	No
Remarks:	,		_						
ixemarks.									
HYDROLO	OGY								
	drology Indicators:								
_	cators (minimum of	ne is require	d: check all that	apply)			Secondar	y Indicators (minimum of two	required)
	Water (A1)		Water-Sta		ves (B9)			ce Soil Cracks (B6)	
— High Wa	ater Table (A2)		Aquatic Fa		` '			age Patterns (B10)	
— Saturation	` ,		True Aqua	-	-			Season Water Table (C2)	
x Water M			Hydrogen)		ish Burrows (C8)	
Sedimer	nt Deposits (B2)		x Oxidized F	Rhizosph	eres on L	_iving R∈	oots (C3) Satur	ation Visible on Aerial Image	ery (C9)
Drift Dep	oosits (B3)		Presence	of Reduc	ed Iron ((C4)	Stunt	ed or Stressed Plants (D1)	
Algal Ma	at or Crust (B4)		Recent Iro	n Reduc	tion in Ti	lled Soil	s (C6) x Geon	norphic Position (D2)	
Iron Dep	oosits (B5)		Thin Muck	Surface	(C7)		X FAC-	Neutral Test (D5)	
Inundati	on Visible on Aerial I	magery (B7)	Gauge or \	Well Data	a (D9)				
Sparsely	/ Vegetated Concave	Surface (B8) Other (Exp	olain in R	emarks)				
Field Obser	vations:								
Surface Wat	ter Present? Ye	es	No x	Depth (ii	nches): _				
Water Table		es	No <u>x</u>	Depth (ii	nches): _				
Saturation P	resent? Ye	es	No x	Depth (ii	nches):		Wetland Hydrolog	gy Present? Yes X	No
(includes ca	pillary fringe)								
Describe Re	corded Data (stream	gauge, moni	toring well, aeria	l photos,	, previous	s inspec	tions), if available:		
Remarks:									
Remarks:									

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park City/County: Rochester Hills-Oakland Co. Sampling Date: 1-2							
Applicant/Owner: City of Rochester Hills				State: MI	Sampling Poir	nt: <u>V</u>	VT6
Investigator(s): ASTI - KAH		Section, T	Township, Ra	inge: TN3 R11E Sec 8	;		
Landform (hillside, terrace, etc.): depression			Local relief (concave, convex, none):	concave		
Slope (%): 1-3 Lat: 42.692445		Long: -	83.191495		Datum: NAD83		
Soil Map Unit Name: Brookston and Colwood loams				NWI classi	fication: none		
Are climatic / hydrologic conditions on the site typical	for this time o	of year?	Yes x	No (If no, ex	olain in Remarks)	
	significantly	-		Circumstances" present?		No	
Are Vegetation , Soil , or Hydrology							-
SUMMARY OF FINDINGS – Attach site m				cplain any answers in Recations, transects,	•	atures	, etc.
Hydrophytic Vegetation Present? Yes X N	lo	Is the	Sampled A	rea			
	lo		n a Wetland		No		
Remarks: Wetland F - forested wetland in the NW portion of the VEGETATION – Use scientific names of pla							
TECETIVITIES COS SCIONAINS NAMES OF PIC	Absolute	Dominant	Indicator	I			
Tree Stratum (Plot size:30')	% Cover	Species?	Status	Dominance Test wo	rksheet:		
1. Populus deltoides	40	Yes	FAC	Number of Dominant	Species That		
2. Fraxinus pennsylvanica	10	Yes	FACW	Are OBL, FACW, or F	AC:	6	(A)
3				Total Number of Dom	inant Species		
4				Across All Strata:	_	6	_(B)
5				Percent of Dominant	•		
	50	=Total Cover		Are OBL, FACW, or F	AC:	100.0%	_(A/B)
Sapling/Shrub Stratum (Plot size: 15')						
1. Fraxinus pennsylvanica	5	Yes	<u>FACW</u>	Prevalence Index we			
2. Cephalanthus occidentalis		Yes	OBL	Total % Cover of		iply by:	-
3. Cornus racemosa	5	Yes	FAC_	· -	0 x 1 =	20	-
4 5.				· · ·	$\frac{0}{5}$ $\times 2 =$	180 135	-
J	20	=Total Cover		· -	x4=	0	-
Herb Stratum (Plot size: 5')		- rotal Gover		· · · · · ·) x5=	0	-
1. Lythrum salicaria	10	No	OBL	· —	55 (A) _	335	– (B)
Phalaris arundinacea	50	Yes	FACW	Prevalence Index		2.16	_ (- /
3. Euthamia graminifolia	10	No	FACW				-
4. Carex vulpinoidea	5	No	FACW	Hydrophytic Vegeta	tion Indicators:		
5. Phragmites australis	10	No	FACW	1 - Rapid Test for	· Hydrophytic Ve	getation	
6.				X 2 - Dominance Te	est is >50%		
7.				X 3 - Prevalence In	dex is ≤3.0 ¹		
8				4 - Morphological			
9					ks or on a separa		
10				Problematic Hydr	ophytic Vegetation	on¹ (Expla	ain)
	85	=Total Cover		¹ Indicators of hydric s		, ,,	must
Woody Vine Stratum (Plot size: 15')			be present, unless dis	turbed or proble	matic.	
1.	0			Hydrophytic			
2		-Total Cause		Vegetation	V Na		
		=Total Cover		Present? Yes	XNo		
Remarks: (Include photo numbers here or on a sepa	rate sheet.)						

Profile Desc Depth	cription: (Describe Matrix	to the depth		ument th x Featur		itor or o	confirm the absence o	f indicators.)
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10YR 4/2	70 —	10YR 4/6	30	C	PL	Loamy/Clayey	Prominent redox concentrations
<u> </u>	10117 4/2	70 _	10111 4/0			<u> </u>	Loanly/Clayey	FIORITIES TECOX CONCESSIONS
¹ Type: C=Ce	oncentration, D=Dep	letion, RM=R	Reduced Matrix, N	 ∕/S=MasI	ed Sand	Grains	Location:	PL=Pore Lining, M=Matrix.
Hydric Soil								for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Gle	yed Matı	rix (S4)		Iron-M	langanese Masses (F12)
Histic Ep	oipedon (A2)		Sandy Red	dox (S5)			Red P	arent Material (F21)
Black Hi	stic (A3)		Stripped M	1atrix (S6	5)		Very S	Shallow Dark Surface (F22)
Hydroge	n Sulfide (A4)		Dark Surfa	ace (S7)			Other	(Explain in Remarks)
Stratified	l Layers (A5)		Loamy Mu	icky Mine	eral (F1)			
	ck (A10)		Loamy Gle	eyed Mat	rix (F2)			
	l Below Dark Surface	e (A11)	X Depleted I	-	-			
	ark Surface (A12)		Redox Dai		` '		2	
	osulfide (A18)		Depleted [, ,			of hydrophytic vegetation and
	lucky Mineral (S1)	2)	Redox De	pressions	s (F8)			nd hydrology must be present,
5 cm Mu	cky Peat or Peat (S	3)					uniess	s disturbed or problematic.
	Layer (if observed):							
Type:	none		_					
Depth (ir	nches):		_				Hydric Soil Present	? Yes <u>X</u> No
HYDROLC	OGY							
_	drology Indicators:							
	cators (minimum of o	one is require						/ Indicators (minimum of two required)
	Water (A1)		Water-Sta		, ,			ce Soil Cracks (B6)
<u> </u>	ter Table (A2)		Aquatic Fa	-	-			age Patterns (B10)
Saturatio	arks (B1)		True Aqua Hydrogen			١		eason Water Table (C2) sh Burrows (C8)
	arks (B1) nt Deposits (B2)		x Oxidized F					ation Visible on Aerial Imagery (C9)
	oosits (B3)		Presence			_		ed or Stressed Plants (D1)
	it or Crust (B4)		Recent Iro					orphic Position (D2)
`	osits (B5)		Thin Muck					Veutral Test (D5)
	on Visible on Aerial I	magery (B7)	Gauge or					
	Vegetated Concave							
Field Obser	vations:							
Surface Wat	er Present? Ye	es	No x	Depth (ii	nches): _			
Water Table		es —			nches):			
Saturation P		es			nches):		Wetland Hydrolog	y Present? Yes X No
(includes cap	oillary fringe)							
Describe Re	corded Data (stream	gauge, mon	itoring well, aeria	l photos,	previous	s inspec	ctions), if available:	
Remarks:								

See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park		City/Cou	nty: Rochest	ter Hills-Oakland	Co. Sar	npling Dat	e: <u>1-30</u>	-25
Applicant/Owner: City of Rochester Hills			State:	MI San	npling Poi	nt: \\	NT7	
Investigator(s): ASTI - KAH		Section, T	ownship, Rar	nge: TN3 R11E	Sec 8			
Landform (hillside, terrace, etc.): depression		[_ocal relief (c	oncave, convex,	none): conca	ive		
Slope (%): 1-3 Lat: 42.691384		Long: -	83.192542		Datun	n: NAD83		
Soil Map Unit Name: Marlette sandy loams (1-6% slop	es)			NW	l classification	n: none		
Are climatic / hydrologic conditions on the site typical for	or this time o	f year?	Yes x	No (If	no, explain ir	Remarks	i.)	
Are Vegetation , Soil , or Hydrology		-		ircumstances" pr	•		No	
Are Vegetation, Soil, or Hydrology				olain any answers			-	_
SUMMARY OF FINDINGS – Attach site ma			·	•		•	eatures	, etc.
Hydrophytic Vegetation Present? Yes X No)	ls tha	Sampled Ar					
	<u> </u>	I	a Wetland?					
Wetland Hydrology Present? Yes X No								
Remarks:		<u> </u>						
Wetland G - emergent wetland in the NC portion of th	e site.							
VEGETATION – Use scientific names of pla								
Troe Stratum (Plot cize: 20')	Absolute	Dominant Species?	Indicator	Dominanas T	oot worksho	ot:		
Tree Stratum (Plot size: 30') 1. Malus domestica	% Cover 5	Species? Yes	Status UPL	Dominance To				
2. Populus deltoides	10	Yes	FAC	Number of Dor Are OBL, FAC	•	es mat	4	(A)
3.				Total Number		– Species		_` ′
4.				Across All Stra			5	(B)
5.				Percent of Dor	ninant Specie	es That		_
	15	=Total Cover		Are OBL, FAC	W, or FAC:	_	80.0%	_(A/B)
Sapling/Shrub Stratum (Plot size: 15')							
1	0			Prevalence In				
2.				Total % C			iply by:	_
3				OBL species	20	x1=_	20	_
5.				FACW species FAC species	75 15	x 2 = _ x 3 =	150 45	-
J		=Total Cover		FACU species		x 4 =	0	_
Herb Stratum (Plot size: 5')		Total Gover		UPL species		x5=	25	-
1. Lythrum salicaria	20	Yes	OBL	Column Totals		(A)	240	(B)
2. Phalaris arundinacea	50	Yes	FACW		Index = B/A	_	2.09	_` ′
3. Euthamia graminifolia	5	No	FACW					
4. Symphyotrichum lateriflorum	20	Yes	FACW	Hydrophytic \	egetation In	dicators:		
5. Geum canadense	5	No	FAC	1 - Rapid ⁻	Γest for Hydro	ophytic Ve	getation	
6				X 2 - Domina				
7				X 3 - Prevale				
8.					ological Adapt			
9					Remarks or o	•	•	
10	100	-Total Cover			ic Hydrophyti	Ū		,
Woody Vine Stratum (Plot size: 15'	100	=Total Cover		¹ Indicators of h be present, un				must
1	0		ŀ		icoo diotarbet	a or proble		
2.				Hydrophytic Vegetation				
		Total Cover		Present?	Yes X	No		
Remarks: (Include photo numbers here or on a sepa	rate sheet.)					_		
	,							

	Matrix		needed to doc Redo	x Featur	20						
Depth (inches)	Color (moist)	% (Color (moist)	% ************************************	Type ¹	Loc ²	Texture	Remarks			
0-3	10YR 4/2	100			.,,,,,		Sandy	- Normanne			
	10111 4/2						Carray				
3-18	10YR 5/2	70 —	10YR 4/6	25		PL/M	Loamy/Clayey	Prominent redox concentrations			
3-10	10111 3/2						Loanly/Clayey				
			10YR 5/1	5	<u>C</u>	<u>M</u>		Faint redox concentrations			
	oncentration, D=Deple	tion, RM=Re	educed Matrix, I	MS=Masl	ced Sand	d Grains		PL=Pore Lining, M=Matrix.			
Hydric Soil			0		··· (O.4)			s for Problematic Hydric Soils ³ :			
— Histosol	` '	Sandy Gleyed Matrix (S4) Sandy Redox (S5)					Manganese Masses (F12)				
Black His	oipedon (A2)		Stripped N		:)		Red Parent Material (F21) Very Shallow Dark Surface (F22)				
	n Sulfide (A4)		Dark Surfa	-	')			(Explain in Remarks)			
	l Layers (A5)		Loamy Mu	, ,	eral (F1)			(Explain in Remarks)			
2 cm Mu	, , ,		Loamy Gl								
	d Below Dark Surface ((A11)	X Depleted	-							
	ark Surface (A12)	,	Redox Da	-							
Iron Mon	nosulfide (A18)		Depleted	Dark Sur	ace (F7))	³ Indicators	s of hydrophytic vegetation and			
Sandy M	lucky Mineral (S1)		Redox De	pressions	s (F8)		wetlar	nd hydrology must be present,			
5 cm Mu	icky Peat or Peat (S3)						unles	s disturbed or problematic.			
Restrictive I	Layer (if observed):										
Type:	none		_								
Depth (inches):						Hydric Soil Present	? Yes <u>X</u> No				
HYDROLO											
	GY										
_	drology Indicators:										
Primary India	drology Indicators: cators (minimum of on	e is required						y Indicators (minimum of two required)			
Primary India	drology Indicators: cators (minimum of on Water (A1)	e is required	Water-Sta	ined Lea	, ,		Surfac	ce Soil Cracks (B6)			
Primary Indic	drology Indicators: cators (minimum of on Water (A1) tter Table (A2)	e is required	Water-Sta	ined Lea auna (B1	3) ` ´		Surface Draina	ce Soil Cracks (B6) age Patterns (B10)			
Primary India Surface High Wa Saturation	drology Indicators: cators (minimum of on Water (A1) tter Table (A2) on (A3)	e is required	Water-Sta Aquatic Fa True Aqua	ined Lea auna (B1 atic Plant	3) s (B14)		Surface Draina	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2)			
Primary India Surface High Wa Saturatio Water M	drology Indicators: cators (minimum of on Water (A1) hter Table (A2) on (A3) larks (B1)	e is required	Water-Sta Aquatic Fa True Aqua Hydrogen	iined Lea auna (B1 atic Plant Sulfide (3) s (B14) Odor (C1)	Surfac Draina Dry-S Crayfi	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8)			
Primary India Surface High Wa Saturatic Water M Sedimen	drology Indicators: cators (minimum of on Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2)	e is required	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized F	iined Lea auna (B1 atic Plant Sulfide (Rhizosph	3) s (B14) Odor (C1 eres on I) _iving R	SurfactDrainsDry-SCrayfi oots (C3)Saturs	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9)			
Primary India Surface High Wa Saturatic Water M Sedimen Drift Dep	drology Indicators: cators (minimum of on Water (A1) hter Table (A2) on (A3) larks (B1)	e is required	Water-Sta Aquatic Fa True Aqua Hydrogen	iined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc	3) s (B14) dor (C1) eres on led) _iving Ro (C4)	SurfaceDrainsDry-SCrayfice oots (C3)Satura	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8)			
Primary India Surface High Wa Saturatic Water M Sedimen Drift Dep Algal Ma	drology Indicators: cators (minimum of on Water (A1) ter Table (A2) on (A3) larks (B1) at Deposits (B2) losits (B3)	e is required	Water-Sta Aquatic Fa True Aqua Hydrogen X Oxidized F Presence	uined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc	3) s (B14) Odor (C1 eres on I ed Iron () _iving Ro (C4)	Surfact	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)			
Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	drology Indicators: cators (minimum of on Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4)		Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized Fa Presence Recent Iro	nined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc s Surface	3) s (B14) Odor (C1) eres on I red Iron (tion in Ti (C7)) _iving Ro (C4)	Surfact	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) torphic Position (D2)			
Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	drology Indicators: cators (minimum of on Water (A1) tter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5)	agery (B7)	Water-Sta Aquatic Fa True Aqua Hydrogen X Oxidized Fa Presence Recent Iro Thin Muck Gauge or	nined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc Surface Well Dat	3) s (B14) Odor (C1) eres on I red Iron (tion in Ti (C7) a (D9)) _iving Ro (C4)	Surfact	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) torphic Position (D2)			
Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	drology Indicators: cators (minimum of on Water (A1) ter Table (A2) on (A3) larks (B1) nt Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial Im v Vegetated Concave S	agery (B7)	Water-Sta Aquatic Fa True Aqua Hydrogen X Oxidized Fa Presence Recent Iro Thin Muck Gauge or	nined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc Surface Well Dat	3) s (B14) Odor (C1) eres on I red Iron (tion in Ti (C7) a (D9)) _iving Ro (C4)	Surfact	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) torphic Position (D2)			
Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat	drology Indicators: cators (minimum of on Water (A1) ther Table (A2) on (A3) arks (B1) on Deposits (B2) oosits (B3) of or Crust (B4) oosits (B5) on Visible on Aerial Im of Vegetated Concave Sevations: er Present? Yes	agery (B7) Surface (B8)	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized Fa Presence Recent Iro Thin Muck Gauge or Other (Exp	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc s Surface Well Dat plain in R	3) s (B14) Odor (C1 eres on I ed Iron (tion in Ti (C7) a (D9) emarks)) Living Ro (C4) Illed Soil	Surfact	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) torphic Position (D2)			
Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table	drology Indicators: cators (minimum of on Water (A1) ther Table (A2) on (A3) tarks (B1) th Deposits (B2) toosits (B3) th or Crust (B4) toosits (B5) on Visible on Aerial Im to Vegetated Concave Sevations: ther Present? Yes Present? Yes	agery (B7) Surface (B8)	Water-Sta Aquatic Fa True Aqua Hydrogen X Oxidized Fa Presence Recent Iro Thin Muck Gauge or Other (Exp	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc on Reduc c Surface Well Dat blain in R	s (B14) Odor (C1 eres on I ed Iron (tion in Ti (C7) a (D9) emarks) nches): _ nches): _) Living Ro (C4) Illed Soil	Surfaction	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) corphic Position (D2) Neutral Test (D5)			
Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatic Sparsely Field Obser Surface Water Table Saturation P	drology Indicators: cators (minimum of on Water (A1) Inter Table (A2) In (A3) Introduction (B2) Introduction (B3) Introduction (B4) Introd	agery (B7) Surface (B8)	Water-Sta Aquatic Fa True Aqua Hydrogen x Oxidized Fa Presence Recent Iro Thin Muck Gauge or Other (Exp	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc s Surface Well Dat plain in R	s (B14) Odor (C1 eres on I ed Iron (tion in Ti (C7) a (D9) emarks) nches): _ nches): _) Living Ro (C4) Illed Soil	Surfact	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) corphic Position (D2) Neutral Test (D5)			
Primary India Surface High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatic Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap	drology Indicators: cators (minimum of on Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (B1) Int Deposits (B2) Inter Table (B2) Inter Table (B4) Inter Table (B4) Inter Table (B4) Inter Table (B2) Inter Crust (B4) Inter Table (B2) Inter Crust (B4) Int	agery (B7) Surface (B8)	Water-Sta Aquatic Fa True Aqua Hydrogen X Oxidized Fa Presence Recent Iro Thin Muck Gauge or Other (Exp No x No x No x	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc a Surface Well Dat plain in R Depth (ii Depth (ii	3) s (B14) Odor (C1 eres on I eed Iron (tion in Ti (C7) a (D9) emarks) nches): _ nches): _) Living Ro (C4) Illed Soil	Surface Draina Dry-S Crayfi oots (C3) Satura Stunte S (C6) X Geom X FAC-I	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) corphic Position (D2) Neutral Test (D5)			
Primary India Surface High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatic Sparsely Field Obser Surface Wate Water Table Saturation P (includes cap	drology Indicators: cators (minimum of on Water (A1) Inter Table (A2) In (A3) Introduction (B2) Introduction (B3) Introduction (B4) Introd	agery (B7) Surface (B8)	Water-Sta Aquatic Fa True Aqua Hydrogen X Oxidized Fa Presence Recent Iro Thin Muck Gauge or Other (Exp No x No x No x	ined Lea auna (B1 atic Plant Sulfide (Rhizosph of Reduc on Reduc a Surface Well Dat plain in R Depth (ii Depth (ii	3) s (B14) Odor (C1 eres on I eed Iron (tion in Ti (C7) a (D9) emarks) nches): _ nches): _) Living Ro (C4) Illed Soil	Surface Draina Dry-S Crayfi oots (C3) Satura Stunte S (C6) X Geom X FAC-I	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) corphic Position (D2) Neutral Test (D5)			
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See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

Project/Site: Nowicki Park		City/Cou	nty: Rochest	er Hills-Oakland Co.	Sampling	Date: <u>1-3</u> (0-25
Applicant/Owner: City of Rochester Hills				State: MI	Sampling I	Point:	WT8
Investigator(s): ASTI - KAH		Section, T	ownship, Rar	nge: TN3 R11E Se	_ c 8		
Landform (hillside, terrace, etc.): depression			Local relief (c	oncave, convex, none	e): concave		
Slope (%): 1-3 Lat: 42.692438		Long: -	83.193713		Datum: NAD)83	
Soil Map Unit Name: Marlette sandy loams (1-6% slop	es)			NWI clas	ssification: none		
Are climatic / hydrologic conditions on the site typical f	or this time of	f vear?	Yes x	No (If no,	explain in Rema	arks.)	
Are Vegetation , Soil , or Hydrology		-		ircumstances" preser			
Are Vegetation, Soil, or Hydrology				olain any answers in f		- —	_
SUMMARY OF FINDINGS – Attach site m				-	·	t features	s, etc.
Hydrophytic Vegetation Present? Yes X N	0	ls tha	Sampled Ar	93			
Hydric Soil Present? Yes X N			n a Wetland?		. No		
Wetland Hydrology Present? Yes X N						_	
Remarks:							
Wetland H - forested wetland in the NE portion of the	site and indic	ative of condi	tions in Wetla	and I.			
VEGETATION – Use scientific names of pla		<u> </u>					
Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test v	vorkshoot:		
1. Fraxinus pennsylvanica	20	Yes	FACW				
Acer saccharinum	30	Yes	FACW	Number of Domina Are OBL, FACW, or	•	ι 7	(A)
3. Ulmus americana	5	No	FACW	Total Number of Do			_('')
4.				Across All Strata:	Jilliant Opecie	7	(B)
5.				Percent of Domina	nt Species That	·	_ ` ′
	55 =	Total Cover		Are OBL, FACW, o	•	100.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15')						
Fraxinus pennsylvanica	15	Yes	FACW	Prevalence Index	worksheet:		
2. Frangula alnus	15	Yes	FACW	Total % Cover	of: N	Multiply by:	_
3. Acer saccharinum	10	Yes	FACW	OBL species	0 x 1 =	=0	_
4				FACW species	120 x 2 =		_
5				FAC species	30 x 3 =		_
	40 =	Total Cover		FACU species	0 x 4 =		_
Herb Stratum (Plot size: 5')	00	.,	E4.0	UPL species	0 x 5 =		— _(B)
Symphyotrichum lanceolatum	30	Yes	FAC	Column Totals:	150 (A)	330	— ^(B)
2. Solidago gigantea	10	No Yes	FACW	Prevalence Inde	x = B/A =	2.20	_
Symphyotrichum lateriflorum 4.	15	Yes	FACW_	Hydrophytic Vege	tation Indicate	re:	
					for Hydrophytic		
				X 2 - Dominance		vegetation	
				X 3 - Prevalence			
7. 8.					cal Adaptations	1 (Provide su	upporting
9.					arks or on a se	•	
10				Problematic Hy	drophytic Vege	tation ¹ (Exp	lain)
	55 =	Total Cover		¹ Indicators of hydri			,
Woody Vine Stratum (Plot size: 15')			be present, unless			,
1	0			Hydrophytic			
2.				Vegetation			
	=	Total Cover		Present? Ye	es X No	o	
Remarks: (Include photo numbers here or on a sepa	rate sheet.)		•				

Profile Des	cription: (Describe Matrix	to the depth		u ment th x Featur		ator or o	confirm the absence o	of indicators.)		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-18	10YR 3/1	- 70 —	10YR 6/8	20	C	PL/M	Loamy/Clayey	Prominent redox concentration		
0-10	10113/1		10110/0			F L/IVI	Loamy/Clayey	Frominent redox concentration	15	
		- — –								
¹ Type: C=C	oncentration, D=De	pletion, RM=R	Reduced Matrix, N	/IS=Masl	ced Sand	d Grains	. ² Location:	PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators:						Indicators	s for Problematic Hydric Soils ³ :		
Histosol	(A1)		Sandy Gle	yed Matı	rix (S4)		Iron-M	langanese Masses (F12)		
Histic Epipedon (A2) Sandy Redox (S5)							Parent Material (F21)			
	istic (A3)		Stripped M	•	5)		Very Shallow Dark Surface (F22)			
	en Sulfide (A4)		Dark Surfa	` '			Other	(Explain in Remarks)		
	d Layers (A5)		Loamy Mu	•	, ,					
	uck (A10)	(8.4.4)	Loamy Gle	-						
	d Below Dark Surfac	e (A11)	Depleted N	•	•					
	ark Surface (A12) nosulfide (A18)		X Redox Da		, ,		³ Indicators of hydrophytic vagotation and			
	, ,				` '	,	³ Indicators of hydrophytic vegetation and			
Sandy Mucky Mineral (S1) Redox Depressions (F8) 5 cm Mucky Peat or Peat (S3)						wetland hydrology must be present, unless disturbed or problematic.				
	Layer (if observed)	-				1				
Type:	none									
Depth (i		<u>'</u>	_				Hydric Soil Present	? Yes X No		
Remarks:							•		_	
Nemaiks.										
HYDROLO	OGY									
Wetland Hy	drology Indicators	•								
_	cators (minimum of		ed; check all that	apply)			Secondary	y Indicators (minimum of two requi	ired)	
	Water (A1)		Water-Sta		ves (B9)			ce Soil Cracks (B6)		
High Water Table (A2) Aquatic Fa				una (B1	3)		Draina	age Patterns (B10)		
Saturation	on (A3)		True Aqua	tic Plant	s (B14)		Dry-S	eason Water Table (C2)		
	larks (B1)		Hydrogen	Sulfide C	Odor (C1)		sh Burrows (C8)		
Sediment Deposits (B2) x _ Oxidized Rhizospheres on Living Ro							ation Visible on Aerial Imagery (C9))		
	posits (B3)		Presence			` '		ed or Stressed Plants (D1)		
Algal Mat or Crust (B4)Recent Iron Reduction in Tilled Soils							norphic Position (D2)			
Iron Deposits (B5)Thin Muck Surface (C7)						X FAC-I	Neutral Test (D5)			
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)										
		e Surface (Do	Other (Exp	лані ні іх	emarks)					
Field Obser		00	No. v	Donth (i	achos):					
Surface Wa		es		Depth (ii						
Water Table Present? Yes No x Depth (inches): Saturation Present? Yes No x Depth (inches):						Wetland Hydrolog	y Present? Yes X No			
	pillary fringe)		<u> </u>	Dopan (ii	_		- Trottana riyarolog	,,		
	corded Data (stream	n gauge, mon	itoring well, aeria	l photos.	previou	s inspec	ctions), if available:			
					<u> </u>					
Remarks:										