

March 8, 2021 Case #2020-914

Meeting Date: March 8, 2021

Location:

1863, 1891, 1895 Norton Road

Parcel Number 3001868, 3000882, 3003332, 3003333

Request:

Preliminary Subdivision – **Hudson Preserve** 

Applicant: LDA Builders

Property Owner: LDA Land Group LLC

Zoning:

D1-Suburban Residential Neighborhood

Case Manager: Nick Sugar, City Planner

**Staff Recommendation** Approval subject to the conditions on page 6

### **Contents**

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- Eng. Department Review, Nate Wonsick, P.E. Assistant City Engineer 2.25.21
- Fire Department Review, Shawn Kasson, Fire Marshal 2.18.21.
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**Existing Conditions, Summit County GIS** 

### **Project Introduction:**

LDA Builders has applied for Preliminary Subdivision Review for a proposed singlefamily residential subdivision. The 12.87-acre project area would be subdivided into eleven sublots accessed via a single cul-de-sac street. The project area includes the following parcels:

Parcel	Address	Note
3001868	1863 Norton	House has been demolished; acreage would be incorporated into subdivision
3003333	Not listed	Undeveloped, acreage would be incorporated into subdivision
30460036	1891 Norton	House to remain, rear portion of parcel to be split and added to subdivision
3003332	1895 Norton	House to remain, rear portion of parcel to be split and added to subdivision

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### **Background**

A summary of the applicable board reviews for the subdivision is listed below:

Step	Meeting Date
Compatibility Review	Planning Commission November 9, 2020
Variance Request	BZBA December January 21, 2021
Preliminary Subdivision	Planning Commission March 8, 2021
Final Plat and Improvement Plans	Planning Commission TBD

The proposal received Compatibility Review approval on November 9, 2020. Through the review, the Planning Commission determined the subdivision is compatible with residential development within 1,000 feet of the subdivision boundaries or can be made compatible.

The proposal received the following variance approvals at the January 21, 2021 Board of Zoning Appeals meeting:

- A variance to Section 1207.13(c)(5)(E) to allow the proposed road to be located fifty-five (55) feet from Darrow Lake Drive where the code requires a separation of four hundred (400) lineal feet.
- A variance to Section 1203.07(e) to allow disturbance within the established fifty (50) foot setback from delineated wetlands.

### **Surrounding Development:**

East: To the east of the project area are single family homes. These properties are characterized by their long, narrow dimensions. Many of these properties have a depth exceeding one thousand (1000') feet with frontage on Norton Road extending to rear yards abutting the commercial/industrial properties along Georgetown Road. The majority of these properties are approximately three (3) acres in area. KGK Gardening and Landscaping is also located within the one thousand (1,000') foot study area and is the farthest property to the east.

**West:** Directly to the west of the project area are similar long, narrow single-family properties. These properties range from one (1) acre to three (3) acres in size. Sapphire Drive is farther to the west, approximately four hundred (400') feet. This is part of the Hudson Pines Subdivision. These properties are approximately .5 acres in size.

**North:** To the north of the project area are Industrial/Commercial properties fronting Georgetown Road. These properties are zoned District 8 – Industrial/Business Park. Directly adjacent buildings include Advanced Materials Powder Production and the Jack Duffey Professional Center.

**South:** The City of Stow borders the property to the south, across Norton Road. The Westport Village Condo Development is adjacent to the property to the south, accessed by Darrow Lake Drive. This is a sizable development of 3-unit attached condo buildings.

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### Standards for Review for a Preliminary Subdivision Plan, Section 1204.05(b)

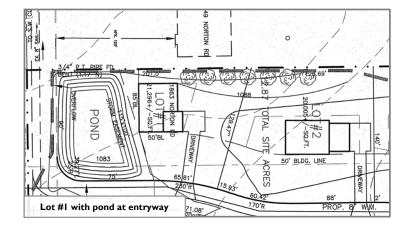
### 1. Compliance with the purpose and intent of the Code and Community Plans.

The district regulations and zoning development and site plan standards were written to implement the purpose and intent of the Land Development Code (LDC) listed at Section 1201.03. The preliminary subdivision plan is in substantial compliance with the district regulations and zoning development and site plan standards and therefore staff believes the purpose and intent of the LDC.

The preliminary subdivision plan has also been found to be in substantial compliance with the findings of the 2015 Comprehensive Plan. The Comprehensive Plan identifies this area as a residential neighborhood district typified by single-family detached housing.

### 2. Compliance with Subdivision Design and Improvements/Dedication Standards, Section 1208.

- Establishment of Limits of Disturbance: The submitted preliminary subdivision plan depicts limits of disturbance; however, staff notes grading is shown outside of these limits. Applicant should revise final grading plans to show all construction activity within the limits of disturbance boundary. All proposed improvements, grading, etc should align with applicable Board of Zoning Appeals Decisions.
- O Standards for Lots: The Land Development Code states the *lot size*, *width*, *depth*, *shape*, *and orientation shall be appropriate for the location of the subdivision and type of development and use contemplated*. Question house orientation for Lot #1. Staff notes the house front entryway would be located at the direct edge of the stormwater detention pond. Question if stormwater detention pond could be reduced in size, the house positioned further to the north to provide additional separation, or the house rotated to face the proposed street. Staff notes the Land Development Code requires the setback to be within ten (10) percent of the setback to the existing house to the west, which currently sits back approximately one hundred twenty (120) feet from the street ROW.



o **Improvements:** The subdivider must design and build the improvements. Improvement plans will be reviewed with the final plat submission; their installation will be guaranteed with a Final Subdivision Improvement Agreement.

3. The site layout is to minimize land disturbance and protect natural features by considering applicable sections of the Zoning Development and Site Plan Standards, Section 1207.

The applicable Zoning Development and Site Plan Standards are as follows:

O Tree/vegetation protection and limits of disturbance: The applicant has submitted a preliminary landscape plan and indicated all trees within the limits of disturbance are to be removed unless determined to be savable during construction. Staff has referenced historic aerial photography from 1959 and determined the lot was once part of a farm and was cleared approximately four hundred fifty (450) feet from Barlow Road to the edge of a mature tree line. Over time, trees grew sporadically, though this area remains largely open.





While a portion of the rear acreage has been designated private open space to comply with the 25% minimum required, there is a substantial amount of forested and wetland areas remaining outside of this boundary. Staff recommends expanding the private open space area, reducing the size of lots #5, #6, and #7 in the process, to provide additional protections on these sensitive areas.

- Wetland Setbacks: Staff notes there are approximately 1.70 acres of wetlands present on the property. The applicant received variances to disturb the wetlands as depicted in the Preliminary Subdivision Plans, including siting homes on Lot 6 and Lot 7 within the established setbacks and filling approximately .26 acres of wetlands. Staff notes the applicant must comply with all federal regulatory authorizations, including obtaining a Section 404 permit through the Army Corp of Engineers. All applicable permits should be submitted to city staff for verification.
- o **Landscape/Buffering:** The adjacent single-family uses do not require a bufferyard. The commercial/industrial properties to the north require a Bufferyard E (major) of forty (40) feet. The proposed private open space would meet this bufferyard requirement. Staff notes the following:
  - Applicant has added evergreen trees along the rear of Lots #1 and #2 per staff's suggestion during the Compatibility Review.
  - Each sublot is required three additional tree plantings, which will be reviewed through the zoning certificate review for each individual home.
  - Question if stormwater ponds would be landscaped.
  - Final landscape plan to include street trees with minimum spacing thirty (30) feet for medium growing trees.
- $\circ$  Stormwater Management: The plans depict three proposed detention ponds. Each pond is located directly along an adjacent property line. The ponds have a depth which ranges from 6 8'. Staff

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recommends a Bufferyard B (15-25) be imposed along each property boundary adjacent to a pond.

o **Utilities**: Section 1207.11 requires all development to be served by public water and sewer systems. Applicant should submit approvals from Akron Water and Summit County Sanitary Sewer Services (DOSSS) prior to the final subdivision application to verify this requirement will be met.

### Open Space:

- **Private Open Space** 25% of the gross land area, as required by the LDC, is proposed as private open space. A thirty (30') foot wide pond/open space access easement is proposed along Lot #7. As previously stated, suggest revising the opens space and detention pond areas to maximize preservation of the large wetland area between Lots 6 and 7.
- **Public Open Space:** The eleven (11) lot subdivision would require public dedication of .64 acres of improved park space or applicable funds in lieu of dedication.

### Transportation/Circulation/Pedestrian Linkage:

- Traffic Impact Study: The Assistant City Engineer has reviewed the submitted traffic trip generation report and based on its finding of generating less than sixty (60) trips an hour, will not require a full traffic impact study.
- Roadway Improvement Plans: The applicant shall submit detailed roadway improvement plans for Final Subdivision Plat Review.
- **Stub Streets:** Stub streets are not appropriate to connect the subdivision to adjacent development due to adjacent lands being developed and presence of delineated wetlands.
- Intersections: Staff notes the applicant received a variance to position the street fifty-five (55) feet from Darrow Lake Drive where the LDC requires a minimum separation of four hundred (400) feet.
- **Emergency Access:** The Hudson Fire Department has reviewed the proposal with the condition that fire hydrants are identified in the final improvement plans.
- Pedestrian and Bicycle Paths: Sidewalks have been appropriately noted through a submitted cross section exhibit. Final improvement plans should depict sidewalks on both sides of the street and along the Norton Road frontage.
- Culs-de-sac: The proposed Culs-de-sac meets requirements for total length, turnaround radius, and minimum radius.

### 4. Subdivision shall comply with all applicable development regulations, standards, and requirements.

The subdivision is in substantial conformance with applicable development regulations, standards, and requirements except as noted above.

### **Findings**

Staff finds the application complies with the purpose and intent of the code and community plans, subdivision development and design standards, regulations that minimize land disturbance and protect environmental features, and other applicable development regulations as specified in Section 1204.05(b) except as discussed above and recommended below.

### Required PC Action, Section 1203.10(d)(1)(B)

The PC shall take final action on a preliminary subdivision application by reviewing the application and all submitted plans and reports, and then either approving, approving with conditions, or denying the application based on its compliance with

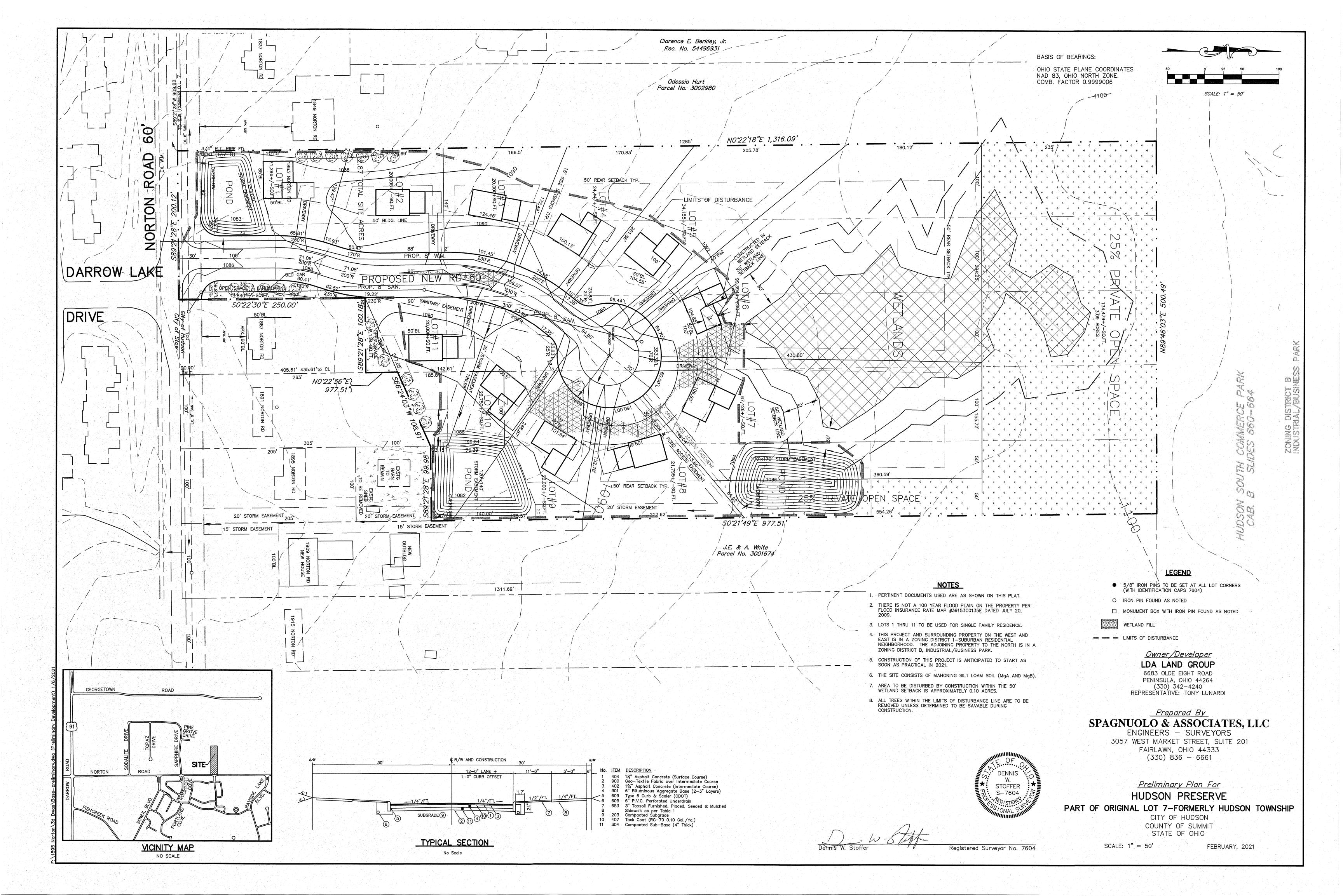
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the standards summarized in this report. All decisions of the Commission shall be based on written findings of fact related to the relevant standards of the Code.

#### Recommendation

Approve the application for Preliminary Subdivision Plan for Case No. 2020-914 for the Hudson Reserve Subdivision according to the plans dated as received February 8, 2021 with the condition that the applicant must address the following:

- 1. The following must be incorporated as part of the final plan application:
  - a. Plans must address the preliminary fire department comments noted within the February 18, 2021 letter requesting final improvement plans to identify locations of fire hydrants meeting City of Hudson nozzle thread specifications.
  - b. Plans must address the preliminary engineering comments noted within the February 25, 2021 letter including:
    - i. Other agency approvals including: Summit Soil and Water, Summit County Building Standards, Summit County DSSS, Ohio EPA, U.S. Army Corp of Engineers and City of Akron Water. Approvals to be submitted prior to final subdivision review.
    - ii. Improvement plans to conform to the City of Hudson Engineering Standards.
    - iii. Street signage provided by developer.
    - iv. Appropriate bonds and fees paid when identified through the improvement plan submittal
  - c. Final landscaping plan depicting all proposed plantings; including street trees, landscaping around stormwater ponds and established Bufferyard B where ponds are adjacent to property boundaries.
  - d. Final grading plans to depict all construction activity within the limits of disturbance boundary.
  - e. Revise the Private Open Space area to include additional protected wetland areas.
  - f. Establish a Public Open Space dedication or applicable funds in lieu of dedication in connection with guidance from the City of Hudson Park Board.
  - g. Improvement plans to depict sidewalks along both sides of the proposed road in addition to property frontage along Norton Road.
  - h. Revise the Orientation of Lot #1 or revise the design to Lot #1 pond to provide increased separation between the two.





**Date:** February 24, 2021

**To:** Nick Sugar, Senior Planner, Community Development

From: Nate Wonsick, P.E., Assistant City Engineer

**Re:** Norton Road Subdivision

Preliminary Engineering Approval - Viewpoint #20-914

The City of Hudson Engineering Department has reviewed the preliminary plan for the above referenced site and recommends preliminary approval. Note: The City of Hudson Engineering Standards (Engineering Standards) and Land Development Code (LDC) are available online at the City of Hudson Website <a href="www.hudson.oh.us">www.hudson.oh.us</a> under the Engineering Dept. and Community Development Department respectively. The standards are also available in print for a fee. Please contact our office (330-342-1770) if you would like a cost for the printed version.

# Other agency approvals that will be needed prior to the City of Hudson Final Engineering acceptance include:

- 1. Summit Soil and Water and the Ohio EPA Notice of Intent.
- 2. Summit County Building Standards shall review the home construction.
- 3. Summit County DSSS shall review and approve the sanitary sewer for this site.
- 4. Ohio EPA will need to review the sanitary and water systems.
- 5. Akron Water will need to approve the extension of water to the site, if applicable.
- 6. US Army Corp. of Engineers for any wetland disturbed areas.

### **Overall Comments:**

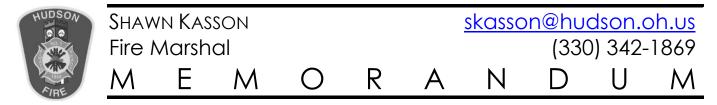
- 7. The Akron Water department will need to approve the extension of water into this subdivision. Akron should be contacted first to see if this will be approved or if well water will need to be considered.
- 8. Since the traffic trip generation report indicated less than 60 trips per hour, no traffic impact study will be required.
- 9. All street signage shall be provided by the developer.
- 10. The City of Hudson Engineering Standards will be reviewed as part of the improvement plan submittal of the project design. Note: Section 5 of the Engineering Standards The storm water runoff and management shall be designed for the 25-year post-developed storm to be detained to the 1-year pre-developed storm for this site.
- 11. A professional engineer with a current Ohio registration shall stamp, sign and date the plans for all applicable engineering work including the storm water management calculations.
- 12. Add the City of Hudson Engineering Standards General Notes to the detailed plans.
- 13. Bonds and fees will be identified when more detailed plan is submitted.
- 14. The City will perform a complete and thorough review when the complete set of improvement plans and reports are submitted to the City at a future date and the City reserves the right to add to these comments as needed.
- 15. Submit the subdivision Plat for review with the next detailed plan submittal.

If you have any questions, please contact me.

Sincerely,

Nate Wonsick, P.E. Assistant City Engineer

C: File.



**DATE:** February 18, 2021

**TO:** Nick Sugar, City Planner

FROM: Shawn Kasson, Fire Marshal 5K

**SUBJECT:** LDA Builders Norton Road Subdivision

I have reviewed the preliminary site plan dated *February 2021* for the proposed LDA Builders Norton Road subdivision. Upon review, I have the following comments to address in the detailed design plans:

- Identify locations of fire hydrants.
- The fire hydrants must meet City of Hudson nozzle thread specifications.

Note: The scope of this review is preliminary. The applicant must submit detailed design plans for review and final approval.

Please contact me with any questions



### **PLANNING COMMISSION**

# CASE NO. 20-914 COMPATIBILITY REVIEW 11 LOT SINGLE-FAMILY SUBDIVISION

#### **DECISION**

Based on the evidence and representations to the Commission by Tony Lunardi, LDA Builders, 6683 Olde Eight Rd, Peninsula, Ohio 44264 as applicant, and City staff, at a public hearing of the Planning Commission held at the regular meeting on November 9, 2020, the Planning Commission finds the compatibility review plan of the 11 lot single-family subdivision dated October 4, 2020 compatible with adjacent development.

Dated: November 11, 2020 CITY OF HUDSON PLANNING COMMISSION

C.T.Harvie

C. Thomas Harvie, Chair



COMMUNITY DEVELOPMENT ● 1140 Terex Road ● Hudson, Ohio 44236 ● (330) 342-1790

### **BOARD OF ZONING AND BUILDING APPEALS**

### APPEALS DOCKET NO 2020-1035 PARCELS 3001868, 3003333, 3000882, 3003332 VARIANCE

# VIA CERTIFIED U.S. MAIL DECISION

Based on the evidence presented to the Board by the applicant, Tony Lunardi with LDA Builders, 6683 Olde Eight Road, Peninsula, OH 44264 and the property owner is LDA Land Group LLC for the Norton Road parcels at 3001868, 3003333, 3000882, 3003332 in District 1 [Suburban Residential Neighborhood]. A public hearing was held remotely via video conference pursuant to HB 197 on Thursday, January 21, 2021, the Board of Zoning and Building Appeals hereby grants:

A variance to allow a new street intersection that is proposed at fifty five (55) feet from an already existing street intersection, when the Land Development Code states intersections for new streets should be a minimum of four hundred (400) lineal feet from any intersection, requiring a three hundred and forty-five (345) foot variance pursuant to section 1207.13(c)(5)(E), "Streets and Easements and Alleyways – Curb Cuts and Intersections" of the City of Hudson Land Development Code.

After reviewing the application, the hearing of evidence under oath, reviewing all documentary submissions of interested parties and by taking into consideration the personal knowledge of the property in question, the Board of Zoning and Building Appeals grants the variance.

#### The Board finds and concludes:

- 1. The property in question will yield a reasonable return and there can be beneficial use without the variance; however, the project would not be developed without the granting of the variance.
- 2. The variance is substantial in terms of a lineal extent and the difference of 400 feet separation and 55 feet separation; however, taking in consideration the limited amount of traffic anticipated and the finding of the traffic impact analysis, the impact would be minimal.
- 3. The essential character of the neighborhood would not be substantially altered, and adjoining properties would not suffer a substantial detriment as a result of the variance.

- 4. The variance would not adversely affect the delivery of governmental services, (e.g. water, sewer, garbage).
- 5. The applicant purchased the property with knowledge of the zoning restriction.
- 6. The applicant's predicament feasibly cannot be resolved through some other method. It was discussed to construct the new intersection to the East side; however, this would also require a variance.
- 7. The spirit and intent behind the zoning requirement is to make sure that new intersections are being constructed at a safe distance. However, Norton Road has multiple street intersections, causing difficulty for the applicant to reach the required 400 lineal feet.

Dated: January 21, 2021

CITY OF HUDSON BOARD OF ZONING AND BUILDING APPEALS

Robert Drew, Chairman

Amanda Davey, Associate Planner
(Acting Executive Assistant)

I certify that this is a true and accurate copy of the Decision reached by the Board of Zoning and Building Appeals at the January 21, 2021 meeting.

Failure of an applicant to obtain the necessary zoning certificate with regard to the variance approval within one year of receiving approval of the variance shall automatically render the decision of the BZBA null and void., pursuant to Section 1203.07 (e), "Variances – Lapse".

Tony lunardi



COMMUNITY DEVELOPMENT ● 1140 Terex Road ● Hudson, Ohio 44236 ● (330) 342-1790

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A variance from the prohibited activity of disturbance, including clearing of vegetation within stream corridors, wetlands and their setbacks pursuant to section 1207.03(c), "Prohibited Activities", of the City of Hudson Land Development Code.

After reviewing the application, the hearing of evidence under oath, reviewing all documentary submissions of interested parties and by taking into consideration the personal knowledge of the property in question, the Board of Zoning and Building Appeals grants the variance.

### The Board finds and concludes;

- 1. The property in question will not yield a reasonable return and cannot be beneficial without the variance because the applicant is requesting an 11-parcel subdivision and that is what is needed to make a profitable return on their investment.
- 2. The variance is substantial; however, the wetlands being impacted are of the lower classifications of wetlands.
- 3. The essential character of the neighborhood would not be substantially altered, and adjoining properties would not suffer a substantial detriment as a result of the variance.
- 4. The variance would not adversely affect the delivery of governmental services, (e.g. water, sewer, garbage).
- 5. The applicant purchased the property with knowledge of the zoning restriction.
- 6. The applicant's predicament feasibly cannot be resolved through some other method.

7. The spirit and intent behind the zoning requirement would be observed and substantial justice would be done by granting the variance because the applicant has proposed the vast majority of the higher-grade wetlands will be intact.

Dated: January 21, 2021

CITY OF HUDSON BOARD OF ZONING AND BUILDING APPEALS

Robert Drew, Chairman

Amanda M. Davey

Amanda Davey, Associate Planner (Acting Executive Assistant)

I certify that this is a true and accurate copy of the Decision reached by the Board of Zoning and Building Appeals at the January 21, 2021 meeting.

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Tony lunardi



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A variance of twenty (20) feet from the required fifty (50) foot setback resulting in a thirty (30) foot setback pursuant to section 1207.03(e)(2), "Setbacks – Wetlands" of the City of Hudson Land Development Code, in order to build on lots #6 and #7.

After reviewing the application, the hearing of evidence under oath, reviewing all documentary submissions of interested parties and by taking into consideration the personal knowledge of the property in question, the Board of Zoning and Building Appeals grants the variance.

### The Board finds and concludes;

- 1. The property in question will yield a reasonable return but cannot be beneficial without the variance in the context of this project of building eleven sub lots, without the granting of the variance.
- 2. The variance is insubstantial due the variance representing only 40% of the requirement. Additionally, the setback intrusion of the wetlands is only on two of the eleven sublots.
- 3. The essential character of the neighborhood would not be substantially altered, and adjoining properties would not suffer a substantial detriment as a result of the variance.
- 4. The variance would not adversely affect the delivery of governmental services, (e.g. water, sewer, garbage).
- 5. The applicant purchased the property with knowledge of the zoning requirements; however, the applicant did not know the extent of the wetlands on the property.

- 6. The applicant's predicament feasibly cannot be resolved through some other method as it was discussed to remove lot #6, but this would cause the applicant to not be able to move forward with the project.
- 7. The spirit and intent behind the zoning requirement would be observed and substantial justice would be done by granting the variance.

Dated: January 21, 2021

CITY OF HUDSON BOARD OF ZONING AND BUILDING APPEALS

Robert Drew, Chairman

Amanda M. Davey

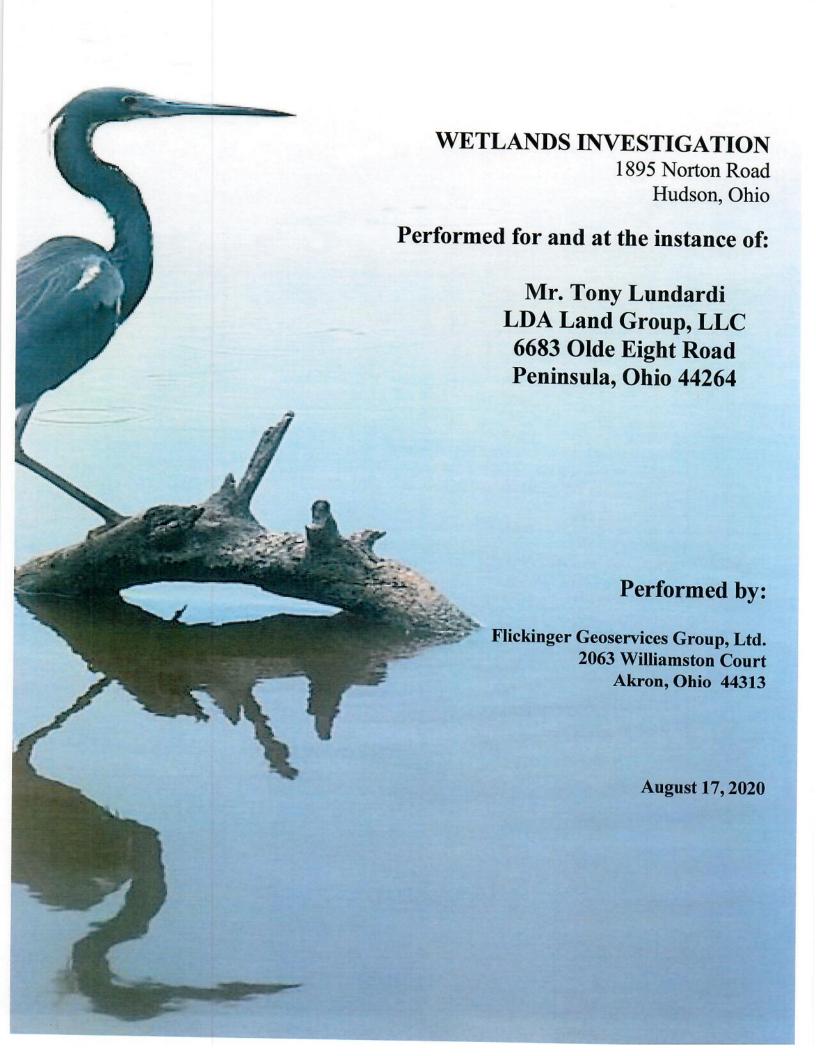
R Drow

Amanda Davey, Associate Planner (Acting Executive Assistant)

I certify that this is a true and accurate copy of the Decision reached by the Board of Zoning and Building Appeals at the January 21, 2021 meeting.

Failure of an applicant to obtain the necessary zoning certificate with regard to the variance approval within one year of receiving approval of the variance shall automatically render the decision of the BZBA null and void., pursuant to Section 1203.07 (e), "Variances – Lapse".

Tony Lunardi



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# FLICKINGER Geoservices GROUP, Ltd

2063 Williamston Court, Akron, Ohio 44313 (330) 931-9124 Flick@flickgeo.com

August 17, 2020

Mr. Tony Lundardi LDA Land Group, LLC 6683 Olde Eight Road Peninsula, Ohio 44264

RE: Wetland Delineation 1895 Norton Road Hudson, Ohio

Dear Mr. Lunardi

At your request, we are pleased to submit the following Wetland Delineation report.

# 1. Project Location

The work was performed with regard to the following property: The Properties located adjacent to and including 1895 Norton Road. These properties consist of PP#'s: 3001868-3001674 are as indicated on the exhibits indicated on the attached maps and documentation.

# WETLAND DETERMINATION-BACKGROUND

On August 17, 1991 the U.S. Army Corps of Engineers was directed under the 1991 appropriation bill to utilize the 1987 Corps of Engineers Wetlands Delineation Manual. The Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region was issued in October of 2009 and is to be used in conjunction with the 1987 Manual. This Supplement is applicable to all or portions of Connecticut, Illinois, Indiana, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and Wisconsin. Methods outlined in these manuals specify that hydrophytic (i.e., water plants) vegetation decisions are based on the wetland indicator status of species that make up the plant community. These indicator statuses are listed below.

### **SYNOPSIS**

Upon completion of the fieldwork the wetland boundaries were plotted on a map of the site and the areas were digitally calculated. Thus, it was determined that 1.70 acres of wetland are present on the study site.

- 1. **HYDROPHYTIC VEGETATION:** The frequency and duration of soil inundation or soil saturation exerts a controlling influence on the species of vegetation growing in an area. These plant species are placed into five categories and reflect the occurrence of these species in wetland or non-wetland areas. These categories, called wetland probability indicators, were appended to plant life by a National Interagency Panel. These indicators are:
  - a. <u>OBL</u>: Obligate wetland plants are plants that almost always occur in wetlands under natural conditions, rarely in non-wetlands (99% probability or occurrence in wetlands).
  - b. <u>FACW</u>: Facultative wetland plants usually occur in wetlands but may also occur in non-wetlands (67% probability of occurrence in wetlands).
  - c. <u>FAC</u>: Facultative wetland plants are plants with a similar likelihood of occurring in both wetlands and non-wetlands.
  - d. <u>FACU</u>: Facultative upland plants are those which usually occur in non-wetlands, but may also occur in wetlands (less than 33% probability of occurrence in wetlands).
  - e. <u>UPL</u> Obligate upland plants are plants that are rarely found in wetlands (less than one percent probability of occurrence in wetlands).

To summarize, in decreasing order of occurrence in wetlands, the wetland probability indicators are:

OBL, FACW, FAC, FACU and UPL.

Percentage of plant species dominance is the accepted method of quantification. If greater than 50% of the dominant species in each vegetative layer is FAC, FACW or OBL, then hydrophytic vegetation is present.

2. HYDRIC SOIL: To be considered a wetland, the presence of hydric soils must be confirmed. Hydric soils are those that are saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part. This anaerobic condition favors the growth of hydrophytic vegetation. The colors of various soil components are often the most diagnostic indicators of hydric soils. Colors of these components are strongly influenced by the frequency and duration of soil saturation, which leads to reducing soil conditions. Specifically, gleyed (gray colored) soils develop when anaerobic soil conditions produce a heavily reducing environment. Mineral hydric soils that are saturated for substantial periods of the growing season (but not long enough to produce gleyed soils) will either have bright mottles and a low matrix chroma or will lack mottles but have a low matrix chroma (USACE, 1987).

3. WETLAND HYDROLOGY: It is essential to establish that the area under investigation is temporarily or periodically inundated with water or has saturated soils during the growing season. The inundation of water has an overriding influence on the plant life so that there is a dominance of hydrophytic vegetation. Also, the inundation of water results in the formation of hydric soils due to the anaerobic and reducing conditions. While wetland hydrology is the overriding factor of wetland formation, it may also be the most difficult to identify. Wetland hydrology is assumed to be present if one or more primary hydrology indicators or two or more secondary indicators are observed. Refer to the data sheets (Appendix G) for a list of these indicators.

# WETLAND DETERMINATION - METHODOLOGY

The 1987 Manual in combination with the Interim Supplement has defined a methodology for determining wetland boundaries. Following this methodology, representative observation points, or sample points, are placed in each plant community type on the project site. Vegetative sampling is done using visual estimates of percent aerial coverage of the dominant species. Vegetation in the herbaceous layer (all herbaceous plants and woody plants less than 3.28 ft tall) is sampled in a five (5) foot radius. The shrub stratum consists of woody plants less than 3 in. diameter at breast height (DBH0 and greater than 3.28 feet tall. This is sampled in a fifteen (15) foot radius. The tree stratum (all woody plants with DBH greater than 3 in.) is sampled in a 30 foot radius. Dominant species are selected visually from each stratum of the community using the 50/20 rule. That is, all species having 50% coverage of the total plant coverage are dominant and all species having 20% of coverage are dominant. Soils are sampled to a depth of 12-20 inches within each sample plot and examined for hydric soil indicators. The sample plot is also examined for wetland hydrology indicators, as listed on the data sheets (Appendix G). Finally, the wetland/non-wetland boundary is then refined by examining the transition gradient between them. The sample points located at wetland boundaries are marked on the Data Sheets as W for wetland and N for non-wetland.

# AGENCY RESOURCE INFORMATION

Flickinger Geoservices Group initially reviewed the available data which might provide some insight into existing conditions within the property.

The Soil Survey (Appendix C) indicated the presence of the following soil types:

- 1. MgB Mahoning Silt Loam, 2-6 % slopes
- 2. MgA Mahoning Silt Loam, 0-2 % slopes

None of the above soil series is listed within the *Hydric Soils of the United States*. However the Mahoning soil series have the potential for hydric inclusions in depressions and drainageways.

Examination of the *National Wetland Inventory Map*, (Appendix E) compiled utilizing aerial photography, does not indicate any wetland areas on the property.

### **SITE CHARACTERISTICS**

This gently rolling largely forested and somewhat poorly drained property is partially drained to the south by a wetland complex which begins in the northern portion of the property, this wetland also receives sheetflow from the surrounding upland area. This hydrology is halted at the southern terminus of the property and simply infiltrates, evaporates or is transpirated by vegetation. Development to the north has likely cut-off some of the surface flow to this wetland yet all parameters are present. A residence was present at the parcel address 1863 Norton, at the western edge of the property, this residence has been razed within the last year.

# JURISDICTIONAL DETERMINATIONS

On January 26, 2020 the CWA establishes permitting requirements for covered waters to ensure protection of water quality, these requirements only apply with respect to discharges of pollutants to the covered water. In the absence of a discharge of a pollutant, the CWA does not impose permitting restrictions. The rule also does not regulate shallow subsurface connections or any type of groundwater, erosional features, or land use, nor does it affect either the existing statutory or regulatory exemptions from NPDES permitting requirements, such as for agricultural stormwater discharges and return flows from irrigated agriculture, or the status of water transfers. CWA section 402(l)(1); CWA section 402(l)(2); CWA section 502(14); 40 CFR 122.3(f); 40 CFR 122.2.ions on the use of such water.

- (1) Waters located in whole or in part within 100 feet of the ordinary high water mark of traditional navigable water, interstate water, the territorial seas, an impoundment of jurisdictional water, or a tributary, as defined in the rule.
- (2) Waters located in whole or in part in the 100-year floodplain and that are within 1,500 feet of the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, an impoundment, or a tributary, as defined in the rule ("floodplain waters").
- (3) Waters located in whole or in part within 1,500 feet of the high tide line of a traditional navigable water or the territorial seas and waters located within 1,500 feet of the ordinary high water mark of the Great Lakes.

The agencies recognize that there are individual waters outside of the "neighboring" boundaries stated above where the science may demonstrate through a case-specific analysis that there exists a significant nexus to a downstream traditional navigable water, interstate water, or the territorial seas. However, these waters are not determined jurisdictional by rule and will be evaluated through a case-specific analysis. The strength of the science and significance of the nexus will be established on a case-specific basis as described below.

### Page 5 of 7

Prior converted cropland and waste treatment systems have been excluded from the definition of "waters of the United States" definition since 1992 and 1979 respectively, and continue to be excluded. Ministerial changes are made for purposes of clarity, but these two exclusions remain substantively and operationally unchanged. The agencies add exclusions for waters and features previously identified as generally exempt (e.g., exclusion for certain ditches that are not located in or drain wetlands) in preamble language from Federal Register documents by the Corps on November 13, 1986, and by EPA on June 6, 1988. This is the first time these exclusions have been established by rule. The agencies for the first time also establish by rule that certain ditches are excluded from jurisdiction, including ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary, and ditches with intermittent flow that are not a relocated tributary, or excavated in a tributary, or drain wetlands. The agencies add exclusions for groundwater and

erosional features, as well as exclusions for some waters that were identified in public comments as possibly being found jurisdictional under proposed rule language where this was never the agencies' intent, such as stormwater control features constructed to convey, treat, or store stormwater, and cooling ponds that are created in dry land. These exclusions reflect the agencies' current practice, and their inclusion in the rule as specifically excluded furthers the agencies' goal of providing greater clarity over what waters are and are not protected under the CWA.

(iii) Tributary and tributaries. The terms tributary and tributaries each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (1)(iv) of this definition), to a water identified in paragraphs (1)(i) through (iii) of this definition that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man - altered or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (2) of this definition. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (1)(i) through (iii) of this definition.

(iv) Wetlands. The term wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(v) Significant nexus. The term significant nexus means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (1)(i) through (iii) of this definition. The term "in the region" means the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this definition. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and

### Page 6 of 7

are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (1)(i) through (iii) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (3)(v)(A) through (I) of this definition. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (1)(i) through (iii) of this definition. Functions relevant to the significant nexus evaluation are the following:

- (A) Sediment trapping,
- (B) Nutrient recycling,
- (C) Pollutant trapping, transformation, filtering, and transport,
- (D) Retention and attenuation of flood waters,
- (E) Runoff storage,
- (F) Contribution of flow,
- (G) Export of organic matter,
- (H) Export of food resources, and
- (I) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (1)(i) through (iii) of this definition.
- (vi) Ordinary high water mark. The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

# WATER RESOURCE SUMMARY

The wetland boundaries were plotted on a map of the site and the areas were digitally calculated. (See the Delineation Map in Appendix B.) The following tables show a breakdown of the wetland, pond and stream areas.

Table 1. Extent of Water Resources - WETLANDS

Wetland Label	Area (ac)	Wetland Plant Cover	Surrounding Plant Cover	Relation to Stream+
W-A	1.67	Herbaceous	Forested	(I)
W-B	0.03	Herbaceous	Forested	(1)
Total	1.70			(1)

<sup>\*</sup>J = Jurisdictional; I = Isolated

### **FINDINGS**

**1.70** acres of **wetland** are present on the study site. W-A is a relatively high quality Category 2 wetland system. W-B is a small heavily modified depressional wetland, likely Category 1.

## REGULATORY OVERVIEW

A Section 404 permit is required to authorize the placement of <u>any</u> fill into Jurisdictional Waters of the U.S., including wetlands. If the project meets specific criteria, a Nationwide Permit may be applicable for the project. For instance, Nationwide Permit #29 can be used for residential developments and authorizes the loss of up to 1/2 an acre of waters of the U.S. including wetlands and, as currently limited in the State of Ohio; no more than 200 lineal feet of intermittent or perennial stream. For projects that have impacts over these levels, an individual permit may be required by the USACE and/or the OEPA.

Coordination with other governmental agencies may also be necessary to obtain a permit. This may include archaeological analysis with the State Historical Protection Office and evaluations for endangered species with the U.S. Fish and Wildlife. Because of the wooded area on this site, an Indiana bat habitat survey may need to be done. Other endangered species may also need to be evaluated in relation to developing this site.

In cases where the Water resources are isolated or not regulated, coordination with The OhioEPA may be required for any "Isolated" wetland impacts.

This wetland delineation will be supported by Flickinger Geoservices Group for five (5) years from the date of this wetland delineation or date of verification letter from the U.S. Army Corps of Engineers, whichever is later.

I hope the preceding information will be of help to you. Please feel free to contact me with any questions you may have concerning this report. FLICKINGER GEOSERVICES GROUP,LTD., looks forward to further serving you in the future.

Sincerely,

Erik A. Flickinger

Erik Flickinger

Flickinger Geoservices Group, ltd.

### SOURCES

Andreas, Barbara K., 1989. The Vascular Flora of the Glaciated Allegheny Plateau Region of Ohio. Ohio Biol. Surv. Bull. New Series Vol. 8 No. 1 viii + 191 p.

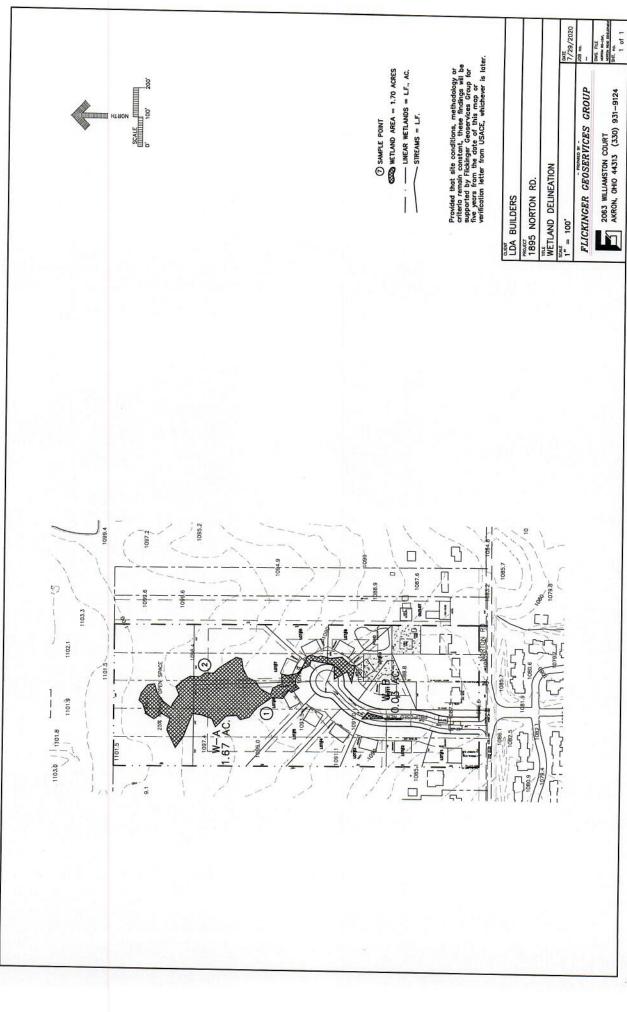
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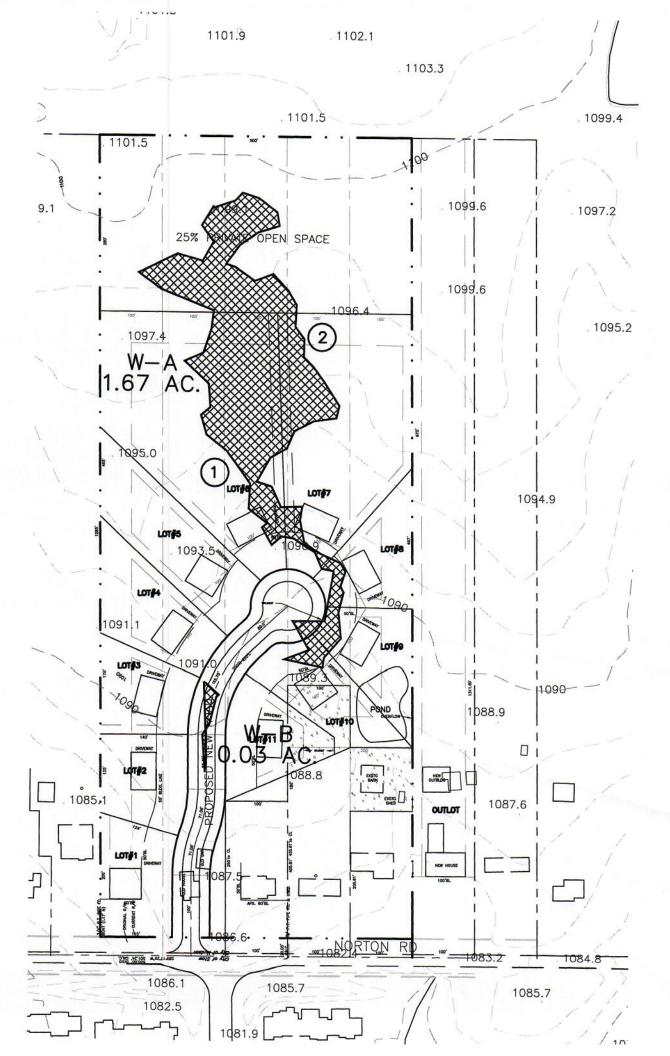
Kollmorgen Corp., 1988. Munsell Soil Color Charts and Supplementary Gley Color Charts. Baltimore, MD.

APPENDIX A



APPENDIX B









APPENDIX D



APPENDIX E



APPENDIX F

Project:	1895 Norto	n Road		State:	Ohio	Comple!
Client:	LDA Builde	ers		County:	Summit	Sample point 1
File Number:	916			City:	Hudson	
Determined By:	Erik Flicking	ger		Weather Conditions:		
Data Collected By:	Erik Flicking	ger		Sample Date:	6/8/2020	
Landform:	Glaciated A	lleghenny Pla	ateau	Local Relief:	Rolling	
Latitude:	41.204918			Longitude:	81.427934	
Soil Map Unit Name	with Slope (	(%): MgB, Ma	ahoning Sil	t Loam, 0-2% slopes		
NWI Classification:						
Are climatic / hydro	ogic conditi	ons on the s	ite typical	for this time of year?	Yes	
Are "Normal Condit	ons" presen	it?	Yes	W. 200 S. C.		
Are Vegetation	No	, Soils	No	, or Hydrology	No	significantly disturbed?
Are Vegetation	No	, Soils	No	, or Hydrology		naturally problematic?

# WETLAND DETERMINATION

No	Wetland Hydrology Present?	No	Sample Point Within a Wetland?	
Yes	Hydric Soils Present?	and the second s	optional Wetland Site	
No	Hydrophytic Vegetation Present?	,00,	ID:	

### HYDROLOGY:

Prima	ary Indicators Prese	ent:				Seco	ondary Indicators Present:		
No	Surface Water? (A	(1)	No	Sparsely Vegetated Concave Surface	? (B8)	No	Surface Soil Cracks? (B6)		
No	High Water Table?	(A2)		Water-Stained Leaves? (B9)		No Drainage Patterns? (B10)			
No	Saturation? (A3)			Aquatic Fauna? (B13)		No	Moss Trim Lines? (B16)		
No	Water Marks? (B1)		No	Marl Deposits? (B15)		No	Dry-season water table? (C2)		
No	Sediment Deposits		No	Hydrogen Sulfide Odor? (C1)		No	Crayfish Burrows? (C8)		
No	Drift Deposits? (B3)		No	Oxidized Rhizospheres on Living Root	ts? (C3)	No	Saturation Visible on Areial? (C9)		
No	Algal Mat or Crust?			Presence of Reduced Iron? (C4)		No	Stunted or Stressed Plants? (D1)		
No	Iron Deposits? (B5)		No	Recent Iron Reduction in Tilled Soils?	(C6)	No	Geomorphic Position? (D2)		
No	Inundation on Aeria	l? (B7)		Thin Muck Surface? (C7)		No	Shallow Aquitard? (D3)		
						No	Microtopographic Relief? (D4)	11151	
Field (	Ohaan satta sa	_				No	FAC-Neutral Test (D5)		
	Observations:								
	ce Water Present? No		= opar (mence).						
	er Table Present?	No		Depth (inches):		We	tland Hydrology Present?	No	
	Saturation Present? No			Depth (inches):	7				

Depth (inches) Color (moist) % Color (moist) % Redox Features  Color (moist) % Type¹ Lo	
	.2
12 10yr3/2 10yr4/5 20	C <sup>2</sup> Textur
1091415 20	

<sup>&</sup>lt;sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Sample point 1

The state of the s	Soil Indicators						
No	Histosol? (A1)	No	Stripped Matrix? (S6)				
No	Histic Epipedon? (A2)	No	Dark Surface? (S7) (LRR R, MLRA 149)	B)			
No	Black Histic? (A3)	Yes	Polyvalue Below Surface? (S8) (LRR R,				
No	Hydrogen Sulfide? (A4)	No	Thin Dark Surface? (S9) (LRR R, MLRA				
No	Stratified Layers? (A5)	No	Loamy Mucky Mineral? (F1) (LRR K, L)				
No	Depleted Below Dark Surface? (A11)	No	Loamy Gleyed Matrix? (F2)				
No	Thick Dark Surface? (A12)	No	Depleted Matrix? (F3)				
No	Sandy Mucky Mineral? (S1)	No	Redox Dark Surface? (F6)				
No	Sandy Gleyed Matrix? (S4)	No	Depleted Dark Surface? (F7)				
No	Sandy Redox? (S5)	No	Redox Depressions? (F8)				
ndica	tors for Problematic Hydric Soils <sup>3</sup> :		reack pepiessions? (1 d)				
No	2 cm Muck? (A10) (LRR K, L, MLRA 149B)	No	Iron-Manganese Masses? (F12) (LRR K	I D)			
No	Coast Prairie Redox? (A16) (LRR K, L, R)	No	Piedmont Floodplain Soils? (F19) (MLRA 149B)				
No	5 cm Mucky Peat or Peat? (S3) (LRR K, L, R)	No	Mesic Spodic? (TA6) (MLRA 144A, 145, 149B)				
No	Dark Surface? (S7) (LRR K, L)	No	Red Parent Material? (TF2)				
No	Polyvalue Below Surface? (S8) (LRR K, L)	7	Very Shallow Dark Surface? (TF12)				
No	Thin Dark Surface? (S9) (LRR K, L)	- 110	very challow bark Surface? (TF12)				
ndicat	tors of hydrophytic vegetation and wetland hydrology r	must he nre	sent unless disturbed or real-land				
estric	tive Layer (if observed):	Truck be pre	sent, unless disturbed of problematic.	TE .			
	Type: Depth (inches):	_ Hyd	ric Soils Present? Yes	Remarks:			

Troo S	Stratum (Diet Cine 200	Absolute	Dominant	Indicator					
187	Stratum (Plot Size: 30ft. radius)	% Cover	Species?	Status	Number of	Dominant S	Species That Are		
1.	Acer rubrum	20	Yes	FAC	OE	BL, FACW,	or FAC:	6	(A)
2.	Acer sacharum	30	Yes	FACU	Total Number	r of Domina	ant Species Across		( 7
3.	Acer sacharinum	10	No	FACW		All Strat		10	(B)
4.	Fagus grandifolia	20	Yes	FACU	Percent of	Dominant S	Species That Are	(F) (B) (F)	(=)
5.	Populous deltoides		No	FAC	OE	BL, FACW,	or FAC:	60	(A/B)
6.	Quercus palustrus		No	FACW	Prevalence Ir	ndex Work	sheet:		(700)
		80	= Total Co	ver	otal % Cover			Multiply by	r
Saplin	g/Shrub Stratum (Plot Size: 15ft.	radius)			OBL	Species	0	widitiply by	
1.	Lindera benzoin	10	Yes	FACW		Species	40	2	0
2.	Carpinus caroliniana	10	Yes	FAC		Species	50	3	80
3.	Rosa multiflora	5	No	FACU		Species	105	4	150 420
4.	Crategus crus-galli	10	Yes	FACU	7	Species	0	5	200 April 200
5.			No		Column Totals		195	(B)	0 650
	tratum (Plot Size: 5ft. radius)	35	= Total Co	ver	Hydrophytic \	/egetation	Prevalence Index Indicators:	c = B/A =	3.3333333
1.	Impatiens capensis	20	Yes	FACW	No		t for Hydrophytic Ve	egetation	
2.	Parthenocissus Quinquefolia	30	Yes	FACU	Yes		e Test is > 50%	ogotation	
3.	Toxicadendron radicans	20	Yes	FAC	No		e Index is $\leq 3.0^1$		
4.	Podophyllum peltatum	10	No	FACU	No		ical Adaptations <sup>1</sup>		
5.	Leersia oryzoides		Yes	OBL	No	1	ic Hydrophytic Veg	otation <sup>1</sup>	
6.	Glyceria striata		No	OBL	1Indicators				•
7.			No	DARKE SUPER	maioators	unless	oil and wetland hydr disturbed or proble	ology must	be present,
8.			No				and an proble	mauc.	
9.			No		Hydrophy	tic Vegetat	ion Present?		No
10.			No			rogota	aon i lesent?		NO
<b>V</b> oody	Vine Stratum (Plot Size: 30ft. ra	80 dius)	= Total Cov	/er					
1.			No						
2.			No						
۷.									

Project:	1895 Norto	n Road		State:	Ohio	Sample naint 4144
Client:	LDA Builde	ers		County:	Summit	Sample point 1W
File Number:	916			City:	Hudson	
Determined By:	Erik Flickin	ger		Weather Conditions:		
Data Collected By:	Erik Flickin	ger		Sample Date:	6/8/2020	
Landform:	Glaciated A	Alleghenny Pla	ateau	Local Relief:	Rolling	
Latitude:	41.204918			Longitude:	81.427934	
Soil Map Unit Name	with Slope	(%): MgB, Ma	ahoning Sil		The sales and sales are a sales and a sales are a	
<b>NWI Classification:</b>				PFEM!Y	,	
Are climatic / hydrol	ogic conditi	ons on the s	ite typical	for this time of year?	Yes	
Are "Normal Conditi	ons" preser	nt?	Yes			
Are Vegetation	No	, Soils	No	, or Hydrology	No	significantly disturbed?
Are Vegetation	No	, Soils	No	, or Hydrology		naturally problematic?

# WETLAND DETERMINATION

Yes	Wetland Hydrology Present?	Yes	Sample Point Within	Wetland?	
Yes	Hydric Soils Present?		optional Wetland Site	· · · · · · · · · · · · · · · · · · ·	
Yes	Hydrophytic Vegetation Present?	,000,	ID:	W-A, 1.670 ac	

# HYDROLOGY:

Prima	ary Indicators Pres	ent:				Seco	ondary Indicators Present:	
No	Surface Water? (A	11)	Yes	Sparsely Vegetated Conc	ave Surface? (B8)	0.000	Surface Soil Cracks? (B6)	
No	High Water Table?	(A2)		Water-Stained Leaves? (F			Drainage Patterns? (B10)	
Yes	Saturation? (A3)		100,000	Aquatic Fauna? (B13)		No	Moss Trim Lines? (B16)	
Yes	Water Marks? (B1)			Marl Deposits? (B15)		No	Dry-season water table? (C2)	
Yes	Sediment Deposits	? (B2)		Hydrogen Sulfide Odor? (	C1)	No	Crayfish Burrows? (C8)	
7	Drift Deposits? (B3			Oxidized Rhizospheres or				1
No	Algal Mat or Crust?	(B4)		Presence of Reduced Iron			Stunted or Stressed Plants? (D1)	
No	Iron Deposits? (B5)		No	Recent Iron Reduction in	Tilled Soils? (C6)		Geomorphic Position? (D2)	
Yes	Inundation on Aeria	al? (B7)	No	Thin Muck Surface? (C7)		No	Shallow Aquitard? (D3)	
						Yes	Microtopographic Relief? (D4)	
							FAC-Neutral Test (D5)	
Field (	Observations:						(20)	_
Surfac	ce Water Present?	No		Depth (inches):				
Wate	er Table Present?	No		Depth (inches):		We	etland Hydrology Present?	Yes
Saturation Present? Yes				Depth (inches):	surface	1 es		

n (inches) Color (moist) % Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>			edox Features	Re			Matrix	
		1.22			Color (moist)	%	Color (moist)	Depth (inches)
10310/1	Texture	LOC	Туре	70	T Sier (molety		10yr3/1	12
10ylo/1							10yr3/1	12

<sup>&</sup>lt;sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Sample point 1W

Hydric	Soil Indicators		Sample point				
No	Histosol? (A1)	Yes	Stripped Matrix? (S6)				
No	Histic Epipedon? (A2)	Yes	Dark Surface? (S7) (LRR R, MLRA 149B)				
No	Black Histic? (A3)	Yes	Polyvalue Below Surface? (S8) (LRR R, MLRA 149B)				
No	Hydrogen Sulfide? (A4)	No	Thin Dark Surface? (S9) (LRR R, MLRA 149B)				
No	Stratified Layers? (A5)	No	Loamy Mucky Mineral? (F1) (LRR K, L)				
No	Depleted Below Dark Surface? (A11)	No	Loamy Gleyed Matrix? (F2)				
No	Thick Dark Surface? (A12)	Yes	Depleted Matrix? (F3)				
No	Sandy Mucky Mineral? (S1)	No	Redox Dark Surface? (F6)				
No	Sandy Gleyed Matrix? (S4)	No	Depleted Dark Surface? (F7)				
No	Sandy Redox? (S5)	No	Redox Depressions? (F8)				
ndica	tors for Problematic Hydric Soils <sup>3</sup> :		- spirated in the spirate of the spi				
No	2 cm Muck? (A10) (LRR K, L, MLRA 149B)	No	Iron-Manganese Masses? (F12) (LRR K, L, R)				
No	Coast Prairie Redox? (A16) (LRR K, L, R)	No	Piedmont Floodplain Soils? (F19) (MLRA 149B)				
No	5 cm Mucky Peat or Peat? (S3) (LRR K, L, R)	No	Mesic Spodic? (TA6) (MLRA 144A, 145, 149B)				
No	Dark Surface? (S7) (LRR K, L)	No	Red Parent Material? (TF2)				
No	Polyvalue Below Surface? (S8) (LRR K, L)	No	Very Shallow Dark Surface? (TF12)				
No	Thin Dark Surface? (S9) (LRR K, L)		Toly Shahow Balk Gullace: (11 12)				
Indicat	tors of hydrophytic vegetation and wetland hydrology	must be pre	esent unless disturbed or problematic				
Restric	ctive Layer (if observed):	l pic	Remarks:				
	Type:						
	Depth (inches):	- Hyd	fric Soils Present? Yes				

		Absolute	Dominant	Indicator	Dominance T	est Worksh	eet:		
	Stratum (Plot Size: 30ft. radius)	% Cover	Species?	Status	Number of	Dominant Sp	ecies That Are		
1.	Acer rubrum	40	Yes	FAC	OE	BL, FACW, o	r FAC:	8	(A)
2.	Acer sacharum		Yes	FACU	Total Number	of Dominan	t Species Across	10/75	(- 4
3.	Acer sacharinum	10	No	FACW		All Strata		9	(B)
4.	Fagus grandifolia		No	FACU	Percent of	Dominant Sp	ecies That Are		(5)
5.	Populous deltoides	20	Yes	FAC	OE	L, FACW, or	r FAC:	88.889	(A/B)
6.	Quercus palustrus	10	No	FACW	Prevalence In	dex Works	neet:	00.003	(A/D)
		80	= Total Co	ver	otal % Cover			Multiply by	
Saplin	g/Shrub Stratum (Plot Size: 15ft.	radius)				Species	40	1 viulipiy by	40
1.	Lindera benzoin	40	Yes	FACW	FACW	*1. *100-003E2E2	80	2	
2.	Carpinus caroliniana	10	Yes	FAC	7	Species	90	3	160 270
3.	Rosa multiflora	5	No	FACU		Species	15	4	60
4.	Crategus crus-galli	10	No	FACU		Species	0	5	0
5.			No		Column Totals		225	(B)	530
Herb S	tratum (Plot Size: 5ft. radius)	20	= Total Co	10.583	Hydrophytic \				2.355555
_	Impatiens capensis	20	Yes	FACW	No	Rapid Test	for Hydrophytic Ve	egetation	
2.	Parthenocissus Quinquefolia		No	FACU	Yes		Test is > 50%		
3.	Toxicadendron radicans	20	Yes	FAC	Yes	Prevalence	Index is $\leq 3.0^1$		
4.	Podophyllum peltatum		No	FACU	No	Morphologic	cal Adaptations <sup>1</sup>		
5.	Leersia oryzoides		No	OBL	No		Hydrophytic Vege	etation <sup>1</sup>	
6.	Glyceria striata	20	Yes	OBL	<sup>1</sup> Indicators		and wetland hydr		he present
7.	Carex crinita	20	Yes	OBL		unless	disturbed or proble	ematic.	be present,
8.			No						
9.			No		Hydrophy	tic Vegetatio	on Present?	,	es
10.			No						
Voody	Vine Stratum (Plot Size: 30ft. ra	80 dius)	= Total Cov	ver					
1.			No						
2.			No						
		0	= Total Cov	522					

Project:	1895 Norto	n Road		State:	Ohio	Sample point 2		
Client:	LDA Builde	rs		County:	Summit	Sample point 2		
File Number:	916			City: Hudson				
Determined By:	Erik Flicking	ger		Weather Conditions:				
Data Collected By:	ata Collected By: Erik Flickinger				6/8/2020			
Landform:	Glaciated Alleghenny Plateau			Local Relief:	Rolling			
Latitude:	tude: 41.205452		Longitude:	81.427236				
Soil Map Unit Name	with Slope (	%): MgB, Ma	ahoning Sil	t Loam, 0-2% slopes				
NWI Classification:								
Are climatic / hydro Are "Normal Condit	logic conditions" presen	ons on the s	ite typical Yes	for this time of year?	Yes			
Are Vegetation	No	, Soils	No	, or Hydrology	No	significantly disturbed?		
Are Vegetation	No	, Soils	No	, or Hydrology		significantly disturbed? naturally problematic?		

# WETLAND DETERMINATION

No	Wetland Hydrology Present?	No Sample Point Within a Wetland?
Yes	Hydric Soils Present?	If yes, optional Wetland Site
No	Hydrophytic Vegetation Present?	ID:

# HYDROLOGY:

ary Indicators Pres					Seco	ondary Indicators Present:		
Contract of the Contract of th		No	Sparsely Vegetated Concave Surface?	(B8)	No			
High Water Table?	(A2)				No			
Saturation? (A3)		No	Aquatic Fauna? (B13)		Towns Control			
Water Marks? (B1)		No	Marl Deposits? (B15)		EPSYCH .			
Sediment Deposits	? (B2)	No	Hydrogen Sulfide Odor? (C1)		130000			
Drift Deposits? (B3	)			? (C3)	-			
Algal Mat or Crust?	(B4)			(00)				
Iron Deposits? (B5)			Recent Iron Reduction in Tilled Soils? (C6)					
Inundation on Aerial? (B7) No Thin Muck Surface? (C7)								
					The second second			
						Control of the Contro		
Observations:					110	(D5)		
ce Water Present?	No		Depth (inches):					
er Table Present?	No		Depth (inches):		We	stland Hydrology Present?	No	
Saturation Present? No			Depth (inches):			Wetland Hydrology Present?		
	Surface Water? (A High Water Table? Saturation? (A3) Water Marks? (B1) Sediment Deposits Drift Deposits? (B3 Algal Mat or Crust? Iron Deposits? (B5)	Surface Water? (A1) High Water Table? (A2) Saturation? (A3) Water Marks? (B1) Sediment Deposits? (B2) Drift Deposits? (B3) Algal Mat or Crust? (B4) Iron Deposits? (B5) Inundation on Aerial? (B7) Deservations:	Surface Water? (A1) No High Water Table? (A2) No Saturation? (A3) No Water Marks? (B1) No Sediment Deposits? (B2) No Drift Deposits? (B3) No Algal Mat or Crust? (B4) No Iron Deposits? (B5) No Inundation on Aerial? (B7) No	Surface Water? (A1)  No Sparsely Vegetated Concave Surface?  High Water Table? (A2)  No Water-Stained Leaves? (B9)  Saturation? (A3)  Water Marks? (B1)  Sediment Deposits? (B2)  Drift Deposits? (B3)  Algal Mat or Crust? (B4)  No Presence of Reduced Iron? (C4)  Iron Deposits? (B5)  No Recent Iron Reduction in Tilled Soils? (Inundation on Aerial? (B7)  No Depth (inches):	Surface Water? (A1) No Sparsely Vegetated Concave Surface? (B8)  High Water Table? (A2) No Water-Stained Leaves? (B9)  Saturation? (A3) No Aquatic Fauna? (B13)  Water Marks? (B1) No Marl Deposits? (B15)  Sediment Deposits? (B2) No Hydrogen Sulfide Odor? (C1)  Drift Deposits? (B3) No Oxidized Rhizospheres on Living Roots? (C3)  Algal Mat or Crust? (B4) No Presence of Reduced Iron? (C4)  Iron Deposits? (B5) No Recent Iron Reduction in Tilled Soils? (C6)  Inundation on Aerial? (B7) No Thin Muck Surface? (C7)  Observations:  Depth (inches):	Surface Water? (A1) No Sparsely Vegetated Concave Surface? (B8) No High Water Table? (A2) No Water-Stained Leaves? (B9) No Saturation? (A3) No Aquatic Fauna? (B13) No Water Marks? (B1) No Marl Deposits? (B15) No Sediment Deposits? (B2) No Hydrogen Sulfide Odor? (C1) No Drift Deposits? (B3) No Oxidized Rhizospheres on Living Roots? (C3) No Algal Mat or Crust? (B4) No Presence of Reduced Iron? (C4) No Iron Deposits? (B5) No Recent Iron Reduction in Tilled Soils? (C6) No Inundation on Aerial? (B7) No Thin Muck Surface? (C7) No No No Deservations:	Surface Water? (A1) No Sparsely Vegetated Concave Surface? (B8) No Surface Soil Cracks? (B6)  High Water Table? (A2) No Water-Stained Leaves? (B9) No Drainage Patterns? (B10)  Saturation? (A3) No Aquatic Fauna? (B13) No Moss Trim Lines? (B16)  Water Marks? (B1) No Marl Deposits? (B15) No Dry-season water table? (C2)  Sediment Deposits? (B2) No Hydrogen Sulfide Odor? (C1) No Crayfish Burrows? (C8)  Drift Deposits? (B3) No Oxidized Rhizospheres on Living Roots? (C3) No Saturation Visible on Areial? (C9)  Algal Mat or Crust? (B4) No Presence of Reduced Iron? (C4) No Stunted or Stressed Plants? (D1)  Iron Deposits? (B5) No Recent Iron Reduction in Tilled Soils? (C6) No Geomorphic Position? (D2)  Inundation on Aerial? (B7) No Thin Muck Surface? (C7) No Shallow Aquitard? (D3)  No Microtopographic Relief? (D4)  No FAC-Neutral Test (D5)	

	Matrix			R	edox Features		
Depth (inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	T
12	10yr3/2		10yr4/5	20	Туре	LOC	Texture

<sup>&</sup>lt;sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Sample point 2

Hydric	Soil Indicators		Sample poi
No	Histosol? (A1)	No	Stripped Matrix? (S6)
No	Histic Epipedon? (A2)	No	Dark Surface? (S7) (LRR R, MLRA 149B)
No	Black Histic? (A3)	Yes	Polyvalue Below Surface? (S8) (LRR R, MLRA 149B)
No	Hydrogen Sulfide? (A4)	No	Thin Dark Surface? (S9) (LRR R, MLRA 149B)
No	Stratified Layers? (A5)	No	Loamy Mucky Mineral? (F1) (LRR K, L)
No	Depleted Below Dark Surface? (A11)	No	Loamy Gleyed Matrix? (F2)
No	Thick Dark Surface? (A12)	No	Depleted Matrix? (F3)
No	Sandy Mucky Mineral? (S1)	No	Redox Dark Surface? (F6)
No	Sandy Gleyed Matrix? (S4)	No	Depleted Dark Surface? (F7)
No	Sandy Redox? (S5)	No	Redox Depresssions? (F8)
Indicat	ors for Problematic Hydric Soils <sup>3</sup> :		processions (10)
No	2 cm Muck? (A10) (LRR K, L, MLRA 149B)	No	Iron-Manganese Masses? (F12) (LRR K, L, R)
No	Coast Prairie Redox? (A16) (LRR K, L, R)	No	Piedmont Floodplain Soils? (F19) (MLRA 149B)
No	5 cm Mucky Peat or Peat? (S3) (LRR K, L, R)	No	Mesic Spodic? (TA6) (MLRA 144A, 145, 149B)
	Dark Surface? (S7) (LRR K, L)	No	Red Parent Material? (TF2)
No	Polyvalue Below Surface? (S8) (LRR K, L)	No	Very Shallow Dark Surface? (TF12)
No	Thin Dark Surface? (S9) (LRR K, L)		Sun Sunder (11 12)
	ors of hydrophytic vegetation and wetland hydrology	must be pre	sent unless disturbed or problematic
Restric	tive Layer (if observed):	l pio	Remarks:
	Type:		
	Depth (inches):	Hyd	Iric Soils Present? Yes

_		Absolute	Dominant	Indicator	Dominance 1	Test Workshe	et:		
200	Stratum (Plot Size: 30ft. radius)	% Cover	Species?	Status	Number of	Dominant Sp	ecies That Are		
1.	Acer rubrum	20	Yes	FAC	OI	BL, FACW, or	FAC:	5	(A)
2.	Acer sacharum	40	Yes	FACU	Total Numbe	r of Dominant	Species Across		(71)
3.	Acer sacharinum		No	FACW		All Strata:		10	(B)
4.	Fagus grandifolia	20	Yes	FACU	Percent of	Dominant Spe	ecies That Are		(5)
5.	Populous deltoides		No	FAC	OI	BL, FACW, or	FAC:	50	(A/B)
6.	Quercus palustrus		No	FACW	Prevalence I	ndex Worksh	eet:		(AD)
		80	= Total Co	ver	otal % Cover			Multiply by:	
Saplin	g/Shrub Stratum (Plot Size: 15ft.	radius)			OBL	Species	0	1	0
1.	Lindera benzoin	20	Yes	FACW		Species	20	2	40
2.	Carpinus caroliniana	5	Yes	FAC	A LO TO SERVICE SERVIC	Species	45	3	135
3.	Rosa multiflora	10	Yes	FACU		Species	120	4	480
4.	Crategus crus-galli		No	FACU	1	Species	0	5	0
5.			No		Column Totals		185	(50)	
		35	= Total Co	ver			Prevalence Index	(B)	655
Herb S	tratum (Plot Size: 5ft. radius)				Hydrophytic '			- D/A -	3.5405405
1.	Impatiens capensis		No	FACW	No		or Hydrophytic Ve		
2.	Parthenocissus Quinquefolia	30	Yes	FACU	No		Test is > 50%	getation	
3.	Toxicadendron radicans	20	Yes	FAC	No		ndex is ≤ 3.0 <sup>1</sup>		
4.	Podophyllum peltatum	20	Yes	FACU	No		al Adaptations <sup>1</sup>		
5.	Leersia oryzoides		Yes	OBL	No	The same of the sa	Hydrophytic Vege	1	
6.	Glyceria striata		No	OBL					
7.			No		mulcators	unless d	and wetland hydr isturbed or proble	ology must	be present,
8.			No			unicos u	isturbed of proble	mauc.	
9.			No		Hydrophy	tic Vegetatio	n Dronaut?		
10.			No		, a. opiny	ao vegetatio	ii r ieseilt	1	No
		70	= Total Cov	/er					
Voody	Vine Stratum (Plot Size: 30ft. ra		. 5.0.						
1.			No						
2.			No						
		0	= Total Cov						

Project:	1895 Norto	n Road		State:	Ohio	Sample naint 014	
Client:	LDA Builde	rs		County:	Summit	Sample point 2W	
File Number:	ile Number: 916		City:	Hudson			
Determined By:	Erik Flicking	ger		Weather Conditions:			
Data Collected By: Erik Flickinger			Sample Date:	6/8/2020			
Landform:	Glaciated A	lleghenny Pla	ateau	Local Relief:	Rolling		
Latitude:	41.205452	(77)		Longitude:	81.427236		
Soil Map Unit Name	with Slope (	(%): MgB, Ma	ahoning Sil	t Loam, 0-2% slopes			
NWI Classification:				PFEMIY	,		
Are climatic / hydrol Are "Normal Conditi	ogic conditions" presen	ons on the s	ite typical Yes	for this time of year?	Yes		
Are Vegetation	No	, Soils	No	, or Hydrology	No	significantly disturbed?	
Are Vegetation	No , Soils I		No	, or Hydrology	naturally problematic?		

# WETLAND DETERMINATION

Yes Wetland Hydrology Present?	Yes Sample Point Within a	Yes Sample Point Within a Wetland?					
Yes Hydric Soils Present?	If yes, optional Wetland Site	· · · · · · · · · · · · · · · · · · ·					
Yes Hydrophytic Vegetation Present?	ID:	W-A, 1.67 ac	1.67 ac				

# HYDROLOGY:

Name of the last	ary Indicators Pres					Seco	ondary Indicators Present:			
No	Surface Water? (A	11)	Yes	Sparsely Vegetated Concav	e Surface? (B8)	No	Surface Soil Cracks? (B6)			
No	High Water Table?	(A2)		Water-Stained Leaves? (B9		Yes	200 1 200 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Yes	Saturation? (A3)		No	Aquatic Fauna? (B13)		No	Moss Trim Lines? (B16)			
Yes	Water Marks? (B1)		No	Marl Deposits? (B15)		No	No Dry-season water table? (C2)			
Yes	Sediment Deposits	? (B2)	No	Hydrogen Sulfide Odor? (C1	1)	No				
Yes	Drift Deposits? (B3	)		Oxidized Rhizospheres on L						
No	Algal Mat or Crust?	(B4)		Presence of Reduced Iron?		No	Stunted or Stressed Plants? (D1)			
No	Iron Deposits? (B5)		No	Recent Iron Reduction in Til	led Soils? (C6)	Yes	Geomorphic Position? (D2)			
Yes	Inundation on Aeria	al? (B7)	? (B7) No Thin Muck Surface? (C7)			No	Shallow Aquitard? (D3)			
						Yes	Microtopographic Relief? (D4)			
Field (	21					The state of the s	FAC-Neutral Test (D5)			
	Observations:									
Surface Water Present? No		No		Depth (inches):						
	Water Table Present? No			Depth (inches):		Wetland Hydrology Present?				
		Saturation Present? Yes		Depth (inches): surface		Wetland Hydrology Present? Yes				
Wate		Yes		Depth (inches):	Surface					

	Matrix			R	edox Features		
Depth (inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	
12	10yr3/1		()	1,0	Туре	Loc	Texture
	10y13/1						

<sup>&</sup>lt;sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric	Soil Indicators		Sample point 2
No	Histosol? (A1)	Yes	Stripped Matrix? (S6)
No	Histic Epipedon? (A2)	Yes	Dark Surface? (S7) (LRR R, MLRA 149B)
No	Black Histic? (A3)	Yes	Polyvalue Below Surface? (S8) (LRR R, MLRA 149B)
No	Hydrogen Sulfide? (A4)	No	Thin Dark Surface? (S9) (LRR R, MLRA 149B)
No	Stratified Layers? (A5)	No	Loamy Mucky Mineral? (F1) (LRR K, L)
No	Depleted Below Dark Surface? (A11)	No	Loamy Gleyed Matrix? (F2)
No	Thick Dark Surface? (A12)	Yes	Depleted Matrix? (F3)
No	Sandy Mucky Mineral? (S1)	No	Redox Dark Surface? (F6)
No	Sandy Gleyed Matrix? (S4)	No	Depleted Dark Surface? (F7)
No	Sandy Redox? (S5)	No	Redox Depresssions? (F8)
ndica	tors for Problematic Hydric Soils <sup>3</sup> :		reserve oprocessions. (1 0)
No	2 cm Muck? (A10) (LRR K, L, MLRA 149B)	No	Iron-Manganese Masses? (F12) (LRR K, L, R)
No	Coast Prairie Redox? (A16) (LRR K, L, R)	No	Piedmont Floodplain Soils? (F19) (MLRA 149B)
No	5 cm Mucky Peat or Peat? (S3) (LRR K, L, R)	No	Mesic Spodic? (TA6) (MLRA 144A, 145, 149B)
No	Dark Surface? (S7) (LRR K, L)	No	Red Parent Material? (TF2)
No	Polyvalue Below Surface? (S8) (LRR K, L)	No	Very Shallow Dark Surface? (TF12)
No	Thin Dark Surface? (S9) (LRR K, L)		(11 12)
Indica	tors of hydrophytic vegetation and wetland hydrology	must be pre	sent, unless disturbed or problematic
Restric	ctive Layer (if observed):		Remarks:
	Type: Depth (inches):	_ Hyd	ric Soils Present? Yes

		Absolute	Dominant	Indicator	Dominance Test Worksh	eet:		
325	Stratum (Plot Size: 30ft. radius)	% Cover	Species?	Status	Number of Dominant Sp	ecies That Are		
1.	Acer rubrum	40	Yes	FAC	OBL, FACW, o		7	(A)
2.	Acer sacharum		Yes	FACU	Total Number of Dominan	t Species Across		(7)
3.	Acer sacharinum	10	No	FACW	All Strata		8	(B)
4.	Fagus grandifolia		No	FACU	Percent of Dominant Sp	ecies That Are		(6)
5.	Populous deltoides	20	Yes	FAC	OBL, FACW, or	r FAC:	87.5	(A/B)
6.	Quercus palustrus	10	No	FACW	Prevalence Index Worksh	2010/2010/09	07.0	(A/D)
		80	= Total Co	ver	otal % Cover of:		Multiply by	r
Saplin	g/Shrub Stratum (Plot Size: 15ft	. radius)			OBL Species	40	1	40
1.	Lindera benzoin	40	Yes	FACW	FACW Species	60	2	120
2.	Carpinus caroliniana	10	Yes	FAC	FAC Species	90	3	270
3.	Rosa multiflora	5	No	FACU	FACU Species	15	4	60
4.	Crategus crus-galli	10	No	FACU	UPL Species	0	5	0
5.			No		Column Totals (A)	205	(B)	490
		65	= Total Co	ver		Prevalence Index		2.3902439
	Stratum (Plot Size: 5ft. radius)				Hydrophytic Vegetation II		Dire	2.0002400
1.	Impatiens capensis		No	FACW	l	for Hydrophytic Ve	egetation	
2.	Parthenocissus Quinquefolia		No	FACU		Test is > 50%	gotation	
3.	Toxicadendron radicans	20	Yes	FAC		Index is ≤ 3.01		
4.	Podophyllum peltatum		No	FACU	No Morphologic	cal Adaptations <sup>1</sup>		
5.	Leersia oryzoides		No	OBL		Hydrophytic Veg	etation <sup>1</sup>	
6.	Glyceria striata	20	Yes	OBL	<sup>1</sup> Indicators of hydric soil			ho procest
7.	Carex crinita	20	Yes	OBL	unless	disturbed or proble	ematic.	be present,
8.			No					
9.			No		Hydrophytic Vegetation	on Present?	1	es
10.	V1 42 1		No				-	
/oody	Vine Stratum (Plot Size: 30ft. ra	60 adius)	= Total Cov	ver				
1.			No					
2.			No					
		0	= Total Cov	·or				

APPENDIX G

































































































# TMS Engineers, Inc.

### **Transportation Management Services**

2112 Case Parkway South, #7 Twinsburg, Ohio 44087 www.TMSEngineers.com

November 12, 2020

Mr. Tony Lundari LDA Land Group, LLC 6683 Olde Eight Road Peninsula, Ohio 44264

Re:

Proposed Norton Road Residential Development

City of Hudson, Ohio Trip Generation Analysis

TMS Engineers, Inc. has performed the following trip generation analysis for residential subdivision which is to be located in the City of Hudson, Ohio. The Norton Road development will be located north of Hudson Road and across the street from Darrow Lake Drive (see Location Map, Figure 1). The purpose of the trip generation analyses is to estimate the traffic that will be generated by the proposed subdivision. The site plan for the Norton Road development can be seen in Figure 2. The following are the results of our trip generation analysis.

## Trip Generation

The calculation of future driveway trips requires an estimate of traffic the development will generate after construction. The most widely accepted method of determining the amount of traffic that a proposed development will generate is to compare the proposed site with existing facilities of the same use. This estimate is typically expressed as a trip rate. In order to estimate traffic for the residential subdivisions, a trip rate was calculated using data and procedures found in the Institute of Transportation Engineers (ITE) "Trip Generation" Manual, Tenth Edition.

The trip generation analyses utilized the Single Family Detached Housing land use (ITE Code 210) information. A copy of the trip generation worksheet for the Norton Road Development can be seen in the attached **Figure 3**.

Phone: (330) 686-6402 Fax: (330) 686-6417 E-Mail: Mail@TMSEngineers.com

Mr. Tony Lundari November 12, 2020 Page 2

### Proposed Trip Generation Calculations

Based on the trip generation analysis described on the previous page, the table below shows the estimated generated traffic during the AM and PM peak hour for the proposed Norton Road subdivision based upon the national averages considering the number of dwelling units.

	ITE TRIP GENERATION	Dwelling Units	TRIP ENDS		
ITE Code	Description		Weekday Peak Hour Between 7-9 AM	Weekday Peak Hour Between 4-6 PM	
210	Single Family Detached Housing	11	13	12	

The previous table shows that the proposed Norton Road residential subdivision is expected to generate a total of 13 trips in the AM peak hour and 12 trips in the PM peak hour.

It is our opinion that, when the anticipated changes in traffic volumes are at these levels, the traffic generated by the proposed residential development should not have an impact on the surrounding street network system.

This opinion is based upon the fact that traffic impact studies are recommended to be performed by the **Institute of Transportation Engineers** whenever an increase in trips in any peak hour is greater than 100 trips per hour. This recommendation is made because this is the point where a change in roadway capacity may be found and mitigation may or may not be needed. The anticipated generated volumes from this development are less than daily variations in the current volumes on the local roadway network and should not be perceived by the traveling public.

The Ohio Department of Transportation concedes that traffic impact studies are only necessary when the resulting trip increase is more than 60 trips per hour. This is stated in their **State Highway Access Management Manual**. Since these developments are both expected to generate less than 60 trips during either the AM and PM peak hours, it is our professional opinion that the change in the amount of generated traffic will **not** have an impact on the surrounding roadway network nor require traffic analyses.

Mr. Tony Lundari November 12, 2020 Page 3

If you have any questions or need additional information, please do not hesitate to contact me.

Very truly yours,

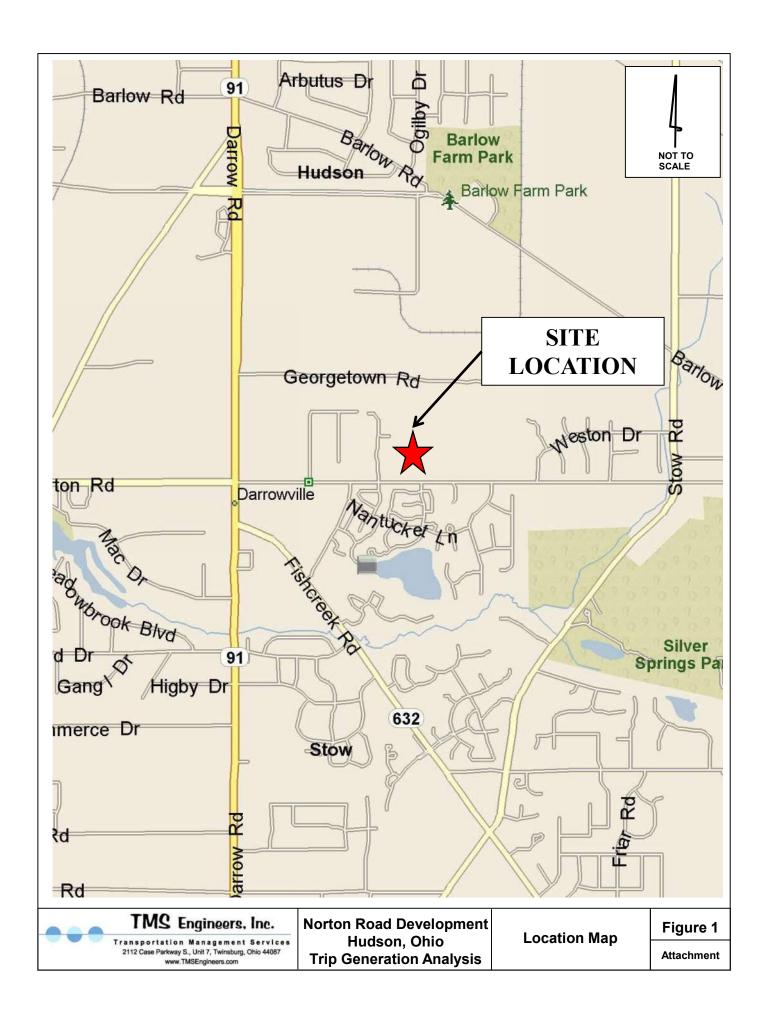
TMS Engineers, Inc.

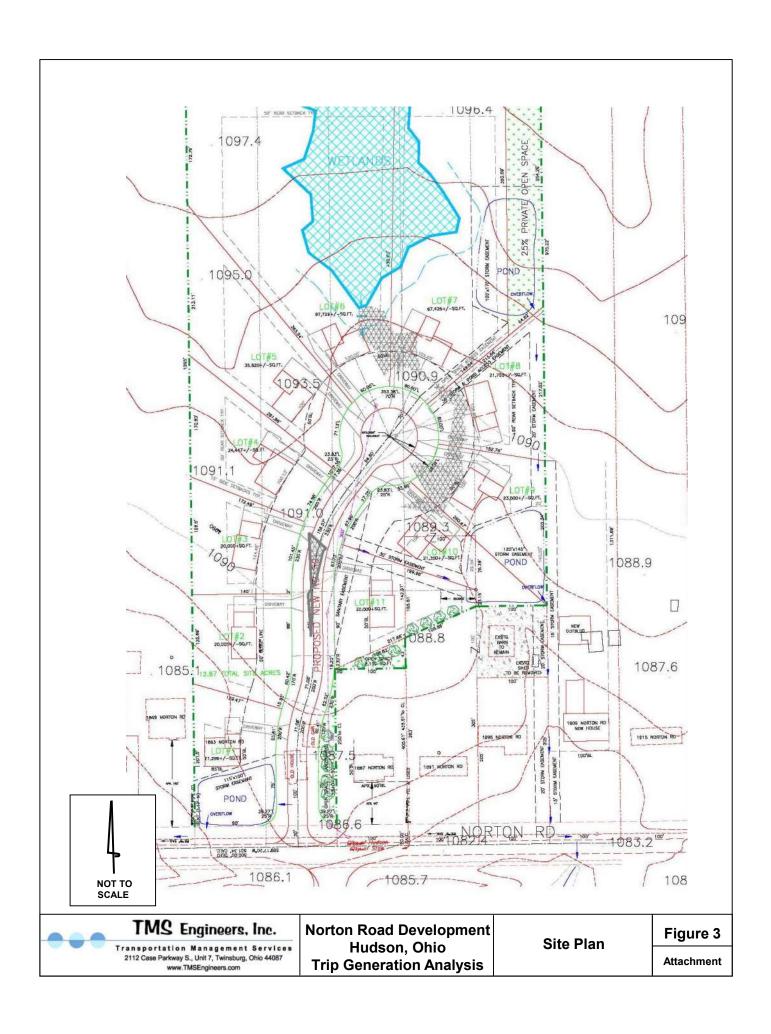
Andrew J Pierson P.E. Senior Traffic Engineer

Attachments

ANDREW

# **FIGURES**





### Single Family Detached Housing ITE Code = 210

Date:

11/12/2020

Trip Generation based on:

Size of Analysis Area:

11

Units

Dwelling Units	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Average Weekday 2-way Volume	12.41	3.70	1.00	136
Weekday Peak Hour of Adjacent Street Traffic				
7-9 AM Peak Hour Enter	0.29	0.00	1.00	3
7-9 AM Peak Hour Exit	0.95	0.00	1.00	10
7-9 AM Peak Hour Total	1.15	0.90	1.00	13
4-6 PM Peak Hour Enter	0.61	0.00	1.00	7
4-6 PM Peak Hour Exit	0.41	0.00	1.00	5
4-6 PM Peak Hour Total	1.11	1.05	1.00	12

### \*\*The above rates were calculated from the equations shown below:

Average Weekday 2-way Volume

Ln(T) = 0.92 Ln(X) + 2.71

Peak Hour of Adjacent Street Traffic

7-9 AM Peak Hour Total

T = 0.71 (X) + 4.80

Enter 0.25 Exit 0.75

4-6 PM Peak Hour Total

Ln(T) = 0.96Ln(X) + 0.20

Enter 0.63 Exit 0.37

Source: Institute of Transportation Engineers

Trip Generation Manual, 10th Edition, September 2017



### Transportation Management Services 2112 Case Parkway S., Unit 7, Twinsburg, Ohio 44087 www.TMSEngineers.com

Date: November 30, 2020

**To:** Mr. Tony Lundari

LDA Land Group, LLC

From: Michael W. Schweickart, P.E., PTOE

TMS Engineers, Inc.

**Subject:** Roadway Offset - Norton Road Residential Development

City of Hudson, Ohio

LDA Land Group, LLC proposes to develop an eleven unit residential development along the north side of Norton Road in the City of Hudson, Ohio. The development would be served by a single roadway that would intersect Norton Road along the north side of the roadway. The proposed development roadway is offset to the west from the existing Darrow Lake Drive.

Access management is the proactive management of vehicular access to highways, arterials, and other roadways. One of the goals of access management is to minimize conflict points from crossing, diverging and merging maneuvers due to the potential for collisions at each conflict point. The use of offset minor street approaches is one such technique. Consideration for the use of offset approaches should included the alignment of the offset and the volume of through or crossing traffic between the minor street approaches.

Roadways that are not aligned directly across from each other should have a positive offset. The positive offset is advantageous to minimize conflicts between left turn vehicles from the main roadway. The attached **Figure 1** details the advantage of a positive offset between minor street approaches along Norton Road.

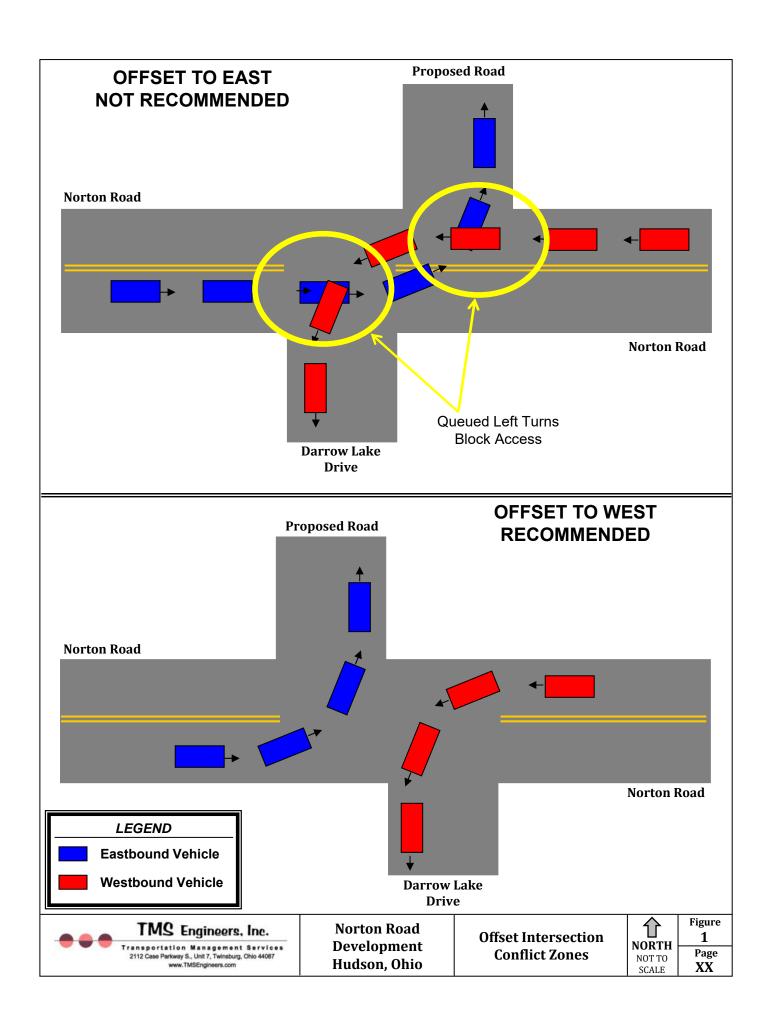
The proposed development roadway is offset to the west of Darrow Lake Drive creating a positive offset. The positive offset should reduce the likelihood of crashes between left turning vehicles along Norton Road at the minor street approaches.

The volume of through or cross traffic between two minor street approaches should also be considered in the use of offset intersection approaches. The higher the volume of through traffic between minor streets the more appropriate it is to align the approaches. The existing residential unit to the east of the development along the north side of Norton Road does not allow for aligning the proposed roadway directly across from Darrow Lake Drive.

It is our opinion that the volume of through traffic between Darrow Lake Drive and the proposed roadway is expected to be minimal as both developments serve residential areas, there is no through roadway component for the proposed development, and the proposed 11 units along the new roadway are not expected to generate a significant volume of traffic.

Therefore, given the fact that proposed roadway has a positive offset from Darrow Lake Drive, the amount of through/cross traffic is expected to be minimal, and the existing residential unit to the east does not allow for the roadways to be aligned across from each other we recommend that the City approve the proposed site plan as presented.

If you have any questions regarding any of the information presented or need any additional information, please do not hesitate to contact me.



Mr. & Mrs James Robinson 1887 Norton Rd Hudson, Ohio

o: The Board of Zoning and Building Of the City of Hudson, Ohio

First we want to thank you for hearing and allowing us to express our concerns before LDA Builders proceed with the project of putting a side street next to our property at 1887 Norton Road.

- 1. Based on reports from homeowners who reside on corner lots they have experienced property tax increase. Can we be assured in writing that our property tax will not increase.
- 2. As it has become increasingly more difficult to enter and exit our property from Norton because of higher traffic, a side street would add to the safety of entering and exiting.
  - (a) The average home has two or more cars plus visitors.
  - (b) Noise level increases. What will be done to minimize these two problems?
- 3. Privacy It leaves an open entrance to our property from the side and back yard. We have a toddler living in our home we have great concern for her safety while playing in the yard Will any safety barriers be insured that my family safety will not further be infringed Since this removes the current security.

Please respond in writing for us or email us at <a href="mailto:bromoney3hudson@gmail.com">bromoney3hudson@gmail.com</a> Again we appreciate your considering our concerns for property located at 1887 Norton Road, Hudson Ohio 44233

### Davey, Amanda

**From:** Mike Shortridge <mikeshortridge@hotmail.com>

Sent: Wednesday, January 20, 2021 5:06 PM

To: BZBA

**Subject:** Appeals docket no 2020-1035

### Hello,

My name is Cindy Shortridge and I live at 1825 Norton Road. I do not support the development of a subdivision On Norton Road for many reasons.

- 1. We moved from a subdivision in Stow. The reason we moved to our current home on Norton Road was Because of the peace and the beauty of the many trees surrounding our home. My concern is that Building this subdivision would remove many of the beautiful trees that not only cemented our decision To move here, but would impact our eco system as well.
- 2. Many species of wildlife live in the woods and wetlands that would be impacted by this construction.
- 3. The traffic on Norton Road is excessive. Another intersection for this subdivision would only exacerbate The current situation.

Thank you for the opportunity to share my concerns. Sent from Mail for Windows 10

Total Control Panel Login

To: bzba@hudson.oh.us Message Score: 1 High (60): Pass
From: mikeshortridge@hotmail.com My Spam Blocking Level: Custom Medium (75): Pass

Low (90): Pass

Block this sender

Custom (63): Pass

**Block** hotmail.com

This message was delivered because the content filter score did not exceed your filter level.