

## **Information for File # 2012-00510-AMN**

**Applicant:** Garners Creek Stormwater Utility  
**Corps Contact:** Ann Nye  
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**E-Mail:** ann.m.nye@usace.army.mil  
**Phone:** (651) 290-5859  
**Primary County:** Calumet

**Section, Township, Range:** Section 3, T. 20N., R. 18E.

**Information Complete On:** March 25, 2014

**Posting Expires On:** May 3, 2014

**Authorization Type:** LOP-06-WI

This application is being reviewed in accordance with the practices for documenting Corps jurisdiction under Sections 9 & 10 of the Rivers and Harbor Act of 1899 and Section 404 of the Clean Water Act identified in Regulatory Guidance Letter 07-01. We have made a preliminary determination that the aquatic resources that would be impacted by the proposed project are regulated by the Corps of Engineers under Section 404 of the Clean Water Act. Our jurisdictional review and final jurisdictional determination could result in modifications to the scope of the project's regulated waterbody/wetland impacts and compensatory mitigation requirements identified above. If an approved jurisdictional determination is made, it will be posted on the St. Paul District web page at <http://www.mvp.usace.army.mil/>.

### **Project**

**PROJECT DESCRIPTION AND PURPOSE:** The applicant proposes to discharge dredged and fill material into 0.85 acre of an unnamed tributary to Garners Creek and adjacent wetlands for the purpose of constructing the Noe Road Stormwater Improvements project. The proposed project would involve realignment of the unnamed tributary to Garners Creek within the project area and the construction of three wet detention ponds (Noe Road Pond, Noe East Pond, and Noe West Pond). The primary purpose of the project would be to reduce peak flows and assist in satisfying water quality requirements as identified within the Lower Fox River (LFR) Basin Total Maximum Daily Load (TMDL). Specifically, the project would assist in satisfying Garners Creek Stormwater Utility's 1955 peak flow objective and the pollutant load reductions (63.1% Total Phosphorous and 49.9% Total Suspended Solids) identified in

the LFR Basin TMDL for the Garners Creek watershed. Ancillary benefits would include improving water quality, reducing stream bank erosion and flooding potential, and increasing the connectivity and functional values along the stream corridor.

The diversion pipe inlet for the 3.27-acre Noe Road Pond would be installed below the ordinary high water mark (OHWM) of the unnamed tributary to Garners Creek, with 2.2% of existing stream flow remaining in the stream channel between the point of diversion and the outlet structure (a distance of 407 linear feet). Both the Noe East Pond (0.49 acre) and the Noe West Pond (0.42 acre) would be constructed to satisfy post-construction stormwater management requirements for portions of adjacent subdivisions that are currently in the conceptual design phase. Emergent and submerged wetland plantings would be established within the safety shelves of all three ponds, and vegetated buffers would be established around the perimeter of all ponds.

The proposed stream channel alignment would involve realigning and meandering a total of 1,782 linear feet of existing stream channel. This would lead to a 90-foot increase in overall stream length. The primary purpose of the stream realignment would be to allow for the Noe Road Pond to discharge as far upstream as possible, while adding length and meandering characteristics to the stream. In addition, the stream realignment would move the stream channel away from an existing sanitary sewer manhole. The new stream channel would be constructed as a 2-stage channel which would provide additional flood storage and pollutant capture. A riprap grade control structure is proposed at the downstream end of the realigned stream channel to prevent scour.

As a result of the final filling/grading plan, a majority of the 57 acres of agriculture fields in the project area would drain to the Noe East and Noe West ponds as opposed to directly into the stream. This would allow for the ponds to treat the agricultural runoff, and would reduce the potential for sheet flow erosion along the stream corridor.

Two permanent culverts would be installed within the realigned stream channel to provide farm equipment access and future subdivision access to both sides of the stream. A third temporary culvert would be installed for construction access. Refer to Figure 1 for a location map of the proposed project.

**NAME, AREA AND TYPES OF WATERS (INCLUDING WETLANDS) SUBJECT TO LOSS:** The proposed project would impact 0.85 acre of an unnamed tributary to Garners Creek and adjacent wetlands. This includes impacts to five farmed wetland areas that will be evaluated by the applicant and the Corps during the growing season to determine if wetlands are present. These wetlands are identified as AOC 2 – AOC 7 on Figure 2.

Construction of the Noe Road Pond would result in the permanent loss of 4,841 square feet of wet meadow wetlands. Site grading and stream realignment would permanently impact 8,712 square feet of farmed wetland areas. An additional 600 square feet of farmed wetland and four linear feet of stream would be temporarily impacted by installation of a storm sewer pipe.

Impacts to the stream as a result of grading, riprap (at outfalls and culvert crossings), and culverts would be 22,876 square feet, 540 square feet of which would be temporary crossing impacts.

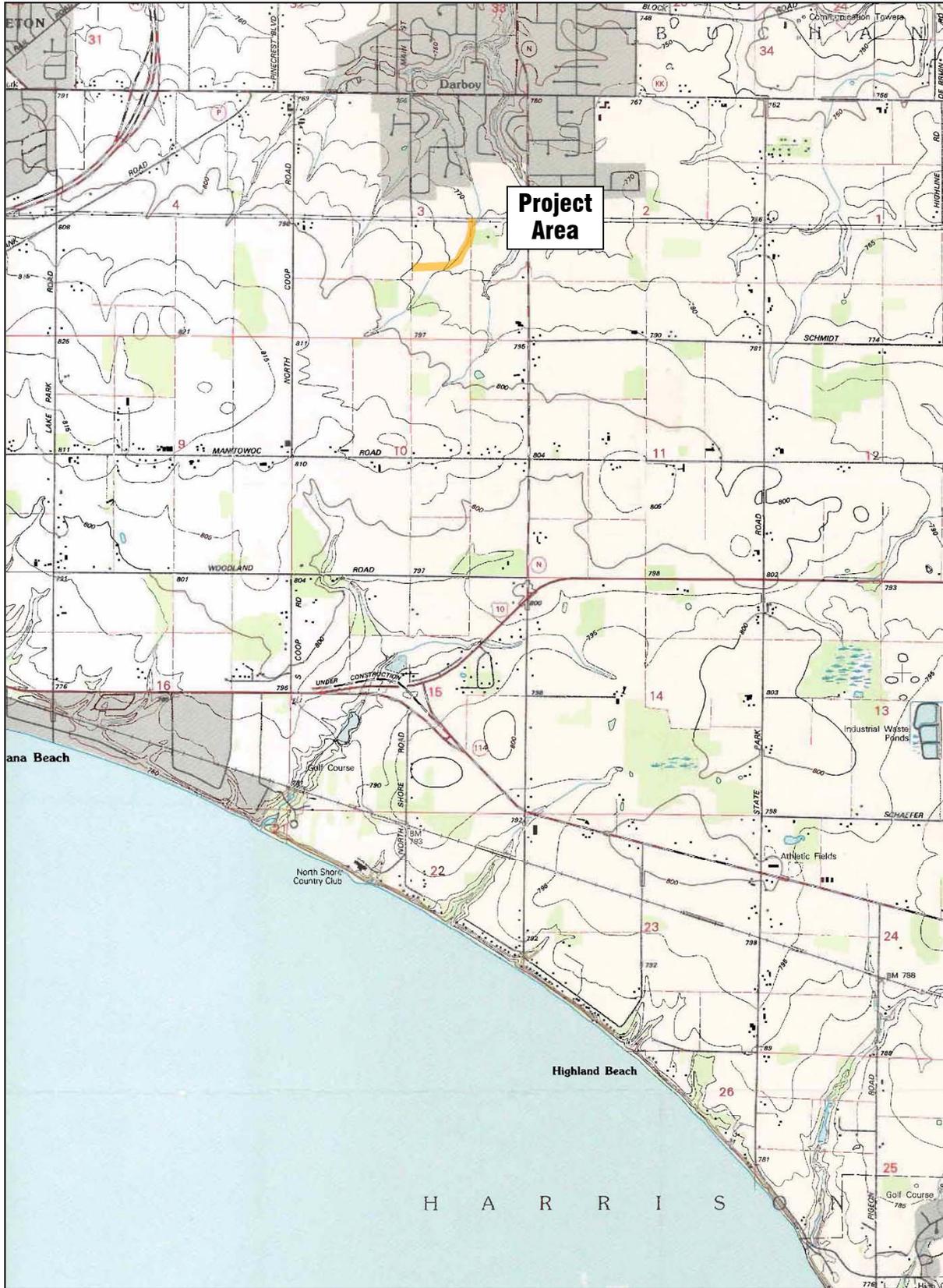
**ALTERNATIVES CONSIDERED:** The applicant conducted an alternatives analysis as part of the planning for the proposed project. The potential alternatives that were identified, evaluated, and subsequently eliminated included a no action alternative; alternative locations, designs, and sizes for the Noe Road Pond on the project site; an on-line pond on an alternative site; and partial re-alignment of the stream.

The preferred alternative (construction of the 3.27-acre Noe Road Pond in the southwest corner of the project site, construction of the Noe East and Noe West ponds on either side of the stream along the north edge of the project site, realignment of 1,782 linear feet of stream channel, and site grading) was chosen by the applicant over the other alternatives because the applicant determined it to be the least environmentally damaging practicable alternative that would address the peak flow and water quality impacts in the watershed.

**AVOIDANCE AND MINIMIZATION:** The applicant initially proposed to construct an online pond in place of the proposed Noe Road Pond. However, the proposal has since been modified to include a diversion off the main stream channel while maintaining 2.2% of the channel baseflow. The applicant also relocated a proposed maintenance trail to reduce wetland impacts. Standard erosion control practices would be implemented during construction to further minimize impacts.

**COMPENSATORY MITIGATION:** To compensate for the unavoidable impacts to 0.33 acre of wet meadow and farmed wetlands, the applicant has proposed to purchase credits from a Corps-approved wetland mitigation bank. Depending on availability, credits would either be purchased from the Wolf River Basin Mitigation Bank at a 1.2:1 ratio (purchase of 0.40 credits for impacts in the Bank Service Area), or from the Lake Superior Site #1 Mitigation Bank at a 1.45:1 ratio (purchase of 0.48 credits outside the Bank Service Area). The applicant has not proposed mitigation for the stream realignment impacts as the realignment would add channel length, create meanders, and would be constructed as a 2-stage channel, all of which would provide net benefits to this stream.

**Drawings**      See attached.



Map Source: United States Department of The Interior Geological Survey,  
 Sherwood Quadrangle, Wisconsin, 7.5 Minute Series, 1992

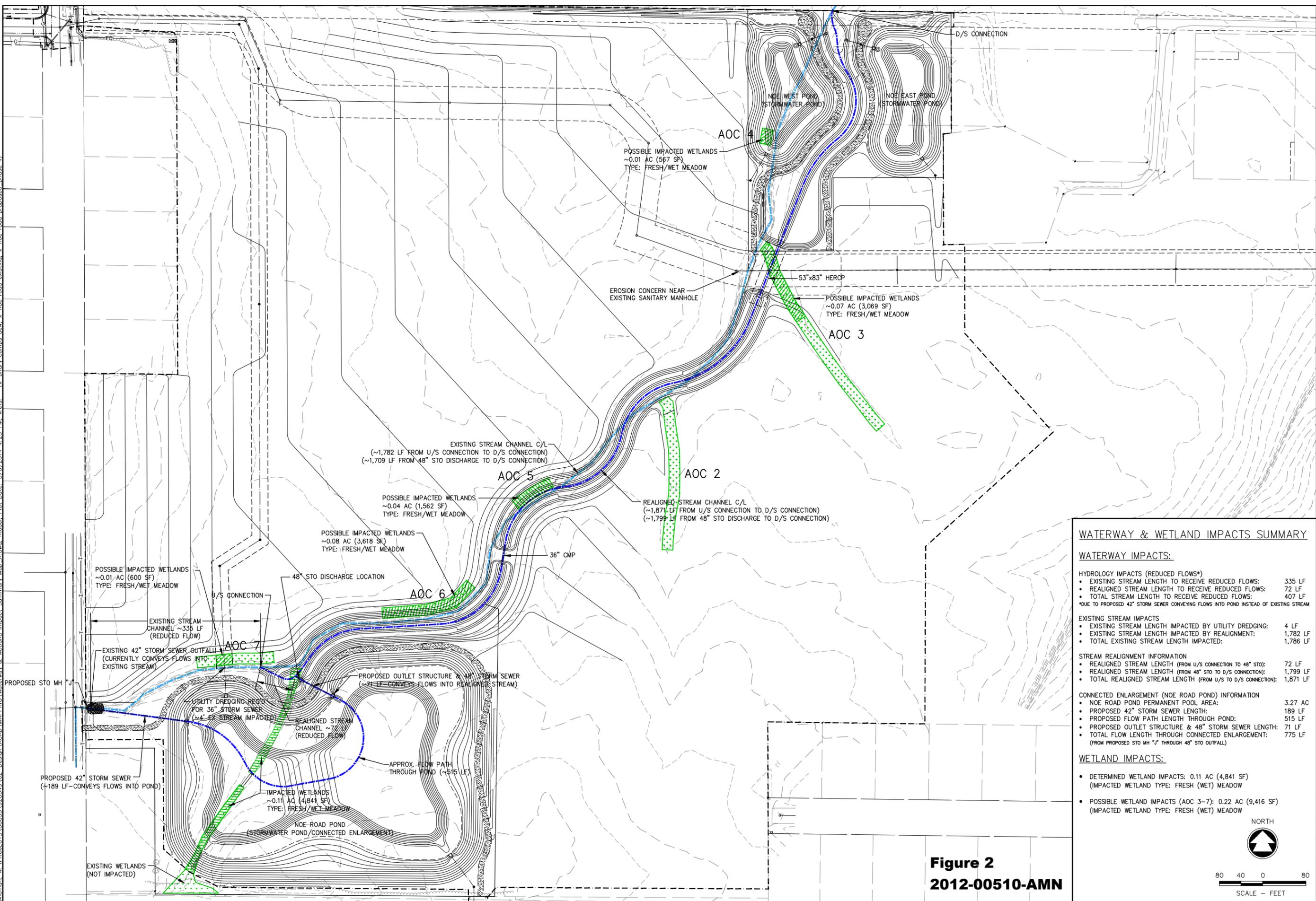


SCALE: 1" = 2000'

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 ENGINEERS ARCHITECTS

**FIGURE I - 2012-00510-AMN**  
**SITE LOCATION & TOPOGRAPHIC MAP**  
 NOE ROAD STORMWATER POND  
 Garners Creek Communities Stormwater Utility  
 Town of Harrison, Calumet County, WI  
 McM #G0035-920549.02 9/12/2013

p:\manan\_w\PROJECTS\G0035\920549\02-Design\ACAD\WAPPING\Waterway & Wetland Impact Summary Map\_R.dwg, model: Plot Date: 3/6/2014 4:23 PM, xrefs: (x--bndry.comps.dwg, x--noe\_road\_existing, x--noe\_road\_proposed\_phase ii)



**WATERWAY & WETLAND IMPACTS SUMMARY**

**WATERWAY IMPACTS:**

**HYDROLOGY IMPACTS (REDUCED FLOWS\*)**

EXISTING STREAM LENGTH TO RECEIVE REDUCED FLOWS:	335 LF
REALIGNED STREAM LENGTH TO RECEIVE REDUCED FLOWS:	72 LF
TOTAL STREAM LENGTH TO RECEIVE REDUCED FLOWS:	407 LF

\*DUE TO PROPOSED 42" STORM SEWER CONVEYING FLOWS INTO POND INSTEAD OF EXISTING STREAM

**EXISTING STREAM IMPACTS**

EXISTING STREAM LENGTH IMPACTED BY UTILITY DREDGING:	4 LF
EXISTING STREAM LENGTH IMPACTED BY REALIGNMENT:	1,782 LF
TOTAL EXISTING STREAM LENGTH IMPACTED:	1,786 LF

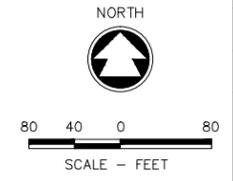
**STREAM REALIGNMENT INFORMATION**

REALIGNED STREAM LENGTH (FROM U/S CONNECTION TO 48" STO):	72 LF
REALIGNED STREAM LENGTH (FROM 48" STO TO D/S CONNECTION):	1,799 LF
TOTAL REALIGNED STREAM LENGTH (FROM U/S TO D/S CONNECTION):	1,871 LF

**CONNECTED ENLARGEMENT (NOE ROAD POND) INFORMATION**

NOE ROAD POND PERMANENT POOL AREA:	3.27 AC
PROPOSED 42" STORM SEWER LENGTH:	189 LF
PROPOSED FLOW PATH LENGTH THROUGH POND:	515 LF
PROPOSED OUTLET STRUCTURE & 48" STORM SEWER LENGTH:	71 LF
TOTAL FLOW LENGTH THROUGH CONNECTED ENLARGEMENT: (FROM PROPOSED STO MH "J" THROUGH 48" STO OUTFALL)	775 LF

- WETLAND IMPACTS:**
- DETERMINED WETLAND IMPACTS: 0.11 AC (4,841 SF) (IMPACTED WETLAND TYPE: FRESH (WET) MEADOW)
  - POSSIBLE WETLAND IMPACTS (AOC 3-7): 0.22 AC (9,416 SF) (IMPACTED WETLAND TYPE: FRESH (WET) MEADOW)



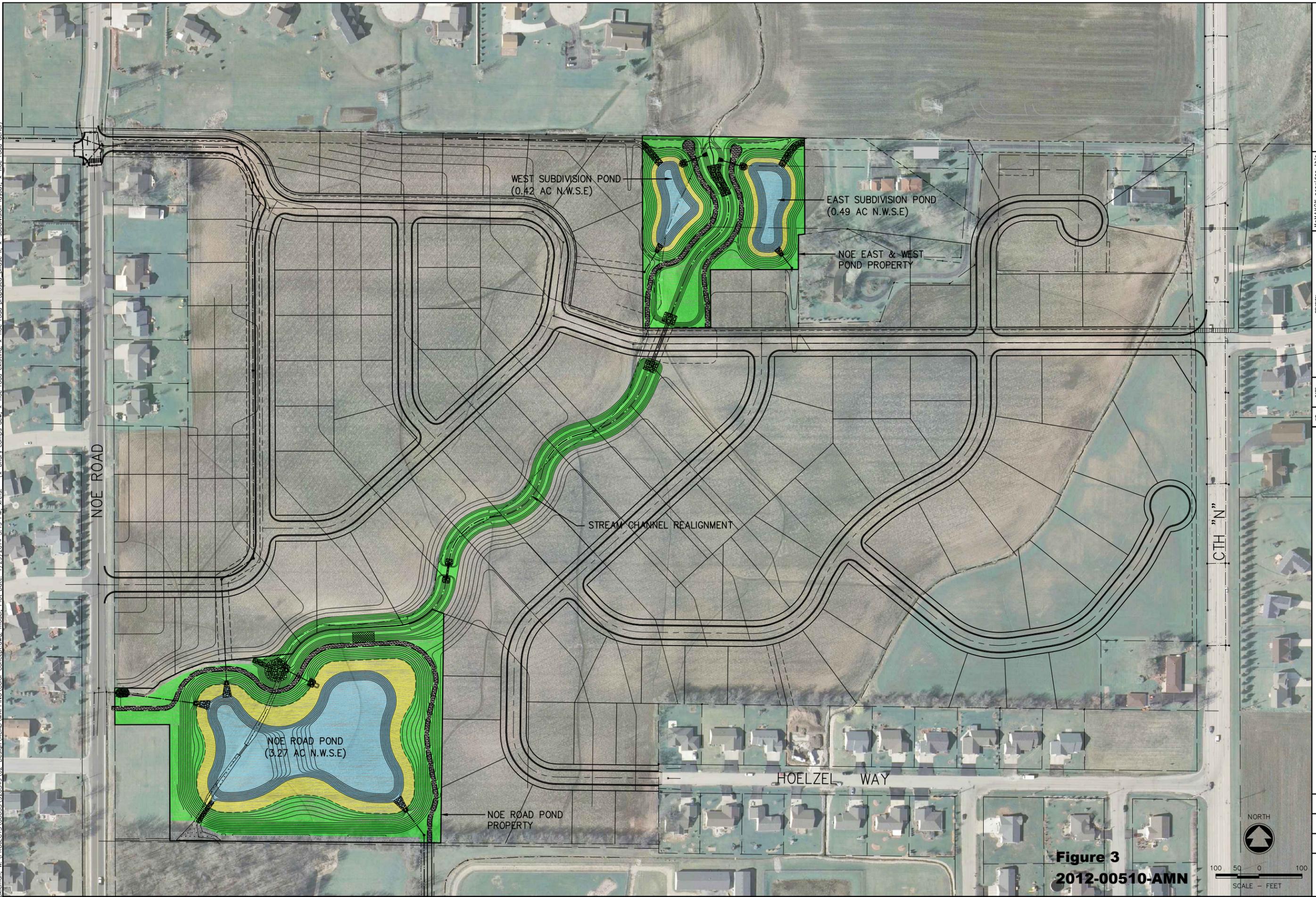
**Figure 2**  
**2012-00510-AMN**

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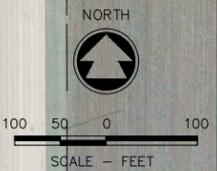
NO.	DATE	REVISION

<b>NOE ROAD STORMWATER IMPROVEMENTS</b>	
<b>GARNERS CREEK STORM WATER UTILITY</b>	
<b>WATERWAY &amp; WETLAND IMPACTS SUMMARY</b>	
DESIGNED	DRAWN
PTK	PTK
PROJECT NO.	
G0035-920549	
DATE	
JAN., 2014	
SHEET NO.	

pkleman, W:\PROJECTS\60035\920549\02-Design\ACAD\MAPPING\Color\_Concept.dwg, model, Plot Date: 1/29/2014 3:19 PM, xrefs: (x-bndry comps dew, x-noe road existing, x-noe road proposed phase ii, x-subdivision layout, x-noe road aerial)



**Figure 3**  
**2012-00510-AMN**



**McMAHON**  
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NO.	DATE	REVISION

**NOE ROAD STORMWATER IMPROVEMENTS**  
**GARNERS CREEK STORM WATER UTILITY**  
**CONCEPTUAL SUBDIVISION LAYOUT**

DESIGNED PTK	DRAWN PTK
PROJECT NO. G0035-920549.02	
DATE MAY, 2013	
SHEET NO.	