

PEA GROUP



1849 Pond Run
Auburn Hills, MI 48326

844.813.2949
peagroup.com

September 19, 2025
Project No.: 21-0217

via email: mark@wolverinebuildingcompany.com

Mr. Mark Gesuale
Wolverine Building Company
14955 Technology Drive
Shelby Township, Michigan 48315

**RE: Camden Crossing Test Pit Observations for Infiltration Testing
Crestline Road
Rochester Hills, Oakland County, Michigan**

Dear Mr. Gesuale:

PEA Group is pleased to submit this summary of our test pit observations at the above-mentioned project site.

Four test pits designated TP-1 through TP-4 were excavated during the site visit on September 16, 2025. The test pit locations were staked in the field prior to our arrival at the site, the test pit locations are shown on the attached Test Pit Exhibit by Atwell, dated July 28, 2025. Excavation was performed by contractor working for Wolverine Building Company. At completion of test pit excavations, the excavated soil was returned into the excavation and lightly tamped with the excavator bucket.

Test pits TP-1 and TP-2 were excavated to a depth of approximately 8 feet below the ground surface (bgs.) to observe soil and conditions at the bottom of proposed detention pond depth. Test pits TP-3 and TP-4 were excavated to a depth of 8 and 12 feet bgs, respectively, to observe soil and groundwater conditions at the bottom of proposed rear yard-drain storm sewer locations.

At the test pit locations, we typically encountered 8 to 12 inches of topsoil consisting of dark brown to black silty sand and clay overlying native silty clay with trace amounts of sand and gravel. The native silty clay extended to a test pit termination depth.

A layer of fill soil consisting of silty sand extending to approximately 1.5 feet bgs containing concrete slab fragments was encountered underlying the topsoil at TP-1. A clay-crock containing water was encountered in TP-4 at an approximate depth of 2 feet.

Based on the silty clay soils encountered throughout the test pits, the site is not conducive for infiltration as clay has virtually no short-term infiltration capacity. Based on the silty clay soils encountered throughout the test pits, we recommend an infiltration rate of 0 inches per hour. While it is understood that clay soils possess some degree of permeability, the values are significantly lower than what can be accurately measured during field tests or considered impractical for infiltration purposes.

Please see the attached log of test pit with photographs of the subsurface conditions encountered

If you have any questions regarding this report, or if we may be of further assistance to you in any respect, please feel free to contact us. We appreciate the opportunity to have been of service to you.

Sincerely,

PEA Group



A handwritten signature in blue ink, appearing to read 'Jon A', enclosed within a thin black rectangular border.



Jonathan Andare, EIT
Geotechnical Project Engineer

A handwritten signature in blue ink, appearing to read 'D. Jack Sattelmeier', enclosed within a thin black rectangular border.

D. Jack Sattelmeier, PE
Director of Geotechnical Engineering

Attachments: Log of Test Pit with Photographs
 Test Pit Exhibit

Test Pit #	ELEV. (ft)	DESCRIPTION	REMARKS
1	0	Topsoil: Dark Brown/Black Clayey Sand with Roots	3.0 Hand Pen Dry
	0.7	Brown Silty Clay Fill Concrete Slab	
	1.5	Brown Silty Clay	
	8.0	End Test Pit	
Photo 1		Photo 2	
			
NOTES: TP-1 – Dry at completion, no water encountered			
PEA REP: J. Andare		DATE: 9/16/2025	FIGURE:1

Test Pit #	ELEV. (ft)	DESCRIPTION	REMARKS
2	0	Topsoil: Dark Brown/Black Clayey Sand with Roots	2.5-3.0 Hand Pen Dry
	0.7	Brown Silty Clay	
	8.0	End Test Pit	
Photo 1		Photo 2	
			
NOTES: TP-2 – Dry at completion, no water encountered			
PEA REP: J. Andare		DATE: 9/16/2025	FIGURE:2

Test Pit #	ELEV. (ft)	DESCRIPTION	REMARKS
3	0	Topsoil: Dark Brown/Black Clayey Sand with Roots	
	1	Brown Silty Clay	4.0 Hand Pen
	12.0	Grey Silty Clay	3.5 Hand Pen
		End Test Pit	Dry

Photo 1



Photo 2



NOTES: TP-3 Dry at completion, no water encountered

PEA REP: J. Andare	DATE: 9/16/2025	FIGURE:3
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Test Pit #	ELEV. (ft)	DESCRIPTION	REMARKS
4	0	Topsoil: Dark Brown/Black Clayey Sand with Roots	
	0.7	Brown Silty Clay	3.0 Hand Pen
	3.0	Red Clay Crock	Holding Water
	8.0	End Test Pit	Trace Water

Photo 1



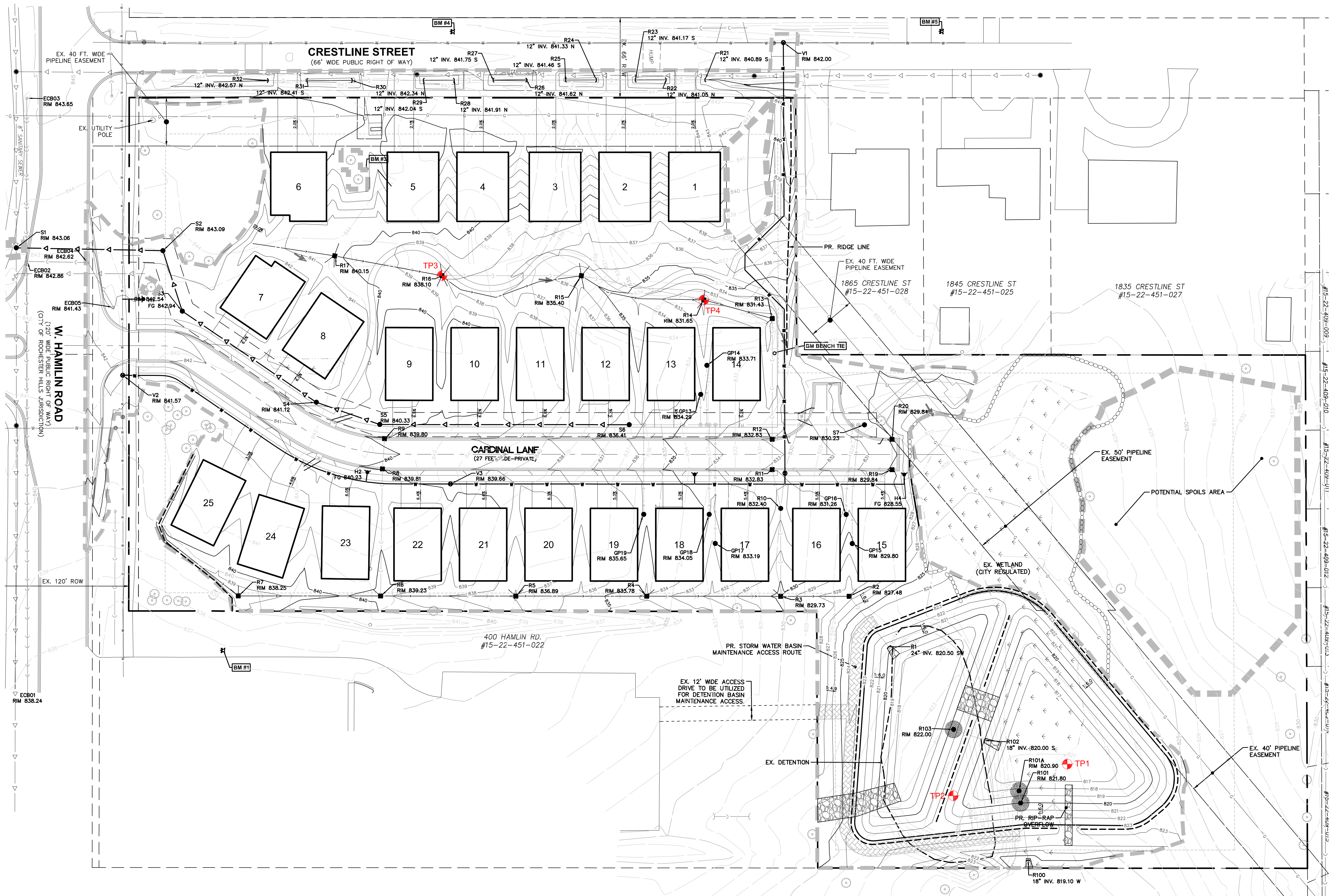
Photo 2



NOTES: TP-4 – Trace water at end of test dripping from clay crock

PEA REP: J. Andare	DATE: 9/16/2025	FIGURE:4
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K:\18001942\DWG\PLAN SETS\EXHIBIT\18001942EX-01-TEST PTDWG 7/28/2025 1:52 PM KEVIN SULLIVAN



BENCHMARK (NAVD88 DATUM):

- BM #1
- ARROW ON FIRE HYDRANT ELEV=839.34
- BM #2 (RELOCATED HYD) ARROW ON FIRE HYDRANT ELEV=843.95
- BM #3 MAG NAIL UTILITY POLE ELEV=844.67
- BM #4 ARROW ON FIRE HYDRANT ELEV=843.95
- BM #5 ARROW ON FIRE HYDRANT ELEV=843.24

CITY FILE #19-031
SECTION #22

NOT FOR CONSTRUCTION

Know what's below.
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE RESPONSIBLE FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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ATWELL
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TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 22

TOWN 3 NORTH, RANGE 11 EAST

CITY OF ROCHESTER HILLS

OAKLAND COUNTY, MICHIGAN

M2J1, LLC

CAMDEN CROSSING

TEST PIT EXHIBIT

DATE

JULY 28, 2025

REVISIONS

0 20 40

SCALE: 1" = 40 FEET

DRAWN BY: JK

CHECKED BY: JK

P.M.: JKIME

JOB #: 18001982

FILE CODE: -

SHEET NO.

EX-01

CAD FILE: 18001942EX-01-TEST PTDWG