

APPLICATION FOR HEARING
BOARD OF ZONING APPEALS
OAK HILL, TENNESSEE

Application Date: 18 October 2022

BZA Meeting Date: 15 November 2022

The undersigned hereby requests consideration for a hearing on the zoning regulations for property noted below in accordance with plans, application, fee, and all data heretofore filed, all of which are attached and made a part of this initial appeal.

Property Address: 1011 TYNE BOULEVARD, NASHVILLE, TENNESSEE 37220 Zone District: F

Is this application a request to either obtain a new Commercial Use Permit (CUP) or to change an existing CUP? Yes No

Description of Request(s) (for Residential - if encroaching into setback, specify measurement of encroachment in number of feet/inches):
Approval of Proposed Tree Removal Plan for Construction of New Residence for the Owner of the Property as required by Woodland/Tree Protection Ordinance for all trees in front of any existing structure. Removal of all trees in front of existing footbridge require BZA approval.

ALTERNATIVELY: Applicant offers to the BZA a request for consideration of potential Alternative Tree Removal plan (illustrated on drawing BZA-5) filed which would allow preservation of 7 additional existing trees, in front of the existing footbridge but require front yard setback reduction of 12'-3" +/- and move proposed structure to no further forward on the lot than the current existing structure to be demolished.

(THE FOLLOWING SECTION IS FOR RESIDENTIAL VARIANCE REQUESTS ONLY)

Lot Area: 88,901 s.f.

Lot Coverage: 12,792 s.f. → which equals 14.4 % of Lot Area (noted above)
(total existing & proposed impervious surfaces on lot - ie: roofs, concrete driveways/patios/walks/pool decks, etc.)

Heat/Cooled Area: 7,881 s.f. → which equals 8.9 % of Lot Area

Proposed Height: 34'-2" feet / 2 stories

Lot Depth/Width Ratio: 2.2 : 1 (maximum ratio allowed is 4:1 for all Zones)
(Lot width is measured at the narrowest point of the lot, and lot depth is measured at the deepest point of the lot)

Avg. front setback of 4 adjacent homes: 141.5' feet (if applicable)

(THE FOLLOWING SECTION IS FOR RESIDENTIAL VARIANCE REQUESTS ONLY)

Based on the powers and jurisdiction of the Board of Zoning Appeals as set forth in the Zoning Ordinance, a variance is hereby requested as applied to this property. The undersigned understands that the BZA reviews all cases with respect to the following hardship standards, and that it is incumbent upon the applicant to present the manner in which each of these hardships compel the applicant to request this variance.

These hardships do not apply to Conditional Use Permits.

1. The particular physical surroundings, shape, or topographic conditions of the specific property involved that would result in a particular hardship upon the owner as distinguished from a mere inconvenience, if the strict application of this chapter were carried out must be stated.
2. The conditions upon which the petition for a variance is based would not be applicable, generally, to other property within the same district.
3. The variance will not authorize activities in a zone district other than those permitted by this chapter.
4. Financial returns only shall not be considered as a basis for granting a variance.
5. The alleged difficulty or hardship has not been created by any person having an interest in the property after the effective date of this chapter (Ord. #12-16, Jan. 2013)
6. That granting the variance requested will not confer on the applicant any special privilege that is denied to other lands, structures, or buildings in the same districts.
7. The variance is the minimum variance that will make possible the reasonable use of the land, building, or structure.
8. The granting of the variance will not be detrimental to the public welfare or injurious to other property or improvements in the area in which the property is located.
9. The proposed variance will not impair an adequate supply of light and air to adjacent property, substantially increase the congestion in the public streets, increase the danger of fire, endanger the public safety, or substantially diminish or impair property values within the area.

CAREY BRINGLE

Applicant Name
1011 TYNE BOULEVARD, NASHVILLE, TENNESSEE 37220

Applicant Address
615-481-6023

Applicant Phone Number
cbringle@peglegporker.com

Applicant Email Address


Applicant Signature

City of Oak Hill Code Compliance Officer

CASE NO. (to be completed by City of Oak Hill)



VAN POND ARCHITECT

1011 TYNE BOULEVARD
CITY OF OAK HILL BZA APPEAL
Supporting Documents #1

EXISTING SITE CONDITIONS PHOTOGRAPHS

VPA

VAN POND ARCHITECT



STREET VIEW OF PROPERTY

October 17, 2022

VPA

VAN POND ARCHITECT



**VIEW OF FRONT OF EXISTING RESIDENCE TO BE REMOVED FROM THE EAST
& EXISTING TREES**

October 17, 2022

VPA

VAN POND ARCHITECT



VIEW OF EXISTING DRIVE APPROACHING FROM THE EAST ON TYNE BOULEVARD
October 17, 2022

VPA

VAN POND ARCHITECT



**VIEW OF FRONT OF EXISTING RESIDENCE TO BE REMOVED FROM THE EAST
& EXISTING TREES**

October 17, 2022

VPA

VAN POND ARCHITECT



**VIEW OF FRONT/SIDE OF EXISTING RESIDENCE TO BE REMOVED FROM THE EAST
& EXISTING TREES**

October 17, 2022

VPA

VAN POND ARCHITECT



**VIEW OF SIDE/FRONT OF EXISTING RESIDENCE TO BE REMOVED FROM THE EAST
& EXISTING TREES**

October 17, 2022

VPA

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**VIEW OF SIDE/REAR OF EXISTING RESIDENCE TO BE REMOVED FROM THE EAST
& EXISTING TREES**

October 17, 2022

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**VIEW OF REAR OF EXISTING RESIDENCE TO BE REMOVED FROM THE EAST
& EXISTING TREES**

October 17, 2022

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**VIEW OF REAR OF EXISTING RESIDENCE TO BE REMOVED FROM THE WEST
& EXISTING TREES**

October 17, 2022

VPA

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**VIEW OF SIDE/REAR OF EXISTING RESIDENCE TO BE REMOVED FROM THE WEST
& EXISTING TREES**

October 17, 2022

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**VIEW #1 OF WET WEATHER CONVEYANCE DITCH FROM THE EAST
& EXISTING TREES**

October 17, 2022

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**VIEW #2 OF WET WEATHER CONVEYANCE DITCH FROM THE EAST
& EXISTING TREES**

October 17, 2022

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**VIEW #3 OF WET WEATHER CONVEYANCE DITCH FROM LOOKING WEST
& EXISTING TREES**

October 17, 2022

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VIEW #4 OF WET WEATHER CONVEYANCE DITCH LOOKING WEST TO ADJACENT PROPERTY LINE & EXISTING TREES

October 17, 2022



VAN POND ARCHITECT

1011 TYNE BOULEVARD CITY OF OAK HILL BZA APPEAL

Supporting Documents #2

WET WEATHER CONVEYANCE DETERMINATION AND TDEC CERTIFICATION REFERENCE DOCUMENTS

Includes:

- A. Wet Weather Conveyance Hydrologic Study.
- B. TDEC Certification /Agreement with Hydrologic Study that the drain is a Wet Weather Conveyance.
- C. E-Mail Communication between City of Oak Hill Civil Engineering Consultant, Kimley-Horn (Zac Dufour) and Owner's Civil Engineering Consultant, Dewey Engineering (Michael Dewey, P.E.) with induction that the City Engineer would waive any buffer requirements if the Wet Weather Conveyance is determined to not be a Jurisdictional Stream and if that determination was verified by Tennessee Department of Environment and Conservation (TDEC).

April 18, 2022

Tennessee Department of Environment & Conservation
Division of Water Pollution Control
Attn: Ms. Katie Murphy
711 R.S. Gass Boulevard
Nashville, Tennessee 37243

Subject: Hydrologic Determinations
1011 Tyne Boulevard
Oak Hill, Davidson County, Tennessee

Dear Ms. Murphy:

Attached please find materials supporting a recent Hydrologic Determination (HD) conducted on the watercourse for the referenced property at 1011 Tyne Boulevard in Oak Hill, Davidson County, Tennessee. We are forwarding the accompanying Hydrologic Determination Field Data Sheets, figures, and photographs, which are provided in support of our determination that indicate the assessed watercourses are wet weather conveyances, as defined by Tennessee statute and associated administrative regulations.^{1,2}

This report is submitted with the knowledge of the property owner.³

Per TDEC Rule 0400-40-17-.04, the writer of this report is **“seeking to qualify for the treatment provided in §69-3-108(r)”**. The purpose of this report is to obtain TDEC’s concurrence with this hydrologic determination to inform site planning for a proposed development on the property.

Construction and use of the proposed development may require watercourse alterations to accommodate property development and associated infrastructure. The owner and prospective site developer will consider practicable alteration alternatives pending determination of jurisdiction.

PROJECT SITE

KSWA conducted a site visit to identify and evaluate natural resource features on the 1011 Tyne Boulevard site (Site, **Figure 1**). One (1) unnamed tributary was identified on the approximately 2-acre site (**Figure 2**). Site land-use in the watershed is primarily residential with most of the watershed developed into larger single-family tracts.

The Site is bordered by Tyne Boulevard to the north, with residential development on the remaining three sides. The assessed portion of the watercourses traverses primarily maintained yards on large single-family home lots. The surface area of the watershed associated with the assessed watercourse is approximately

¹ Tennessee Code Annotated §69-3-103 (43) (A-D)

² TDEC Rules of the Tennessee Water Quality Control Board 1200-04-03-.04(25)

³ Carey and Delainiah Bringle, 1011 Tyne Boulevard, Nashville, TN 37220,

51 acres. The assessed watercourses are located within the Mill Creek Lower Watershed 12-digit hydrologic unit code (HUC) boundary (051302020305).

Representative photographs of the assessed watercourses are provided in **Appendix A**. A depiction of assessed reaches and delineated wetlands is provided in **Figure 2**, and locations of photographs are provided in **Figure 3**.

HYDROLOGIC DETERMINATION FINDINGS & REQUEST FOR CONCURRENCE

The drainages were evaluated on April 7, 2022, under fair weather conditions, with 7-day antecedent precipitation totaling 0.64 inches of rainfall and 0.64 inches of rainfall during the 48 hours preceding the site visit. A full climate analysis is included in **Appendix B**, with above-average precipitation this season versus expected normal conditions.

For the purposes of this hydrologic determination, assessed portions of the drainages were scored using TDEC's Hydrologic Determination Protocols. Primary Field indicators were observed with no water in the watercourse during the time between February and April 15, despite elevated seasonal precipitation, as documented on the accompanying Hydrologic Determination Field Data Sheets (**Appendix C**).

The channel is a deeply incised and entrenched wet weather conveyance in the central portion of the property, following a west to east path through the site. No flow was observed in the watercourse despite 0.64 inches of rain in the preceding 48-hour period and above-average seasonal precipitation. The bed and bank were consistent over the reach with a mix of cobble, gravel and debris substrate. No standing water was observed. The channel is lined with larger trees, mostly consisting of hackberry (*Celtis occidentalis*). The lack of any hydrology over the course of channel is a primary indicator of the status as a wet weather conveyance.

Landowner access is approved and authorized via a letter included in **Appendix D**. Soils and geology information relied on for the reporting and completion of data forms is included in **Appendix E**.

I attest that all information submitted herein and in the accompanying attachments is true, accurate, and complete. I appreciate your review of this information and request your concurrence of our jurisdictional determinations. Please contact us at (615) 255-9702 if we may provide additional information or address your questions regarding our findings.

Sincerely,

K. S. Ware and Associates, LLC



Dave Cour, QHP

Vice President – Ecological Services

QHP#1113-TN13



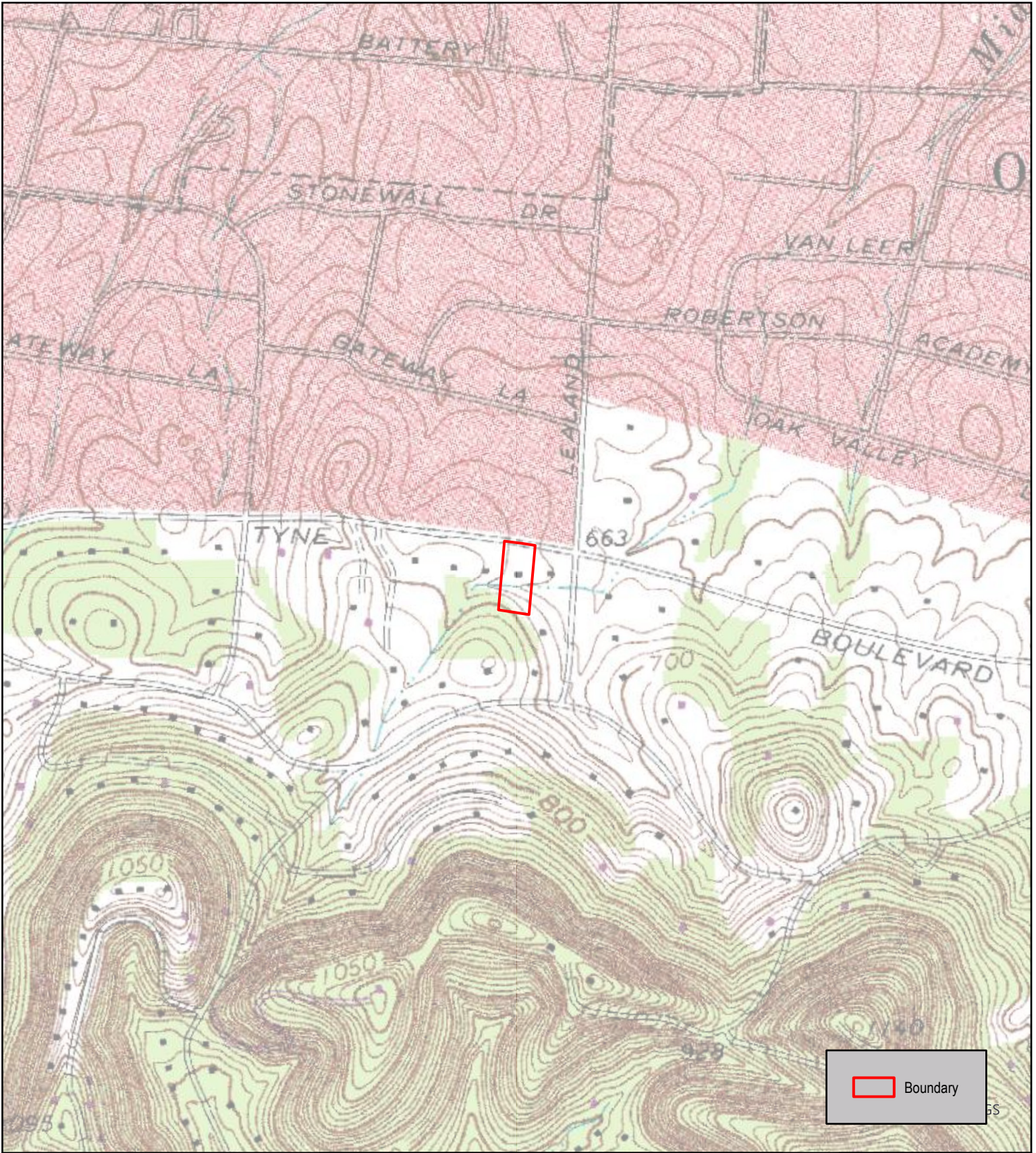
Chelsea Williams, PG, PMP

Director of Environmental Services

TABLE 1: Identified Resources, 1011 Tyne Boulevard, Nashville, TN

Name	From		To		Length (ft)	Determination
	Latitude	Longitude	Latitude	Longitude		
WWC 1	36.07947	-86.79351	36.07936	-86.79285	204	Wet Weather Conveyance

FIGURES



KSWA
[KS WARE & ASSOCIATES]

0 250 500 1,000 Feet



Project Location

1011 Tyne Boulevard
Nashville, Davidson County, TN

Figure 1

PROJECT NO:	100-22-0000
DATE:	4/22/2022
DRAWN BY:	AMK
REVIEWED BY:	DAC



- HD Points
- - - Watercourses
- Boundary
- Parcels
- Roads

KSWA
[KS WARE & ASSOCIATES]







0 20 40 80 Feet

N



Identified Resources
1011 Tyne Boulevard Nashville, Davidson County, TN

Figure 2	PROJECT NO: 100-22-0000
	DATE: 4/22/2022
	DRAWN BY: AMK
	REVIEWED BY: DAC



	Photo_Points		Boundary
	HD Points		Parcels
	Watercourses		Roads

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Photograph Locations

1011 Tyne Boulevard
Nashville, Davidson County, TN

Figure 3	PROJECT NO:
	DATE:
	DRAWN BY:
	REVIEWED BY: D

Appendix A:
Site Photographs



Photograph 1: Dry bed in Watercourse 1 in the lower portion of the reach facing downstream



Photograph 2: Dry bed in Watercourse 1 in the lower portion of the reach facing upstream.



Photograph 3: Watercourse 1 in the middle portion of the reach facing upstream



Photograph 4: Watercourse 1 in the middle portion of the reach facing upstream.



Photograph 5: Watercourse 1 in the upper portion of the reach facing upstream.



Photograph 6: Watercourse 1 in the upper portion of the reach with concrete slabs and a drain opening at the head of the watercourse.



Photograph 7: Watercourse 1 in the upper portion of the reach facing downstream.

Appendix B:
Climate Summary

Name of Site: **Dewey - Tyne Blvd**

Date of Site Visit: **7-Apr-22**

Previous 7 Day Rainfall Total: **0.64** inches

Previous 48-hr Rainfall Total: **0.64** inches

Weather Station Norms from

<https://www.ncei.noaa.gov/access/us-climate-normals/>

Actual Rainfall from

<https://w2.weather.gov>

Monthly Standard Deviation obtained online at

NOAA Earth System Research Laboratory, Physical Sciences (<http://www.esrl.noaa.gov>)

Calculation Based on Murfreesboro 5.5 NNW Rainfall Amounts with Murfreesboro 5 N Normals and Murfreesboro 5 N Std. Deviations

Calculation of Normal Weather Conditions

		Long-Term Rainfall Records								
	Month	Minus one Std. Dev. (dry)	Normal (mean inches)	Plus One Std. Dev. (wet)	Actual Rainfall	Condition (Low, Average, Elevated)	Condition Value*	Month Weight Value	Condition Value Calculation	Std. Deviation
1st Month Prior	March	3.32182159	4.86	6.398178	4.57	Average	2	x 3	6	1.53817841
2nd Month Prior	February	2.51195881	4.28	6.048041	8.75	Elevated	3	x2	6	1.76804119
3rd Month Prior	January	1.6338304	4.32	7.00617	7.47	Elevated	3	x1	3	2.6861696
								Sum=	15	

If sum is:	
6 to 9	then prior period has been abnormally dry
10 to 14	then prior period has been normal (average)
15 to 18	then prior period has been abnormally wet

Condition Value:*	
Low=	1
Average=	2
Elevated=	3

Appendix C:
Hydrologic Determination Data Sheets

Hydrologic Determination Field Data Sheet
Tennessee Division of Water Pollution Control, Version 1.5

Named Waterbody:		Date/Time:
Assessors/Affiliation:		Project ID :
Site Name/Description:		
Site Location:		
HUC (12 digit):		Lat/Long:
Previous Rainfall (7-days) :		
Precipitation this Season vs. Normal : abnormally wet elevated average low abnormally dry unknown Source of recent & seasonal precip data :		
Watershed Size :		County:
Soil Type(s) / Geology :		Source:
Surrounding Land Use :		
Degree of historical alteration to natural channel morphology & hydrology (circle one & describe fully in Notes) : Severe Moderate Slight Absent		

Primary Field Indicators Observed

Primary Indicators	NO	YES
1. Hydrologic feature exists solely due to a process discharge		WWC
2. Defined bed and bank absent, vegetation composed of upland and FACU species		WWC
3. Watercourse dry anytime during February through April 15th, under normal precipitation / groundwater conditions		WWC
4. Daily flow and precipitation records showing feature only flows in direct response to rainfall		WWC
5. Presence of multiple populations of obligate lotic organisms with ≥ 2 month aquatic phase		Stream
6. Presence of fish (except <i>Gambusia</i>)		Stream
7. Presence of naturally occurring ground water table connection		Stream
8. Flowing water in channel and 7 days since last precip >0.1" in local watershed		Stream
9. Evidence watercourse has been used as a supply of drinking water		Stream

N/A
N/A

NOTE: If any Primary Indicators 1-9 = "Yes", then no further investigation is necessary. However, assessors may choose to score secondary indicators as supporting evidence.

In the absence of a primary indicator, or other definitive evidence, complete the secondary indicator table on page 2 of this sheet, and provide score below.

Guidance for the interpretation and scoring of both the primary & secondary indicators is provided in *TDEC-WPC Guidance For Making Hydrologic Determinations, Version 1.5*

Overall Hydrologic Determination =
Secondary Indicator Score (if applicable) = _____ OR N/A

Justification / Notes : _____

Secondary Field Indicator Evaluation

A. Geomorphology (Subtotal =)	Absent	Weak	Moderate	Strong
1. Continuous bed and bank	0	1	2	3
2. Sinuous channel	0	1	2	3
3. In-channel structure: riffle-pool sequences	0	1	2	3
4. Sorting of soil textures or other substrate	0	1	2	3
5. Active/relic floodplain	0	0.5	1	1.5
6. Depositional bars or benches	0	1	2	3
7. Braided channel	0	1	2	3
8. Recent alluvial deposits	0	0.5	1	1.5
9. Natural levees	0	1	2	3
10. Headcuts	0	1	2	3
11. Grade controls	0	0.5	1	1.5
12. Natural valley or drainageway	0	0.5	1	1.5
13. At least second order channel on existing USGS or NRCS map	No = 0		Yes = 3	

B. Hydrology (Subtotal =)	Absent	Weak	Moderate	Strong
14. Subsurface flow/discharge into channel	0	1	2	3
15. Water in channel and >48 hours since sig. rain	0	1	2	3
16. Leaf litter in channel (January – September)	1.5	1	0.5	0
17. Sediment on plants or on debris	0	0.5	1	1.5
18. Organic debris lines or piles (wrack lines)	0	0.5	1	1.5
19. Hydric soils in channel bed or sides of channel	No = 0		Yes = 1.5	

N/A
N/A

C. Biology (Subtotal =)	Absent	Weak	Moderate	Strong
20. Fibrous roots in channel bed ¹	3	2	1	0
21. Rooted plants in the thalweg ¹	3	2	1	0
22. Crayfish in stream (exclude in floodplain)	0	1	2	3
23. Bivalves/mussels	0	1	2	3
24. Amphibians	0	0.5	1	1.5
25. Macroinvertebrates (record type & abundance)	0	1	2	3
26. Filamentous algae; periphyton	0	1	2	3
27. Iron oxidizing bacteria/fungus	0	0.5	1	1.5
28. Wetland plants in channel bed ²	0	0.5	1	1.5

¹ Focus is on the presence of terrestrial plants.

² Focus is on the presence of aquatic or wetland plants.

Total Points = _____

Under Normal Conditions, Watercourse is a Wet Weather Conveyance if Secondary Indicator Score < 19 points

Notes :

Appendix D:
Landowner Access Letter

April 22, 2022

Mr. Carey G. Bringle
1011 Tyne Boulevard
Nashville, Tennessee 37220

RE: TDEC/ACE Access to 1011 Tyne Boulevard, Nashville, Tennessee 37220

To whom it may concern,

As Owner of the Property Referenced above, I, Carey Bringle, grant the Tennessee Department of Environment and Conservation and/or U.S. Army Corps of Engineers permission to access the property at 1011 Tyne Boulevard, Nashville, Tennessee 37220 to verify the Hydrologic Determination information submitted by KSWA.

Please contact Dave Cour at KSWA to schedule a site visit (615-258-3600).

Sincerely,



Carey G. Bringle

Appendix E:
Soils and Geology



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Davidson County, Tennessee**



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

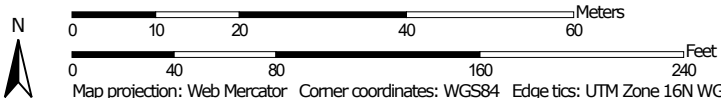
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map




Map Scale: 1:904 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)


Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit


 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop


 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip


 Sodic Spot


 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals


Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Davidson County, Tennessee
 Survey Area Data: Version 19, Sep 10, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 31, 2019—Nov 2, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MsD	Mimosa-Urban land complex, 2 to 15 percent slopes	2.7	100.0%
Totals for Area of Interest		2.7	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Davidson County, Tennessee

MsD—Mimosa-Urban land complex, 2 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2v58n
Elevation: 260 to 1,060 feet
Mean annual precipitation: 48 to 58 inches
Mean annual air temperature: 57 to 61 degrees F
Frost-free period: 190 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Mimosa and similar soils: 50 percent
Urban land: 40 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mimosa

Setting

Landform: Hillslopes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Clayey residuum weathered from limestone

Typical profile

Ap - 0 to 6 inches: silt loam
Bt - 6 to 50 inches: clay
C - 50 to 55 inches: clay
R - 55 to 65 inches: bedrock

Properties and qualities

Slope: 2 to 15 percent
Depth to restrictive feature: 39 to 59 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydric soil rating: No

Minor Components

Gladdice

Percent of map unit: 4 percent

Landform: Escarpments

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Linear

Hydric soil rating: No

Ashwood

Percent of map unit: 3 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Lindell

Percent of map unit: 3 percent

Landform: Flood plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Appendix F:
National Wetland Inventory Map



April 22, 2022

Wetlands

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Estuarine and Marine Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

Nashville Environmental Field Office
711 R.S. Gass Boulevard
Nashville, TN 37216
Phone 615-687-7000 Statewide 1-888-891-8332 Fax 615-687-7078

May 20, 2022

Carey and Delainiah Bringle
1011 Tyne Blvd
Nashville, TN, 37220

Re: Hydrologic Determination (DWR ID No. 31174)
1011 Tyne Blvd

Dear Landowner:

On April 22, 2022, the Division of Water Resources (division) received an hydrologic determination report submitted on your behalf by David Cour (TN QHP No. 1113-TN13) under the auspices of rule §69-3-108(r). These water features are located on property located at 36.07947, -86.79351 (Lat/Long), in Oak Hill, Davidson County, Tennessee. Please note that all geographic coordinates provided in this letter have a limited precision and should be considered approximate.

Based on the information and documentation in the submitted report as well as the division's observations, rules, and guidance regarding hydrologic determinations, the division accepts the jurisdictional determination of the water features as portrayed in the submitted report and attached maps and tables.

Alterations to streams, wetlands, or other waters may only be performed under the coverage of, and conformance to, a valid *Aquatic Resource Alteration Permit (ARAP)* issued by the division. ARAP applications and provisions are available on-line at <http://www.tn.gov/environment/article/permit-water-aquatic-resource-alteration-permit>.

Any alterations to wet weather conveyances must be made in accordance with the requirements of Tenn. Code Ann. § 69-3-108(q).

Hydrologic determinations are advised and governed by Tennessee Department of Environment and Conservation (TDEC) rules and regulations, and therefore only apply to the State's permitting process. Because these and other various water features on-site may potentially also be considered jurisdictional Waters of the United States, any alterations to them should only be performed after consultation with the U.S. Army Corps of Engineers.

May 20, 2022

Page 2 of 4

If the disturbed area of this project is one acre or greater, coverage under the *General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)* will be required from this division before any clearing or earth moving activities are started. Information on the construction stormwater permit is available online at <http://www.tn.gov/environment/article/permit-water-npdes-stormwater-construction-permit>.

Please be advised that effective erosion prevention and sediment control measures must be used during the construction phase of this project to prevent the discharge of pollutants to waters of the State.

I appreciate the opportunity to assess the site prior to site plan finalization and initiation of construction activities. Because natural variation and human activities can alter hydrologic conditions, the division reserves the right to reassess the status of the water features in the future.

Thank you for your interest in water quality in Tennessee. If you have any questions or need additional information, please contact me at 615-767-1430 or by email at Brooke.Heriges@tn.gov.

Sincerely,



Division of Water Resources

cc:

U.S. Army Corp of Engineers, NashvilleRegulatory@usace.army.mil

David Cour, KS Ware and Associates, dcour@kswarellc.com

Rebecca Dohn, MS4 Program Manager, Rebecca.dohn@nashville.gov

Features	Classification	Start (Lat/Long)	End (Lat/Long)
WWC-1	WWC	36.07947, -86.79351	36.07936, -86.79285



From: Michael Dewey mdewey@dewey-engineering.com
Subject: RE: 1011 Tyne Blvd
Date: March 30, 2022 at 3:00 PM
To: Van Pond, Jr. vpond@vanpondarchitect.com
Cc: Adam Dillard adillard@dewey-engineering.com

MD

Van,

Thanks for the call. I tried to call the City of Hill and leave a message for Steven Snow(?) in Codes, but his mailbox was full, then I tried to reach Austin in the Engineering Department and was able to leave him a message. I will let you know when I hear back from them.

Thanks,
Michael Dewey, PE
(615) 979-9071

From: Dufour, Zachary <Zachary.Dufour@kimley-horn.com>
Sent: Wednesday, March 23, 2022 8:25 AM
To: Michael Dewey <mdewey@dewey-engineering.com>
Cc: Adam Dillard <adillard@dewey-engineering.com>; Van Pond, Jr. <vpond@vanpondarchitect.com>
Subject: RE: 1011 Tyne Blvd

I cant find anything on 1025 Tyne. I very well could have been involved in this but I just don't remember.

Zac Dufour, P.E.
Kimley-Horn | 10 Lea Avenue, Suite 400, Nashville, TN 37210
Direct: 615-564-2709 | Mobile: 615-351-3634 | Main: 615 564 2701
Connect with us: [Twitter](#) | [LinkedIn](#) | [Facebook](#) | [Instagram](#)

From: Michael Dewey <mdewey@dewey-engineering.com>
Sent: Tuesday, March 22, 2022 7:15 PM
To: Dufour, Zachary <Zachary.Dufour@kimley-horn.com>
Cc: Adam Dillard <adillard@dewey-engineering.com>; Van Pond, Jr. <vpond@vanpondarchitect.com>
Subject: RE: 1011 Tyne Blvd

Thanks Zac. I believe the one we are referencing is located at 1025 Tyne Blvd, so just a few lots upstream. Would you be able to let us know how that one was handled? Thanks for your help.

Thanks,
Michael Dewey, PE
(615) 979-9071

From: Dufour, Zachary <Zachary.Dufour@kimley-horn.com>
Sent: Tuesday, March 22, 2022 6:08 PM
To: Michael Dewey <mdewey@dewey-engineering.com>
Cc: Adam Dillard <adillard@dewey-engineering.com>; Van Pond, Jr.

<vpond@vanpondarchitect.com>

Subject: RE: 1011 Tyne Blvd

I don't see anything on Metro mapping. We use Metro stormwater requirements so if this channel has a drainage area of more than 40 acres then we would apply a Zone 1 buffer to it. If it is greater than 100 acres then we would apply a Zone 1 and Zone 2 buffer. If you can do a hydrologic determination and prove that it is not a jurisdictional stream then we would waive the buffer. We would need the determination verified by TDEC.

I don't recall another site nearby that we did a determination on but if you have a copy of that we can take a look. Depending on how far away it is and when that determination was done, we might need to do another determination.

Zac Dufour, P.E.

Kimley-Horn | 10 Lea Avenue, Suite 400, Nashville, TN 37210

Direct: 615-564-2709 | Mobile: 615-351-3634 | Main: 615 564 2701

Connect with us: [Twitter](#) | [LinkedIn](#) | [Facebook](#) | [Instagram](#)

From: Michael Dewey <mdewey@dewey-engineering.com>

Sent: Tuesday, March 22, 2022 1:50 PM

To: Dufour, Zachary <Zachary.Dufour@kimley-horn.com>

Cc: Adam Dillard <adillard@dewey-engineering.com>; Van Pond, Jr.

<vpond@vanpondarchitect.com>

Subject: 1011 Tyne Blvd

Zac,

Hope you are doing well. We are preliminarily looking into a project located at 1011 Tyne Blvd. There is a stormwater conveyance bisecting the site and we just wanted to know what you would be needing in terms of supporting documents for this conveyance. It is our understanding, per a project upstream that buffers were not required along this conveyance. Please let us know if you have any questions. Thanks for your help.

Thanks,
Michael Dewey, PE
(615) 979-9071